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The Story of Nurse Licensure

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The evolution of nurse licensure is representative of the heroic efforts of nurses to enhance the value and impact of the nursing profession. This literature review presents a historical account of the advancement of nursing through the nurse licensure process.

Nursing in America is a relatively young profession. If mandatory nurse licensure is the birth certificate of the profession, then nursing is less than 75 years old. The commitment of nurses to legitimize and develop the profession through licensure is inspiring. Nurses may give little thought to the licensing process once they have received their licenses; nevertheless, understanding the history of and the requirements for licensure is essential for nursing educators as they prepare students to enter the medical field.[1]

The History of Nursing Licensure

Nursing education in America was formally instituted in the late 19th century. The educational opportunities for students varied from 6-week to 3-year programs located in hospitals, schools, and private residences or through correspondence schools. Inconsistent nurse training and the absence of professional standards in an increasingly demanding medical environment disturbed nurse leaders. Legislation seemed the logical alternative to ensure the protection of both nurses and the public.[2(p110)]

Nurse Registration

In 1903, North Carolina passed the first bill allowing nurses to register with the state after receiving an education from an approved public or private hospital.[3] Each state eventually had a board, composed of nurses and physicians, to develop and enforce nursing legislation.[4,5] Because nurses were predominantly women, achieving legislation to advance the profession of nursing was a monumental task, especially when women had not yet attained the right to vote.

Permissive Licensure

Nurse registration gained momentum in the early 1900s. Registration is the "least restrictive form of state regulation" governing a profession.[6(p497)] To qualify for registration as a nurse, a graduate typically had to complete an approved school curriculum and pass a board examination.[4] The first licensing examinations were often both written and practical and included the performance of a nursing procedure.[7]

Once registered with the state, the nurse was awarded a "permissive license" and could officially use the title of "registered nurse."[5] Those without a nursing license were prohibited from using the title of registered nurse or RN. However, the legislation for registration of nurses did not restrict others from practicing in nursing roles or using the title of nurse. Student nurses were often used in hospitals as cheap labor to meet patient needs. Typically, only 1 nurse was employed by the hospital to supervise the nursing students. Nurses practiced primarily in private homes. Consequently, many nursing students would complete their education, forgo the registration process, and work without a license.[4]

Mandatory Licensure

By 1923, all 48 states had passed some form of nursing licensure legislation.[4] Licensure was regulated by each state and thus resulted in considerable variation. For example, some states required 2 years of training from an accredited school, whereas others required 3 years, and many states did not require a high school diploma.[4,5] Nurses and the public pressed for mandatory licensure to resolve inconsistencies in nursing practice and to improve the quality of care.[3] In 1938, New York passed the first mandatory nurse licensure legislation, although it was not enacted until 1947 because of the shortage of nurses in World War II (WWII).[8] The Mandatory Licensure Practice Act defined 2 types of nursing (registered and practical), made it illegal to practice nursing without a license, and provided the first definition of the scope of nursing practice.[5] By 1930, most state boards required high school diplomas for admission to nursing schools.[7] Despite the new, more restrictive requirements of licensure, the title of RN remained the same.[9]

Licensure Examinations

State board licensure examinations began changing from essay to the more popular "objective-type" examinations in the early 1930s.[3(p110)] Methods used for grading essays and objective-type examinations were labor intensive. Consequently, it took many weeks to receive a nursing license from a state board.[3]

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State Board Test Pool Examination

The onset of WWII increased the demand for more trained nurses. At a 1942 conference of state boards of nurse examiners, the National League of Nursing Education's (NLNE's) National Committee on Nursing Tests agreed to operate a state board test pool to facilitate efficient licensure of nurses. In the first year of testing, 1944, 15 states administered the state board test pool examination (SBTPE), which included 13 tests: (1) anatomy and physiology, (2) chemistry, (3) microbiology, (4) nutrition and diet therapy, (5) pharmacology and therapeutics, (6) nursing arts, (7) communicable disease nursing, (8) medical nursing, (9) nursing of children, (10) obstetric and gynecologic nursing, (11) psychiatric nursing, (12) surgical nursing, and (13) social foundations of nursing. Each state could determine the number of tests to administer to its nursing graduates; some used all the tests, and others just one. In 1949, the SBTPE was reduced to 6 examinations: (1) medical, (2) surgical, (3) obstetric, (4) communicable disease, (5) psychiatric nursing, and (6) nursing of children. By 1950, all 48 states used the SBTPE.[10]

Nursing was the first profession to use the same licensing examination throughout the nation. Each jurisdiction set its own pass benchmark, which was typically a minimum of 350, and reported all test results to the NLNE Department of Measurement and Guidance for national comparison and public disclosure. The national mean was 500 with an SD of 100.[10] According to Matassarin-Jacobs,[1] in 1955, the American Nurses Association (ANA) took over management of the SBTPE, and the NLNE administered the now 4-part examination. The communicable disease test was integrated into the previous 4 examinations. The SBTPE consisted of 600 questions plus 120 validator questions divided among the 4 sections. The examination was normative referenced with a penalty for guessing, meaning the total score was calculated by subtracting the incorrect answers from those that were correct.

In 1975, state board examinations were offered twice a year on the same days in every state. Different examinations were developed and administered at each examination date because of "…some shocking instances of cheating and breaks in security related to the administration of the examination and manipulation by candidates of the system to ensure passing."[11(p222)]

The National Council of State Boards of Nursing

In 1978, the National Council of State Boards of Nursing (NCSBN) was created to manage the nurse-licensing examination. The NCSBN consisted of a representative from each state board, an executive director, and the staff. The purpose of the change was to relieve the ANA from management of the licensing examination and give state boards "autonomous control over the entire licensure process,"[1(p32)] so that, ultimately, public safety and protection of nurses could be more effectively regulated.[12]

The National Council Licensure Examination (NCLEX)

The mission of the NCSBN is to "develop psychometrically sound and legally defensible" examinations consistent with entry-level practice of RNs.[13] In 1982, research regarding the licensure examination resulted in the change from an examination based on the medical model to a nursing emphasis. Test validity was changed from norm referenced to criterion referenced, and the examination was reduced from 720 to 480 questions that contained up to 75 pilot questions, which did not affect the score. In addition, the name of the examination was changed to the NCLEX-RN or NCLEX for Practical Nurses. The NCLEX-RN was organized into a 4 booklet examination integrating the nursing process, systems of decision making or locus of control, and 8 areas of human functioning. The question framework was based on Bloom's taxonomy at the application and analysis level. A licensure candidate was required to achieve a score of 1,600 to pass, which represented 67% of the total number of items.[1]

In 1983, at the annual NCSBN meeting, it was decided to reduce the number of questions to 370 questions, 70 of which would be validator questions. In 1986, an analysis of new nursing graduate job practices was initiated to establish and validate the criterion for testing entry-level nursing. Based on the analysis, changes were made in the test plan. The nursing process remained the "organizing core" of the examination with an equal number of questions about each area of the nursing process.[1(p33)] The systems of decision making and areas of human functioning were replaced with a client needs focus that emphasized the health needs of the client. Health needs were divided into 4 categories, and the percentage of questions asked about each category was based on the job analysis results of new nursing graduate practices: (1) safe, effective care environment, 25% to 31%; (2) physiological integrity, 42% to 48%; (3) psychosocial integrity, 9% to 15%; and (4) health promotion, 12% to 18%. The revised NCLEX-RN was launched in 1988, and the results were reported as pass or fail.[1]

The Passing Standard

In 1989, the NCSBN Delegate Assembly adopted to implement a 3-year evaluation plan to assess minimal competence of entry-level nurses, revise the test plan, and adjust the passing standard accordingly. A panel of nursing experts was selected to assist in the development and analysis process of the NCLEX-RN. To establish the criterion references for validity of the licensure examination, the Angoff method was chosen. The Angoff method required the nursing panel to discuss and evaluate the NCLEX-RN examination questions and then rank the test pool questions. The panel increased the 1988 passing standard of 200 correct answers to 230 needed to pass the NCLEX-RN.[1]

The credibility of the panel is salient to the integrity of the examination. Interestingly, in 1982, the NCSBN did not initially disclose the panel names to the public. Later, "after much discussion," the associate director of the NCSBN released a panelist vitae, with names blacked out. The panelists were described as "first-line supervisors, although their titles did not always reflect this, nor was there any identified length of time in position."[1(p34)] Consternation over the lack of representation from coastal regions, major hospitals, and nursing educators on the panel was expressed. In 1988, when the next examination was referenced, the

Table 1. NCLEX-RN Passing Standard History

	1994	1995	1998	2001	2004	2007	2010
Logits	–0.4766	–0.42	–0.35	–0.35	–0.28	–0.21	–0.16

Source: National Council of State Boards of Nursing.[21]

panelist names again were not publicized.[1] The panel names, specialty expertise, and board area represented were published in the 2002 practice analysis.[14] Today, the panel is publicized with names, pictures, brief vitas, and the regional representation of each member.[15]

NCLEX-RN Computerized Adaptive Testing

In 1994, the NCSBN was the first organization to offer a nationwide licensure examination via a computerized adaptive test (CAT).[16] The CAT is a sophisticated testing technology that provides an individualized interactive test, which is still used today. A test bank of 1,700 to 2,000 pretested, statistically analyzed questions is coded based on difficulty per Bloom's cognitive domain and the test plan content area. The majority of items are written at the application level or above.[17] In 1994, to pass the examination, a licensure candidate had to answer a minimum of 75 up to 265 questions, 15 of which were pilot questions, within 5 hours and meet the passing standard.[16,18]

The CAT works by initiating an examination with an easy question. If the question is answered correctly, the next question will be more difficult. The questions become incrementally harder until the candidate answers incorrectly, then an easier question is given. The alternation between easier and harder questions narrows to the "point where the candidate answers 50% correctly, for example, one right, then one wrong. That point represents the candidate's ability level."[16] The candidate's ability level is compared with the passing standard to determine pass or fail on the NCLEX-RN. Since becoming computerized, the NCLEX-RN has been offered year-round through contracted agencies that proctor the examinations.[19]

The CAT Passing Standard

The CAT passing standard is determined from a variety of data. A panel of judges participates in criterion referencing through a modified Angoff procedure. An analysis of past performance on the NCLEX-RN, high school readiness data, and survey data from nurse employers and nurse educators is also used. The passing standard is then calculated on a logit scale. "A logit is a unit of measurement to report relative differences between candidate ability estimates and item difficulties" on an arbitrary scale.[20]

Since 1994, NCSBN has increased the passing standard at a 95% confidence interval, making the NCLEX-RN harder to pass with every 3-year cycle, except the 2001 to 2004 cycle when the passing standard remained the same (Table 1).[13,21] After each passing standard increase, the national pass-rate declined in the first year of the cycle (Table 2). It was speculated that the decline was a result of the NCLEX-RN's increased difficulty, and the recovery was attributed to "faculty adapting the curricula in a timely manner."[22(p2)]

Alternate Item Formats

In October 2003, the NCSBN operationalized alternate item formats in the NCLEX-RN. Alternate item formats included (*a*) multiple response items, (*b*) hot-spot items, (*c*) fill-in-the-blank, (*d*) chart/exhibit format, (*e*) audio item format, and (*f*) graphic options. Alternate item formats were coded for difficulty and content such as the traditional multiple-choice questions.[23] In October 2004, the NCLEX-RN testing time was extended from 5 to 6 hours.[18]

The NCLEX-RN Test Plan

A panel of RNs developed a test plan, which outlined the content that may be asked on the NCLEX-RN. The panel created a compilation of categories with a list of nursing activities performed in each category. Surveys were generated from a list of nursing activity statements. Two samples of participants were randomly chosen from those who had recently passed the NCLEX-RN. One sample was mailed a paper version of a survey, and the other sample was given a Web-based survey.[20] Survey results were used to guide the selection of content and behaviors to be tested on the NCLEX-RN.

The NCLEX-RN test plan has maintained the client needs focus with essentially the same 4 categories of health needs. Two categories, safe and effective care environment and physiological integrity, have been further subdivided to clarify the content areas. The test plan questions are updated, and the percentage of question distribution is changed as appropriate with each 3-year practice analysis to reflect current practice. For example, in the 2010 test plan, the percentage of questions on safe and effective care environment in the subcategory of management of care was increased, and the percentage of questions on physiological integrity in the subcategories of basic care and comfort questions and reduction of risk potential was decreased.[17,24] The NCSBN provides a breakdown of the related content in each client needs category that may be tested on any NCLEX-RN CAT examination.[17]

Accreditation of Nursing Programs

Since 1994, NCSBN has collected NCLEX-RN examination performance data providing quarterly and annual summary

Table 2. Percentage of NCLEX-RN Pass Rates of First-Time Test Takers in the United States

1994	1995[a]	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
91	**90.4**	88	87.7	**85**	84.8	83.8	85.5	86.7	87	**85.3**	87.3	88.1	**85.5**	86.7	88.4

[a]The 3-year analysis cycle began in 1995. In 2001, the passing standard did not change.
Items in bold indicates passing standard change.
Source: National Council of State Boards of Nursing.[22]

Table 3. Comparison of Licensure Examination Formats[a]

	SBTPE	NCLEX-RN	NCLEX-RN	NCLEX-RN	NCLEX-RN	NCLEX-RN
Inception	1944 (1952 for all states)	1982	1988	1994	2004	2010
No. of questions	600 + 120 pilot	About 400 + 70 pilot	About 300 + 70 pilot	75-250, 15 pilot included	75-250, 15 pilot included	Same
Type of referencing	Normative	Criterion	Criterion	Criterion	Reliability—"decision consistency statistic" 0.87-0.92 Validity—content, sampling, face, construct, scoring, pass/fail decision	Same
Passing	1.5 SDs below mean for each section	About 67% of questions minus validators	About 77% of questions minus validators	Above passing standard, −0.4766 logits	Above passing standard, −0.28 logits	Above passing standard, −0.16 logits
First-time-tester pass rates	80%-86%	92%	80%-82%	90%	85%	
Format	Subject matter: medical surgical pediatric, obstetric, and psychiatric nursing—5 books	Integrated, nursing process based, locus of control, 8 areas of human functioning—4 books	Integrated, nursing process 4 areas of client needs—4 books	Integrated, nursing and nursing process, computerized adaptive testing (CAT)	CAT, alternate item format is added	CAT
Method of administration	Booklet and separate answer sheet	Booklet with answer portion	Booklet with answer portion	Computer, 5 h max	Computer, 6 h max	Computer, 6 h max
Penalty for guessing	Right minus wrong	None	None	None	None	None
Passing score	350/book	1,600	Pass/fail	Pass/fail	Pass/fail	Pass/fail

[a]The framework for this table was inspired by the work of Matassarin-Jacobs[1] in her article, "The nursing licensure process and the NCLEX-RN."

reports to state boards and nursing programs.[21] Passing the NCLEX-RN on the first attempt is the ultimate goal for students and nursing educators. The pass-rate data for NCLEX-RN first-time test takers are a measure of both student achievement and nursing program success. The annual NCLEX-RN pass rates have been used by the Boards of Registered Nursing as one of the benchmarks for nursing program accreditation. Each jurisdiction sets the minimum pass rate standard for nursing program accreditation. Nursing programs that do not meet the minimum pass rate standard on the licensure examination are at risk for closure by their respective board.[25]

Qualifications for NCLEX-RN Candidacy

To take the NCLEX-RN, a candidate must submit verification of graduation or completion and eligibility for graduation from a state-approved registered nursing program. Foreign-educated candidates must show verification of graduation from a comparable US state-approved RN program and certification of oral and written English competence. An NCLEX-RN candidate must also submit a self-report regarding all felony convictions, plea agreements, misdemeanor convictions, chemical dependencies, and any functional ability deficits that requires accommodation to perform essential nursing functions. Local, state, and/or federal background checks may supplement self-reporting.[26]

The Nurse Licensure Compact

In 2000, a "multistate nurse licensure model," called the Nurse Licensure Compact (NLC), was enacted.[27] The purpose was to create a system allowing "mutual recognition" of a single state license in multiple states. To participate in NLC, the state must "enact legislation or regulation authorizing the NLC. States entering the compact also adopt administrative rules and regulations for implementation of the compact."[27]

Summary

Nursing licensure has evolved from haphazard methods of training, examination, and registration requirements to a sophisticated system of education verification and technological testing (Table 3). Nursing has been on the forefront of innovative strategies and techniques to ensure the protection and safety of the public and to efficiently and effectively produce nurses who provide a high standard of care.

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