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PREVIEW

ENTRY LEVEL COMPETENCE OF NURSES BY TYPE OF PROGRAM

By

Peggy L. Hawkins

A DISSERTATION

Presented to the Faculty of

The Graduate college at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Interdepartmental Area of

Major: Administration, Curriculum and Instruction

(Educational Leadership and Higher Education)

Under the Supervision of Professor Sheldon Stick

Lincoln, Nebraska

May, 2000

UMI Number: 9967373

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DISSERTATION TITLE
Entry Level Competence of Nurses by

Type of Program

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GRADUATE COLLEGE
UNIVERSITY OF NEBRASKA

**ENTRY LEVEL COMPETENCE OF NURSES BY TYPE OF PROGRAM IN
ONE MIDWESTERN STATE**

Peggy L. Jensen Hawkins, Ph.D.

University of Nebraska, 2000

Advisor: Sheldon L. Stick

Controversy has existed among nurses and nurse educators since the inception of associate degree education regarding which type of nursing education should be the accepted standard preparation for entry into nursing practice. The purpose of this descriptive study was to determine whether nursing education program type had an effect on entry level competence. Competence was measured by the pass rate on the National Council Licensure Examination for Registered Nurses (NCLEX-RN®). NCLEX-RN® is a high-stakes, psychometrically sound and legally defensible examination that all state boards of nursing use to measure entry level competence.

Pass rate data from all nursing graduates in one Midwestern state for a five-year period were analyzed. The scores of graduates from associate degree, diploma and baccalaureate programs were compared to determine whether there were significant differences in pass rates. All data were reported in the aggregate only. No identifying information was associated with individual schools and every effort was extended to guarantee anonymity of schools.

Permission to use aggregate data was obtained from the State Board of Nursing of the state under study. The data were reported as *number passed* and *number failed* for each school. These nominal data required the use of the chi square for statistical purposes. The chi square test for independence determined that there were significant

differences among the three types of programs ($X^2 = 23.521$, $df = 2$, $\rho = .000061334$). Associate degree programs and the diploma program had higher than expected pass rates. The baccalaureate programs had a lower than expected pass rate. The chi square test for Goodness of Fit determined that the Midwestern state under study did not differ significantly from the rest of the nation ($X^2 = 1.353$, $df = 1$, 3983 , $\rho = 0.245$). The pass rate for all programs in the state during the five-year period of study was 88.5%. During the same period of time the national pass rate was 87.9%. Recommendations for further study included determining causal factors for the difference in initial competence and determining whether a difference in continued competence exists in graduates from the three types of programs.

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ACKNOWLEDGEMENTS

I wish to express sincere appreciation to the faculty at the University of Nebraska for developing the distributive program in educational administration for doctoral students. The availability of courses via distance education has enabled me to realize a life long dream. I also would like to thank College of Saint Mary for the assistance and support during my pursuit of doctoral study. Others who were instrumental to my efforts include Jane Kenyon, Catherine Caffrey, Mary McClury, Cara VanDam, Sara Finney of the Nebraska Evaluation and Research Center (NEAR), the nursing faculty of College of Saint Mary, Sheila Exstrom and members of the Nebraska Board of Nursing. Finally, I acknowledge the love and support I received from my husband, Jim, and my children, Tom, Kristi and Jonathan. My family is the wind beneath my wings.

PREVIEW

CHAPTER ONE

Introduction

Statement of the Problem

Controversy exists within the nursing profession concerning entry level nursing educational requirements for licensure as a registered nurse. Lords (1999) described this controversy.

Of the nation's roughly 2.5 million registered nurses, about 65 per cent are graduates of associate-degree programs. For (these graduates), the two-year degree is an inexpensive route to the same license that graduates of four-year programs are eligible for. But officials in associate-degree programs are angered by what they see as attempts to cut off such a path. They accuse their counterparts at four-year institutions of trying to create two classes within the ranks of registered nurses, by labeling all graduates of two-year programs "technical" or "junior" nurses, while calling baccalaureate graduates – who make up about 35 per cent of the nation's registered nurses – "professionals." (p. A55)

Lords (1999) stated that this issue of entry into practice

has been a source of turmoil within the nursing community for more than four decades. In 1952, a doctoral candidate at Teachers College of Columbia University, detailed how two-year nursing programs could benefit the nation and help end a nursing shortage that lingered years after World War II. Mildred L. Montag's dissertation led to the creation of associate-degree programs at seven community colleges around the nation.

Proponents of baccalaureate as entry into practice believe that the RN licensure should be eligible only to those graduates of four-year educational programs. Proponents of associate and diploma education believe that safe, competent practitioners of nursing can be educated in two- or three-year programs of study and should continue to be eligible for RN licensure. (A55-56)

Lords (1999) reported there has been no research or data to support the notion holders of baccalaureate degrees were more competent registered nurses than associate degree graduates.

The closest thing to an objective measure is the profession's standardized entrance exam, the National Council Licensure Examination for Registered Nurses (NCLEX-RN®). That measure has not been flattering to graduates of four-year programs, who routinely perform worse on the exam than two-year graduates do. In 1998, for example, 85 per cent of two-year graduates passed the test, compared with 84 per cent of the four-year graduates, according to the National Council of State Boards of Nursing. (A55)

Because graduates of all three programs (diploma, associate and baccalaureate) must pass the same test for licensure, this study was conducted to determine whether program type significantly impacted entry-level competence, as measured by pass rates among the three educational systems within one Midwestern state. The licensing examination has established legal defensibility and is valid and reliable for testing entry-level competence (Schmidt, Yocum & White, 1998; National Council of State Boards of Nursing, 1995; National Council of State Boards of Nursing, 1991).

Purpose of the Study

The purpose of the study was to determine whether type of program had an effect on entry level nursing competence. Pass rate scores on the national licensure exam were used to measure nursing competence for nurses.

Context of the Problem

Prior to the founding of the first nursing school in 1872, nursing was learned through apprenticeships. Early nursing schools were hospital based single diploma-granting institutions. Nursing education within institutions of higher education began

in the early part of the 20th Century. For many years hospital based and institutional nursing education co-existed. During the 1950s, at a time of nurse shortages and community college proliferation, associate degree nursing education was initiated. Graduates of all three varieties of nursing education programs became eligible for the same state licensure, and all graduates continued to take the same nationally administered examination of entry-level competence.

The authority to make decisions regarding nursing regulation has historically occurred at the state level throughout the nation. Each state has had a board of nursing to regulate nursing practice and nursing education. The purpose of boards has been to protect the safety of the public. Nursing education has been regulated to ensure that graduates have been competent to give care safely to the public. To be eligible to practice nursing, a person must have graduated from a state approved school of nursing and have passed a national, high-stakes licensing exam (NCLEX-RN®). Identifying nursing program characteristics associated with high pass rates can provide vital information for boards involved in rule promulgation.

Research Questions

1. Is there a significant difference in pass rates among types of nursing programs within one Midwestern state?
2. Is there a significant difference in pass rates between one Midwestern state and the nation?

Delimitations

The scope of the study was limited to the past five years of data from one Midwestern state's schools of nursing. The time period for study was July 1994

through June 1999. The five-year period reflected a long enough time to capture trends within the state, allowed for an adjustment period if any school made a major curriculum change and included the same dependent measurement of competence. In April of 1994 the NCLEX-RN[®] underwent a major change in administration from paper-and-pencil to computerized, adaptive testing; however, during the period of data collection for the study the examination development remained in the same format. A passing standard change was instituted in April of 1998 that affected all candidates simultaneously.

Only first-time writers of the NCLEX-RN[®] were studied. First-time writers were used because the potential for inclusion of multiple examination results from a single candidate may have skewed results. It was assumed that first-time writers best reflected the initial competence ability of new graduates.

Limitations:

The ability to generalize results on the basis of this study was limited. Because the population for the study comes from one Midwestern state's schools of nursing, generalizing to other geographic areas was not appropriate.

The statistical test of significance used was the chi square which has associated limitations. The chi square test has been based on theories of probability that have potential for error. The level of measurement used in the calculation of the test for significance was nominal in nature. Nominal data were limited to frequency of pass scores and frequency of fail scores. The chi square test for significance has been identified as non-parametric. Non-parametric tests are less powerful than parametric tests of significance (Polit & Hungler, 1995).

The state under study had only one diploma school of nursing. Aggregate scores for the diploma cell of the contingency table further limited the study. Although adequate numbers of graduates were obtained for analysis, the scores represent one school.

Significance of the Study

Controversy exists concerning what the entry-level educational requirement should be for nurses. In view of this controversy, it was important to establish whether different nursing education programs produce different pass rates. The Pew Center for the Health Professions summarized the need to study the issue.

The legal authority to provide and be reimbursed for health care services is tied to state statutes generally referred to as practice acts, which establish professional 'scopes of practice.' These practice acts, often different from state to state, are the source of considerable tension among the professions; the resulting 'turf battles' clog legislative agendas across the country. . . . These battles are costly and time-consuming for the professions and for the state legislators involved. The more critical problem, however, is the decision-making process itself which is distorted by campaign contributions, lobbying efforts and political power struggles. In this environment, practice act decisions may not be based on evidence regarding quality of care and the potential impact on health care costs and access. Such decisions (regarding who can competently provide what types of care) demand a more empirical foundation and a less political venue. (Finocchio, et al, 1998, on-line)

Wall (1993) stated that success on licensure examinations has become increasingly important as a learning outcome index. Boards of nursing can benefit from the information derived from this study as they set policy and promulgate rules for regulating nursing education. Such benefits include providing empirical data for decision-making regarding regulation of nursing education and a summarization of the literature related to measurement of initial nursing competence.

List of Terms

Competence

The National Council of State Boards of Nursing defined competence as “the application of the knowledge and the interpersonal, decision-making and psychomotor skills expected for the nurse’s practice role, within the context of public health, welfare and safety” (NCSBN, 1996, on-line). Consumers’ perception of competence in nursing was studied by Mann, et al, (1999). Competence was identified as “the possession of knowledge, attitudes and skills necessary to meet a certain standard of practice” (p.8).

NCLEX-RN®

This acronym represents the National Council Licensure Examination for Registered Nurses in the Computerized Adaptive Testing format. It is a high stakes examination for entry level competence that must meet the standards of being *legally defensible* and *psychometrically sound*.

Associate Degree

Associate degree education is generally two years in duration. At the completion of the program of study the graduate receives an Associate of Science Degree in Nursing, abbreviated ASN or ADN.

Baccalaureate Degree

Baccalaureate degree education generally comprises four years of study. At the completion of the program, the graduate receives a Baccalaureate of Science Degree in Nursing (BSN).

Diploma

Diploma education, in general, takes three years to complete. It is hospital-based and exists outside typical higher education institutions. Diplomas currently are granted in approximately 70 schools in the United States.

Professional Nursing

This term is derived from statutory language and for purposes of this study refers to the scope of practice for registered nurses.

Professional School of Nursing

This term also is derived from statutory language and refers to those schools of nursing whose graduates are eligible for the registered nurse examination.

Scope of Practice

This term refers to the statutory privileges and limitations of a license.

PREVIEW

CHAPTER TWO

A Review of Literature

Historical Perspective

Background

Nursing education historically was obtained by apprenticeship. Some of the people engaged in caring for the ill before 1900 were “women of ill repute” (Chitty, 1997). Women without resources were recruited from the streets to assist in providing health care. Some of those women were formerly prostitutes and alcoholics. Others involved in caring for the ill in the 19th Century were women in religious orders. Nursing care was focused on basic needs of individuals such as nutrition, cleanliness and comfort measures. Education for both groups of women was limited or non-existent.

Florence Nightingale opened the first formal school of nursing at St. Thomas Hospital, London, in 1860 (Chitty, 1997). In the United States, the first school opened in 1872 at the New England Hospital for Women and Children. It required one year of study/apprenticeship. The first graduate, Linda Richards, is described as the first “trained” nurse (Ellis, 1995).

Schools of nursing at the turn of the century were quartered in hospitals and were single diploma granting institutions. “In 1880, there were 15; by 1900, 432; by 1909, 1105 hospital-based schools” (Kelly, 1992, p. 27). The first baccalaureate program was established in 1909 at the University of Minnesota under the auspices of the School of Medicine. The program of study was similar to the three-year diploma program structure (Chitty, 1997). In 1919 seven more programs were developed

within institutions of higher education. Growth in number of degree programs was slow due to the proliferation of diploma education and due to “reluctance of universities to accept nursing as an academic discipline” (Chitty, 1997, p. 38). The baccalaureate programs were not as well attended as the diploma schools, but slowly universities and colleges added nursing programs to their curricula (Ellis & Hartley, 1995; Kelly, 1992). Ellis stated the reason for the slow growth of baccalaureate education.

Although the development of baccalaureate education for nurses may not seem like a major step. . . it was not until 1920 that the 19th Amendment to the Constitution of the United States granted women the right to vote. Many individuals considered nursing to be a less than desirable occupation, vocational in its orientation, overshadowed by militaristic and technical aspects, and confined to women. A liberal education, scholarship, and knowledge were thought to be incompatible with the female personality and possibly posed problems for marriage later. The nursing curriculum, with its emphasis on performance of skills rather than the philosophical and theoretical approaches used in the humanities, was not well accepted by universities. Opposition to collegiate education for nurses also came from physicians who argued that nurses would be “overtrained.” (p. 59)

Despite these obstacles to the development and proliferation of nursing education, continual growth was dictated by society’s need for the discipline.

During World War II, the U.S. faced a desperate need for more nurses. This need led to the establishment of a one-year course of study called *practical nursing*. The graduates were expected to be well enough educated to assist registered nurses. Originally the intent was that practical nurses would be a temporary educational product for the duration of the war years. However, even in peace-time practical nurses continued to fill a need, and programs for practical level nursing education

continued to proliferate (Chitty, 1997). Ellis (1995) stated that society had a critical need for people who had some nursing skills, “but, more importantly, who could be prepared quickly” (p. 51).

The success of the practical schools of nursing was followed by the establishment of a new educational program, conceptualized in 1952, the two-year associate degree program for professional nursing. The curriculum was developed with the assumption associate degree graduates could be professional nurses who would work at the bedside in direct care of clients who were diagnosed with commonly occurring ailments with predictable outcomes. Courses required in baccalaureate programs, such as Management and Community Health, were not included in associate program curricula because of time constraints.

These associate programs emerged during the 1950s, when there was an insurgence into the workforce by women, a growth of the community college concept and a nationwide nursing shortage. Associate degree nursing programs flourished because of the disadvantages of the other two types of programs, cost, setting and length of study. The graduates of associate degree programs were eligible for licensure as Registered Nurses according to state requirements. These graduates took the same licensing examination as diploma and baccalaureate program graduates, because the curricula met the same state statutes for licensure (Chitty, 1997; Catalano, 1996; Kelly 1992). One state, North Dakota, made a change in regulations in 1987 that differentiated educational requirements. All other jurisdictions have not stipulated statutory or regulatory differences among the types of nursing education (Ellis & Hartley, 1995).