CHAPTER 3

The Evolution of Doctoral Education in Nursing

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CHAPTER OBJECTIVES

1. Discuss the history of doctoral education in general and nursing doctoral programs in particular.
2. Differentiate between the different titles and structures for doctoral degrees in nursing.
3. Discuss some of the controversies surrounding the pros and cons of doctoral degrees in nursing
4. List different approaches that will influence the future of nursing doctorates.

INTRODUCTION

One of the most important aspects of any profession is the appropriate educational preparation of the leaders of the discipline. Almost without exception, the professions require that their leaders must hold doctoral degrees. The broad purposes of doctoral educational programs are to provide preparation that leads to careers in government, business, and industry, as well as academia (CAGS, 1990). Doctoral programs have been in existence since the Middle Ages, but it was during the 20th century that the United States saw a dramatic proliferation of doctoral educational programs in almost every academic field. The model of education that was created in the United States was built on earlier models from European universities. However, doctoral programs in the United States took on their own unique characteristics.

Nursing doctoral programs began in the later part of the 20th century, after their development in most other fields.

Perhaps this delay was because of nursing's unique history among the professions. Nursing in the United States began outside the mainstream of higher education and was located almost exclusively in hospitals. These hospitals, and the later universities where nursing educational programs moved, were controlled by administrative structures that are best described as highly paternalistic. These paternalistic organizations, in juxtaposition with the fact that most nurses were and still are women, may have delayed the profession from adopting doctoral degrees as the required credential for professional leadership. The profession adopted the master's degree early as the appropriate degree for leaders, and this may have been a disservice to the profession. Currently, nursing is far from having a unified approach to doctoral education.

The purpose of this chapter is to briefly discuss the history of doctoral education in general and nursing doctoral programs in particular. Clearly, this discussion is not exhaustive but is intended to provide an introduction to understanding doctoral education. Other, better historical overviews are available on the general topic of doctoral degrees (Harris, Troutt, & Andrews, 1980). This chapter also includes discussion of some of the controversies that are swirling about how doctoral degrees in nursing should be titled and structured and concludes with some ideas that may portend the future of nursing doctorates.

A BRIEF HISTORY OF DOCTORAL EDUCATION

The academic degrees that we see today are an outgrowth of the trade guilds and teaching guilds that flourished in Europe during the Middle Ages (U.S. DHEW, 1971). These early programs were often a product of the educational institutions that were either controlled or heavily dominated by the Catholic Church. Higher education was designed for the elite and certainly not for the general masses. Given this early tie with the Church, we can understand that many of the symbols, traditions, and rituals of the modern university emerged from the Church's influence on these schools. The doctoral gowns and hoods worn at graduation can be traced back to the garb worn by the priests.

The English word *doctor* comes from the Latin word *doctus,* the past participle of *docere,* which means "to teach" (*Webster's New Collegiate Dictionary,* 1979). Italian schools awarded formal doctoral degrees by 1219. This was the only degree offered by the schools, because they were preparing teachers. French schools used a slightly different approach and chose the name *masters,* from the Latin word *magister,* for their college graduates. Graduates from these schools were awarded the respective title and were admitted to the guild of teachers (Martin, 1989). Obtaining a degree meant that the graduate was fully qualified to serve as a teacher and did not need additional evaluation to begin this profession.

In the United States, the early colleges were established to prepare clergy and for the most part were built on the English and German systems of higher education. Harvard College was founded in 1636, and from that time until the Civil War, a little more than 200 years later, the only degree that could be earned in the United States was the bachelor of arts. Alumni who paid fees were able to obtain the master's degree without further collegiate work. Scientists who wished to obtain additional education had to receive this training in Europe (U.S. DHEW, 1971).

Following the Civil War, American colleges began to change. Yale awarded the first PhDs in the United States in 1861 (Martin, 1989). For the first time, there was an emerging emphasis on graduate education and the underlying research that is a part of graduate education today. Many of the faculty had obtained their graduate degrees at German universities. The German graduate school model did not usually

include required class attendance or examinations. Rather, students studied under the direction of a major professor, conducted an original piece of research, and were expected to successfully defend their work before the standing faculty of the university to be granted the degree. However, because graduate education was embedded in undergraduate colleges, graduate students in the United States were often required to earn grades and attend lectures.

In the latter half of the 1800s, several professional associations were formed to advance their respective professions. One of their early activities was to persuade state legislatures that the professional services offered by the various disciplines would be greatly improved by creating licensure or certification requirements. As a part of this effort, educational programs that led to the professional doctorate, including the doctor of medicine (MD) and the doctor of dental surgery (DDS) were developed. New medical schools began to offer limited instruction in allopathic or homeopathic medicine. Although offering a doctoral degree, most of these early schools were little more than diploma mills with few, if any, paid faculty, very limited instruction, and substantial reliance on clerkships with practicing physicians. By the late 1800s, there were many different types of professional schools, but there were no accreditation standards. Most had limited faculty and questionable curricula. Seldom were these programs more than a year in length, and admission depended more on the student's economic achievements than on the student's prior academic achievements (U.S. DHEW, 1971).

Efforts to standardize curricula began at the turn of the century and continued well into the 1900s. Calls went out to improve professional education as well as the quality of the PhD. By 1900, approximately 50 universities in the United States offered the PhD, but there was almost no quality control. At the best universities, the PhD was awarded after about 2 years of postbaccalaureate study. There were a number of calls to improve this situation. For example, Abraham Flexner (1930) argued that the American universities had become misguided by their focus on preparing PhD graduates for practice and not for pure learning. He contended that this had diminished the quality of the education. His work in graduate education came on the heels of his work on the reform of allopathic medical education. By 1935, a fairly standardized model for PhD education was in place, and the emergence of various accrediting bodies ensured that quality standards were met. Many PhD programs were closed or merged because their quality did not meet emerging national standards.

Following World War II, a clear link developed between building the knowledge base for a specialized field and the award of the PhD in that field. For the first time, the U.S. government allocated funds to the building of the research needed to create new knowledge. A large portion of this new money was directed toward science as a part of the country's national defense efforts (Berelson, 1960).

In the early 1950s, a new debate emerged over whether the PhD should be the degree for the professions or whether the professions should use a professional degree such as the doctor of education (EdD), the doctor of business administration (DBA), the doctor of public health (DPH), or the doctor of nursing science (DNSc). The professions believed that the PhD was the standard and was well understood and aspired toward that degree. Arts and sciences faculty believed that awarding a PhD with a specialty in the professions would diminish the degree. In general, the professions prevailed in this argument, and the PhD was selected as the appropriate degree. This degree did carry with it the concomitant requirement that the completion of a satisfactory piece of research was required for its award (Berelson, 1960).

Professions that wished to prepare their practitioners without this research requirement awarded a professional degree such as the

doctor of osteopathy (DO), the doctor of medicine (MD), the doctor of dental surgery (DDS), the doctor of dental medicine (DMD), the doctor of pharmacy (PharmD), the doctor of veterinary medicine (DVM), the doctor of optometry (OD), the doctor of chiropractic medicine (DC), and the doctor of podiatric medicine (DPM). These professional programs were not considered graduate programs because few of them required an undergraduate degree for admission and most did not build on undergraduate learning in a specific discipline to prepare for the profession (CAGS, 1966).

DOCTORAL PROGRAMS IN AND FOR NURSING

Stevenson and Woods (1986) identified four phases in nursing doctoral programs. Doctoral programs in nursing can be thought of as having four generations. The first phase was between 1900 and 1940, in which the doctor of education (EdD) or another functional degree was available. The second phase was between 1940 and 1960, when the degree could be obtained in a basic or social science discipline with no nursing content. The third phase was between 1960 and 1970, when a basic or social science PhD was available with a minor in nursing. The fourth phase began around 1970 with the rapid proliferation of the DNSc and nursing PhD programs.

The first research-focused doctoral programs in the United States were in various areas of science and did not seek to recruit nurses specifically. Nurses, as well as any other student, could be considered for admission if they possessed the necessary prerequisites. The problem was that few nurses at the beginning of the 20th century held an undergraduate degree. Basic nursing education was hospital based and did not award degrees.

The first doctoral programs that specifically recruited nurses were at Columbia University and New York University. These began in the 1920s and 1930s in education departments and were tailored to prepare nursing faculty. The programs awarded the PhD or EdD, but offered little, if any, coursework in nursing.

In the 1940s and 1950s, baccalaureate programs in nursing were created at a number of universities. Along with this move came important questions about the qualifications of the faculty. Faculty qualifications were a minor issue when the program was located in a hospital, but most universities held rather strict standards for faculty. Few nurses held baccalaureate degrees, and even fewer held master's degrees. Almost none held doctoral degrees, and the doctoral degree was the standard for university faculty positions.

This change in locus of nursing education gave rise to often acrimonious discussions among faculty at several schools of nursing about the need for doctoral education. These discussions often raised the following questions: Should the program of study be focused on the discipline of nursing or a science-related discipline? Should the degree not be in education, since most of the graduates would be educators? Would the master's degree not be sufficient, particularly if the focus of the master's degree was clinical nursing? If the new doctoral programs were to focus on nursing, from where would the faculty be drawn, as the number of nurses with doctorates in nursing was not sufficient for one school faculty, let alone many schools?

Several schools did begin doctoral programs in nursing in the 1950s and 1960s. While the program at Teachers College continued in nursing education and nursing administration, the program at New York University reconfigured the curriculum to focus on nursing as the science of unitary humans (Rogers, 1966). Boston University designed the first program to deal with the clinical practice of nursing and created the doctor of nursing science degree, with the first graduate in 1963. The University of California at San Francisco and the Catholic University of America followed

Boston University's lead and established doctor of nursing science programs shortly thereafter. The University of Pittsburgh created a PhD in clinical nursing around this same time. The University of Alabama at Birmingham developed a doctor of science in nursing (DSN) shortly thereafter, and it was designed similarly to the DNSc (Kelly, 1978).

A serious problem remained, however, in that many of the key players concluded that nursing science was not of sufficient maturity to justify the PhD. Of course, no measure of scientific maturity was advocated. Perhaps this problem grew from the fact that most nurses with doctorates at this time had obtained their degrees in another discipline. Those disciplines had the appearance of maturity because they offered a doctorate. These nurses had not spent their doctoral study in nursing because such doctoral study was not widely available. Further, some of the writings of the period display a rather romantic and narrow view of what constituted science. Nursing research texts proposed that science was logical and orderly, when in practice this is seldom the case. Some called for nursing practice to be derived from science, and yet few scientists would argue that practice is derived from science (McManus, 1960).

Funds from the federal government helped a number of nurses to obtain doctoral degrees, which may have contributed to the continuing debate over whether the doctoral degree should be in nursing or a different field. In 1955, the United States Public Health Service started funding doctoral study through the federal Predoctoral Research Fellowship Program. Funds were awarded directly to the doctoral student, and several aspiring faculty members were able to fund their education through this mechanism. Between 1955 and 1970, 156 nurses were supported by Division of Nursing fellowships (Grace, 1978). Almost none of these were in nursing.

Beginning in 1959, the Division of Nursing also funded the Faculty Research Development Grants Program. The purpose of these grants was to increase the research capabilities of faculty in graduate nursing programs by providing seed money. Eighteen institutions qualified for these grants between 1959 and 1968. Of these 18 programs, only three offered doctoral programs in nursing during the grant-funding period (1 PhD, 1 EdD, and 1 DNSc) (Martin, 1989).

In another attempt to increase the number of nurses with doctoral degrees, the Division of Nursing began to fund the nurse scientist graduate training grants. The intent of this program was to build a cadre of nurses with doctoral degrees at universities and to increase the number of nursing doctoral programs. Funding was designed to assist nurses in obtaining doctoral degrees in fields that were viewed as related to nursing. These fields included such areas as sociology, psychology, anthropology, biology, and physiology, with the expectation that there would be coursework or a minor in nursing. Nine universities representing 34 different departments received these grants. Four of the nine universities had doctoral programs in nursing at the time, but these were not eligible for receipt of this funding (Martin, 1989).

Beginning in the early 1970s, several new doctoral programs in nursing emerged. These new programs were most often in the older, more established schools of nursing. Growth continued through the 1980s and 1990s, with several new programs opening each year. The pace of new program development was often faster than the available faculty would have predicted would be the case. In 1970, there were 20 programs, but by 2000 there were 78 (AACN, 2002). Most of the research being conducted in these schools was done by students. Funding for nursing research in these schools was rare. The most common degree offered was the PhD, but several schools offered the DNSc or the DSN. Doctoral education in nursing became widely available throughout the United States during this time.

New approaches to delivery of the curriculum became available as well. Some schools offered a summers option, in which courses were scheduled during the summer months when faculty in nursing schools who needed the doctoral degree could participate. Other schools offered weekend programs, and Web-based distance learning programs emerged as well. Interestingly, the rapid increase in the number of programs and the development of creative ways to deliver the curriculum did little to increase the number of graduates each year.

This rapid growth and creativity in curriculum delivery were partly responsible for the development of new standards for doctoral programs. The American Association of Colleges of Nursing created a set of quality indicators for research-focused doctoral programs in nursing (AACN, 1993). These indicators became the standard for evaluation of these programs.

The rapid proliferation of programs did not create a concomitant increase in the number of graduates. The new programs were small (averaging six graduates per year), and the length of time to obtain the degree continued to be long, primarily because of the number of part-time students. Even though the number of programs had increased from 20 to 78, there were only 200 more graduates in 1998 than in 1989, and most of that growth occurred prior to 1992 (AACN, 2003). Clearly, these research-focused doctoral programs could not be expected to meet the needs for nursing faculty because of the small numbers and the fact that all graduates did not assume faculty positions after graduation. Also, the median age of the graduates at completion of the doctorate was older than 45 years.

CLINICAL DOCTORAL PROGRAMS

In 1979, the Frances Payne Bolton School of Nursing at Case Western Reserve University began a new approach to doctoral education in nursing (Standing & Kramer, 2003). Originally conceived as a first professional degree, the doctor of nursing (ND) was open to college graduates and prepared them to be nurses at a level similar to other health professional doctoral programs, such as medicine, veterinary medicine, dentistry, optometry, and others. The creation of this clinical program at the very time that nursing was struggling with building the research enterprise and research-focused doctorates was not accepted with universal agreement. Of some concern was how this program would be different from the DNSc. Up to this time, there had been the assumption that the PhD was to focus on scholarly research and the DNSc was to be the practice-oriented, clinical degree. Yet, studies had shown that the DNSc could not be distinguished from the PhD on the basis of admission standards, curriculum, or dissertation topics (Flaherty, 1989). For the first time, nursing had a doctoral degree that was open to non-nurses and that prepared the beginning clinician at the doctoral level.

Additional clinical doctoral programs were developed at Rush University, the University of Colorado, and the University of South Carolina. Today, most of these programs provide multiple entry points reflective of the diverse nature of nursing practice. Each of these programs prepares the clinician at the doctoral level to exert leadership in evidence-based practice, health policy, and management or education. These new programs created quite a stir, and one that the profession has yet to resolve. In 1963, when the first DNSc was awarded, the profession had assumed that the first clinical doctorate had arrived. But close inspection of the program showed that the DNSc curriculum required mastery within a field of knowledge and demonstrated ability to perform scholarly research—the very characteristics of the PhD (Standing & Kramer, 2003). The ND, in contrast, focused exclusively on preparing a clinical leader, not a researcher.

The clinical doctoral programs to some extent reflected the tremendous changes that were taking place in the clinical practice of nursing. The early beginning of the nurse practitioner and clinical nurse specialist

movements had taken place. New master's programs were opening each year, and the major thrust of these programs was on advanced nursing practice. State laws were changing, and advanced practice nurses were obtaining greatly expanded scopes of practice and prescriptive privileges. Most of these new master's programs were between 18 months and 2 years in length.

Concern among some faculty was building that the length and rigor of these master's programs needed to be improved and that the graduate should earn a doctorate. Yet, the doctorate needed to be focused in clinical practice. This position was consistent with the Council on Graduate Schools' position that "the professional doctor's degree should be the highest university award given in a particular field in recognition of completion of academic preparation for professional practice" (CAGS, 1966, p. 3). The schools that created the ND programs were noted for their outstanding clinical master's programs. This new degree could be viewed as a logical extension of their programs.

Nursing educators have not universally accepted the ND program. As Standing and Kramer (2003) point out, reviews of nursing doctoral graduates published in the literature almost always ignore the graduates of such programs even though nearly 700 nurses hold this degree. The basis for ignoring or discounting these programs is not clear. The need for the clinical doctorate is clearly documented, and the demand for the scarce slots in these programs is also clear.

Recently, the University of Kentucky began a new clinical doctoral program, the doctor of nursing practice (DNP). On close inspection, this program shares many of the same curricular components as the ND programs. An additional planning group has met for several years to build a consensus for the development of additional doctor of nursing practice programs at senior universities. However, the distinctions between the doctor of nursing practice and the doctor of nursing are far from clear.

FUTURE DOCTORAL EDUCATION

The future of research-based doctoral programs in nursing is not likely to be much different from the recent past. No mechanisms are in place to determine how many programs there should be or to enforce quality standards at these programs. The demand for nursing faculty in the future is acute, and this will likely drive the creation of many more programs. Nursing has not been susceptible to the requirement seen in other disciplines that the faculty should be engaged in funded research prior to offering a research degree. Most schools offering the nursing PhD cannot be considered research-intensive schools.

The decision of a school to offer the PhD versus the DNSc often has been primarily a political decision. The PhD is often governed by the rules of the graduate school in addition to the nursing school, and this may mean that approval would be more problematic. Some schools (such as the University of California at San Francisco, the University of Pennsylvania, and Indiana University) began their doctoral programs as DNSc programs and later converted them to the PhD. Only two schools have begun PhD programs and then added DNSc programs—the University of Tennessee Health Science Center and Johns Hopkins University. In general, faculty prefer the PhD; therefore, it will likely continue to be the preferred degree in the future.

However, the world of clinical doctorates is quite different. The other major health professions have offered the clinical doctor's degree for a number of years. For example, pharmacy is the most recent profession to mandate the doctorate as the single degree for its professional practice. Nursing, the largest health profession, continues to prepare its beginning practitioners at less than the baccalaureate level. Attempts to alter this situation, even in light of important evidence of the value of higher education, have failed. What is emerging, however, is a de facto second license for nursing, the advanced practice license. This

new license may accelerate the development of the clinical doctorate.

Nursing chose the master's degree as the minimum preparation for advanced practice. The master's degree in the United States has always been an unusual degree—more than the baccalaureate but less than the doctorate, and usually discipline specific. This degree is uncommon in the major health professions, at least as a professional degree. This degree designation is used for the master of public health and the master of hospital administration, but the other health professions use a nondegree, postdoctoral training period to prepare their specialists. Reasons as to why nursing adopted the master's degree are somewhat obscure, but are likely related to political considerations. Nursing's history of hospital-based education rather than degree-based education meant that much of nursing was left out of the advances in higher education during the 20th century. While medicine, dentistry, and, to some extent, pharmacy were able to strengthen their educational programs within the university tradition, nursing was still knocking at the door. Few women were able to obtain a college education until well after World War II. The idea that nursing should have a clinical doctoral degree similar to the other health fields would not have entered the minds of most academics, and certainly not most nurses, until recently.

Today, however, we see advanced practice nurses in roles that were unthinkable just a few years ago. Independent nursing practices in institutions and communities are making substantial changes in the way health care is delivered. The kind of education that these clinicians will need for the future cannot be achieved in today's master's programs. The future advanced practice nurses will need a minimum of a clinical doctoral degree and most likely will require substantial postdoctoral training in narrow specialties.

Not every school that currently offers the master's degree will have the faculty, clinical material, or other requisite resources to offer the clinical doctoral program. These programs are faculty intensive, require interdisciplinary coursework with the other major health professions, and are costly to operate. Schools of nursing must have a substantial clinical practice operation to be able to mount such a program. These new programs will prepare highly competent clinicians for such roles as primary care provider for cross-site practice; midwifery practice that includes surgical abilities to perform cesarean sections; anesthesia providers to administer all forms of anesthesia, including intrathecal approaches; as well as national and international leaders in policy formulation, complex organizational administration, and master clinical teachers. These roles cannot be achieved by obtaining a research-focused doctoral degree, and certainly not by way of the master's degree.

CONCLUSION

Doctoral education in the United States underwent dramatic changes during the 20th century and will likely continue to evolve over the next century. Nurses were once educated outside the mainstream of higher education, but following World War II the locus of nursing education was moved to the university. This trend has brought with it the need for a faculty commensurate with that of the rest of the university. For the arts and sciences, that meant the PhD degree; for the professional schools, it has meant the clinical doctorate.

Nursing was a bit slow to embrace the idea that nursing faculty would need the research doctorate. But once the idea was adopted, many schools—some would argue too many schools—rapidly developed these programs. There is still a reluctance to move to the development of the clinical doctorate on a broad scale. The potential for this degree to alter the power and political relationships between nursing and other professions, however, is substantial.

The clinical doctorate can provide a skill and science base for the graduate that cannot be achieved in today's educational programs. This level of expertise will be critical as the nation

focuses on improving patient care and the safety of the systems that deliver health care. Clearly, the clinical doctorate will bring with it a level of independent practice that cannot be achieved at less than the doctoral level. For the first time, nursing would have parity in educational preparation with other healthcare disciplines.

Nursing is the most comprehensive of all the health professions. Clinical practice demands of nursing clinicians an understanding of the human condition, the environments in which clients live, the systems of care delivery, and the political milieu of care. Preparation of clinical leaders fundamentally requires a doctoral degree. The time is now for the discipline to move to the clinical doctorate to complement the many substantial accomplishments that have taken place by the creation of the research-focused doctorates.

DISCUSSION QUESTIONS

1. Visit the website of the American Association of Colleges of Nursing and specialty organizations. Read the most recent update on the clinical doctorate. Visit the sites of several universities and compare and contrast the similarities and differences of doctoral programs throughout the United States.
2. What are the pros and cons of requiring doctoral education for advanced practice in nursing? Include personal, professional, healthcare, and societal perspectives.

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