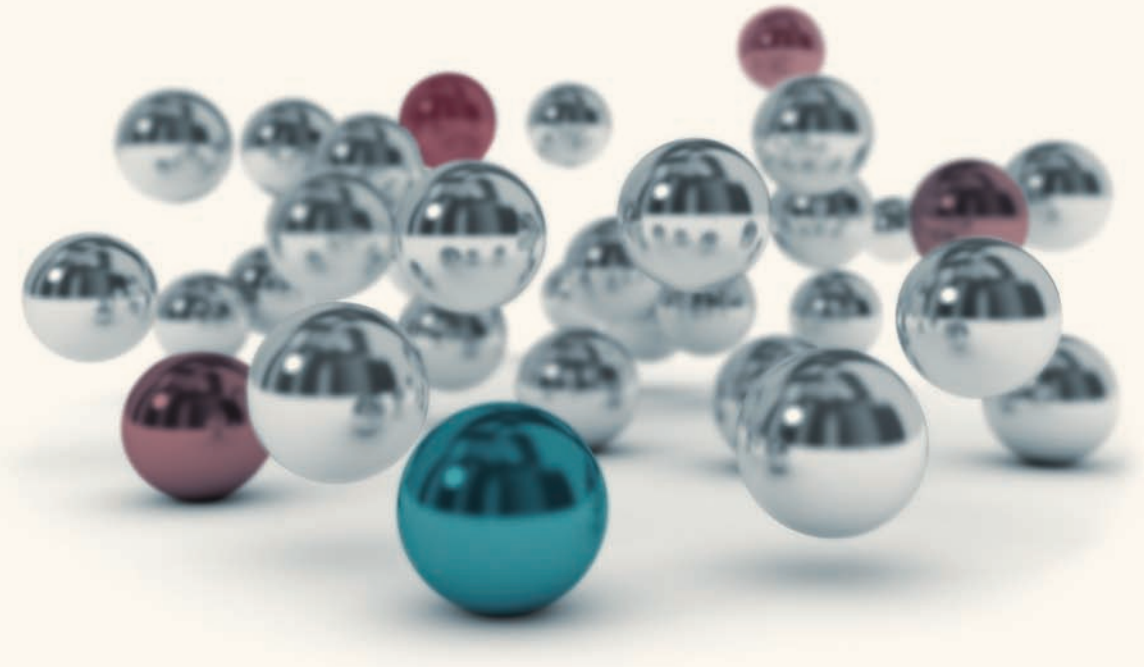
Sarah B. Keating

CURRICULUM DEVELOPMENT AND EVALUATION IN NURSING



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THIRD EDITION

Curriculum Development and Evaluation in Nursing

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Third Edition

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To past and present contributors. Thank you for sharing your expertise with our colleagues and students in nursing education.

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Preface

In the short time since the publication of the first and second editions of this text, many changes have occurred that will directly affect nursing curricula now and in the near future. In my view, there are several major changes that will influence nursing curricula in these early decades of the 21st century. The most influential are the recommendations from the Institute of Medicine (IOM) for the need for higher education for nurses to meet health care demands, and the recommendation of the American Association of Colleges of Nursing (AACN) for the doctor of nursing practice (DNP) degree to be the level of entry for advanced practice by 2015. These recommendations resulted in increasing numbers of associate degree in nursing (ADN)-prepared nurses returning to school for their baccalaureates, and improved articulation between associate degree and baccalaureate programs, as well as the explosion of DNP programs across the nation. Other significant trends are the continuing growth and application of technology and informatics to the delivery of educational programs and instructional strategies, and the influence of the Affordable Care Act, which changed the way care is delivered, with nursing playing a major role in affecting this change. Although it is difficult to predict how these changes will play out over the next 5 to 10 years, they will surely force nursing programs to continually assess, evaluate, and revise their curricula.

This third edition continues to serve graduate students and nurse educators in schools of nursing and in the practice arena as a practical guide for developing, revising, and evaluating nursing curricula and educational programs. Overviews of the history of nursing education, changing educational environments, the role of faculty, learning theories, and educational taxonomies describe underlying concepts that help guide curriculum development and evaluation. The text goes into detail about conducting a needs assessment to determine the extent of revision or development needed to produce an up-to-date and vibrant curriculum. It is followed by a detailed description of the essential components of the curriculum and the various levels of nursing education from the ADN to doctorate. Educational evaluation and accreditation and the impact of technology and informatics on the curriculum are discussed. New chapters added to this edition include budget considerations related to curriculum development and research focused on nursing education. **Supplementary PowerPoint slides and an Instructor's Manual are available for nurse educators by contacting textbook@springerpub.com.**

Contributors to the text are experts in their field and provide up-to-date information on learning theories, educational taxonomies, and curriculum development and evaluation. Chapter 15 applies the concepts of curriculum development and evaluation to the practice setting for staff development purposes. The author and contributors review the current literature and add their expertise to assist readers in the application of these concepts in their educator roles. The final chapter of the text raises current issues facing nursing educators as changes in education and the health care system occur. The critical need for translational science, research, and evidence-based practice in education is reviewed along with ideas for investigation and application to practice. The continuing career and entry-level issues related to nursing are discussed, with a proposed unified nursing curriculum to use as a launching pad for debate.

Although the DNP is acknowledged as the final degree for advanced practice and the PhD/DNS (doctor of nursing science) for research, will nursing ever see an entry-level doctorate much like other professions? Will collaborative scholarly endeavors between the professional doctorate and the research doctorate take place? What effects will interprofessional collaboration have on practice, the health care system, and education? As technology and informatics become integral parts of nursing education and practice, how will the profession and education be affected and what permutations will they take in the curriculum? These are the issues to ponder and debate for the future.

On a personal note, this is the last edition for which I will serve as author/editor. As I read the history of nursing education, I identified with many of the high points, from graduating from one of the first 4-year BSN programs in the 1950s, to earning a master's in public health nursing through one of the universities in the Southern Council on Collegiate Education for Nursing, to earning a doctorate in education when PhDs, or practice doctorates, were few if nonexistent in the early 1980s, to participating in a fellowship to prepare nurse practitioners for the development of nurse practitioner programs in the mid-1970s. It is delightful to reflect on these times in nursing and to see how far nursing has come, and be able to see its bright future. I have great confidence in nursing's future for I have witnessed its transformation as a profession, the development of nursing science, the movement toward higher education, its advocacy for nursing's role in health care, and its contributions to the discipline of education and technology.

It is with pleasure that I introduce Stephanie DeBoor, PhD, RN, CCRN, assistant professor and associate director of the graduate program at Orvis School of Nursing, University of Nevada, Reno (UNR), who will assume the editorship of the next edition of this text. Dr. DeBoor is a certified critical care, clinical specialist and served as a nurse administrator in a large regional hospital prior to coming to UNR as a faculty member for the Orvis School of Nursing. She earned her PhD in nursing education and research and serves as the associate director for the graduate programs, which include the master of science in nursing and the University of Nevada Collaborative Doctor of Nursing Practice. In addition to her role as associate director, she teaches in both the undergraduate and graduate programs. She led the faculty in the development of an acute care nurse practitioner program and the BSN to DNP program, and is currently working with faculty on a clinical specialty

program in psychiatric/mental health nursing. Her love of teaching, enthusiasm for student learning, commitment to quality education, philosophy about nursing education, and visions for the future of nursing will contribute to the continuation of this text as a resource for nursing educators. I wish the very best to Stephanie and my colleagues and look forward to observing the continued evolution of nursing education.

Sarah B. Keating

SECTION I

Overview of Nursing Education: History, Curriculum Development Processes, and the Role of Faculty

Sarah B. Keating

OVERVIEW

The third edition of this text devotes itself to the processes of curriculum development and evaluation that are critical responsibilities of nurse educators in schools of nursing and staff development in health care agencies. A curriculum provides the goals for an educational program and guidelines for how they will be delivered and ultimately, evaluated for effectiveness. This text focuses on curriculum development and evaluation and *not* instructional design and strategies that are used to deliver the program. Some major theories and concepts that relate to both curriculum development and instructional strategies are discussed but only in light of their contributions to the mission and philosophy of the educational program, for example, learning theories, educational taxonomies, and critical thinking.

To initiate the discourse on curriculum development, a definition is in order. For the purposes of the textbook, the definition is: *A curriculum is the formal plan of study that provides the philosophical underpinnings, goals, and guidelines for delivery of a specific educational program.* The text uses this definition throughout for the *formal* curriculum, while recognizing the existence of the *informal* curriculum. The informal curriculum consists of activities that students, faculty, administrators, staff, and consumers experience outside of the formal planned curriculum. Examples of the informal curriculum include interpersonal relationships, athletic/recreational activities, study groups, organizational activities, special events, academic and personal counseling, and so forth. Although the text focuses on the formal curriculum, nurse educators should keep the informal curriculum in mind for its influence and use to reinforce learning activities that arise from the planned curriculum.

To place curriculum development and evaluation in perspective, it is wise to examine the history of nursing education in the United States and the lessons it provides for current and future curriculum developers. Section I sets the stage through an examination of nursing's place in the history of higher education and the role of faculty and administrators in developing and evaluating curricula.

Nursing curricula are currently undergoing transformation. Today's emphases on the learner and measurement of learning outcomes, integration into the curriculum of quality and safety concepts, evidence-based practice, translational science and research, and the application of technology to the delivery of the program provide exciting challenges and opportunities for nurse educators. Nursing faculty and educators must consider all of these factors when examining the curriculum and considering change. Today and tomorrow's curricula call for an integration of processes that are learner- and consumer-based and, at the same time, ensure excellence by building in outcome measures to determine the quality of the program. In addition, there is a need for research on curriculum development and evaluation to provide the underpinnings for evidence-based practice in nursing education.

HISTORY OF NURSING EDUCATION IN THE UNITED STATES

Chapter 1 traces the history of American nursing education from the time of the first Nightingale schools of nursing to the present. The trends in professional education and society's needs impacted nursing programs that started from apprentice-type schools to a majority of the programs now in institutions of higher learning. Lest the profession forgets, liberal arts and the sciences in institutions of higher learning play a major role in nursing education and set the foundation for the development of critical thinking and clinical decision making so necessary to the nursing process.

Chapter 1 reviews major historical events in society and the world that influenced nursing practice and education as well as changes in the health care system. World War I and World War II increased the demand for nurses and a nursing education system that prepared a workforce ready to meet that demand. The emergence of nursing education that took place in community colleges in the mid-20th century initiated continuing debate about entry into practice. The explosive growth of doctor of nursing practice (DNP) programs in recent times and their place in advanced practice, nursing leadership, and education brings the past century happenings into focus as the profession responds to the changes in the health care system and health care needs of the population.

CURRICULUM DEVELOPMENT AND APPROVAL PROCESSES IN CHANGING EDUCATIONAL ENVIRONMENTS

Chapter 2 discusses the processes for programs undergoing change or creating new curricula. Curriculum committees in schools of nursing receive recommendations from faculty for curriculum changes and periodically review the curriculum for its currency, authenticity, and diligence in realizing the mission, philosophy, and goals. The chapter describes the classic hierarchy of curriculum approval processes in institutions of higher learning and the importance of nursing faculty's participation within the governance of the institution. The governance of colleges and universities usually includes curriculum committees or their equivalent composed of elected faculty members. These committees are at the program, college-wide, and/or university-wide levels and provide the academic rigor for assuring quality in educational programs.

Faculty and administrators continually assess curricula and program outcomes and based on the results of the assessment, refine existing curricula through major or minor revisions. An issue of contention during the assessment and development phase is what to take out of the curriculum when new content is indicated. The challenge faculty faces is to preserve critical content and, at the same time, bring current and future information into the curriculum. This means that faculty must be willing to compromise and give up outdated (but dear) content to make way for newer knowledge. In some instances, new programs are needed with the same processes of assessment used to produce the justification for the new programs.

It is a cardinal rule in academe that the curriculum "belongs to the faculty." In higher education, faculty members are deemed the experts in their specific discipline; or in the case of nursing, clinical specialties or functional areas such as administration, health care policy, case management, and so forth. They are the people who determine the content that must be transferred to and assimilated by the learner. At the same time, they should be expert teachers in the delivery of information, that is, pedagogy or in the case of adult learners, andragogy. Curriculum planning and the art of teaching are learned skills and nursing faculty members have a responsibility to include them in their repertoire of expertise as well as being content specialists.

Nursing faculty must periodically review a program to maintain a vibrant curriculum that responds to changes in society, health care needs of the population, the health care delivery system, and the learners' needs. It is important to measure the program's success in preparing nurses for the current environment and for the future. Currency of practice as well as that of the future must be built into the curriculum, because it will be several years before entering cohorts graduate. In nursing, there is an inherent requirement to produce caring, competent, and confident practitioners or clinicians. At the same time, the curriculum must meet professional and accreditation standards. Although it is unpopular to think that curricula are built upon accreditation criteria, in truth, integrating them into the curriculum helps administrators and faculty to prepare for program approval or review and accreditation by assuring that the program meets essential quality standards.

Administrators provide the leadership for organizing and carrying out the evaluation activities. To bring the curriculum into reality and out of the "Ivory Tower," faculty and administrators must include students, alumni, employers, and the people whom their graduates serve into curriculum building and evaluation processes. Outcomes from the total program are measured through summative evaluation methods such as follow-up surveys of graduates and NCLEX and certification exam results. Chapter 2 introduces the role of accreditation in curriculum development and evaluation. Section V continues the discussion on the processes that relate to accreditation and its related activities of program evaluation, review, and approval.

THE ROLE OF FACULTY IN CURRICULUM DEVELOPMENT AND EVALUATION

Both new and experienced faculty members have major roles in curriculum development, implementation, and program evaluation. Although there is a tendency to see only the part of the curriculum in which the individual educator is involved, it

is essential that instructors have a strong sense of the program as a whole. In that way, the curriculum remains true to its goals, learning objectives (student learning outcomes), and the content necessary for reaching the goals. Following the curriculum plan results in an intact curriculum and, at the same time, provides the opportunity for faculty and students to identify gaps in the program or the need for updates and revisions. Such needs are brought to the attention of other instructors and the coordinators of the courses or levels in the program for assessment and follow-up.

Chapter 3 examines the overall responsibilities of faculty in curriculum development and evaluation. It describes how everyday teaching and clinical supervision activities implement the program and, in the process, lead to the identification of the need for revision or introducing new material in the curriculum. It is the responsibility of core faculty to ensure that the curriculum plan is followed by clinical instructors or adjunct professors who may not be as familiar with the total curriculum plan and its intended outcomes. At the same time, adjunct faculty and clinical instructors can provide valuable information for refining the curriculum and bringing it into focus to meet current health care demands. The chapter discusses how experienced faculty members should orient and mentor new nurse educators into this aspect of the nurse educator role, that is, curriculum development and evaluation. The roles of faculty participation and leadership on curriculum, program evaluation, and accreditation committees within the school and institution are elaborated upon. Trends, issues, and research needs related to curriculum development and evaluation are reviewed.

CHAPTER 1

History of Nursing Education in the United States

Susan M. Ervin

OBJECTIVES

Upon completion of Chapter 1, the reader will be able to:

1. Discuss the historical roots of formal nursing education
2. Compare important curricular events in the 19th century with those in the 20th and 21st centuries
3. Cite the impact that two world wars had on the development of nursing education
4. Differentiate among the different curricula that prepare entry-level nurses
5. Cite important milestones in the development of graduate education in nursing
6. Evaluate the decade most pivotal to the development of one type of nursing program, that is, diploma, associate degree, baccalaureate, master's, or doctoral degree
7. Evaluate the impact of the history of nursing education on current and future curriculum development and evaluation activities

OVERVIEW

The adventure that is labeled nursing education began at the close of the U.S. Civil War when it was recognized that nursing care was crucial to soldiers' survival and that nurses must have some formal education. Using Florence Nightingale's model of nursing education, hospital-based nursing programs flourished throughout the 19th and well into the 20th century. With few exceptions, however, Nightingale's model was abandoned and hospital schools trained students with an emphasis on service to the hospital rather than education of a nurse.

Early nurse reformers such as Isabel Hampton Robb, Lavinia Dock, and Annie W. Goodrich laid the foundation for nursing education built on natural and social sciences and, by the 1920s, nursing programs were visible in university settings. World War I and World War II underscored the importance of well-educated nurses and the Army School of Nursing and the Cadet Army Corps significantly contributed to the movement of nursing education into university settings.

Associate degree programs developed in the 1950s as a result of community college interest in nursing education, while Mildred Montag's dissertation related to the preparation of a different type of nurse. The situation of nursing in community colleges, along with the American Nurses Association (ANA) proposal that nursing education be located within university settings, sparked a civil war in nursing that has yet to be resolved.

By the latter half of the 20th century, graduate education in nursing was established with master's and doctoral programs growing across the country. Graduate education continues to strengthen the discipline as it moves into the 21st century.

IN THE BEGINNING

American nursing programs changed dramatically over the past 150 years in response to milestones such as world wars, the Great Depression, and changing U.S. demographics. The initial milestone that catalyzed the founding of formal education for nurses was the Civil War. Prior to the Civil War, most women only provided nursing care in the home to their family. Every woman expected to nurse family members. Older women, who had extensive family experience and needed to earn a living, would care for neighbors or contacts that were referred by word of mouth (Reverby, 1987). As women began to care for the soldiers during the war, they transferred their skills and knowledge from home to the battlefield. The value of nursing care in the soldiers' recovery and the need for formal education for nurses were both recognized as the Civil War came to a close.

The New England Hospital for Women and Children, located in Boston, was the first American school to offer nursing courses based on Nightingale's guidelines. Opened in 1872, the school offered a formal training program with a 1-year curriculum similar to the one Nightingale developed at St. Thomas Hospital School of Nursing. In addition to 12 hours of required lectures, students were taught to take vital signs and apply bandages. Interestingly, students were not allowed to know the names of medications given to patients and the medication bottles were labeled by numbers. In 1875, the curriculum was extended to 16 months (Davis, 1991). Linda Richards, considered to be America's first trained nurse, entered this school on the first day it opened and Mary Mahoney, the first African American nurse, was a graduate of the school (Davis, 1991).

In 1873, three more schools were opened that were supposedly patterned on the Nightingale model. The Bellevue Training School opened in New York City, the Connecticut Training School opened in Hartford, and Boston, Massachusetts was the site of the Boston Training School. These schools proposed to offer a desirable occupation for self-supporting women and provide good private nurses for the community (Kelly & Joel, 1996).

By the beginning of the 20th century, over 2,000 training schools had been opened. With few exceptions, Nightingale's principles of education and curriculum were ignored. Curricula focused on character traits and habits and school priorities were "service first, education second" (nursingeducationhistory.org, 2012). The 3-year program of most nursing schools consisted primarily of on-the-job

training, courses taught by physicians, and long hours of clinical practice. Students, known as "pupils," provided nursing service for the hospital. In return, they received diplomas and pins at the completion of their training. Students entered the programs one by one as they were available and their services were needed. The patients were mostly poor, without families and/or homes to provide care. From the institution's standpoint, graduates were a byproduct rather than a purpose for the training school. "Trained nurses" generally gave private care in wealthy homes, oversaw pupils in a training school, or cared for the poor in their homes after graduation (Reverby, 1984).

If textbooks were available to students, they were primarily authored by physicians. The first nurse-authored text, *A Text-Book for Nursing: For the Use of Training Schools, Families and Private Students*, was written by Clara Weeks (later Weeks-Shaw), an 1880 graduate of the New York Hospital and founding superintendent of the Paterson General Hospital School (Obituary, 1940). The possession of such a text led to decreased dependence of graduates on their course notes, supplied information that would otherwise have been missed because of cancelled lectures or note-taking student exhaustion, reinforced the idea that nursing required more than fine character, and exerted a standardizing effect on training school expectations. The approximately 100 names in the comprehensive list of medicines, including ether, oxygen, topical agents, and multiple names for the same substance, subverted efforts to keep nurses ignorant of the names of medicines they were administering. By the third edition, Weeks-Shaw (1902) identified the primary audience as "professional" nurses rather than "amateurs" and assumed an elementary acquaintance with subjects such as anatomy and physiology, "which is now a fundamental part of training."

Despite the founding of formalized education, the emergence of training schools and some public awareness of the need for "trained nurses," the social climate of the late 1800s was not conducive to the advancement of women-centered issues. Society expected women to assume private, supportive roles rather than public, authoritative ones. The public perception of nursing was an extension of women's supportive and caring role in the home. Even Nightingale advocated against professional status for nurses through opposition of credentialing (or licensure) of graduate nurses (Palmer, 1985). The dependence of nursing education on hospitals perpetuated the private, supportive role of women, and precluded them from participation in substantive decisions related to health care policy within and outside of institutions (Ruby, 1999).

DIVERSITY IN EARLY NURSING EDUCATION

Diverse Schools

Mary Mahoney, the first African American nurse, entered the New England Hospital for Women and Children School of Nursing on March 23, 1878. Her acceptance at this school was unique at a time in American society when the majority of educational institutions were not integrated (Davis, 1991). This lack of integration, however, did not deter African American women from entering

the profession of nursing. In 1891, Provident Hospital in Chicago was founded, which was the first training school for Black nurses (Kelly & Joel, 1996).

Howard University Training School for Nurses was established in 1893 to train African American nurses to care for the many Blacks who settled in Washington, DC after the Civil War. The school transferred to Freedman's Hospital in 1894 and by 1944 had 166 students (Washington, 2012). This rapid expansion was experienced by other African American nursing programs (Kalisch & Kalisch, 1978). Freedman's Hospital School transferred to Howard University in 1967 and graduated its last class in 1973. Howard University School of Nursing has offered a baccalaureate degree since 1974 and initiated a master's degree in nursing in 1980. After the *Brown vs Board of Education* decision in 1954, schools of nursing that served predominantly African American students began to decline and, by the late 1960s, nursing schools throughout the United States were fully integrated (Carnegie, 2005).

Sage Memorial Hospital School of Nursing opened in 1930 and was located in northeastern Arizona, at Ganado, 56 miles northwest of Gallup, New Mexico, in the heart of the Navajo Indian Reservation. It was part of Sage Memorial Hospital, built by the National Missions of the Presbyterian Church, which provided care for Native Americans (Kalisch & Kalisch, 1978).

The school of nursing operated through 1953; it was the only nursing school established for the sole purpose of training Native American women to be nurses. By 1943, students enrolled in the school came from widely diverse backgrounds including Native American, Hispanic, Hawaiian, Cuban, and Japanese. In the 1930s and 1940s, such training and cultural exchange among minority women was not found anywhere else in the United States. Students developed a camaraderie and commitment, while they completed coursework and tended the hospital floors 8 hours a day, 6 days a week (Pollitt, Streeter, & Walsh, 2011).

Men in Nursing Education

One little known legacy of the Civil War is the inclusion of men in nursing. Walt Whitman, known for his poetry, was a nurse in the Civil War. He cared for wounded soldiers in Washington, DC for 5 years and was an early practitioner of holistic nursing incorporating active listening, therapeutic touch, and the instillation of hope in patients (Ahrens, 2002).

There were, however, few nursing schools in the late 19th century that accommodated men; a few schools provided an abbreviated curriculum that trained men as "attendants." The McLean Asylum School of Nursing in Massachusetts was among the first to provide nursing education for men. Established in 1882, the 2-year curriculum prepared graduates to work in the mental health facilities of the time. Treatments in those facilities included application of restraints (such as strait jackets) and "tubbing" (placing the patient in a bathtub with a wooden cover locked onto the tub so only the patient's head was exposed) and it was believed the tubs required the physical power men possessed (Kenny, 2008).

The first true formal school of nursing for men was established at Bellevue Hospital in New York City in 1888 by Darius Mills. One of the best-known schools

of nursing for men was the Alexian Brothers Hospital School of Nursing. It opened in 1898 and was the last of its kind to close in 1969 (LaRocco, 2011). Although the school admitted only religious brothers for most of its early history, in 1927 it began to accept lay students. In 1939, the school began an affiliation with DePaul University so students could take biology and other science courses to apply toward bachelor's degrees. By 1955, the school had obtained full National League for Nursing (NLN) accreditation and by 1962, 13 full-time faculty members and eight lecturers educated a graduating class of 42 students. This was the largest class in the school's history and one of the largest classes in any men's nursing school in the country (Wall, 2009). By the mid-1960s, men were being admitted to most hospital nursing programs and the school graduated its last class in 1969. In addition, by the 1960s, the ANA was encouraging prospective nurses to earn their baccalaureates in university nursing programs.

Reports and Standards of the Late 19th and Early 20th Centuries

The International Congress of Charities, Correction and Philanthropy met in Chicago as part of the Columbian Exposition of 1893. Isabel Hampton, the founding principal of the Training School and Superintendent of Nurses at Johns Hopkins Hospital, played a leading role in planning the nursing sessions for the Congress. At a plenary session, she presented a paper, "Educational Standards for Nurses," which argued that hospitals had a responsibility to provide actual education for nursing students; the paper also urged superintendents to work together to establish educational standards (James, 2002). At this time, curricula, standards for admission, and requirements for graduation varied dramatically among schools. Attempts at standardization had begun but were not common.

Hampton's paper included her proposal to extend the training period to 3 years in order to allow the shortening of the "practical training" to 8 hours per day. She also recommended admission of students with "stated times for entrance into the school, and the teaching year … divided according to the academic terms usually adopted in our public schools and colleges" (Robb, 1907). During the week of the Congress, Hampton instigated an informal meeting of nursing superintendents that laid the groundwork for the formation of the American Society of Superintendents of Training Schools (ASSTS) in the United States and Canada, which later, in 1912, was renamed the National League of Nursing Education (NLNE). Certainly a landmark event within nursing, this was also the first association of a professional nature organized and controlled by women (Bullough & Bullough, 1978).

The year 1893 marked the publication of Hampton's *Nursing: Its Principles and Practice for Hospital and Private Use*. The first 25 pages are devoted to a description of a training school, including physical facilities, contents of a reference library, a 2-year curriculum plan for both didactic content and planned, regular clinical rotations, and examinations. Hampton notably omitted reference to the pupil nurse residence as a character-training instrument in the training school system, though she noted the importance of the residence for the health and social development of students (Dodd, 2001). Clearly, she was pushing for a progressive professional education and a professional identity for nursing.

In 1912, the ASSTS became the NLNE and their objectives were to continue to develop and work for a uniform curriculum. In 1915, Adelaide Nutting commented on the educational status of nursing and the NLNE presented a standard curriculum for schools of nursing. The curriculum was divided into seven areas, each of which contained two or more courses. The total program of study was delineated including the general length, vacation time, daily hours of work, and the general scheme of practical work for 36 months of the program. There was a strong emphasis on student activity including observation, accurate recording, participation in actual dissection, experimentation, and giving of patient care (Bacon, 1987).

In 1925, the Committee on the Grading of Nursing Schools was formed. The function of the Committee was to study the ways and means for ensuring an ample supply of nursing service of whatever type and quality are needed for adequate care of the patients at a price within its reach. The Grading Committee worked from 1926 to 1934 to produce "gradings" based on answers to survey forms. Each school received individualized feedback about its own characteristics in comparison to all other participating schools (Committee on the Grading of Nursing Schools, 1931). The NLNE's 1927 *A Curriculum for Schools of Nursing* provided the implicit framework for the surveys and reports. Although the original hope was that the Committee would rank schools into A, B, and C categories as the Flexner report had, the Committee pointed out that the work and cost of visiting the many nursing schools (as compared to Flexner's 155) made this impossible.

Even without this actual "grading," it provided more data than nursing ever had about its schools. For example, it found that the median U.S. nursing school had 10 faculty members: the superintendent of the hospital, the superintendent of nurses, the night supervisor, the day supervisor, two heads of special departments—usually operating room and delivery room, one assistant in a special department, two other head nurses, and one instructor. This median varied by region from four to 17 faculty members. Forty-two percent of the faculty had not completed high school. Forty-five percent of the superintendents of nursing came to their positions more recently than the senior students' admission dates. Hospital schools in the inter-world-war period presented a highly variable picture. Some still offered only apprenticeship learning, but without "master craftswoman" nurses and with a social milieu more consonant with turn-of-the-century culture. This gave nursing a backward, rigid quality that was susceptible to caricature. Others were pushing their limits to provide stimulating learning and an environment more akin to other educational institutions (Egenes, 1998).

In 1917, 1927, and 1937, the NLNE published a series of curriculum recommendations in book form. The reaction to the title of the first, *Standard Curriculum . . .*, led to naming the second *A Curriculum …* and the third *A Curriculum Guide. . . .* The first was developed by a relatively small group, but the second and third involved a long process with broad input, which, even apart from the product, served an important function. The published curricula were intended to reflect a generalization about what the better schools were doing or aimed to accomplish. As such they give a picture of change over the 20-year period, but cannot be regarded as providing a snapshot of a typical school. Each volume represents substantial change from the previous, and where the same course topical area exists in all three, the level of detail

and specificity increases with each decade. Indeed, the markedly increased length and wordy style of the 1937 volume appropriately carries the title "Guide." Each *Curriculum* book increased the number of classroom hours and decreased the recommended hours of patient care, in effect making nursing service more expensive. Each *Curriculum* also increased the pre-requisite educational level: 4 years of high school (temporary tolerance of 2 years in 1917), 4 years of high school in 1927, and 1 to 2 years of college or normal school in addition to high school by 1937 (National League of Nursing Education, 1917, 1927, 1937). This was a selective standard, which was more easily met by students from urban homes. In 1920, only 16.8% of the age cohort graduated from high school; in 1930, 20%; and in 1940, 50.8% graduated (Tyack, 1974). It was not until the 1930s, with the depressed labor market and enforcement of child labor and mandatory attendance laws, that one-third of the age cohort nationally attended high school. With the beginnings of a nursing school accreditation mechanism before World War II and the post-war National Nursing Accrediting Service (NNAS), the function that the *Curriculum* books were intended to serve was now incarnated by consultants and supplanted by concise written standards (Committee of the Six National Nursing Organizations on Unification of Accrediting Services, 1949).

In 1951, the 42-year-old National Association of Colored Graduate Nurses merged with the ANA. The ANA took on new responsibilities through its Intergroup Relations Program, which was aimed at removing the remaining membership barriers in certain district and state associations (Kalisch & Kalisch, 1978).

THE 20TH CENTURY

Nursing Education Through Two World Wars

World War I

When the United States entered World War I, the need for nurses during national emergencies became clear. Admissions to nursing schools during 1917 and 1918 increased by about 25% (Bacon, 1987). The two phenomena that impacted nursing education during World War I were the development of the Vassar Training Camp and the founding of the Army School of Nursing.

The Vassar Training Camp for Nurses was established in 1918. Its purpose was to enroll female college graduates in a 3-month intensive course that addressed natural and social sciences and fundamental nursing skills. This 3-month intensive course replaced the first year of nursing school; following this course, students completed the final 2 years of school in one of 35 selected schools of nursing (Bacon, 1987). Of the 439 college graduates who entered the Vassar Camp, 418 completed the course, went on to nursing school, replaced nurses who had entered the armed services, and helped fill key leadership roles in nursing for the next several decades (Kalisch & Kalisch, 1978). Although short-lived, the Vassar Training Camp provided the opportunity to build nursing competencies on a college education foundation and contributed to the eventual move of nursing education into the university setting (Bacon, 1987).

In 1918, Annie W. Goodrich, president of the ANA, proposed the development of an Army School of Nursing. This was in response to extremely vocal groups who believed that, because of the war, the education preparation of nurses should be shortened. With the backing of the NLNE and the ANA in addition to nurse leaders such as Frances Payne Bolton, the Secretary of War approved the school and Annie Goodrich became its first dean. She developed the curriculum according to the *Standard Curriculum for Schools of Nursing* published by the NLNE in 1917 (Kalisch & Kalisch, 1978). The response to the Army School of Nursing was overwhelmingly positive and many more women applied than could be accepted.

World War II and the Cadet Nurse Corps

World War II, with its demands for all able-bodied young men for military service, mobilized available women for employment or volunteer service. Indeed, every resident was engaged in the effort by the mandates of food, clothing, and gasoline rationing, and by persuasion toward everything from tending victory gardens to buying savings bonds. From mid-1941 to mid-1943, with the help of federal aid, nursing schools increased their enrollments by 13,000 over the baseline year and 4,000 post-diploma nurses completed post–basic course work to enable them to fill the places of nurses who enlisted. Some inactive nurses returned to practice (Roberts, 1954). Despite the effort necessary to bring about this increase, hospitals were floundering and more nurses were needed for the military services.

Congress passed the Bolton Act, which authorized the complex of activities known as the Cadet Nurse Corps (CNC) in June 1943. It was conceived as a mechanism to avoid civilian hospital collapse, to provide nursing to the military, and to ensure an adequate education for student nurse cadets. The goal was to recruit 65,000 high school graduates into nursing schools in the first year (1943–1944) and 60,000 the next year. This represented 10% of girls graduating from high school and the whole percentage of those who would expect to go to college! The program exceeded the goals for both years (Kalisch & Kalisch, 1978).

Hospitals sponsoring training schools recognized that CNC schools would out-recruit non-CNC schools, thereby almost certainly guaranteeing their closure or radical shrinkage. Thus, they signed on, despite the fact that hospitals had to establish a separate accounting for school costs, literally meet the requirements of their state boards of nurse examiners to the satisfaction of the CNC consultants, and allow their students to leave for federal service during the last 6 months of their programs, when they would otherwise be most valuable to their home schools. Schools received partial funding from a separate appropriation for the modifications necessary to build classrooms and library space, and to secure additional student housing. Visiting consultants looked at faculty numbers and qualifications, clinical facilities available for learning, curricula, hours of student clinical and class work, the school's ability to accelerate course work to fit into 30 months, and the optimal number of students the school could accommodate (Robinson & Perry, 2001). Only high school graduates could qualify to become cadets (Petry, 1943). Schools were pressed to increase the size of their classes and number of classes admitted per year, to use local colleges for basic sciences to conserve nurse instructor time, and to develop affiliations with psychiatric hospitals, for

educational reasons, and secondarily to free up dormitory space for more students to be admitted. Consultants could give 3-, 6-, or 12-month conditional approval to the schools while deficiencies were corrected (Robinson & Perry, 2001). Given the pressure to keep CNC-approved status, schools made painful changes.

Students, who were estimated to be providing 80% of care in civilian hospitals, experienced a changed practice context. They now had to decide what they could safely delegate to Red Cross volunteers and any paid aides available. Extra responsibility for nursing arose from the shortage of physicians. With grossly short staffing, nurses had to set priorities carefully. All of these circumstances altered student learning. The intense work of the consultants, who provided interpretation and linkage between the U.S. Public Health Service (USPHS) in Washington and each school, and their strategy of simultaneously naming deficiencies and identifying improvement goals, was a critical factor in the success of the programs as well as improvement in nursing education. Without the financial resources of the federal government to defray student costs, to assist with certain costs to schools, and to provide the consultation, auditing, and public relations/recruitment functions, the goals could not be met. Lucile Petry, the director of the Division of Nursing Education in the USPHS, combined a sense of the social significance of nursing with first-hand experience in nursing education, a humility that equipped her to work with all kinds of people, and generously give credit to everyone involved in the massive undertaking. Opinions differed on such questions as the cut-off point for irredeemably weak schools, but overall, the effort was pronounced a substantial success for nursing (Roberts, 1954).

The Remainder of the 20th Century

The nursing profession used the Depression years for major stock-taking and self-examination. For the first time registered nurses were available in hospitals for direct bedside care; patient care responsibility did not have to rest on students. Teachers and directors of nursing began to see the possibility of selecting patient care experiences for the student in relation to learning needs rather than to meet hospital service needs (Bacon, 1987). Increased expectations for cognitive learning by students were brought about by factors, which included hospital architecture, physician expectations, nursing efforts, and general culture change. With increased numbers of applicants during the Depression, schools were able to select capable students and grant diplomas that signified both cognitive learning and character.

By the 1940s, people routinely came to hospitals for care. In addition, patients who had formerly hired private nurses to care for them in the hospital were now admitted to wards, which were rooms that contained four to ten beds. Students were admitted as cohorts and attrition was hard to predict; the increased patient census made it necessary to hire graduate nurses (Vogel, 1980). These graduate nurses were often unemployed private duty nurses.

Experiments involving the housing of nursing programs in junior or community colleges were underway in the 1950s. Even the hospital-sponsored diploma programs, which decreased in numbers during the last part of the 20th century, were transformed into educationally focused efforts.

The development of coronary care and intensive care units in the 1960s required nurses to develop critical thinking and clinical reasoning skills and take action in a wider range of clinical situations than had formerly been within nursing's scope of practice. Educators were trying to sort out the implications for both undergraduate and graduate programs. Educators made decisions to focus on graduate preparation in nursing and by the 1960s, master's programs were beginning to prepare clinical nurse specialists and nurse practitioner roles were being described in the literature.

During the 1960s, there was vigorous debate about educational preparation for nurses. In May 1965, the NLN passed a resolution that supported college-based nursing programs. In January of 1966, the ANA released a position paper that recommended baccalaureate preparation for professional nurses and associate degree education for technical nurses. These two documents were seen by many as one of the highest peaks in the profession's history, one that reflected nursing's strength and unity. Sadly, conflict within the NLN and ANA and public opposition to college-based nursing programs (voiced primarily by nurses who graduated from diploma schools) doomed the premise that professional nurses required baccalaureate education (Fondiller, 1999).

The Evolution of Current Educational Paths of Nursing

Starting in the early 1900s, universities began to enfold disciplines such as education, business administration, and engineering, which had originally been taught in freestanding, single-purpose institutions (Veysey, 1965). By the interwar period, the university became the dominant institution for postsecondary education (Graham, 1978). From 1920 to 1940, the percentage of women attending college in the 18- to 21-year-old cohort rose from 7.6% to 12.2%. Men's college-going rates rose faster, so that the percentage of women in the student body dropped from 43% in 1920 to 40.2% in 1940 (Eisenmann, 2000; Solomon, 1985).

Nursing made overtures to a few colleges and universities prior to World War I. In 1899, the ASSTS developed the Hospital Economics course for nurses who had potential as superintendents of hospital and training schools. The program involved 8 months of study, using many courses existing in the Domestic Science department, but with a custom-designed course on teaching, and a Hospital Economics course that would be taught by nurses (Robb, 1907). This relationship with Teachers College grew and was cemented by the endowment in 1910 of a Chair in Nursing, occupied for many years by M. Adelaide Nutting. The nursing faculty at Teachers College continued to be influential in nursing education through the 1950s, as other educational centers began to share influence.

In the first decade of the 1900s, technical institutes such as Drexel in Philadelphia, Pratt in Brooklyn, and Mechanics in Rochester as well as Simmons College in Boston and Northwestern University in Chicago offered course work to nursing students (Robb, 1907). The designers of the 1917 *Standard Curriculum* … gave some thought to the relationship of nursing education to the collegiate system. They suggested that the theoretical work in a nursing school was equivalent to 36 units, or about 1 year of college, and the clinical work another 51 units.

Few voices actively campaigned for the alignment of nursing education with institutions of higher learning even as late as the 1930s, despite the recommendation of the Rockefeller-funded Goldmark (1923) report, *Nursing and Nursing Education in the United States,* in the early 1920s. Initially, education at the university level was envisioned solely for the leaders of training schools.

Educators who wanted a university context for nursing, concentration on educational goals, and emancipation from dependence on the hospitals' student work–study schemes, looked hopefully at the Yale University School of Nursing, funded by the Rockefeller Foundation starting in 1924, and headed by the determined and respected Annie W. Goodrich. Similarly encouraging was the program at Case Western Reserve University, endowed by Francis Payne Bolton in 1923, following considerable prior work within the Cleveland civic community. Vanderbilt was endowed by a combination of Rockefeller, Carnegie, and Commonwealth funds in 1930. The University of Chicago established a school of nursing in 1925 with an endowment from the distinguished but discontinued Illinois Training School (Hanson, 1991). Dillard University established a school in 1942 with substantial foundation support and governmental war-related funds. Mary Tennant, nursing adviser in the Rockefeller Foundation, pronounced the Dillard Division of Nursing "one of the most interesting developments in nursing education in the country" (Hine, 1989). Although these were milestone events, endowments did little to dissipate the caution, if not hostility, toward women on American campuses. Neither did they cure all that was ailing in nursing education. They funded significant program changes, but even these would not meet the accreditation standards of later decades (Faddis, 1973; Kalisch & Kalisch, 1978; Sheahan, 1980).

According to the *Journal of the American Medical Association* (*JAMA*), 25 universities granted bachelor's degrees to nurses by 1926 (*JAMA*, 1927). By the end of the 1930s a bewildering array of "collegiate" programs existed, partly because baccalaureate programs were being invented by trial and error within the combinations of opportunities and constraints presented in each local hospital and university pair (Petry, 1937).

BACCALAUREATE EDUCATION

The diverse baccalaureate curricula of the 1930s multiplied by the 1950s. As one educator wrote in 1954, "Baccalaureate programs still seem to be in the experimental stage. They vary in purpose, structure, subject matter content, admission requirements, matriculation requirements, and degrees granted upon their completion. Some schools offering baccalaureate programs still aim to prepare nurses for specialized positions. Others, advancing from this traditional concept, seek to prepare graduates for generalized nursing in beginning positions" (Harms, 1954).

Although a few programs threaded general education and basic science courses through 5 years of study, the majority structured their programs with 2 years of college courses before or after the 3 years of nursing preparation, or bookended the nursing years with the split 2 years of college work (Bridgman, 1949). Margaret Bridgman, an educator from Skidmore College who consulted with a large number of nursing schools, made favorable reference to the "upper division

nursing major" in her volume directed toward both college and nursing educators (Bridgman, 1953). However, the paramount issues, she said, were whether or not (1) the academic institution and academic goals had meaningful involvement and influence in the program as a whole, and (2) degree-goal and diploma-goal students were co-mingled in nursing courses. Programs that failed the first test criterion were termed the "affiliated" type. In 1950, 129 of 195 schools offering a basic (pre-licensure) program were of the affiliated type. In 1953, 104 of the 199 schools still offered both degree and diploma programs (Harms, 1954) and probably co-mingled the two types of students in courses. To further complicate the situation, only 9,000 of the 21,000 baccalaureate students in 1950 were pre-licensure students. The remaining 12,000 postdiploma baccalaureate students were not evenly distributed among schools, so some programs found themselves with a sprinkling of pre-licensure students among a class of experienced diploma graduates.

Bridgman recommended that postdiploma students be evaluated individually and provisionally with a tentative grant of credit based on prior learning, including nursing schoolwork, and successful completion of a term of academic work. The student's program would be made up of "deficiencies" in general education and prerequisite courses and then courses in the major itself. Credit-granting practices varied considerably from place to place, so a nurse could easily spend 1½ to 3 years earning the baccalaureate (Bridgman, 1953). Bridgman provided "suggestions for content" using the categories of:

1. Knowledge from the physical and biological sciences
2. Communication skills
3. The major in nursing
4. Knowledge from social science [sociology, social anthropology, and psychology]
5. General education, all of which she thought should ideally be interrelated throughout the program

Of the 199 colleges and universities offering programs leading to bachelor's degrees in 1953, the NNAS accredited 51 basic programs.

Given the constant expansion of knowledge relevant to nursing, it was doubly difficult for programs with a history of a 5-year curriculum to shrink to 4 academic years in the 1960s and early 1970s. The expanded assessment skills expected of critical care nurses, together with the master's-level specialty emphases and certificate nurse practitioner programs, stimulated the inclusion of more sophisticated skills in baccalaureate programs in the early to mid-1970s (Lynaugh & Brush, 1996). In response to nursing service agitation to narrow the gap between new graduate skills and initial employment expectations, and much talk about "reality shock," baccalaureate programs structured curricula to allow a final experience in which students were immersed in clinical care to focus on skills of organization and integration.

Accreditation

From the standpoint of the ordinary nursing school, the possibility of actual accreditation became a reality in the 1950s. The NLNE developed standards for

accreditation and made pilot visits from 1934 to 1938. By 1939, schools could list themselves to be visited in order to qualify to be on the first list published by NLNE. Despite the greatly increased work, turnover, and general disruption created by the war, 100 schools had mustered both the courage and energy required to prepare for accreditation evaluation and judged creditable by 1945. Many schools that had qualified for provisional accreditation, however, were due for revisiting by the end of World War II. The Association of Collegiate Schools of Nursing (ACSN), formed in 1932, exercised a kind of "accreditation" via its requirements for full and associate membership, but its standards primarily influenced schools that aspired to be part of this group or that attended conferences it co-sponsored. Only 26 schools were accredited by ACSN in 1949. The National Organization for Public Health Nursing (NOPHN) had been accrediting post–basic programs in public health since 1920 but more recently had considered specialty programs at both baccalaureate and master's level and the public health content in generalist baccalaureate programs (Harms, 1954). By 1948, these organizations, along with the Council of Nursing Education of Catholic Hospitals, ceded their accrediting role to the NNAS, which published its first combined list of accredited programs just 1 month before the survey-based interim classification of schools was published by the National Committee for the Improvement of Nursing Services (NCINS) in 1949 (Petry, 1949). The classification put schools in either Group I, the top 25% of schools, or Group II, the middle 50%, leaving other schools unlisted and unclassified.

The NNAS, much like the cadet nurse program before it, elected a strategy designed to entice schools with at least minimal strengths to improve. It published the first list of temporarily accredited schools in 1952, giving these schools 5 years to make improvements and qualify for full accreditation. During the intervening time, it provided many special meetings, self-evaluation guides, and consultant visits to the schools. By 1957, the number of fully accredited schools increased by 72.4% (Kalisch & Kalisch, 1978). Changes in hospital school programs were catalyzed and channeled by accreditation norms (Committee of the Six National Nursing Organizations on Unification of Accrediting Services, 1949). But ultimately, the forces that drove change were primarily external, ranging from public expectations of postsecondary education mediated through hospital trustees and physicians, to competition among programs for potential students, who now had access to information about accreditation and who were heavily recruited by schools, which still had substantial responsibility for nursing service. By 1950, all states participated in the State Board Test Pool examination, another measuring rod that induced improvement or closure of weaker schools.

Despite the influential Carnegie- and Sage-funded *Nursing for the Future* in 1948, which recommended a broad-based move of nursing education into general higher education, nursing's earliest centralized accreditation mechanism concentrated considerable energy on improving diploma schools, as had the Grading Committee before it (Brown, 1948; Roberts, 1954). Why this seeming mismatch between aspirations and effort? Partly, it sprang from realism: Students were in hospital schools, whether ideal or not, so they needed the best possible preparation because nursing services would reflect this quality. (Postgraduation learning via staff development or socialization into the traditions of a service was not

considered a significant factor.) Further, the quality of many of the baccalaureate programs left a great deal to be desired and their capacity for more students was limited, so these could not be promoted as an immediate or ideal substitute for diploma programs. Although by 1957 there were 18 associate degree programs (Kalisch & Kalisch, 1978), no one foresaw the speed of their multiplication in the next decade. Finally, nursing's collective sense of social responsibility burdened it with finding ways to continue to provide essential services, both within the hospital and elsewhere, as its educational house moved from the base of the hospital to the foundation of higher education (Lynaugh, 2002).

Associate Degree Education

The NLNE held discussions during the middle and late 1940s with community colleges to discuss the possibility of associate degree nursing education (Fondiller, 2001). In 1945, the American Association of Junior Colleges (AAJC) showed an interest in nursing; at this point curriculum and recruitment were the two major challenges. In January 1946, a committee was established with representation from the ACSN to consider nursing education in community colleges. Between 1949 and 1950, the committee, along with NLNE and ACSN, discussed nursing education at this level. The focus was to be the "Brown" report, that is, *Nursing for the Future*, authored by Esther Lucille Brown, a social anthropologist with the Russell Sage Foundation (Brown, 1948). The immediate context for the committee, from the nursing side, was significant. In 1947, the Board of NLNE adopted the policy goal that nursing education should be located in the higher education system. Also in 1947, the faculty at Teachers College, Columbia University (TCCU) launched a planning process that involved Eli Ginzberg, a young economist, who asserted that nursing could be thought of as a whole set of functions and roles rather than a single role or type of worker. He posited that nursing needed at least two types of practitioners, one professional, and one technical (Haase, 1990). Starting in fall 1947, Brown began her conferences with nursing leaders and visits to more than 50 schools, completing her report so that it could be disseminated in September 1948. In one section of the report, she compared nursing to engineering with its highly valued technical workers. She believed that perhaps a "graduate bedside nurse" needed more preparation than a practical nurse, but less than a full-fledged professional nurse. In early 1949, NLNE sought funding for the joint work with community colleges, and found the Russell Sage and W.K. Kellogg Foundations responsive with substantial support (Haase, 1990).

The committee reported that junior (now known as community) colleges could develop one of two types of nursing programs: (1) a 2-year program that would be transfer oriented to a university program that offered a baccalaureate degree, or (2) a 3-year program leading to an associate of arts (AA) or an associate of science (AS). In 1951, Mildred Montag, whose dissertation had proposed a new type of technical nursing program embedded in junior colleges, joined the committee. She was subsequently appointed to the Joint Committee in 1951 and became the project director for the anonymously funded Cooperative Research Project (CRP) in Junior and Community College Education for Nursing in early

1952 (Haase, 1990). The CRP pilot programs were 2 years long, or 2 years plus a summer. Initially, they were one-third general education and two-thirds nursing, but they moved toward equal proportions of each by the end of the project. The curricula, although controlled by faculty in each school, tended to focus on variations in health in their first year, and then deviations from normal (physical and mental illness), in the second year. These "broad fields" were accompanied by campus nursing laboratory learning and by clinical learning experiences in a wide variety of settings, but with a major hospital component. Students in the pilot programs were somewhat older than diploma or baccalaureate students, and some were married (a nonstarter in many diploma programs), and had children. Men were a small percentage of the students, but tripled the representation in diploma programs. State Board Examination pass rates for graduates of the pilot group were comparable to those of other programs.

Montag intended, at that time, that this program would be self-contained, but stressed that graduates of this program could pursue baccalaureate education. She also recommended single licensure for nurses from all educational programs, although 25 years later, she rescinded that recommendation (Fondiller, 2001).

From the mid-1950s to the mid-1970s, when the associate degree program growth rate peaked, the number of programs doubled about every 4 years. By 1975, there were 618 associate degree programs in nursing, comprising 45% of basic nursing programs and graduating a comparable percentage of the new graduates each year. Diploma programs comprised 31% of basic programs, though given the recency of associate degree program development, the vast majority of nurses in practice still originally came from diploma programs (Haase, 1990; Rines, 1977). By 1959, W.K. Kellogg Foundation assistance to the expansion of associate degree nursing education totaled more than $3,000,000. The Nurse Training Act of 1964 and subsequent federal legislation funding nursing also contributed to program growth (Scott, 1972).

Over the ensuing years, elapsed time from enrollment to graduation lengthened, due in part to the expanding knowledge base needed to be "a bedside nurse," sometimes due to pressures from elsewhere on campus to expand general education, sometimes due to sequencing requirements of the nursing faculty, and on occasion due to the level of student preparation and ability or to student choice. Much time was devoted to communicating with hospital nursing service representatives to identify students' competencies at graduation so that new graduate orientations and staff development plans articulated with them. Curricular offerings were fine-tuned to ensure that these baseline competencies were met. When "the bedside" noticeably moved out of the hospital in the early 1990s, questions about preparation for practice in the home care context became urgent, but the familiar condition of the hospital "nursing shortage" laid these to rest.

Programs of the 1950s in university settings had to cope with the entrenched traditions of both hospitals and universities as they struggled to make changes. By contrast, associate degree nursing programs began with a clean slate. They were initially welcomed by community colleges. The lure of having an additional supply of nurses promoted at least grudging cooperation from clinical agencies, although hospital nursing staff and administrators in many places had misgivings about the curricular arrangements and limited clinical experience of students.

Associate degree–prepared nurses of the early 1980s found expectations and mechanisms for matriculating into baccalaureate programs much more clearly defined than described by Bridgman 30 years earlier and indeed, some baccalaureate programs were designed specifically for associate degree graduates. The ever-expanding body of nursing knowledge forced repeated decisions about which content was most essential and what clinical settings would bring about the best learning. By the 1990s, as hospital censuses plummeted and sick patients shuttled back and forth between home and ambulatory settings, programs were forced to consider increasing community-based clinical experience with its attendant challenges to find placements and provide geographically dispersed instruction.

A Nursing Education Civil War

The cultural upheaval that characterized the mid-1960s through the 1970s had its counterpart in nursing. Within nursing, a rift grew between those who believed an incremental approach would eventually get nursing education optimally situated and those who believed that the eventual goal should be clearly specified far in advance so that changes could take the goal into account. Nurses involved in day-to-day patient care and many diploma nurse educators tended to cluster in the first group, and those, particularly educators, who were in national or regional leadership positions were in the second group. The latter group focused on the professional end of the nursing continuum, working to achieve the fullest possible academic and professional recognition for nursing so that its advocacy and action would have broad credibility and influence.

From this perspective, the ANA 1965 position paper, "Educational Preparation for Nurse Practitioners and Assistants to Nurses," seemed like the next logical step (ANA, 1965). After all, for more than 15 years the NLNE, reconstituted and combined with the NOPHN, ACSN, and National Association of Industrial Nurses (NAIN) in 1952 to be the NLN, had been saying that education for nursing belonged in institutions of higher education. The idea that nursing was a continuum, composed of vocational, technical, and professional segments, had been talked about intermittently in those same circles during that entire period.

Unfortunately, the position paper dropped like a bomb on people who had never heard these conversations. It was said to ignore diploma schools and nurses altogether, classify associate degree-prepared nurses as technical nurses, and downgrade vocational/practical nurse preparation. Fundamental questions such as the "fit" of the three-part typology with the range of nursing work, the location and nature of the boundaries between the segments of the continuum, and the regulatory and licensure implications of such a plan could hardly be debated because of the emotionality that surrounded the specter of the loss of access to the RN title for associate and diploma nurses and what appeared to be the hijacking of the term "professional."

Regardless of nursing program background, the term "professional" had been applied to all that was good. General usage, likewise, cast "professional" in positive terms. A person who did a project or handled a situation "professionally" knew it was well done; a student who "looked professional" knew she had met certain standards (however little clean shoelaces may have had to do with actual

professionalism); and a student who studied to be a "professional nurse" would qualify to take the state board examination, and in the years just before the position paper, thought she would give comprehensive, individualized care to patients. "Technical" just did not have the same ring to it; "technical" sounded limited and mechanical; "technical" sounded "less than." However knowledgeable, talented, and essential technical workers were in the discourse of educational macro-planners and economists, the word translated poorly to the world of nursing. Immense amounts of creative and emotional energy were diverted into this conflict.

The crisis was gradually defused, partly by action on the recommendations of the next committee to study nursing, "The National Commission for the Study of Nursing and Nursing Education" (1970), which was commonly known as the Lysaught Commission, which reported in 1970. Among the recommendations in *Abstract for Action* were (1) statewide planning for the number and distribution of nursing education programs, (2) career mobility for individual nurses, and (3) cooperation of nursing service and education in working to improve patient care. As the world around community colleges changed so that more and more people, particularly women, resumed formal education after a hiatus, and senior colleges had good experience with community college graduates who sought baccalaureate degrees, the concepts of "career mobility" and "articulation" came into nursing discourse. By 1972, the NLN prepared a collection titled "The Associate Degree Program—A Step to the Baccalaureate Degree in Nursing." However, according to Patricia Haase, a historian of associate degree programs, it was also true that "[i]t was assumed by some in baccalaureate education that the curricula of the two nursing programs were not related, that they occupied two separate universes" (Haase, 1990). Rapprochement was gradually achieved, but sensitivities, which have their roots in this conflict, exist to this day.

Master's Education

Master's programs were few and relatively small in the 1950s. The 1951 report of the NNAS Postgraduate Board of Review noted that in some instances, the same set of courses led to a master's degree for students who held a baccalaureate and to a baccalaureate for students who had no prior degree. Some of the clearly differentiated master's programs had so many prerequisites that few students qualified for admission without clearing multiple "deficiencies" by taking additional course work. The report opined that few programs focused on nursing "in its broadest sense," as contrasted to teaching and administration (National Nursing Accrediting Service Postgraduate Board of Review, 1951).

A Work Conference on Graduate Nurse Education, sponsored by the NLN Division of Nursing Education in fall of 1952, concluded that master's graduates needed competencies in interpersonal relations, communication skills, their selected functional area (e.g., teaching or administration), promotion of community welfare, and "sufficient familiarity with the principles and methods of research to conduct and/or participate in systematic investigation of nursing problems and evaluate and use research findings" (Harms, 1954). However, a 1954 study comparing six leading schools' master's curricula identified wide variability in actual

practice. Program lengths were nominally 1 year for students without deficiencies; however, this actually ranged from 24 to 38 semester credits. Although research was an agreed-upon master's focus, only one of the six schools had one course that by title could be identified as addressing this area (Harms, 1954).

Given the relatively few students seeking admission, and the small size of programs, regional planning became important, particularly in the South and West United States. In regional activity that was the precursor to the formation of the Southern Council on Collegiate Education for Nursing (SCCEN), it was agreed in 1952 that six universities—Universities of Alabama, Maryland, North Carolina, Texas, Vanderbilt, and Emory University—would come together to plan five new master's programs to serve the South. This Regional Project in Graduate Education in Nursing garnered funding from both the W.K. Kellogg and Commonwealth Foundations. By 1955, all six programs were admitting students (Reitt, 1987).

In western states, the Western Conference of Nursing Education was convened in early 1956 by the Western Interstate Commission for Higher Education (WICHE). Nursing educators, nurse leaders in various other positions, and nonnurse representatives from higher education from the western states gathered to advise WICHE on the development of nursing education programs in the area. A 2-month study of nursing education in western states, conducted by Helen Nahm, laid the groundwork for the meeting. This report provided the group with the essence of hundreds of interviews conducted with educators in nursing and related fields in the eight states, as well as nurse manpower data by state for 1954. Respondents reportedly believed that graduate programs in nursing should contain more work in social science fields, advanced preparation in physical and biological science fields, strong foundations in education, courses basic to research, courses in philosophy, research in some area of nursing, and "graduate courses in a clinical nursing area which are truly of graduate caliber … " (Western Interstate Commission for Higher Education, 1956). Subsequently, the Western Interstate Council for Higher Education in Nursing (WICHEN) sponsored joint work that developed early master's level clinical content and terminal competencies in the early and mid-1960s (Brown, 1978; WICHE, 1967).

Enrollment in master's programs almost doubled between 1951 and 1962, growing from 1,290 to 2,472 (Harms, 1954; Kalisch & Kalisch, 1978). During the 1960s, clinical area emphases replaced functional specializations as the organizing frames for curricula. This shift in focus to nursing itself not only clarified and enriched baccalaureate curricula in later decades (Lynaugh & Brush, 1996), but also freed doctoral level training to focus directly on nursing knowledge development.

Political pressure for access to care, interacting with the shortage and maldistribution of physicians and recognition that nurses could competently do a subset of physician work, led to federal support for the spread of nurse practitioner (NP) programs (Bullough, 1976; National Commission for the Study of Nursing and Nursing Education, 1971). Until the mid-1970s most nurse practitioner preparation was designed and offered as non-degree-related continuing education. The first national conference on family nurse practitioner curricula convened in January 1976. At that point, programs ranged from 4-month certificate level offerings to specialties set within master's programs, with divergent characteristics

depending upon rural or urban settings. Certificate programs accounted for 71% of NP program grants funded by the Division of Nursing of the USPHS that year. Just 9 years later, in 1985, 81% of NP program grants went to master's level programs without any change in the authorizing law and presumably the award criteria (Geolot, 1987). Multiple factors drove or accommodated this change. Practice settings had higher expectations, fears of nurse educators about preserving the essence of nursing subsided, sufficient numbers of potential students saw value in a graduate degree, and faculty members who reconceptualized the curricula were persuasive. Not insignificantly, federal funds were available to assist with the costs of transition. Curricular trends over the 20-year period included a proportionate decrease in time spent on health assessment and medical management, movement of pharmacology from free-standing courses to integration in medical management courses—and back again to free-standing, increased emphasis on health promotion and chronic illness management, and development of common clinical core courses in schools where multiple NP specialty tracks existed (Geolot, 1987).

Most large master's programs had multiple specialties by the mid-1980s, but these only weakly correlated with the major specialty organizations and with certification mechanisms (Styles, 1989). The clinical expertise and interest of nursing faculty, links to local resources, community needs for a particular specialty, and federal/state/local voluntary organization financial initiatives to address specific health problems all drove the pattern of specialty development (Burns et al., 1993). Nursing specialty organizations, reflecting current practice perspectives, exerted a substantial shaping influence on specialty curricular content in their respective areas. The rapid expansion (27%) in the number of master's programs in the last half of the 1980s (Burns et al., 1993) may have spurred creative naming of specialties for purposes of student recruitment. Efforts to rationalize the relationships of the specialties to one another and where possible, to achieve common use of resources, were the natural response to this proliferation.

By the 1990s, permutations of what had been considered clinical specialist content were being combined with nurse practitioner approaches. Advanced practice nurses of both types were beginning to question whether the two roles were, after all, so different from one another (Elder & Bullough, 1990). Changes in health care financing and delivery were prompting clinical nurse specialist programs to include content to prepare graduates to deal with cost and reimbursement dimensions of care for populations (Wolf, 1990), and pressuring practitioner programs to prepare graduates to care for patients with less stable conditions. By the end of the first decade of the 21st century, this trend has coalesced into an advanced practice regulatory model that will have standardized graduate level educational requirements, if it is implemented as envisioned (Trossman, 2009).

In 2001, the Institute of Medicine (IOM) published a report calling for increased attention to the provision of safe patient care environments. In response to that report, in 2003 to 2004, the clinical nurse leader (CNL) was envisioned. The CNL is a role that provides leadership at the point of care. Advanced practice preparation and clinical leadership competencies, both acquired at the master's level, prepare this nurse leader to ensure the delivery of safe, evidence-based care that is targeted toward quality patient outcomes (Reid, 2011).

The Essentials of College and University Education for Professional Nursing (American Association of Colleges of Nursing [AACN], 1986), with its ambitious goals for a substantial liberal arts and sciences background, reflected both nursing's self-understanding and changing external circumstances. Applicant interest and professional vision converged to support the development of programs at the master's level for nonnurse college graduates. Students completed pre-licensure generalist preparation before focusing in a specialty or delimited area, leading to the master's as the first professional degree (Wu & Connelly, 1992). Very few such programs had existed in the prior two decades (Diers, 1976; Plummer & Phelan, 1976). *The Essentials of Master's Education for Advanced Practice Nursing* codified the broad areas of agreement about master's preparation among educators (AACN, 1996) and this, together with accreditation mechanisms and a shared external environment, nudged programs toward common curricular characteristics.

The 1986 *Essentials* document foreshadowed another turning point in the long evolution of organized nursing thinking about the placement of basic generalist professional preparation within the standard degree structures of higher education. Given projections of health care system demand for nurses over the next three decades, the need for more comprehensively prepared nurses at the microsystem level due to increased care complexity, and concurrent flagging applicant interest in bachelor's programs with contrasting brisk interest in first professional degree master's programs, it seemed that the time had come to begin to move basic generalist professional preparation to the master's level (AACN, 2002, 2003, 2007a). Early adopter programs began translating the curriculum template in the planning documents into the unique contexts of each school and cooperating nursing service provider(s). Variants were designed for both bachelor of science in nursing (BSN) and nonnurse college graduate applicants (AACN, 2007b). Accreditation and individual graduate certification reinforced curriculum similarity across institutions, and many hope that practice settings will adopt differentiated practice roles that will eventually support regulatory recognition (AACN, 2008, 2010). Concurrent with this consensus effort, the Carnegie Foundation for the Advancement of Teaching, as part of its multiyear comparative study of professional education in the United States, funded a study of education for nursing practice. Although this focuses more on the "delivery" of the curriculum, that is, on teaching-learning and the formation of nursing students, than on structures and content, the curricular implications both for basic programs and nurse teacher preparation are clear (Benner, Sulphen, Leonard, & Day, 2010).

Doctoral Programs

Educators began to focus on the hope of developing doctoral work in nursing in the midst of the chaotic educational diversity of the 1950s. The need for doctorally prepared faculty to teach master's students, who it was hoped would graduate and teach in the multiplying baccalaureate programs, fueled part of the interest in this topic. But for leaders already involved in higher education, it was painfully clear that nursing needed some capacity for its own research that would focus on questions related to nursing interventions to create a coherent body of tested knowledge and improve care.

Both Nursing Education Departments at TCCU and New York University (NYU) offered arrangements with their education departments for nurses to engage in doctoral level study before the 1950s; however, the numbers of graduates were small. TCCU revised its program in the 1950s but continued to grant the EdD. With Martha Rogers leading as chair of the Department of Nursing Education at NYU in 1954, the doctoral program was redirected to become a PhD in nursing. University of Pittsburgh established a PhD with a focus in pediatric or maternal nursing in 1954. In contrast to Martha Rogers's view that theory was the starting point that would lead to knowledge development in the "applied" field of nursing, Florence Erickson and Reva Rubin at Pittsburgh believed that extensive exposure to clinical phenomena, along with skilled faculty guidance, would develop a true nursing science (Parietti, 1979). In the West, in the early WICHE/WICHEN conversations, the temporary need for help from other disciplines for research training was posited as a mechanism to build nursing knowledge and a critical mass of investigators (WICHE, 1956). The journal *Nursing Research* became available in 1952 as a mechanism for systematic communication (Bunge, 1962).

In 1955, the Nursing Research Grants and Fellowship Program of the USPHS allocated $500,000 for research grants and $125,000 for fellowships, the first such funding for nursing. From 1955 to 1970, 156 nurses were supported by special pre-doctoral research fellowships for doctoral study, and from 1959 to 1968, 18 schools of nursing received federally funded faculty research development grants to stimulate research capacity. The nurse scientist graduate training programs, which provided federal incentive funding to disciplines outside of nursing to accept nurses as students and provided fellowships to the students, were designed to create a critical mass of faculty and a climate conducive to establishing doctoral programs in nursing (Grace, 1978). The program continued from 1962 to 1976 and funded more than 350 nurse trainees (Berthold, Tschudin, Schlotfeldt, Rogers, & Peplau, 1966; Murphy, 1981).

Three additional doctoral programs were established in the 1960s (Boston University, 1960, doctor of nursing science [DNS], psychiatric/mental health focus; University of California San Francisco [UCSF], 1964, DNS, multifocus; Catholic University, 1968, DNS, medical–surgical and psychiatric/mental health foci). The Boston program took a clinical immersion approach analogous to the University of Pittsburgh. UCSF's program was structured as a research degree, but identified clinical involvement as the base for knowledge development, influenced both by nurse faculty with a strong clinical identity and by the grounded theory perspectives of the several social scientists who were a part of the faculty.

A federally funded series of nine annual ANA-sponsored research conferences was initiated in 1965 and WICHEN sponsored the first of its annual Communicating Nursing Research conferences in 1968, thus creating space for face-to-face research exchange. Medical Literature Analysis and Retrieval System (MEDLARS) made its debut in 1964, the first in a series of databases that would aid dissemination. Essential components for school of nursing research centers were identified (Gunter, 1966). A series of three federally funded conferences in Kansas City, Kansas on nursing theory in 1969 to 1970 provided further opportunity to work through the divergent views of the relationships of theory, practice, and research to one another (Murphy, 1981).

In 1971, the Division of Nursing and the Nurse Scientist Graduate Training Committee (NSGTC) convened an invitational conference to address the type(s) of doctoral preparation. In this setting, Joseph Matarazzo, chair of the NSGTC, presented a paper arguing that nursing was ready as a discipline to launch PhD study, citing its body of knowledge and the qualifications of trainees (Matarazzo & Abdellah, 1971; Murphy, 1981). Comprehensive information about the state of nursing doctoral resources became available by the mid-1970s (Leininger, 1976) and by the late 1970s, national doctoral forums, open to schools with established programs, provided a mechanism for exchange of viewpoints about doctoral education. Three additional research journals began publication in 1978 (Gortner, 1991). "The discipline of nursing" (Donaldson & Crowley, 1978) was a milestone paper. It differentiated the discipline of nursing from the practice of nursing, but related the two as well, and proposed a productive interrelationship of research, theory, and practice. It shifted the terms of debate away from the dichotomous basic/applied categories.

The body of knowledge in nursing was still, relative to the old disciplines, rather modest in the late 1970s, but the progress in two decades had been amazing, and the infrastructure to support further development was substantial (Gortner & Nahm, 1977). Students were focusing their dissertation research on nursing clinical issues (Loomis, 1984). However, the DNS and PhD degrees, the two dominant degree titles, though differently named, were indistinguishable in their objectives and end products (Grace, 1978). Finally, themes related to the challenge of mentoring students who are dealing with what is not known and fostering "humanship" between students and faculty to encourage student growth were beginning to come to print at the end of this decade (Downs, 1978).

Fifteen additional doctoral programs opened their doors during the 1970s (Cleland, 1976; Parietti, 1979). From 1980 to 1989 the number of programs grew from 22 to 50, prompting editorial comment, "… as dandelions in spring, more and more doctoral programs are appearing" (Downs, 1984). Other observers surveying the situation recommended regional planning to sponsor joint programs, but conceded that the resources were in individual universities and states, and that the mechanisms for making such efforts were nonexistent. They predicted stormy waters for programs that launched without adequate internal and external supports in place (McElmurray, Krueger, & Parsons, 1982). At the end of the 1980s, doctoral educators were examining the balance between theory and research methods on the one hand and "knowledge" or "substance" in the curriculum (Downs, 1988).

Programs expanded from 50 to 70 from 1990 to 1999. By the early 1990s, as the research programs were more numerous and robust in the older and larger schools, greater emphasis on research team participation (Keller & Ward, 1993) and mentoring into the range of activities doctoral graduates became visible themes (Katefian, 1991; Meleis, 1992). Postdoctoral study became more feasible and attractive (Hinshaw & Lucas, 1993).

The perennial question from the 1960s to the 1980s, that is, whether nursing should adopt the PhD or the DNS, was answered by the hundreds of individual choices of applicants and the program choices of numerous schools: By 2000, only 12% of nursing doctoral programs conferred the DNS, or variants thereon (McEwen & Bechtel, 2000). Much less clear, however, was the difference between

the two. Concerns about attention to "substance," that is, organized analysis of the body of nursing knowledge, the adequacy of research programs to provide student experience, and preparation for the teaching component of graduates' expected academic roles, occupied curriculum planners in research-focused doctoral programs at the end of the century (Anderson, 2000).

Questions about the desirability and feasibility of developing clinical or practice-focused doctoral programs in nursing were perennial but intermittent until the past decade (Mundinger et al., 2000), when the AACN in 2004 adopted a proposal that would move preparation for advanced practice nursing from the master's degree framework to the doctoral level by 2015 (AACN, 2004, 2009). Such programs are currently designed to articulate with both nursing baccalaureate and nursing masters (first professional degree and second). The four postbaccalaureate academic years include core areas for all students, as well as clinical specialty-focused study. The research-training component emphasizes the translation of research into practice, practice evaluation, and evidence-based practice improvement. Following from that, several possible forms of end-of-program practice-focused projects and project reporting formats demonstrate the student's synthesis and expertise, while laying the groundwork for future clinical scholarship (AACN, 2006). Currently (2014), there are 131 research-focused programs and 241 doctor of nursing practice (DNP) programs (AACN, 2014). What the long-term, steady state allocation of nursing's academic resources should be for the two types of programs is yet to be determined. And the development of combination programs, analogous to the MD-PhD, is also yet to be determined.

DISCUSSION QUESTIONS

1. The Nightingale model of nursing education was used to develop early nursing programs in the United States. What social and cultural phenomena were occurring in the United States during the 19th century that impacted the development of these, and subsequent, nursing education programs? Do similar phenomena impact nursing education today? If so, what are they and how do they impact education?
2. Associate degree programs were developed in the 1950s as a result of Mildred Montag's dissertation. Their intent was to prepare a different type of nurse than the one who was prepared at the baccalaureate level. That was not the reality however and debate continues (into the 21st century) about educational programs for entry-level nurses. What might nursing education, at both the associate degree and baccalaureate levels, look like today if Montag's plan for a different type of nurse had been followed?

LEARNING ACTIVITIES

STUDENT LEARNING ACTIVITY

Choose teams and debate the wisdom and feasibility of setting the doctoral degree as the minimum level of education for advanced practice nurses. Given hindsight

gained from the efforts to transfer pre-licensure education into university settings, how would you go about assisting state boards of nursing with this transition?

NURSE EDUCATOR/FACULTY DEVELOPMENT ACTIVITY

Trace your school of nursing's history and link major curricular changes to events external to the nursing programs.

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