

Overhauling Nursing Education

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Nursing education is a sizzling hot topic right now. Maybe this is fitting, for 2010 was the centenary of Florence Nightingale's death, and she was the founder of the formal nursing school. The whole profession of nursing is under the microscope, as hundreds of experts and stakeholders study where nursing fits in and where it's going in the era of healthcare reform. However, the foundation of any profession, including nursing, is how its newest members are educated. This article will explore several questions about nursing education, and discuss the recommendations from the recent Future of Nursing reports^[1,2] to address these issues.

- ◆ What's missing in nursing education?
- ◆ Are there better ways of teaching/learning?
- ◆ What does future hold for nursing degrees (including the associate's degree)?
- ◆ Does nursing education prepare nurses for practice?

The Rise of "Modern Nursing" Education

If you had just been accepted to nursing school near the end of the 19th century, your nursing courses would be designed to teach you these fundamentals of nursing care:

- ◆ The dressing of blisters, sores, burns and wounds; the application of fomentations, poultices, cups, and leeches;
- ◆ The administration of enemas;
- ◆ The management of trusses and appliances for uterine complaints;
- ◆ The best method of friction to the body and extremities;
- ◆ The management of helpless patients: making beds, moving, changing, giving baths in bed, preventing and dressing bedsores, and changing positions;
- ◆ Bandaging -- and making bandages, rollers, and splints;
- ◆ Preparing, cooking, and serving delicacies for the sick;
- ◆ Practical methods of supplying fresh air, warming and ventilating sick-rooms;
- ◆ Keeping all utensils perfectly clean and disinfected; and
- ◆ Making accurate observations and reports to the physician of the state of secretions, expectoration, skin, pulse, appetite, temperature, delirium or stupor, breathing, sleep, condition of wounds, eruptions, formation of matter, effect of diet or of stimulants or medicines.

This was the proposed curriculum for a school of nursing opening in Chicago in 1882.^[3] This curriculum would take a little more than 2 years to learn, during which you would work 7 days a week, 12 hours a day, with 1 afternoon off per week. You would work without pay, essentially as free staff for the hospital; your "salary" was your education. After work in the evenings, you would attend lectures given by physicians or supervising nurses on subjects such as obstetrics, surgical emergencies, anatomy, physiology, electricity, materia medica (pharmacology), bathing, and massage. Exams on these lectures would be given periodically. However, the overall program emphasized practice over theory -- with practice commanding a 90% share of your time.

This, or something very like this, was how nurses were "trained" at the beginning of the era known as "modern nursing." Nursing education followed an apprenticeship model, wherein students took care of patients under the supervision of more senior nurses.

Nursing education received a much-needed boost in 1917 when the National League for Nursing Education published their first standard curriculum for schools of nursing.^[4] A more recognizable nursing curriculum, it was organized around the familiar categories of medical nursing, surgical nursing, obstetrical nursing, nursing care of children, and so forth. Student nurses would still have to learn cookery, hospital housekeeping, and massage, but they would also receive classes in ethics, psychology, professional issues, and history of nursing, and could take electives in public health or administration. The underlying theme of the curriculum was that nursing was a *profession*.

With the appearance of college-affiliated nursing programs and the baccalaureate degree, nursing students had the benefit of an entire university or college with which to supplement their education. For the most part, however, the core nursing curriculum continued to revolve around the traditional medical specialties of medicine, surgery, obstetrics, pediatrics, and mental health.

Curriculum Revolution

In 1988, the National League for Nursing (NLN) attempted to shake nursing schools loose from the hold of the traditional, content-laden, lecture-and-test approach to nursing education. In *Curriculum Revolution: Mandate for Change*,^[5] nursing leaders called for an overhaul of nursing education that would change the way nursing was taught and learned.

It did not succeed. During the ensuing 25 years, under the auspices of "reform," nurse educators essentially re-arranged and updated the curriculum without changing the substance of the curriculum itself or the educational paradigm.^[6] In 2003, the NLN once again advocated a transformation of nursing education, via the creation of innovative pedagogies that will be effective in helping students learn to practice in rapidly-changing environments.^[6] Graduating nurses would be leaders in health promotion and disease prevention, function in complex and unpredictable environments, demonstrate critical reasoning and flexibility, and execute a variety of roles throughout their nursing careers. The old and tired clinical placement model would give way to an approach that has relevance for the increasingly community-based, multidisciplinary patient care delivery systems of the future.

We now come to 2009. An initiative known as the Future of Nursing (FON), a joint project of the Institute of Medicine and the Robert Wood Johnson Foundation, began its critical review of the nursing profession by holding 3 national forums, one of which focused on nursing education. This forum was led by Michael Bleich, RN, PhD, Dean of the Oregon Health & Science University School of Nursing. Participants in this forum considered needed innovations in what to teach (ideal future nursing curricula), how to teach (methodologies and strategies), and where to teach (venues and locations for nursing education).

The recommendations that came out of this forum were driven by 4 realities (1) more nurses are working outside of hospitals as care shifts formally and informally into communities; (2) evidence that could inform practice is growing rapidly, but is not well-integrated into either education or practice; (3) the need for nurses to effectively work in and lead teams is increasing; and (4) numbers alone will not fill the widening gap between the supply of nurses and the growing need for their services -- additional research and new knowledge will be required.

What Is Missing in Nursing Education?

I had the opportunity to ask Dr. Bleich to summarize the Future of Nursing participants' views on some of the initiative's recommendations to solve the current deficiencies in nursing education.

"Nothing is inherently wrong with the intent of what nursing education is trying to achieve now," explained Dr. Bleich. "We just know more now about how people learn best, knowledge in our field is expanding, and the patients are becoming more complex and challenging to manage. Nurses are being asked to care for more people with complex multiple geriatric syndromes, and this involves more than keeping these patients alive -- it's helping people live their lives to the fullest extent possible. The healthcare organization also expects nurses to perform at a higher level, to participate and contribute to the quality and safety agenda of the organization."

"It's more than knowing how to perform tasks and procedures," continued Dr. Bleich. "It's how to be a more effective player on the healthcare team and navigate clinical systems, and that's not traditionally taught in a classroom. That's a set of experiences that must be added to the way we educate. We need to address concepts within populations of patients, and shift from the medical diagnosis model or the task and procedures model to competence in applying critical concepts to multiple patients with multiple diagnoses."

The Future of Nursing Education report also identifies diversity as a missing element among current nursing student applicants. More racial-ethnic and gender diversity must be actively pursued so that a workforce is created that is better able to meet the demands of a diverse population across the life span, and nurses are better able to provide culturally-relevant care.^[1]

Are There Better Ways to Teach and Learn?

Like a telephoto lens, nursing education right now is focused on the individual nurse-patient interaction, but what nurses really need is a panoramic view that encompasses healthcare systems, quality and safety, and a team approach to problem-solving.

Most nursing curricula today are loaded with content and facts to be memorized, in a mostly passive learning environment. Nursing students are rotated through specialties such as obstetrics, pediatrics, and surgery, still following a disease-oriented medical model. Clinical experiences are centered primarily in acute care settings.

The Future of Nursing Education report asserts that today's curriculum is out of date. The organization around discrete medical specialties fails to adequately address care coordination, and the clinical focus on acute care does not prepare nurses for any of the non-hospital roles they might assume upon graduation, such as community health and long-term care. Entry-level nurses need to be able to transition smoothly from their academic preparation to a range of practice environments, with an increased emphasis on non-hospital settings of care.

Nurses must learn how to assess, use, and manage knowledge, rather than trying to pack thousands of facts into their heads, hoping to be able to retrieve them when needed.^[2] The Future of Nursing Education report emphasized that "we need to be hardwiring the ability to manage and use knowledge in real time in both education and practice."^[2] Knowledge management permits the nurse to access that knowledge with new tools and strategies. Nurse educators need to improve the links between knowledge, clinical reasoning, and practice. The curriculum must emphasize competent performance through active learning.^[2]

The Future of Nursing Education reports^[1,2] make numerous suggestions for how to improve the standard nursing curriculum. Two of these suggestions are (1) moving toward competency-based learning, and (2) widespread introduction of interprofessional education. Nursing school must also instill in students the spirit of inquiry, so that after graduation from the basic nursing program, lifelong learning continues with continuing nursing education.

Competency-Based Learning

The emphasis in nursing education is sometimes perceived to be on preparing students for their nursing boards, but as Michael Bleich pointed out, "The licensure exam is a minimum standard -- it tests only for minimum safe competency. But the public wants more than that. They want *optimal* competency, especially in the specialized areas. We have to move beyond the notion of comparing nursing programs for their abilities to assure graduates are minimally competent, and the public is challenging us, and saying how are you going to do this?"

It is a common misconception that competencies are task-based proficiencies. The student demonstrates the ability to take a blood pressure, or give a subcutaneous injection, and the instructor makes a checkmark on a skills list.

Competencies are actually higher level skills that represent the ability to demonstrate mastery over care management and that provide a foundation for decision-making skills under a variety of clinical situations across all care settings. Examples of competencies are:

- ◆ Clinical judgment;
- ◆ Critical reasoning;
- ◆ Evidence-based practice;
- ◆ Relationship-centered care;
- ◆ Interprofessional collaboration and teamwork;
- ◆ Leadership;
- ◆ Assisting individuals and families in self-care practices for promotion of health and management of chronic illness;
- ◆ Teaching, delegation, and supervision of caregivers;
- ◆ Genetics and genomics;
- ◆ Cultural sensitivity;
- ◆ Practice across the lifespan;
- ◆ End-of-life care; and
- ◆ Professionalism.

Interprofessional Education

Interprofessional collaboration, a necessary component of effective care coordination in the increasingly complex healthcare environment, will not be broadly achieved until healthcare professional students are educated together. The poor communication and lack of respect between, for example, nurses and physicians, lead to poor outcomes; but effective teamwork and good working relationships can improve outcomes.

Sharing different professional perspectives is viewed as critical to this objective.^[1] This will only be achieved through interprofessional team training of nurse, physician, and other healthcare provider students, and this in turn requires committed partnerships across the professions.^[2] Nursing and medical students who are educated in interprofessional collaboration, knowledge of each other's professional roles and responsibilities, effective communication, conflict resolution, and shared decision-making, and who are exposed to the other students through simulation and Web-based training, will be more likely to engage in collaboration in future work settings.^[3]

It is recommended that schools of nursing and other health professional schools should implement early and continuous interprofessional collaboration through joint classroom and clinical training opportunities. Interprofessional education should continue after these students begin working through joint continuing competency programs provided by healthcare organizations.

Continuing Education

Not a single initial degree can provide a nurse with all she or he will need to know over an entire career.^[1] Students need to learn the fundamentals of their profession, but they also need to develop a "spirit of inquiry."^[2]

"We need nurses to engage in lifelong learning," explained Dr. Bleich. "This is not just what they learn on the job caring for patients, or at skills fairs, but professional development, continuing education, and stretching leadership development. It doesn't always require another professional degree, but neither is it what is casually or serendipitously picked up during the course of delivering care, either."

The Future of Nursing initiative identified a framework for continuous lifelong learning that includes basic education, academic progression, and continuing competencies. Nurses need a solid education in how to manage complex conditions and coordinate with other healthcare professionals. New competencies in systems thinking, quality improvement, care management, and a basic understanding of healthcare policy must be demonstrated.^[3]

Nursing Degrees: What's in Their Future?

Nursing is unique among the healthcare professions in the United States in that multiple educational pathways lead to an entry-level license to practice.^[4] A key recommendation of the Future of Nursing initiative was that all nursing schools should offer defined academic pathways that promote seamless access for nurses to higher levels of education.^[5]

The nursing diploma. Once the most popular route to becoming a nurse, the hospital-based nursing diploma program has been all but phased out in the United States. Among still licensed RNs, 20% received a hospital diploma for their initial "nurses training," but this number is steadily declining.^[6] Only 3.1% of registered nurses who graduated after 2004 were educated in a diploma program.

It is believed that diploma programs should be phased out over the next 10 years and, their resources consolidated with schools providing AD or preferably, BS degrees.^[7]

The associate's degree in nursing. As of 2008, the Associate's Degree in Nursing (ADN) was still the most common initial nursing education degree, earned by 45% of all licensed registered nurses.^[8] A common misconception exists that the AD is a 2-year degree; whereas, in nursing, the ADN usually takes at least 3 years to complete because of course prerequisites.^[9] In the United States, 21% of nurses who initially earn an ADN go on to earn higher nursing degrees.^[10] Many rural and other medically underserved communities would not be able to staff their hospitals, clinics, and long-term care facilities without ADN prepared nurses.

I asked Dr. Bleich if the ADN degree will still have a place in the hierarchy of nursing education. He explained that "it's an important entry point for many nurses, a portal to get into nursing as a career, but it shouldn't be a terminal degree. We did address the role of the ADN nurse, but were more focused on the public's need for expanded nursing competencies and this translates into nurses obtaining higher education and not stopping at the associate's level. The need for education and development of the nurse is far greater -- we need more advanced practice nurses, more faculty, more nursing leaders."

Healthcare organizations need to step up and encourage nurses with ADN (and diploma) degrees to enter baccalaureate nursing programs within 5 years of graduation by offering tuition reimbursement, creating a culture that fosters continuing education, and providing salary differentials and promotion opportunities.^[11]

Hand-in-hand with the future of the ADN degree is the future of nursing education in community colleges. In rural and medically underserved areas, most nursing education takes place in these settings. The Future of Nursing initiative believes that community colleges must either join an educational collaborative or develop innovative and easily accessible programs that seamlessly connect students to schools offering the BSN and higher degrees, or if possible, develop their own BSN programs.^[1]

The bachelor's degree/baccalaureate. Only approximately 34% of nurses (in 2008) had received their initial nursing education in a bachelor's program, but 50% of licensed nurses eventually earned a bachelor's degree.^[2] Despite an average gap of 10.5 years before nurses with an AD or diploma earned their bachelor's degrees, this reflects the recognition on the part of many nurses that higher degrees are important for professional and career development.

The goal established by the Future of Nursing initiative is to increase the proportion of nurses with a baccalaureate degree to 80% by the year 2020.^[2] Furthermore, at least 10% of these baccalaureate graduates must matriculate into a master's or doctoral program within 5 years of graduation.^[1]

Increasing the percentage of nurses with a BSN degree is in line with what the public needs from nurses in terms of growing expectations for quality, and as the settings where nurses are needed proliferate and become more complex.^[1] More BSN nurses will be necessary to expand competencies in areas such as community and public health, leadership, systems improvement and change, research, and health policy; and to provide a pool of potential candidates to move on to master's and doctoral education in nursing.

The American Organization of Nurse Executives and the American Association of Colleges of Nursing have called for a mandated baccalaureate degree as a point of entry to nursing practice.^[8] Studies demonstrate better patient outcomes in hospitals staffed by a greater proportion of nurses with baccalaureate degrees to those with associate degrees.^[8]

The master's degree. Currently, 13.2% of licensed registered nurses hold a master's, or higher, degree.^[2] These nurses work in a variety of roles, including clinical nurse specialist, nurse practitioner, nurse midwife, and nurse anesthetist. Master's degrees prepare RNs for leadership roles -- in administration, clinical, or teaching -- or for work in other advanced practice roles, and serve as a springboard to doctoral pursuits.

The fate of the master's degree depends in part on whether consensus is reached on requiring the doctoral degree for entry into advanced practice. At this time, however, the Future of Nursing Education group did not think that the evidence was sufficient to require the doctoral degree for entry into advanced practice nursing.^[2] Therefore, other than increasing the numbers of nurses who earn a master's degree, no specific recommendations were made about the master's degree in nursing.

The doctoral degree. The current goal is to double the number of doctorally prepared nurses by 2020. Two primary degrees in nursing at this level are the PhD and the DNP (doctor of nursing practice). The latter has been increasing in popularity throughout the last decade. A shortage of nurses prepared at the highest levels of education and working in primary care, education, and research is viewed as a barrier to advancing the profession of nursing and improving the delivery of care to patients.^[1]

Dr. Bleich spoke about the concern that the rise in numbers of nurses obtaining a practice doctorate (rather than the PhD) will influence the growth of nursing research, and if we will have enough PhDs to sustain and expand nursing research? "Newly emerging data suggest that this is not the case," replied

Dr. Bleich." It's true that nurses who seek the DNP usually don't want to be researchers, but anecdotally, through their education, some are becoming attracted to the PhD. The DNP is engaging nurses in research and inquiry."

Why Go Back to School?

I asked Dr. Bleich why, considering the expense and time commitment, should nurses go back to school for another degree? For example, if I have an associate's degree, why do I need to get my bachelor's?

"It starts with one's personal desire to develop oneself -- investing in oneself is a fundamental tenet of a professional. We live in a time when knowledge is exploding, technology is adding complexity to our work, and there are more opportunities for nurses to work in more settings than we've ever known in the history of nursing (Table). Many organizations are expecting more highly educated nurses. The public also wants nurses to be more knowledgeable and more adept. This is part of the nurse's reality."

Table. Nontraditional Nursing Careers

Transitional Care Nurse
Care Manager/Coordinator
Telehealth Nursing
Nursing Informatics
Forensic Nurse
Legal Nurse Consultant
Hospice Nurse
Palliative Care Nurse
Nurse Epidemiologist
Occupational Health Nurse
Travel Health Nurse
Cruise Ship Nurse
RN Operating Room First Assistant
Wound Care Nurse

From Olmstead J. *Nurs Manage.* 2009;40:52.⁹¹

Does Nursing Education Prepare Nurses for the Real World?

In a descriptive survey design, Candela and Bowles⁹⁰ asked 352 recent nursing school graduates how well their educational programs had prepared them for their first jobs as registered nurses, and what, if any, did they identify as the inadequacies in their education? These recent graduates said they were inadequately prepared in pharmacology, clinical practice, leadership, and the use of patient electronic medical records. Most believed that their programs prepared them more for success on the NCLEX-RN exam than for practice.

To be fair, nursing school is about more than preparing a nurse for his or her first job. It's about preparing nurses for a profession -- a lifetime career.

It's possible that the right balance between the two hasn't yet been found, or that other strategies are needed to facilitate the transition to the nurse's "first job." This need was addressed by the Future of Nursing initiative.^[1]

Future of Nursing Recommendation: Residency Programs

A key recommendation of the Future of Nursing initiative is to broaden the use of nurse residency programs.^[2] Residencies are transitional programs, designed both for new graduates and for experienced nurses who wish to change practice settings. A residency provides time for the nurse to perfect competencies in a new environment.

Residencies are needed because schools of nursing prepare pre-licensure graduates as generalists.^[2] Even with a sound theoretical foundation, novice nurses are not prepared with the knowledge and skill base for practice with specific populations. They need to be able to apply that knowledge and develop situation decision making skills. A residency is a transition to practice period, generally thought to require at least 1 year, that gives the new nurse a period of mentored supervision and support.

Healthcare organizations should provide residency programs, not only for new graduate nurses, but also for nurses who have completed advanced practice degree programs or nurses who are transitioning into new clinical practice areas as a career move.^[3] Residency programs should also take place in community care settings.

The Imperative to Change the Educational Paradigm

As a profession, nursing is moving beyond the objective of simply increasing its numbers, to positioning itself in a healthcare environment that is being transformed to meet the needs of society for higher quality, safer, more affordable and more accessible healthcare. The emphasis on health promotion, illness prevention, and provision of care to diverse populations throughout the lifespan must be incorporated not only into practice, but also into education.

"Nursing roles must change to meet the public's demand for us in the future. The public wants to know that the nurses who are providing care are competent." explains Dr. Bleich. "There is a tsunami of people coming into the healthcare system at the upper echelons of age, with multiple diagnoses and chronic conditions. We need to reshape the healthcare system so that we can intervene outside of the traditional sick care system. We just have to know more."

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