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ENTRY-LEVEL COMPETENCIES NEEDED BY BSNs
IN ACUTE HEALTHCARE AGENCIES IN TENNESSEE
IN THE NEXT TEN YEARS

A Dissertation
Presented to
the Faculty of the Department of Educational
Leadership and Policy Analysis
East Tennessee State University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Marjorie S. King
December 1998

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APPROVAL

This is to certify that the Graduate Committee of
Marjorie S. King
met on the
11th day of November, 1998.

The committee read and examined her dissertation, supervised her defense of it in an oral examination, and decided to recommend that her study be submitted to the Graduate Council, in partial fulfillment of the requirements for the degree of Doctor of Education.


Chair, Graduate Committee







Signed on behalf of
the Graduate Council


Dean, School of Graduate
Studies

ABSTRACT

ENTRY-LEVEL COMPETENCIES NEEDED BY BSNs
IN ACUTE HEALTHCARE AGENCIES IN TENNESSEE
IN THE NEXT TEN YEARS

by

Marjorie S. King

The research focused on the identification of entry-level competencies needed by Bachelor of Science in Nursing (BSN) graduates who will begin employment in acute healthcare agencies in the next 10 years in Tennessee. The purpose of the study was to gain increased awareness of the competencies needed by graduates of BSN programs in Tennessee in order to meet the demands of the acute healthcare agencies, in light of present and anticipated changes in the healthcare delivery system. The opinions of nurse educators, nurse administrators, recently graduated BSNs, and experienced BSN graduates were solicited to assess congruency of perceptions. In addition, the subjects were requested to indicate whether they had observed the competencies in new BSN graduates, rank-order the importance of the entry-level competencies, list any additional entry-level competencies needed by BSN graduates, and list competencies no longer necessary in BSN programs.

A list of 24 entry-level competencies was developed based on a comprehensive review of the literature, a review of the instrument by nursing experts, and a pilot study. Eighty-two nurse administrators, 96 experienced BSNs, 23 recent BSN graduates, 117 faculty members, and 11 deans/directors returned the questionnaire, for an overall return rate of 58%.

The study found that there was a statistically significant difference in the perceptions of the importance of the entry-level competencies needed by BSN graduates between nurses in acute healthcare agencies and faculty in BSN programs. Also there was a weak (Kendall's tau $b < 0.3$) but significant relationship across 20 entry-level competencies between the ratings of the importance of the competency and the observation of the competency. The relationship was inverse; that is, the higher the importance, the lower the observation, or vice versa, between the rating of three competencies and the observation of these competencies.

Technical skills and legal/ethical standards were the two most frequently mentioned additional competencies needed by BSNs. Care plans, bed-making, and bed-bathing were identified as competencies that remain part of current BSN education but are no longer necessary.

The research is significant as it contributes to the body of knowledge relevant to entry-level competencies needed by BSNs who will begin employment in acute healthcare agencies in the next 10 years in Tennessee. Hopefully, it will serve as a catalyst for the establishment of joint meetings and partnerships between service personnel and nursing faculty in BSN programs to discuss future curriculum planning and design.

DEDICATION

This dissertation is dedicated to my loving and caring family: my stepfather, Lon Colborn; son, Jeffrey; daughter, Victoria; son, Mark; and daughter, Leslie; also in memory of my mother and father, Edwin and Eleanor Shannon.

ACKNOWLEDGMENTS

The completion of this dissertation has been made possible by the assistance, guidance and support of many individuals. First, I want to express my sincere and deepest appreciation to my Graduate Advisory Committee Chair, Dr. Terrence Tollefson and members, Dr. Patricia Smith, Dr. Donn Gresso and Dr. Russ West. Second, I want to thank the College of Nursing Research Committee for funding to assist me in this endeavor. Also, I want to thank Dr. Nancy Moody, Dr. Susan McCabe, Dr. Lee Glenn and Shane O'Hare for their support throughout the process. Third, I want to thank my dear friend, Sandra Perry, for her commitment to type the dissertation, perfectly. Finally, I want to thank all of the nurses who participated in the pilot study and the nursing administrators, BSN graduates, deans/directors/faculty in the BSN programs in Tennessee who took time to complete the surveys and return them to me. Without their cooperation, this dissertation would have been impossible to complete.

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CHAPTER 1

Introduction

The American healthcare system is undergoing dramatic changes: restructuring of delivery systems, financial reimbursement, capitation, managed care, downsizing, mergers and closures of beds in acute care hospitals (American Nurses Association, 1996). As a result of these changes, health care is rapidly moving into outpatient settings, community and home. This trend is responsible for reorganization of care in hospitals, redesign of staffing patterns, an increase in patient acuity and shorter length of stay in the acute healthcare setting (Aiken & Salmon, 1994; American Hospital Association, 1991; Joel, 1994; Manuel & Sorenson, 1995; Wunderlich, Sloan, & Davis, 1996). In addition, Gordon (1995) and Harpaz (1997) write the federal government is paying money to hospitals to train fewer residents. Fewer residents, increased patient acuity, redesign of staffing patterns and shorter length of stay in acute healthcare facilities will severely impact nursing practice in these facilities and the competencies needed by Bachelor of Science in Nursing (BSN) degree graduates.

Eubanks (1992) asserts "schools focus on nursing tasks and hospitals increasingly expect registered nurses (RNs) to think critically, work in interdisciplinary teams, resolve conflicts and communicate" (p. 49). Del Bueno (1994) stated her concerns that new graduates did not exhibit critical

thinking abilities that are so desperately needed to prioritize patient care needs. Aiken and Salman's research (1994) demonstrates that inpatient mortality rates are lowered when organizations have a common set of characteristics: greater nursing autonomy and control over the practice setting.

The literature attests to the fact that the American healthcare system is changing (Coile, 1994; Makely, 1994; Lindeman, 1995; Valanis, 1994). It also documents that new skills or competencies are needed by professional nurses (Aiken, 1995; American Association of Colleges of Nursing, American Organization of Nurse Executives, National Association for Associate Degree Nursing, 1995; American Association of Colleges of Nursing, 1997; American Nurses Association, 1996; Bartels, 1997; Canavan, 1996; Lindeman, 1995; Porte-Gendron, Simpson, Carlson, & Kamp, 1997). However, specific competencies have not been identified for the BSN graduates who will enter careers in acute healthcare agencies.

This study examines the entry-level competencies needed by BSN graduates to pursue careers in acute healthcare agencies in the next 10 years in Tennessee. The analysis focuses on the following factors: major health-care workforce reports, professional associations and nursing workforce reform, nursing research and the future of organizations and the workforce (Appendix A).

Statement of the Problem

The problem addressed by this study is the lack of a clear understanding of the entry-level competencies needed by BSN graduates who will begin careers in acute healthcare agencies in Tennessee in the next decade. Furthermore, it is not known that nurse educators and nurses, in acute healthcare agencies, agree on the entry-level competencies needed by BSN graduates to pursue careers in these agencies.

Purpose of the Study

The purposes of this study are: (1) to identify the degrees of importance of entry-level competencies needed by BSN graduates in the next 10 years in Tennessee, as perceived by nurses in acute healthcare agencies; (2) to identify the degrees of importance of entry-level competencies needed by BSN graduates in the next 10 years in Tennessee, as perceived by faculty in the schools/colleges of nursing in Tennessee; (3) to identify the demographic characteristics of faculty and nurses in acute healthcare agencies in Tennessee and relate such characteristics to their opinions on the degrees of importance of entry-level competencies needed by BSN graduates; (4) to identify the degree to which the entry-level competency has been observed in new BSN graduates by nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee; (5) to identify any additional competencies needed for BSN graduates, as perceived by nurses in acute healthcare and

faculty in the schools/colleges of nursing in Tennessee, that have not been listed in the questionnaire; and (6) to identify competencies which nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee believe remain part of current BSN education but are no longer necessary. In order to achieve the above six purposes, it was necessary to develop a questionnaire comprised of suggested entry-level competencies BSNs should possess to begin practicing in acute healthcare agencies. The competencies were then mailed to nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee for ranking of the degrees of importance. If significant differences were found between the degrees of importance of the competencies by faculty and the degrees of importance of the competencies by the nurses in acute healthcare agencies, then revisions in nursing curricula should be considered. The reasons for the revisions are discussed in the Significance of the Problem section.

Research Questions

In this study the following questions were addressed:

1. What are the degrees reported to which the entry-level competencies have been observed in new BSN graduates by nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee?

2. What are the additional competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee, as perceived by nurses in acute healthcare agencies and faculty in BSN programs?

3. What are the competencies that remain part of current BSN education but are no longer necessary as perceived by nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee?

4. What are the entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee and their degrees of importance, as perceived by nurses in acute healthcare agencies and faculty in BSN programs in Tennessee?

5. Are there differences in the perceived degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee according to gender, age, years of nursing education experience, years of clinical nursing experience, current position held, and levels of education between nurses in acute healthcare agencies and faculty in BSN programs?

Significance of the Problem

A comparative analysis of the perceptions of nurses in acute healthcare agencies and faculty in BSN programs regarding the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute

healthcare agencies, in the next 10 years in Tennessee, provides valuable information at both the local and state levels.

As the trend toward managed care increases, the skills needed by professional nurses will continue to change (American Nurses Association, 1996). In their report, The Twenty-First Century Nurse (1996), the Alliance for Health Reform clearly identifies these skills as "managing health risks, detecting and diagnosing common symptoms, understanding the health needs of an entire population, working well as part of a team of several professionals and communicating with patients and the broader community" (p. 12).

Coile (1994) wrote: "the hospital of the future will have a new business--ambulatory care. By the year 2000, the average American hospital will derive 50% of its revenues from ambulatory care" (p. 11). He asserted further that "over the past 10 years, ambulatory care demand has risen by more than 200%, while inpatient days have fallen by more than 20%" (p. 11). Sherer (1993) declared: "Sources predict that hospitals in the 21st century will be technology centers. Workers will have to be multiskilled to be able to provide care across a variety of settings" (p. 30).

In today's healthcare arena, orientation has been reduced, staff mix has changed, agencies are looking for experienced nurses and decreasing the employment of new graduates (Manuel & Sorensen, 1995). For these reasons, new

graduates must have the skills needed to meet the actual practice-oriented expectations of the service administrators who employ them. If colleges of nursing do not react to these needs, then it is possible that the employing agencies will. In fact, there already is a movement in our nation to change regulations regarding the practice of nursing (Whittaker & Minich, 1995) to allow for institutional licensure (Himali, 1995). Institutional licensure would replace licensing of individual nurses with that of the healthcare agency that employs them. This could have disastrous effects on the nursing profession and nursing education. Therefore it is critical that nursing education understand the expectations of service and reduce the discrepancy between the expectations of the graduates by the faculty and the actual practice-oriented expectations of the service administrators who employ them (Bartels, 1997; Canavan, 1996; Elliott, 1987; Wilkinson, 1996). Therefore, research is needed to determine these needs.

Although a number of states--Texas (1993), Colorado (1997), Mississippi (1997), and South Carolina (1997)--and the American Association of Colleges of Nursing (AACN) (1997)--have identified needed competencies of BSN graduates, there are insufficient data about the specific competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee. Adequate data and research on the entry-level competencies needed by BSNs to begin practice in acute healthcare

agencies in the next 10 years in Tennessee represents essential information for administrators of the BSN nursing programs, acute healthcare agencies, and those involved in nursing workforce planning in Tennessee.

Limitations

1. The study findings are limited to the state of Tennessee and, therefore, generalizations may not be made to other states.

2. The study findings are limited to acute healthcare agencies and BSN programs, therefore the findings may not be generalized to other types of healthcare agencies or nursing programs.

3. The findings are limited to the perceptions of nurses in acute healthcare agencies and faculty in BSN programs who participated in the study.

4. The study is limited by the response rate of the nurses in acute healthcare agencies and faculty in BSN programs.

Definitions

Baccalaureate of Science in Nursing (BSN)

The baccalaureate program in professional nursing is offered by a senior college or university and prepares nurses to function as generalists within the healthcare system. It provides students with the opportunity to acquire a knowledge of theory and competence in the

practice of nursing and an appreciation of professional nursing's historical, present, and potential impact on society. (Council of Baccalaureate and Higher Degree Programs, 1987, p. 1)

Competency

Competency is the individual's application of the knowledge, skills, values and judgment identified by his/her profession in a particular job or practice (Yocom, 1997).

Acute Healthcare Agency

Acute healthcare agency refers to a hospital environment whose primary function is the care of patients with acute illnesses (American Nurses Association, 1996).

Diploma Education

An educational program provided by hospitals to individuals preparing to seek licensure as a Registered Nurse (RN). Graduates receive a diploma in nursing (Ellis & Hartley, 1992).

Associate Degree in Nursing

An educational program provided mainly by a junior or community college to prepare individuals to seek licensure as a Registered Nurse (RN). The graduate is prepared to work as a technician, under supervision, performing routine nursing skills for patients (Ellis & Hartley, 1992).

Master's Degree in Nursing

An educational program to provide additional preparation for nurses to function in educational settings, advanced practice as a nurse practitioner or clinical

specialist, or management and administrator roles (Ellis & Hartley, 1992).

Doctoral Degree in Nursing

An educational program to provide advanced study for nurses to assume leadership roles in education, i.e., deans, faculty, and nursing research (Ellis & Hartley, 1992).

Nurse Administrator

A nurse who participates in management of the healthcare agency by directing and coordinating the work of nursing and other personnel. There are two levels of nurse administrators: a nurse executive, who is responsible for organized nursing services and the organization as a whole, and a nurse manager, who is responsible for a designated area within the agency (American Nurses Association, 1995).

Most Experienced BSN Nurse

The BSN nurse with the longest length of employment in the healthcare agency (Merriam-Webster's Collegiate Dictionary, 1993).

Most Recent BSN Graduate

The BSN nurse with the shortest length of employment in the healthcare agency (Ellis & Hartley, 1992).

Overview

The study was designed to identify the entry-level competencies and to rank-order those competencies needed in the next 10 years by BSNs who will begin careers in acute healthcare agencies in Tennessee. Chapter 2 contains a

review of the literature on theory, research and practice related to the relevant factors impacting on the study. Chapter 3 presents a discussion of the research design, hypotheses, population, instrument, data collection and data analysis that were used in this study. Chapter 4 contains the analysis of the data and explanation of the findings; Chapter 5 provides a summary of the findings, conclusions and recommendations. Additional information appears in the appendices.

CHAPTER 2

Literature Review

Introduction

A review of the literature indicates healthcare is undergoing dramatic changes. These changes have been brought about by a need to reduce costs of healthcare, market competition, consumer expectations, a focus on quality, information technology, mergers and managed care (Coile, 1994). The question is: How do these changes impact the competencies that will be needed by BSNs who begin careers in acute healthcare agencies in Tennessee within the next 10 years? First, literature relating to the future of organizations and the workforce in the United States is discussed. Second, major healthcare workforce reports are examined. Next, the impact of professional associations and nursing workforce reform is described and the forces that are expected to affect educational institutions is addressed. Finally, nursing research is examined to determine present competencies and the need to revise curriculum to address entry-level competencies needed in the acute healthcare agencies within the next 10 years.

The Future of Organizations and The Workforce

In Toffler's (1981) The Third Wave, the author predicted that organizations of the future would be "flatter

and would consist of smaller components" (p. 263). The new workers, he added, would accept responsibility, understand how their work dovetailed with that of others, meet in "adhocratic" groups, and be involved in change related to the organization and the product it produced (p. 384).

Naisbitt (1984) discussed the vertical to horizontal shift in industry along with hierarchies to networking.

Hierarchies were no longer effective, he wrote, because they created barriers to the exchange of information and ideas so valuable to the growth of an organization. Networking provided a cross-disciplinary approach to people and issues (p. 219). Peters' (1987) Prescriptions for a World Turned

Upside Down included: involving everyone in everything;

deferring to the front line; empowering people; evaluating people on their love of change; and launching a customer

revolution. According to Hammer and Champy (1993), in the reengineered corporation, the organizational structures had

changed. Organizational structures had become flatter and work was performed by teams. Teams were formed around

processes/projects. Finally, in Bridges' (1994) article,

"The End of the Job," he declared work would no longer be packaged the way it had been in the past. The traditional

job, he wrote, was no longer suited to the employee or the work that has to be done. Tomorrow's employee will be

self-directed, independent, and self-managed. Leaders will provide access to vital information needed by these

employees to make operational decisions in support of the

organization's vision and values. The employees will also receive training related to business and financial issues, thus promoting their sense of ownership (p. 74).

Major Healthcare Workforce Reports

In December 1987, the United States Department of Health and Human Services' secretary Otis R. Bowen established the Secretary's Commission on Nursing (SCON). One of the charges given to this advisory panel was to develop recommendations on how the public and private sectors can work together to implement solutions for enhancing the supply of RNs in the future. Two of the recommendations that pertain to this study are: (1) "Employers of nurses should ensure active nurse participation in the governance, administration and management of their organizations;" and (2) "Employers of nurses, as well as the medical profession, should recognize the appropriate clinical decision making authority of nurses in relationship to other health care professionals, foster communication and collaboration among the health care team" (p. vii).

A step taken in response to the SCON recommendations was the establishment of the Commission on the National Nursing Shortage (CONNS). The CONNS made 10 recommendations for action by the nursing community, the public and private sectors, local and state governments, and the federal government. One of their recommendations entailed a charge

to the Advisory Council on Nurses' Education to provide for a monitoring function to include modification of the composition of the workforce, expansion of the knowledge, skills, and ability of nurses for quality nursing practice and participation in the interdisciplinary approach to the delivery of health services (p. 60).

In the report, Healthy America: Practitioners for 2005 (Pew Health Professions Commission, 1991), experts predicted the following trends in healthcare for the next century: (1) efficiency and effectiveness through coordinated care; (2) diversity and aging in the population; and (3) consumer empowerment. Four trends forecasted in healthcare delivery systems were: (1) the spread of the corporate paradigm in health care; (2) shift from inpatient to outpatient care; (3) emphasis on primary care; and (4) a shortage of primary care providers and a growing need for nurses. The goal of the Pew Commission was to define the set of competencies required of practitioners in 2005. Two of the 17 competencies identified were the ability to care for the communities' health and participate in coordinated care. In addition, schools were challenged to make careful assessments of the competencies that would be demanded of their graduates. Three of the seven recommendations offered for consideration were: (1) schools need to focus on the disciplines, courses, and experiences necessary to ensure competencies that will be required in 2005; (2) educational and clinical experiences should model integrated healthcare

teams; and (3) process and outcome evaluations should become commonplace.

In the December 1995 Report of the Taskforce on Health Care Workforce Regulation, the Pew Health Profession Commission lists 10 recommendations for future regulation of the health care workforce. The taskforce envisioned a state system that would be standardized, accountable to the public, flexible, and promote the public's health, safety, and welfare (p. VIII). In Recommendation 3, the task force asserted that states should base practice-acts on demonstrated initial and continuing competence. This process must allow and expect different professions to share overlapping scopes of practice. States should explore pathways to allow all professionals to provide services to the full extent of their current knowledge, training, experience, and skills" (p. IX). The third report (1995) of the Pew Health Professions Commission made recommendations for all allied health care professionals to survive in the ever-evolving and changing healthcare arena. The Commission's recommendations for nursing included the need to (1) distinguish between the practice responsibilities of the various levels in nursing, (2) reduce the number of associate degree and 3-year hospital diploma programs, (3) develop models of collaboration with integrated health systems, and (4) emphasize the clinical management role of nursing.

Makely (1994) described how multiskilled and cross-trained workers will proliferate in the future. One of the major problems, she wrote, with the traditional, specialized workforce is that it is "divisive based on the identification of differences." Furthermore, she added that healthcare is dealing with the same patient and suggested that cross-trained/multi-skilled workers are one way to reduce the fragmentation of care the patient receives (p. 54).

As the trend toward managed care increases, the skills needed by professional nurses change. The report, The Twenty-First Century Nurse (1996) clearly identified these skills as "managing health risks, detecting and diagnosing common symptoms, understanding the health needs of an entire population, working well as part of a team of several professionals, and communicating with patients and the broader community" (p. 12).

The Joint Commission on Accreditation of Healthcare Organization's (JCAHO) handbook, 1996 Comprehensive Accreditation Manual for Hospitals, defined competence or competency as "capacity equal to requirements," as in "the competence of a medical or professional staff member" (p. 709). In the Management of Human Resources (HR.) section of the manual, HR. Standard 3 states: "The leaders ensure that the competence of all staff members is assessed, maintained, demonstrated, and improved continually" and HR. Standard 4.3 alleges: "The hospital collects aggregate data on competence

patterns and trends to identify and respond to the staff's learning needs" (p. 384).

Professional Associations and
Nursing Workforce Reform

Since 1952, the National League of Nursing (NLN) has been the national accrediting body for nursing programs.

According to NLN:

specialized accreditation provides for the maintenance and enhancement of educational quality, provides a basic assurance of program improvements, and contributes to the improvement of nursing practice. The achievement of accreditation in nursing indicates to the general public and the educational community that a nursing program has clear and appropriate educational mission and goals and is providing the conditions under which its missions and goals can be fulfilled. Emphasis is placed upon the total nursing program and its compliance with predetermined criteria. (Criteria and Guidelines for the Evaluation of Baccalaureate and Higher Degree Programs in Nursing, 1991, p. v)

Changes in the 1991 NLN requirements for accreditation precipitated the need for a transition in program curricula to a competency and outcome-based focus. The new emphasis included performance based assessments, interactive learning

strategies, and it was more student centered and outcome oriented.

In that same year (1991) the American Nurses Association (ANA) and NLN published a landmark document, Nursing's Agenda for Health Care Reform. It states, "America's nurses have long supported our nation's efforts to create a health care system that assures access, quality, and services at affordable costs. The ANA calls for a basic 'core' of essential health care services to be available to everyone; a restructured health care system that will focus on the consumers and their health, with services to be delivered in familiar, convenient sites, such as school, workplaces and homes; and a shift from the predominant focus on illness and cure to an orientation toward wellness and care" (Nursing's Agenda for Health Care Reform, 1991).

Parallel to Nursing's Agenda for Health Care Reform is the NLN document, Vision for Nursing Education, 1993. It asserts:

. . . the changes needed in the nursing educational system to provide adequate numbers of appropriately prepared nurses for Nursing's Vision for Health Care Reform . . . A community based system calls on nurse educators to realign their accountability away from institutions and agencies towards populations. In so doing the imperative of assuring that the graduates of

their programs can deliver culturally competent care to the diverse populations who constitute those communities becomes more apparent; as does the responsibility to recruit and retain individuals from diverse racial, cultural and ethnic populations. (p. 7)

The most significant reform involves process . . . the changed relationship to information on the part of the faculty, student and health care consumer. The focus of education turns from content to: (a) critical thinking, (b) skills in collaboration, (c) shared decision-making, (d) social epidemiological viewpoint and (e) analyses and interventions at the systems and aggregate levels. (p. 13)

In the 20th century, nurses with different levels of education have entered the practice arena with the same credentials: RN. Also, they have used the same job descriptions in many service agencies. The American Organization of Nurse Executive's book, Current Issues and Perspectives on Differentiated Practice, describes several approaches to the concept of differentiated practice. Differentiated practice is referred to in the text as a "philosophy that focuses on the structuring of roles, and functions of nurses according to education, experience, and competence" (p. 1). "The differentiation of nursing practice roles provides the nursing profession with a vehicle to position all nursing professionals within the care delivery

system in a manner that is responsive to the health and well-being of patients, as well as the well-being of the profession itself" (p. 3).

Canavan (1996) wrote, "in a survey commissioned by the American Nurses Association's Department of Labor Relations and Workplace Advocacy, nurse executives representing acute, home, extended, and managed care indicated--among other things--that more RNs are working in outpatient settings. When listing the type of skills they felt were important for the next generation of nurses to possess, the respondents highlighted self-reliance, independence, flexibility, decision-making skills, familiarity with a systems-thinking approach to health care, patient education skills, critical-thinking skills, just to name a few. For those nurses remaining in a traditional acute care setting, the respondents stated development of strong technical skills would be especially important" (p. 1).

In the late 1960s the American Nurses Association published standards for the profession. However, the interpretation of the standards has varied from institution to institution. The reason for this is that the standards are generic in nature and apply to all registered nurses engaged in clinical practice, regardless of the setting and educational preparation (American Nurses Association, 1991).

Nursing Research and Related Subject Matters

A review of nursing research and related subject matters pointed to the changing environment in health care today and the need for the nursing profession to rethink, clarify, and refocus professional roles and the competencies needed for survival (Lindeman, 1995; Valanis, 1994; Aiken & Salman, 1994). The common thread of competencies includes critical thinking, interpersonal and relationship skills, care management, life-long learning, provision of cost-effective, quality patient care and leadership skills. Aiken and Salman's research (1994) demonstrated that inpatient mortality rates were lowered when organizations had a common set of characteristics--greater nursing autonomy and control over the practice setting. In the December, 1992, article, "Survey Shows Gaps in Competencies of New RNs," the findings indicate "schools focus on nursing tasks and hospitals increasingly expect RNs to think critically, work in interdisciplinary teams, resolve conflicts and communicate" (p. 49). Del Bueno (1994) expressed her concerns that new graduates did not exhibit critical thinking abilities that were desperately needed to prioritize patient care needs. This was based upon an assessment she conducted in 1993 on 452 new graduates employed by 14 hospitals. These articles support the need for continued studies to identify competencies in the 21st century and the effectiveness of the educational programs. The reason for this is in today's healthcare arena,

orientation has been reduced, many agencies are reducing full-time registered nurse positions, and staff-mix has changed. So the question is what has nursing done in the past to address issues of competencies and the needs of our service agencies?

Brandt, Hastie, and Schumann (1967) compared the on-the-job performance of the 1962 and 1963 graduates with the University of Washington School of Nursing objectives. The graduates and their immediate supervisors considered the performance of the University graduates to have been more capable than was the case for most other nurses. "A comparison of the mean scores for the five school of nursing objectives showed a relatively equal attainment of the objectives by the graduates" (p. 60). The objective "growth of the nurse as a person and responsibility to herself" was rated the highest by all graduates and supervisors and "assumption of responsibility as a citizen" was the lowest. The content area identified as "responsibility on-the-job" was rated the highest by supervisors and graduates and "motor skills" was rated the lowest.

According to Nelson (1978), nursing graduates and their immediate supervisors perceived the nursing graduates' competence in technical, communicative, and administrative skills differently. (The study involved baccalaureate, associate degree, and diploma nursing program graduates.) One of the profound findings was that immediate supervisors perceived the baccalaureate graduates to have the highest

competency rating in all three skills, but the baccalaureate graduates themselves did not perceive their competency skills at the same levels. Schroeder, Cantor and Kurth (1981) tested 146 new graduates (baccalaureate, diploma, and associate degree) with less than 6 months' experience. Conclusions were: (1) Students were unable to apply principles and concepts but could perform technical procedures, (2) educational programs needed to discuss with agency personnel the skills needed by new graduates, and (3) the new graduates had difficulty in evaluating the care given to patients. When clinical objectives were reviewed from 64 NLN accredited baccalaureate nursing programs by Field, Gallman, Nicholson, and Dreher (1984), the findings revealed that objectives were written at all levels of three domains--cognitive, affective, and psychomotor--but not all schools had objectives at all three levels. Also, the largest number of objectives was written for the cognitive domain and the smallest number for the psychomotor domain.

In a study conducted by De Back and Mentkowski (1986), baccalaureate degree nurses were found to exhibit more nursing competencies in their clinical practice than were associate degree or diploma nurses. Nursing competencies such as ego strength, coaching, and reflective thinking were demonstrated more often by the baccalaureate degree nurses than by the other two types of nurses. This study concluded that the baccalaureate nurses will be the most efficient and effective practitioners after acquiring clinical experience.

Primm (1986) as Project Director, *Defining and Differentiating ADN and BSN Competencies*, wrote: "Nursing Service has stated that graduates are not prepared to function in the 'real world' of practice. Nursing Education responds that graduates are prepared to practice in both the present and future but service does not use graduates in the roles for which they are prepared" (p. 135). In response to this dilemma, a grant was awarded to this project. The competencies agreed to by the project participants were organized in three components: management of care, communication, and provision of direct care.

Stull (1986) as Project Director, *Continuing Education for Consensus on Entry Skills*, was designated to bring a consensus between nursing education and nursing service on the expectations of entry level competencies to be exhibited by the new BSN graduate. The competency statements that were approved by the participants were divided into four clinical nursing practice areas: teaching and collaboration, planning and evaluation, interpersonal relations/ communication, leadership and critical care. The results of both of these projects have major implications for nursing education, staff development, and joint practice ventures.

The findings from a study conducted by Stull and Katz (1986) revealed some surprising data. Participants from both nursing service and nursing education rated proficiency in interpersonal relations/communications, planning and evaluation skills as the ideal expectations of new BSN

graduates. They indicated their belief that new graduates would demonstrate less proficiency in leadership and critical care skills than would more experienced nurses. But, there was no agreement between nursing service and nursing education regarding how well the new BSN graduates are actually performing in the clinical arena. Nursing educators perceived they were preparing the student nurse to function at a high skill level as a graduate nurse, but what this study revealed was service administrators perceived the new graduate as possessing very limited skill levels.

Bottoms (1988) reported that baccalaureate graduates displayed more liberal education competencies in their personal lives than associate degree nurses. The items used to measure competencies were knowledge, communication, values, collaboration, citizenship, and integration.

Vanetzian and Higgins (1990) compared new candidates' self-assessments of their clinical performance and the assessments of the new graduates' clinical performance by their supervisors. The graduates and supervisors were surveyed twice--at 6 months and 1 year beyond graduation. The findings revealed that the new graduates rated themselves higher on all six dimensions than did their supervisors at 6 months and that the supervisors rated all graduates higher on the six dimensions at 1 year than at 6 months. Both graduates and supervisors rated graduates' performance of professional development the highest,

interpersonal skills/communication next, and teaching/collaboration last.

Additionally, with the increase in acuity of hospitalized patients the skill base and scope of practice of the BSN might need to broaden to include critical care competencies (Aiken, 1990; Alspach, 1990; Anderson, 1993; Oermann, 1991, 1994; Oermann, Dunn, Munro, & Monahan, 1992; Oermann & Provenzano, 1992; and Porte-Gendron, Simpson, Carlson, & Vande Kamp, 1997). Alspach (1990) predicted hospitals in the future will be critical care centers and that all direct care will be provided by highly skilled technical nurses. In the qualitative study conducted by Porte-Gendron et al. (1997) a competency list was developed for baccalaureate nursing curricula and hospital inservice programs to integrate new graduates into critical care. This study illustrated the fact that critical care competencies have changed over the past 10 years. Thus, nurse educators and nurse managers need to evaluate the competencies currently taught in their programs and consider modifications in curricula, if needed.

In a joint meeting between East Tennessee State University (ETSU) College of Nursing faculty and the nursing administrators from the Upper East Tennessee region (1994), the nursing administrators remarked that attention must be given to these competencies: problem solving, ability to determine what course of care is needed, critical thinking, resource management, case management, ability to manage and

coordinate different disciplines, leadership skills, risk-taking, possess a knowledge base necessary to educate patients to provide home health care, be generalists before specialization, excellent communication skills, committed to lifelong learning, and be strong negotiators. One of the recommendations that they made to the College of Nursing, East Tennessee State University, Johnson City, Tennessee, was to focus on BSN preparation.

Edwards, Dean of the College of Nursing at ETSU (1996), addressed curricular changes needed to meet contemporary needs. She said nursing education in the past had taught its students to function primarily in hospital settings, but that now the community had to become the classroom. She also expressed the need for a curriculum that is reorganized to focus on wellness as well as illness, leadership and management, communication skills, health care economics and the basics of physiologic and psychologic patient care. She said, "Community-based learning is critical to the ability of students to function as they give care in various settings 'without walls'" (p. 9).

Conclusion

The literature attests to the fact that the American health care system is changing. It also documents that new skills or competencies are needed by professional nurses. However, it is not clear that the skills and competencies described in the literature are the ones that will be needed

by entry-level BSNs in the next 10 years in acute healthcare agencies in Tennessee. This study will attempt to identify and rank order as to their importance, those entry-level competencies needed by BSN graduates to begin careers in acute healthcare agencies within the next 10 years in Tennessee.

CHAPTER 3

Research Methodology

Introduction

This chapter includes a description of the study design, hypotheses, selection of the population, sample size, instrument development, data collection, and data analysis. The method used to conduct the pilot study is explained.

Description of Study

This study involves what is known as a causal-comparative research design in which two groups are compared with one another, in order to generate hypotheses regarding relationships between variables. The design is nonexperimental in nature (Powers & Knapp, 1990). A questionnaire was designed to collect the perceptions of nurses in acute healthcare agencies and faculty in BSN programs in Tennessee regarding the importance of entry-level competencies needed by BSN graduates in the next 10 years. Descriptive and inferential statistics were used to answer the research questions and to test the hypotheses. In cases in which differences were found between the nurses in acute healthcare agencies and faculty, recommendations were made to the administrative faculty in the schools of nursing in Tennessee, for the revision of baccalaureate educational program outcomes. Approval for the study was

given by the East Tennessee State University Institutional Review Board, January 17, 1998.

Hypotheses

H₀1. There are no differences between nurses in acute healthcare agencies and faculty in BSN programs in their perceptions about the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee.

H₀2. There are no differences between the male and female respondents in acute healthcare agencies and faculty in BSN programs in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee.

H₀3. There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs who are over 43 years of age, and the nurses and faculty who are 43 years of age and under in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee. (Demographic information from the American Nurses Association, November, 1996 reports the average age of today's registered nurse is 43 years.)

H₀4. There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years and 30 years or more of

nursing education experience and the nurses and faculty with 0-9 years, 10-19 years, 20-29 years and 30 years or less of nursing education experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

H₀5. There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years and 30 years or more of clinical nursing experience and nurses and faculty with 0-9 years, 10-19 years, 20-29 years and 30 years or less of clinical nursing experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

H₀6. There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs, by position held and experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee. The positions that are analyzed include nurse administrators; most experienced, acute care BSN nurses; most recent, BSN graduates in acute care; and faculty in BSN programs.

H₀7. There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs, with degrees higher than master's degrees and those nurses and

faculty who have master's degrees or less, in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

Population

The population of the study consisted of nurse administrators, most experienced BSN nurses, and recent BSN graduates in acute healthcare agencies in Tennessee, as well as all faculty members who teach in BSN programs in Tennessee. A decision was made to survey the entire population in an effort to address the opinions of BSN competencies across the entire state of Tennessee and to increase the survey response rate.

The directory of licensed hospitals in Tennessee (1997) lists 134 licensed hospitals in the state of Tennessee. A list of nurse administrators employed in the 134 licensed hospitals in Tennessee is included in the 1996 Tennessee Hospital Association Directory. The Tennessee Healthcare Consortium (1995) lists 15 BSN nursing programs in Tennessee. The number of faculty teaching in the BSN programs was obtained by soliciting the assistance of the Dean/Director of each BSN program. A total of 332 usable questionnaires were received from 82 nurse administrators, 96 most experienced BSN nurses, 23 most recent BSN graduates, 117 faculty members, and 11 deans/directors, for an overall return rate of 58.3%.

Instrument

A two-part questionnaire (Appendix E) was used to collect data to test the hypotheses and answer the research questions. The instrument was organized into two sections. In the first section, the respondents were asked to, anonymously, provide demographic information that included gender, year of birth, years of nursing education, and clinical nursing experience, current position, and levels of education. The second section asked the respondents to: (1) rate the perceived importance of each entry-level competency from not important to very important, (2) indicate whether they had observed the competency in new BSN graduates from never to always, (3) rank-order their perceived top three entry-level competencies, (4) list any additional entry-level competencies needed, and (5) list any competencies in which they believed most BSNs are currently trained but that are no longer necessary.

In an effort to identify entry-level competencies for BSNs, numerous studies and documents were reviewed. These studies and documents revealed 10 major categories of entry-level competencies for BSNs: (1) *Critical Thinking* (AACN, 1997; NLN, 1993; Texas, 1993; Mississippi, 1997; South Carolina, 1997; Bartels, 1997); (2) *Communication* (Stull, 1986; Texas, 1993; Colorado, 1997, Mississippi, 1997, AACN, 1997; South Carolina, 1997; NLN, 1993; AACN/AONE/NOADN, 1995; ANA, 1996; Pew Health Profession Commission, 1991; Bartels, 1997); (3) *Care Management Skills*

(Primm, 1986; NLN, 1993; Texas, 1993; AACN/AONE/NOADN, 1995; Pew Health Profession Commission, 1991; Mississippi, 1997; AACN, 1997; South Carolina, 1997); (4) *Leadership Skills* (Primm, 1986; Stull, 1986; NLN, 1993; Texas, 1993; AACN/AONE/NOADN, 1995; Mississippi, 1997; AACN, 1997; South Carolina, 1997; Pew Health Profession Commission, 1995); (5) *Therapeutic Nursing Care* (Primm, 1986; Stull, 1986; Texas, 1993; Colorado, 1997; AACN/AONE/NOADN, 1995; ANA, 1996; Mississippi, 1997; AACN, 1997; South Carolina, 1997); (6) *Client Teacher Skills* (Primm, 1986; Stull, 1986; Texas, 1993; Colorado, 1997; AACN/AONE/NOADN, 1995; Mississippi, 1997; AACN, 1997); (7) *Community Focus Skills* (NLN, 1993; Texas, 1993; ANA, 1996; Pew Health Profession Commission, 1991; AACN, 1997; South Carolina, 1997); (8) *Investigative Skills* (Primm, 1986; NLN, 1993; Texas, 1993; Colorado, 1997; AACN/AONE/NOADN, 1995; Mississippi, 1997; AACN, 1997; Pew Health Profession Commission, 1995); (9) *Interpersonal Skills* (Stull, 1986; NLN, 1993; Texas, 1993; Colorado, 1997; AACN/AONE/NOADN, 1995; ANA, 1996; Pew Health Profession Commission, 1991; Mississippi, 1997; AACN, 1997; South Carolina, 1997); (10) *Commitment to Life-long Learning* (Colorado, 1997; Pew Health Profession Commission, 1991; AACN, 1997; South Carolina, 1997; Bartels, 1997).

An entry-level competency matrix was constructed based on these studies and documents (Appendix B). This comprehensive review supported content validity of the questionnaire which was subsequently constructed (Appendix

E). Another assessment of content validity included a review of the questionnaire by the nursing graduate advisory committee member and a nursing faculty member. A further assessment of content validity was conducted during the pilot study. The pilot study included the questionnaire that contained the 22-item competency scale, and the respondents were also asked to list any additional entry-level competencies that they felt were needed for BSN graduates and to list any competencies in which they believed most BSNs are currently trained but that are no longer necessary.

The entry-level competencies were rated on a 5-point Likert-type scale as 1 (not important), 2 (somewhat important), 3 (neutral), 4 (important), and 5 (extremely important). The subjects were also asked to indicate whether they had observed the competency in new BSN graduates on a 5-point Likert-type scale as 1 (never), 2 (infrequently), 3 (frequently), 4 (very frequently), and 5 (always).

A pilot study was conducted in February, 1998. Between February 2, 1998 and February 27, 1998 the questionnaire was completed by 28 BSN nurses employed in three acute healthcare facilities in Johnson City and Kingsport, Tennessee.

A nurse administrator in each of the three acute healthcare facilities was contacted by telephone to request their participation in the project. The nurse administrator was requested to seek BSN graduates as volunteers to complete the questionnaire. A cover letter (Appendix D) and

33 questionnaires were either personally delivered or mailed to the agencies and the individual nurses. The nurses were asked to provide information requested on the questionnaire, offer suggestions for revision, and indicate the length of time needed to fill out the questionnaire. Response rate was calculated as 85%, the time required to complete the questionnaire, by the 28 respondents, ranged from 10 minutes to 45 minutes, with a mean of 20 minutes.

The entry-level competencies on the questionnaire had been validated by a review of the literature. The pilot study further supported the entry-level competencies identified on the instrument as needed by BSN graduates. Only three respondents identified the entry-level competency, "Apply research to nursing practice" as "not important" and one respondent marked "promote healthy lifestyles for individuals, families and communities as "not important."

In addition the pilot study sought to determine "any additional entry-level competencies that were needed by BSN graduates," "any competencies in which you believe most BSNs currently are trained but that are no longer needed," and if any part of the questionnaire was unclear or difficult to understand.

Six respondents stated there was a need for more technical skills such as I.V. administration. Five respondents expressed their concern that "it is unnecessary to learn the development of lengthy care plans when most are

either computerized or not used. More critical pathways are used today." In response to the question, "Was any part of the questionnaire unclear or difficult to understand?" three respondents reported, "yes." One respondent wrote, "Took a little rereading to understand what you wanted by 'Observed;'" another respondent expressed the need to move "Observed" directions closer to the directions for indicating the importance of the entry-level competencies; the third respondent stated, "Perhaps consider rewording of question #3 under 'Demographic Information.'" The remaining 24 respondents wrote "no" or left the response section blank.

As a result of the pilot study, question #3 under "Demographic Information" section was revised, the directions for the questionnaire were reworded to provide increased clarity and understanding, and two additional entry-level competencies were added: (1) implement care using critical pathways, and (2) administer I.V. medications safely to assigned patients.

On March 17, 1998 the revised questionnaire was sent to the IRB for approval (Appendix E).

Data Collection

Between March 16, 1998 and March 30, 1998, the Dean/Director of each BSN program (15) in Tennessee received a telephone call from the researcher explaining the study and requesting their participation in the project. The

Dean/Director was requested to identify the number of faculty members in the BSN program at their institution. Then on March 30, 1998 a cover letter describing the study and its purpose (Appendix D) and the questionnaires were placed in packets for the subjects. Stamped pre-addressed envelopes were enclosed to facilitate the return of the instruments. These packets were sent to the Dean/Director for distribution.

On April 4, 1998, the nurse administrator in each of the 134 acute healthcare agencies in Tennessee was contacted by letter requesting their participation in the study (Appendix D). The letter explained the purpose and provided an overview of the study. The nurse administrator was requested to obtain two nurse volunteers: one, the most recent BSN graduate (between 3 months and 5 years of nursing experience), and the most experienced BSN graduate (between 5 years and 25+ years of nursing experience) to complete the questionnaire. The cover letters and questionnaires were placed in packets for the subjects. Stamped preaddressed envelopes were enclosed to facilitate the return of the instruments. These packets were sent to the nurse administrator for distribution.

On May 9, 1998 a second mailing was initiated to nurse administrators in acute healthcare agencies who had not responded or who had not returned all questionnaires. The cover letter to the nurse administrator emphasized the

importance of the study and the critical need for feedback (Appendix D) (Fowler, 1993).

As the questionnaires were returned, data were entered into the computer using Microsoft Access, Version 2.0.

Data Analysis

Both descriptive and inferential statistics were used to analyze the data. Descriptive statistics included frequency distributions, measures of central tendency (mean, median, mode), variability (range, variance, standard deviation) and measures of relationship (Powers & Knapp, 1990). Inferential statistics were used to test the hypotheses. Each hypothesis was first written as a null hypothesis. The null hypothesis stated that there were no differences between two descriptive statistics compared in the study. Then, the researcher conducted a test of statistical significance to determine whether each null hypothesis could be rejected. If the null hypothesis was rejected, the researcher concluded there was a difference between population means (Gall, Borg, & Gall, 1996). The level of significance was set at 0.05.

The first part of the questionnaire elicited demographic information from the subjects. The questions pertained to: gender, year of birth, years as a faculty member in a BSN program, years of clinical nursing experience, current position held and levels of nursing education completed. The relationship between selected

demographic variables and the perceptions of the subjects were critical to the findings in this study.

In the second part of the questionnaire, the respondents circled on each of the Likert-type scales their ratings of the importance of the competency and the degree to which they had observed the competency in new BSN graduates. These data were first entered in the Microsoft Access, Version 2.0 computer program, then transferred to the Statistical Package for the Social Sciences (SPSS).

The method of inferential statistical analyses for this study included the parametric procedure: t -test for two independent group means and the procedure known as analysis of variance (ANOVA). The 0.05 level was set to determine significance. Question #25 asks the respondents to rank the three most important entry-level competencies for BSNs. The data from this question were rank-ordered and the findings summarized in Chapter 4.

Question #26: "Please list any additional entry-level competencies that you feel are needed for BSN graduates that have not been listed in the questionnaire" and Question #27: "Please list any competencies which you believe remain part of current BSN education but are no longer necessary," are summarized in Chapter 4.

Summary

The research methodology, data collection procedures and data analysis were discussed in this chapter. The

instrument was developed by the researcher based on a comprehensive review of the literature and the findings from a pilot study in February, 1998.

The population consisted of all nurse administrators, most experienced BSN nurses and recent BSN graduates in acute healthcare agencies in Tennessee, as well as all Deans/Directors and faculty members who teach in BSN programs in Tennessee. Both descriptive and inferential statistics were used to analyze the data. The analysis of the data and explanation of the findings are presented in Chapter 4.

CHAPTER 4

Analysis of Data

This chapter provides an analysis of the data that were compiled for this study. The study examined the entry-level competencies needed by BSN graduates to pursue careers in acute healthcare agencies in the next 10 years in Tennessee. In addition, the study explored the extent to which (1) the entry-level competencies have been observed in new BSN graduates, (2) additional competencies needed by BSNs to begin practice in acute healthcare agencies, and (3) the competencies that remain part of current BSN education but are no longer necessary. The chapter will report a discussion related to (a) the response rate, (b) demographic information, (c) analysis of the research questions, (d) analysis of hypothesis testing, (e) rank-order of entry-level competencies, and (f) summary of the findings.

Response Rate

A total of 402 subjects from 134 acute healthcare agencies were sent questionnaires and a cover letter requesting their participation in the study. Three nurse administrators responded indicating there were no BSNs employed at their agencies, and they were excluded from the analysis. Of the 393 nurses in acute healthcare agencies surveyed, 211 returned questionnaires with an overall return rate of 53.4%. Two were excluded from the analysis because

they either indicated student status or did not complete the questionnaire. Six subjects returned questionnaires after the analysis was completed and were excluded from the analysis.

Each of the Deans/Directors in the 15 schools in Tennessee offering a BSN degree was contacted to obtain consent for faculty participation. Administrators of 14 BSN programs provided consent for faculty participation in the study. Based on the selection criteria provided to the Deans/Directors, 193 questionnaires and a cover letter addressed to the Dean/Director and each faculty member were sent to the administrators for distribution to faculty. Of the 193 educators surveyed, 130 returned questionnaires with an overall return rate of 67.3%. Two subjects returned questionnaires after the data analysis was completed and were excluded from the analysis.

Eighty-five different position titles were identified by the respondents. The researcher reviewed these titles and placed the practicing nurses and educators into four mutually exclusive categories: (1) faculty in BSN programs, (2) Deans/Directors in a BSN program, (3) BSN in acute healthcare agencies, and (4) nurse administrator.

A total of 586 nurses were surveyed, of whom 342 returned questionnaires for an overall return rate of 58.3%. Table 1 summarizes the overall return rate for nurses in acute healthcare agencies and faculty in BSN programs.

Table 1

Overall Return Rate

Title	Questionnaires Sent	Total Returned	% Returned	Excluded from Analysis	% Usable
Nursing Faculty	179	119	66.4	2	65.3
Deans/ Directors	14	11	78.5	0	78.5
Nurses in Acute Healthcare Agencies	262	130	49.6	8	46.5
Nurse Adminis- trators	<u>131</u>	<u>82</u>	<u>62.5</u>	<u>0</u>	<u>62.5</u>
Total	586	342	58.3	10	56.6

Data from the questionnaires that provided usable responses were imported from Microsoft Access Version 2.0 and read into SPSS for Windows Release 8.0.0 (22 Dec. 1997). Both descriptive and inferential statistics were used to analyze the data. Descriptive statistics included frequency distributions, measures of central tendency (mean, median, mode), variability (range, variance, standard deviation) and measures of relationship (Powers & Knapp, 1990). Inferential statistics were used to test the hypotheses. Each hypothesis was first written as a null hypothesis. Each null hypothesis stated there were no statistically significant differences. The researcher conducted a test of statistical significance

to determine whether each null hypothesis could be rejected. If the null hypothesis was rejected, the researcher concluded there was a difference between population means (Gall, Borg, & Gall, 1996). The level of significance (alpha level) was set at $p < 0.05$. The parametric procedures used were: t -tests, analysis of variance (ANOVA), and Post Hoc Multiple Comparison Tests (Least Squares Difference Method). Kendall's tau b was calculated to investigate the relationship between the importance of a competency and the observation of that competency in practice.

Demographic Information

A total of 586 subjects were identified for participation in the study from the 134 acute healthcare agencies and the 15 BSN programs in Tennessee. The demographic data obtained from all subjects included, where applicable, the following variables: (1) gender, (2) year of birth, (3) years as a faculty member in a BSN program, (4) years of clinical nursing experience, (5) current position held, and (6) levels of nursing education completed.

Total return rates from 332 respondents indicated that 20 or 6% were male and 310 or 93.9% were female. Two questionnaires were returned unmarked.

The range in age reported by subjects was from 22 years to 69 years. The average age of BSN nurses in the acute healthcare agencies was 42.26 years and the average age of

BSN educators was 49.35 years. Eight questionnaires were returned unmarked.

The number of years experience as a faculty member in a BSN program was tabulated for both practicing nurses and educator respondents. The average number of years experience as a faculty member in a BSN program reported by nurses in acute healthcare agencies was 0.44 years. One hundred eighty-six or 56% of the 204 practicing nurses reported zero (0) years as a faculty member in a BSN program. The average number of years experience as a faculty member in a BSN program reported by 128 BSN educators was 10.32 years.

Two hundred and four (204) or 51.9% of the practicing nurses from the acute healthcare agencies had an average of 17.49 years of clinical nursing experience and 128 or 66.3% of the educators from BSN programs had an average of 19.67 years of clinical nursing experience.

One hundred twenty-two (122) or 59.8% of the nurses in the acute healthcare agencies held BSN degrees: 82 or 40.1% of the nurses in acute healthcare agencies were nurse administrators; 117 or 91.4% of the educators in BSN programs were faculty members; and 11 or 8.5% of the educators were Deans/Directors.

In terms of the highest level of nursing education completed, 51 or 15.4% of all respondents indicated they had an associate degree in nursing; 69 or 20.8% of all respondents indicated they had a diploma in nursing; 229 or 69% of all respondents indicated they had a BSN degree; 193

or 58.1% of all respondents indicated they had a master's degree and 53 or 16% of all respondents indicated they had a doctoral degree.

The primary areas of specialization related to the nurses in acute healthcare agencies and educators in the BSN programs by both master's degree and doctoral degree preparation are illustrated in Table 2 and Table 3, respectively.

Table 2

Primary Area of Specialization: Master's Degree

	Frequency	Percent
Administration/Management	47	24.3
Medical/Surgical	34	17.6
Primary Care	21	10.8
Critical Care	22	11.3
Mental Health	20	10.3
Nursing Education	19	9.8
Pediatrics	11	5.6
Other	75	38.8

In summary, the majority of the subjects in this survey were female. The educators tended to be older, have more years of clinical nursing experience and more years as a faculty member in a BSN program than nurses in acute

healthcare agencies. Also, the majority of the subjects held a BSN degree and were nurses in acute healthcare agencies. Administration/Management was identified more frequently as the primary area of specialization for the subjects with a master's degree. Education was identified as the primary area of specialization for the subjects with a doctoral degree preparation.

Table 3

Primary Area of Specialization: Doctorate Degree

	Frequency	Percent
Education	23	43.3
Research	15	28.3
Administration/Management	10	18.8
Clinical	6	11.3
Other	14	26.4

Analysis of the Research Questions

This study was concerned with five research questions. Only three of the five research questions were analyzed in this section. The remaining two research questions, Research Question 4 and Research Question 5, were analyzed in the hypotheses section. The research questions were:

Research Question 1: What are the degrees reported to which the entry-level competencies have been observed in new

BSN graduates by nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee?

For each of the 24 competencies, respondents were asked to "please indicate whether you think the competency is important for BSNs beginning their professional practice," and then, "please indicate the degree to which you have observed the competency in new BSN graduates." The entry-level competencies were rated on a 5-point Likert-type scale: 1 (not important), 2 (somewhat important), 3 (neutral), 4 (important), and 5 (extremely important). The subjects were also asked to indicate whether they had observed the competency in new BSN graduates on a 5-point Likert-type scale as: 1 (never), 2 (infrequently), 3 (frequently), 4 (very frequently), and 5 (always). Three hundred thirty-one (331) subjects responded to the question related to the importance of the competency. Two hundred twenty-six (68%) subjects responded to the question related to the observation of the competency in new BSN graduates.

Table 4 displays the mean and standard deviation (SD) of the degrees of importance and the degree to which the competency is observed in BSN graduates for each of the 24 competencies.

Using the bimodal (the distribution of means has two modes) distribution of means tabulated from the means of the 24 BSN competencies in the Importance column, a dividing line was drawn at the 4.39 mean. This criterion was used to construct the bar graphs presented in Figure 1 and Figure 2.

Table 4

Mean and Standard Deviation for Each of the 24 BSN
Competencies as to Degree of Importance and Frequency
Observed (Rating 1-5).

Competency	<u>Importance</u>			<u>Observation</u>		
	N	Mean	SD	N	Mean	SD
Q1. Use critical thinking to solve problems and to make decisions.	331	4.84	.40	226	3.07	.76
Q2. Establish and maintain a positive nurse/client relationship.	331	4.76	.48	225	3.72	.80
Q3. Establish and maintain positive relationships with other members of the healthcare team.	331	4.68	.53	225	3.34	.76
Q4. Apply knowledge of cultural diversity to client care.	331	4.14	.79	220	2.88	.76
Q5. Assume responsibility/accountability for client satisfaction.	331	4.43	.72	222	3.11	.89
Q6. Utilize concepts of cost-effective care.	329	4.21	.81	221	2.66	.88
Q7. Assume responsibility/accountability for client outcomes.	331	4.54	.67	224	3.00	.88

Table 4 (continued)

Competency	<u>Importance</u>			<u>Observation</u>		
	N	Mean	SD	N	Mean	SD
Q8. Coordinate the care of the client across settings in healthcare agency.	329	4.07	.87	221	2.65	.80
Q9. Use computer information systems.	331	4.08	.89	223	3.19	1.05
Q10. Delegate aspects of care to healthcare personnel.	331	4.22	.82	222	2.91	.95
Q11. Initiate referrals to appropriate departments and agencies.	329	4.12	.88	222	2.85	.95
Q12. Work within interdisciplinary teams.	331	4.44	.67	222	3.15	.89
Q13. Perform a comprehensive client assessment.	331	4.81	.52	225	3.57	.92
Q14. Develop and implement a plan of care.	331	4.61	.67	225	3.60	.89
Q15. Evaluate outcomes of client care.	331	4.63	.65	224	3.21	.99
Q16. Assess client learning needs.	331	4.57	.64	226	3.23	.97
Q17. Implement and evaluate teaching plans.	331	4.28	.80	223	3.00	.93

Table 4 (continued)

Competency	<u>Importance</u>			<u>Observation</u>		
	N	Mean	SD	N	Mean	SD
Q18. Promote healthy lifestyles for individuals, families and communities.	330	4.25	.80	219	3.06	.95
Q19. Apply research to nursing practice.	331	3.79	1.00	222	2.41	.94
Q20. Participate in quality improvement monitoring processes in the healthcare agency.	329	4.11	.83	220	2.65	.85
Q21. Involve family and/or significant others in decisions regarding client care.	330	4.56	.63	222	3.31	.85
Q22. Continue self-development in professional knowledge and skills.	330	4.66	.56	222	3.29	.89
Q23. Implement care using critical pathways.	328	3.98	.85	215	2.81	.98
Q24. Administer IV medications safely to assigned patients.	329	4.70	.70	220	3.64	1.00

The bar graph (Figure 2) clearly illustrates that the means for the observation of the lower-ranked competencies in the Importance column is fully separated from the means recorded for the observation of the higher-ranked

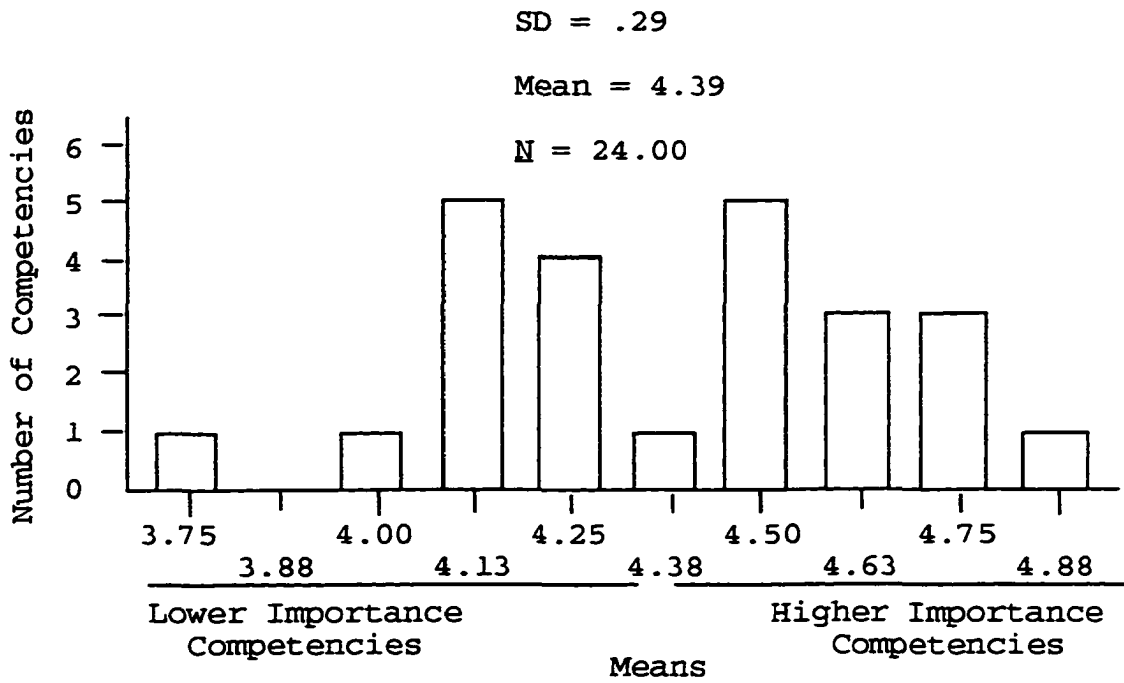


Figure 1. Means recorded from the 24 competencies in the Importance column.

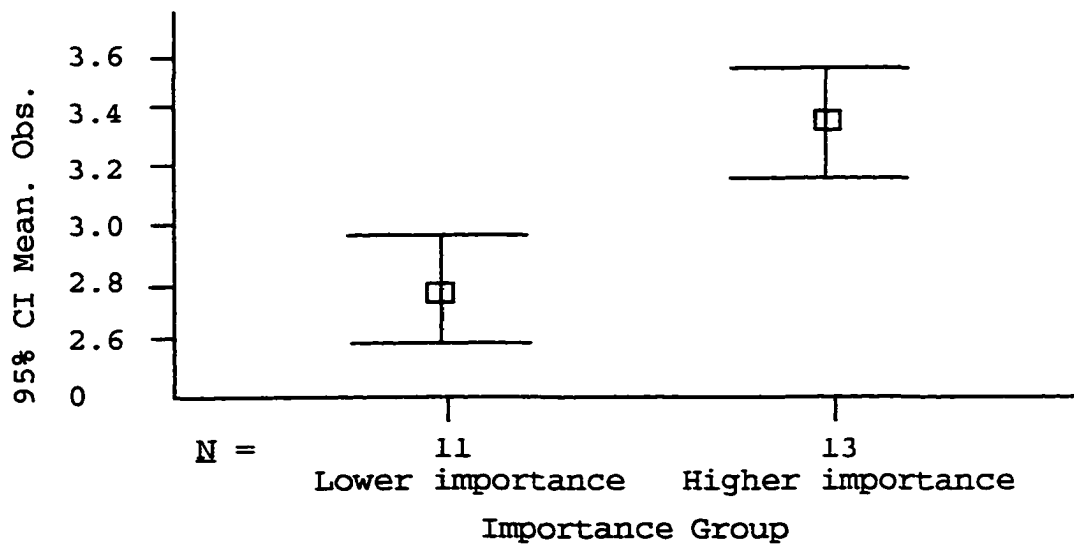


Figure 2. Means recorded from the 24 competencies in the Observation column and numbers of higher-ranked and lower-ranked competencies from the Importance column.

competencies in the Importance column, i.e., the confidence intervals do not overlap. There were 13 competencies in the higher-ranked Importance group and 11 competencies in the lower-ranked Importance group. This information is shown in Table 5.

There was a tendency for a subject who ranked a competency high in the Importance column also to rank the observation of the competency high in the Observation column. On the other hand, if a subject ranked a competency low in the Importance column, the subject tended to rank the competency low in the Observation column. There were three exceptions to this finding: Competency 1: use critical thinking to solve problems and to make decisions. The mean for the Importance column was 4.84 (high) and the mean for the Observation column was 3.07 (low). For Competency 7: assume responsibility/accountability for client outcomes, the mean for the Importance column was 4.54 (high) and 3.00 (low) in the Observation column. For Competency 9: use computer information systems, the mean for the Importance column was 4.08 (low) and 3.19 (high) for the Observation column.

As a supplemental analysis, Kendall's tau b was computed to indicate the magnitude of the relationship between the Importance and Observation ratings. As seen in Table 6, there was no relationship between an individual's rating of the importance of a competency and the rating of the observation of that competency for Competency 1: use

Table 5

Higher-ranked Competencies and Lower-ranked Competencies
from the Importance Column.

Higher-Ranked (N = 13)	Lower-Ranked (N = 11)
1. Use critical thinking to solve problems and to make decisions.	4. Apply knowledge of cultural diversity to client care.
2. Establish and maintain a positive nurse/client relationship.	6. Utilize concepts of cost-effective care.
3. Establish and maintain positive relationships with other members of the healthcare team.	8. Coordinate the care of the client across settings in healthcare agency.
5. Assume responsibility/accountability for client satisfaction.	9. Use computer information systems.
7. Assume responsibility/accountability for client outcomes.	10. Delegate aspects of care to healthcare personnel.
12. Work within inter-disciplinary teams.	11. Initiate referrals to appropriate departments and agencies.
13. Perform a comprehensive client assessment.	17. Implement and evaluate teaching plans.
14. Develop and implement a plan of care.	18. Promote healthy lifestyles for individuals, families and communities.
15. Evaluate outcomes of client care.	19. Apply research to nursing practice.
16. Assess client learning needs.	20. Participate in quality improvement monitoring processes in the healthcare agency.
	23. Implement care using critical pathways.

Table 5 (continued)

Higher-Ranked (N = 13)	Lower-Ranked (N = 11)
21. Involve family and/or significant others in decisions regarding client care.	
22. Continue self-development in professional knowledge and skills.	
24. Administer IV medications safely to assigned patients.	

critical thinking to solve problems and to make decisions; Competency 5: assume responsibility/accountability for client satisfaction; Competency 6: utilize concepts of cost-effective care; and Competency 10: delegate aspects of care to healthcare personnel. Table 6 illustrates a weak (Kendall's tau b Correlation Coefficient ≤ 0.3) but significant relationship across 20 entry-level competencies between the ratings of the importance of the competency and the observation of the competency.

In summary, the findings show that there was a tendency for the subject who ranked a competency high in the Importance column also to rank the observation of the competency high in the Observation column. If the subject ranked a competency low in the Importance column, the subject would rank the competency low in the Observation column. There were three exceptions to this finding: nurses

Table 6

Kendall's tau b: Relationship Between the Importance of Each Competency and the Observation of That Competency.

Competency	N	Kendall's tau b	Sig (2-tailed)
1.IMP/OBS Use critical thinking to solve problems and to make decisions.	226	.113	.071
2.IMP/OBS Establish and maintain a positive nurse/client relationship.	225	.244*	.000*
3.IMP/OBS Establish and maintain positive relationships with other members of the healthcare team.	225	.127*	.042*
4.IMP/OBS Apply knowledge of cultural diversity to client care.	220	.131*	.031*
5.IMP/OBS Assume responsibility/accountability for client satisfaction.	222	.082	.180
6.IMP/OBS Utilize concepts of cost-effective care.	221	.017	.779
7.IMP/OBS Assume responsibility/accountability for client outcomes.	224	.200*	.001*
8.IMP/OBS Coordinate the care of the client across settings in healthcare agency.	221	.220*	.000*

Table 6 (continued)

Competency	N	Kendall's tau b	Sig (2-tailed)
9.IMP/OBS Use computer information systems.	223	.185*	.001*
10.IMP/OBS Delegate aspects of care to healthcare personnel.	222	.013	.832
11.IMP/OBS Initiate referrals to appropriate departments and agencies.	221	.283*	.000*
12.IMP/OBS Work within interdisciplinary teams.	222	.170*	.005*
13.IMP/OBS Perform a comprehensive client assessment.	225	.228*	.000*
14.IMP/OBS Develop and implement a plan of care.	225	.149*	.014*
15.IMP/OBS Evaluate outcomes of client care.	224	.206*	.001*
16.IMP/OBS Assess client learning needs.	226	.250*	.001*
17.IMP/OBS Implement and evaluate teaching plans.	223	.208*	.000*
18.IMP/OBS Promote healthy lifestyles for individuals, families and communities.	219	.279*	.000*
19.IMP/OBS Apply research to nursing practice.	222	.257*	.000*
20.IMP/OBS Participate in quality improvement monitoring processes in the healthcare agency.	220	.162*	.007*

Table 6 (continued)

Competency	N	Kendall's tau b	Sig (2-tailed)
21.IMP/OBS Involve family and/or significant others in decisions regarding client care.	222	.272*	.000*
22.IMP/OBS Continue self-development in professional knowledge and skills.	222	.133*	.031*
23.IMP/OBS Implement care using critical pathways.	215	.259*	.000*
24.IMP/OBS Administer IV medications safely to assigned patients.	220	.151*	.013*

*Kendall's tau b (correlation coefficient)

< 0.3 (weak)

0.3 - 0.7 (moderate)

> 0.7 (strong)

in the acute healthcare agencies and faculty in the BSN programs rated Competency 1, use critical thinking to solve problems and to make decisions, high in importance but low in observation; Competency 7, assume responsibility/accountability for client outcomes, was rated high in importance and low in observation; and Competency 9, use computer information systems, was rated low in importance but high in observation.

Research Question 2: What are the additional competencies needed by BSNs to begin practice in acute

healthcare agencies in the next ten years in Tennessee, as perceived by nurses in acute healthcare agencies and faculty in BSN programs?

The question was answered by 165 or 49.6% subjects. Responses from 27 subjects were excluded from the analysis because the competencies stated were listed on the survey instrument. The content analysis of 203 usable responses listed by 138 subjects contained 33 themes. Table 7 presents frequency distributions and the percentage of the number of responses for each theme. Technical skills, legal/ethical standards, organization skills/priority setting and leadership skills were the most frequently mentioned additional competencies needed by the BSN graduate.

These 33 themes were embodied in the 10 major categories of entry-level competencies for BSNs described in the comprehensive literature review for this study. Table 8 lists the major category of the entry-level competencies and the 33 themes. The themes were consistent with the entry-level competencies for BSN graduates identified in the numerous studies, illustrated in Appendix B.

Research Question 3: What are the competencies that remain part of current BSN education but are no longer necessary as perceived by nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee?

Eighty-eight (26.5%) subjects responded to the open-ended question (#27) on the questionnaire. "Please list any

Table 7

Additional Competencies (N = 203 usable responses).

Theme	Frequency	Percent
Technical skills	43	21.1
Legal and ethical standards	19	9.3
Organizational skills/priority setting	19	9.3
Leadership skills	19	9.3
Ability to do patient care	10	5.0
Knowledge of managed care, diagnostic related groups (DRG)	9	4.4
Time management	8	4.0
Nursing theory and application	6	3.0
Pharmacology	6	3.0
Competency with documentation	5	2.5
Oral presentation skills	5	2.5
Written communication skills	5	2.5
Emergency care for patients	3	1.5
Spiritual aspects of care	3	1.5
Family/community assessment	3	1.5
Adapt to change/change agent	3	1.5
Conflict resolution skills	3	1.5
Management concepts from business perspective	3	1.5
Caring for multiple patients	3	1.5
Political skills	3	1.5
Stress Management	3	1.5

Table 7 (continued)

Theme	Frequency	Percent
Assertiveness	3	1.5
Safety aspects (universal precautions)	2	0.9
Math calculations	2	0.9
FTEs	2	0.9
Holistic Care	2	0.9
ACLS	2	0.9
Case Management	2	0.9
Medical diagnosis/medical terminology	2	0.9
Caring attitude	2	0.9
Apply concepts of psychiatric nursing to clients	1	0.5
O.R.	1	0.5
Professional organizations	1	<u>0.5</u>
Total	203	99.6

competencies which you believe remain part of current BSN education but are no longer necessary?" Forty subjects were excluded from the analysis: Eleven wrote "none" and the remaining 29 subjects responded by writing broad concepts and by not noting a definitive competency, e.g., "I believe BSN programs provide a comprehensive education. However, they do not teach one how to be a real nurse. It is not as glamorous as instructors portray it. I believe honesty and straight-forwardness could help future nurses in BSN programs;" and "good luck."

Table 8

Additional Competencies Needed by BSN Graduates Categorized
by Entry-Level Competencies

Major Category of Entry-level Competencies for BSN	Themes
1. Therapeutic Nursing Care	1a. emergency care for patients 1b. spiritual aspects of care 1c. safety aspects 1d. technical skills 1e. math calculations 1f. apply concepts of psychiatric nursing to clients 1g. ALCS 1h. holistic care 1i. nursing theories 1j. care for multiple patients 1k. patient care 1l. caring 1m. operating room 1n. medical diagnosis/medical terminology 1o. pharmacology
2. Case Management Skills	2a. knowledge of managed care 2b. DRGs 2c. health policy 2d. healthcare system 2e. case management
3. Communication	3a. documentation 3b. oral presentation skills 3c. written communication
4. Leadership Skills	4a. legal and ethical standards 4b. adapt to change/change agent 4c. FTEs 4d. time management 4e. management from a business perspective 4f. political skills 4g. assertiveness 4h. professional organizations 4i. organizational skills 4j. priority setting

The content analysis of the remaining 48 responses contained 13 themes. Table 9 displays the 13 themes, frequency distributions and percent of subjects' responses to these themes.

Table 9

Competencies No Longer Necessary in BSN Education as Perceived by Nurses in Acute Healthcare Agencies and Nurse Educators (N = 48 usable responses).

Theme	Frequency	Percent
Care Plans	13	27.0
Bed-making	8	17.0
Bed-bathing	7	15.0
Nursing theories	6	12.5
Nursing research	4	8.3
Skills over-stressed	3	6.2
Traction	1	2.0
Less paper work	1	2.0
Nursing diagnosis	1	2.0
Cultural diversity	1	2.0
EKG monitoring/IV therapy	1	2.0
Dosage calculation	1	2.0
Listening skills	1	2.0
Total	48	100.0

In summary, the three most frequently mentioned unnecessary skills were care plans, bed-making and bed-bathing, which account for 58% of the responses.

Analysis of Hypothesis Testing

Statistical hypothesis testing was required to allow the researcher to make objective decisions concerning the results of this study (Polit & Hungler, 1995). A parametric procedure for testing the hypotheses was used: *t*-tests for independent samples, the one-way analysis of variance (ANOVA), and Post Hoc Multiple Comparison Tests (Least Squares Difference Method).

Data from the questionnaires that provided usable responses were imported from Microsoft Access Version 2.0 and read into SPSS for Windows Release 8.0.0 (22 Dec. 1997). Each null hypothesis was statistically tested using a two-tailed test. The level of significance was set at $p < 0.05$.

Null Hypothesis 1: There are no differences between nurses in acute healthcare agencies and faculty in BSN programs in their perceptions about the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee.

As depicted in Table 10, the null hypothesis was rejected for 12 of the entry-level competencies. A significant difference was noted in the perceptions of importance of the 24 entry-level competencies between nurses

Table 10

Means, Standard Deviation, and t-test for Equality of Means
for the Importance of the 24 Competencies: Faculty and
Nurses in Acute Healthcare Agencies

Competency		N	Mean	SD	t	Sig.																																																															
Q1.IMP Use critical thinking to solve problems and to make decisions.	Faculty	128	4.88	.35	1.200	.231																																																															
	Acute	203	4.82	.43			Q2.IMP Establish and maintain a positive nurse/client relationship.	Faculty	128	4.82	.39	2.115	.035*	Acute	203	4.71	.52	Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	128	4.66	.52	-.346	.730	Acute	203	4.68	.54	Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	128	4.31	.74	3.205	.001*	Acute	203	4.03	.81	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	128	4.18	.76	-5.130	.000*	Acute	203	4.58	.65	Q6.IMP Utilize concepts of cost-effective care.	Faculty	128	4.13	.75	-1.417	.158	Acute	201	4.26	.84	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	128	4.48	.65	-1.225	.221	Acute
Q2.IMP Establish and maintain a positive nurse/client relationship.	Faculty	128	4.82	.39	2.115	.035*																																																															
	Acute	203	4.71	.52			Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	128	4.66	.52	-.346	.730	Acute	203	4.68	.54	Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	128	4.31	.74	3.205	.001*	Acute	203	4.03	.81	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	128	4.18	.76	-5.130	.000*	Acute	203	4.58	.65	Q6.IMP Utilize concepts of cost-effective care.	Faculty	128	4.13	.75	-1.417	.158	Acute	201	4.26	.84	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	128	4.48	.65	-1.225	.221	Acute	203	4.58	.67								
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Table 10 (continued)

Competency		N	Mean	SD	t	Sig.																																																																																																
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	Faculty	128	4.08	.87	.086	.932																																																																																																
	Acute	201	4.07	.87			Q9.IMP Use computer information systems.	Faculty	128	4.21	.75	2.113	.035*	Acute	203	4.00	.96	Q10.IMP Delegate aspects of care to healthcare personnel.	Faculty	128	4.23	.80	.296	.767	Acute	203	4.21	.84	Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	128	4.18	.82	1.005	.316	Acute	201	4.08	.92	Q12.IMP Work within interdisciplinary teams.	Faculty	128	4.53	.61	1.956	.051	Acute	203	4.38	.70	Q13.IMP Perform a comprehensive client assessment.	Faculty	128	4.82	.46	.383	.702	Acute	203	4.80	.55	Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*	Acute	203	4.52	.69	Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute
Q9.IMP Use computer information systems.	Faculty	128	4.21	.75	2.113	.035*																																																																																																
	Acute	203	4.00	.96			Q10.IMP Delegate aspects of care to healthcare personnel.	Faculty	128	4.23	.80	.296	.767	Acute	203	4.21	.84	Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	128	4.18	.82	1.005	.316	Acute	201	4.08	.92	Q12.IMP Work within interdisciplinary teams.	Faculty	128	4.53	.61	1.956	.051	Acute	203	4.38	.70	Q13.IMP Perform a comprehensive client assessment.	Faculty	128	4.82	.46	.383	.702	Acute	203	4.80	.55	Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*	Acute	203	4.52	.69	Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83								
Q10.IMP Delegate aspects of care to healthcare personnel.	Faculty	128	4.23	.80	.296	.767																																																																																																
	Acute	203	4.21	.84			Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	128	4.18	.82	1.005	.316	Acute	201	4.08	.92	Q12.IMP Work within interdisciplinary teams.	Faculty	128	4.53	.61	1.956	.051	Acute	203	4.38	.70	Q13.IMP Perform a comprehensive client assessment.	Faculty	128	4.82	.46	.383	.702	Acute	203	4.80	.55	Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*	Acute	203	4.52	.69	Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																			
Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	128	4.18	.82	1.005	.316																																																																																																
	Acute	201	4.08	.92			Q12.IMP Work within interdisciplinary teams.	Faculty	128	4.53	.61	1.956	.051	Acute	203	4.38	.70	Q13.IMP Perform a comprehensive client assessment.	Faculty	128	4.82	.46	.383	.702	Acute	203	4.80	.55	Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*	Acute	203	4.52	.69	Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																														
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	Acute	203	4.38	.70			Q13.IMP Perform a comprehensive client assessment.	Faculty	128	4.82	.46	.383	.702	Acute	203	4.80	.55	Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*	Acute	203	4.52	.69	Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																																									
Q13.IMP Perform a comprehensive client assessment.	Faculty	128	4.82	.46	.383	.702																																																																																																
	Acute	203	4.80	.55			Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*	Acute	203	4.52	.69	Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																																																				
Q14.IMP Develop and implement a plan of care.	Faculty	128	4.76	.61	3.243	.001*																																																																																																
	Acute	203	4.52	.69			Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*	Acute	203	4.57	.66	Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																																																															
Q15.IMP Evaluate outcomes of client care.	Faculty	128	4.72	.63	2.042	.042*																																																																																																
	Acute	203	4.57	.66			Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*	Acute	203	4.47	.71	Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																																																																										
Q16.IMP Assess client learning needs.	Faculty	128	4.73	.46	3.942	.000*																																																																																																
	Acute	203	4.47	.71			Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*	Acute	203	4.18	.83																																																																																					
Q17.IMP Implement and evaluate teaching plans.	Faculty	128	4.45	.71	2.961	.003*																																																																																																
	Acute	203	4.18	.83																																																																																																		

Table 10 (continued)

Competency		N	Mean	SD	t	Sig.																																																															
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	Faculty	128	4.46	.75	3.996	.000*																																																															
	Acute	202	4.11	.80			Q19.IMP Apply research to nursing practice.	Faculty	128	4.08	.87	4.475	.000*	Acute	203	3.61	1.04	Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	128	3.95	.85	-2.715	.007*	Acute	201	4.20	.80	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	128	4.59	.62	.653	.514	Acute	202	4.54	.63	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	128	4.72	.53	1.449	.148	Acute	202	4.63	.58	Q23.IMP Implement care using critical pathways.	Faculty	126	3.92	.82	-1.024	.306	Acute	202	4.02	.88	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	128	4.56	.87	-2.648	.009*	Acute
Q19.IMP Apply research to nursing practice.	Faculty	128	4.08	.87	4.475	.000*																																																															
	Acute	203	3.61	1.04			Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	128	3.95	.85	-2.715	.007*	Acute	201	4.20	.80	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	128	4.59	.62	.653	.514	Acute	202	4.54	.63	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	128	4.72	.53	1.449	.148	Acute	202	4.63	.58	Q23.IMP Implement care using critical pathways.	Faculty	126	3.92	.82	-1.024	.306	Acute	202	4.02	.88	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	128	4.56	.87	-2.648	.009*	Acute	201	4.79	.56								
Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	128	3.95	.85	-2.715	.007*																																																															
	Acute	201	4.20	.80			Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	128	4.59	.62	.653	.514	Acute	202	4.54	.63	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	128	4.72	.53	1.449	.148	Acute	202	4.63	.58	Q23.IMP Implement care using critical pathways.	Faculty	126	3.92	.82	-1.024	.306	Acute	202	4.02	.88	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	128	4.56	.87	-2.648	.009*	Acute	201	4.79	.56																			
Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	128	4.59	.62	.653	.514																																																															
	Acute	202	4.54	.63			Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	128	4.72	.53	1.449	.148	Acute	202	4.63	.58	Q23.IMP Implement care using critical pathways.	Faculty	126	3.92	.82	-1.024	.306	Acute	202	4.02	.88	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	128	4.56	.87	-2.648	.009*	Acute	201	4.79	.56																														
Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	128	4.72	.53	1.449	.148																																																															
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	Acute	202	4.02	.88			Q24.IMP Administer IV medications safely to assigned patients.	Faculty	128	4.56	.87	-2.648	.009*	Acute	201	4.79	.56																																																				
Q24.IMP Administer IV medications safely to assigned patients.	Faculty	128	4.56	.87	-2.648	.009*																																																															
	Acute	201	4.79	.56																																																																	

* $p < 0.05$, two-tailed t -test

in acute healthcare agencies and faculty in BSN programs. The significant difference occurred at the 0.05 level of significance, statistically tested by the t -test. Equal

variances were assumed if Levene's Test of Equality of Variances were greater than $p < 0.05$.

The range of mean scores, for the 24 entry-level competencies from the Importance column, within nurses in acute healthcare agencies was 3.61-4.82. The range of mean scores for the same competencies, for faculty in BSN programs was 3.92-4.88. Faculty in BSN programs had a higher range of mean scores for the importance of the entry-level competencies than nurses in the acute healthcare agencies. Hence, the faculty had higher expectations for the importance of the competencies than nurses in the acute healthcare agencies.

Null Hypothesis 2: There are no differences between the male and female respondents in acute healthcare agencies and faculty in BSN programs in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee.

Data analysis using the t -test (equal variances were assumed if Levene's Test for Equality of Variances were greater than $p < 0.05$) revealed a statistically significant difference at the .05 level, for five of the competencies between the male and female respondents: (4) apply knowledge of cultural diversity to client care; (11) initiate referrals to appropriate departments and agencies; (16) assess client learning needs; (17) implement and evaluate teaching plans; and (22) continue self-development in

professional knowledge and skills. The findings are presented in Table 11. The null hypothesis was rejected.

Table 11

Means, Standard Deviation, and t-test for Equality of Means for Male and Female Respondents for the Importance of the 24 Competencies

Competency		N	Mean	SD	t	Sig.																																																				
Q1.IMP Use critical thinking to solve problems and to make decisions.	Female	311	4.85	.39	1.173	.254																																																				
	Male	20	4.70	.57			Q2.IMP Establish and maintain a positive nurse/client relationship.	Female	311	4.76	.48	1.018	.310	Male	20	4.65	.49	Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Female	311	4.68	.53	.668	.504	Male	20	4.60	.50	Q4.IMP Apply knowledge of cultural diversity to client care.	Female	311	4.16	.78	1.980	.048*	Male	20	3.80	.89	Q5.IMP Assume responsibility/accountability for client satisfaction.	Female	311	4.42	.73	-.154	.878	Male	20	4.45	.60	Q6.IMP Utilize concepts of cost-effective care.	Female	309	4.22	.81	.626	.532	Male
Q2.IMP Establish and maintain a positive nurse/client relationship.	Female	311	4.76	.48	1.018	.310																																																				
	Male	20	4.65	.49			Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Female	311	4.68	.53	.668	.504	Male	20	4.60	.50	Q4.IMP Apply knowledge of cultural diversity to client care.	Female	311	4.16	.78	1.980	.048*	Male	20	3.80	.89	Q5.IMP Assume responsibility/accountability for client satisfaction.	Female	311	4.42	.73	-.154	.878	Male	20	4.45	.60	Q6.IMP Utilize concepts of cost-effective care.	Female	309	4.22	.81	.626	.532	Male	20	4.10	.79								
Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Female	311	4.68	.53	.668	.504																																																				
	Male	20	4.60	.50			Q4.IMP Apply knowledge of cultural diversity to client care.	Female	311	4.16	.78	1.980	.048*	Male	20	3.80	.89	Q5.IMP Assume responsibility/accountability for client satisfaction.	Female	311	4.42	.73	-.154	.878	Male	20	4.45	.60	Q6.IMP Utilize concepts of cost-effective care.	Female	309	4.22	.81	.626	.532	Male	20	4.10	.79																			
Q4.IMP Apply knowledge of cultural diversity to client care.	Female	311	4.16	.78	1.980	.048*																																																				
	Male	20	3.80	.89			Q5.IMP Assume responsibility/accountability for client satisfaction.	Female	311	4.42	.73	-.154	.878	Male	20	4.45	.60	Q6.IMP Utilize concepts of cost-effective care.	Female	309	4.22	.81	.626	.532	Male	20	4.10	.79																														
Q5.IMP Assume responsibility/accountability for client satisfaction.	Female	311	4.42	.73	-.154	.878																																																				
	Male	20	4.45	.60			Q6.IMP Utilize concepts of cost-effective care.	Female	309	4.22	.81	.626	.532	Male	20	4.10	.79																																									
Q6.IMP Utilize concepts of cost-effective care.	Female	309	4.22	.81	.626	.532																																																				
	Male	20	4.10	.79																																																						

Table 11 (continued)

Competency		N	Mean	SD	t	Sig.																																																																																																
Q7.IMP Assume responsibility/ accountability for client outcomes.	Female	311	4.55	.67	.976	.330																																																																																																
	Male	20	4.40	.60			Q8.IMP Coordinate the care of the client across settings in healthcare agency.	Female	309	4.10	.84	1.436	.166	Male	20	3.70	1.22	Q9.IMP Use computer information systems.	Female	311	4.09	.89	.423	.673	Male	20	4.00	.86	Q10.IMP Delegate aspects of care to healthcare personnel.	Female	311	4.23	.80	1.507	.133	Male	20	3.95	1.10	Q11.IMP Initiate referrals to appropriate departments and agencies.	Female	309	4.15	.86	2.206	.028*	Male	20	3.70	1.03	Q12.IMP Work within interdisciplinary teams.	Female	311	4.44	.67	-.061	.951	Male	20	4.45	.60	Q13.IMP Perform a comprehensive client assessment.	Female	311	4.82	.49	1.588	.128	Male	20	4.55	.76	Q14.IMP Develop and implement a plan of care.	Female	311	4.64	.62	1.922	.069	Male	20	4.15	1.14	Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262	Male	20	4.35	1.14	Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*	Male
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	Female	309	4.10	.84	1.436	.166																																																																																																
	Male	20	3.70	1.22			Q9.IMP Use computer information systems.	Female	311	4.09	.89	.423	.673	Male	20	4.00	.86	Q10.IMP Delegate aspects of care to healthcare personnel.	Female	311	4.23	.80	1.507	.133	Male	20	3.95	1.10	Q11.IMP Initiate referrals to appropriate departments and agencies.	Female	309	4.15	.86	2.206	.028*	Male	20	3.70	1.03	Q12.IMP Work within interdisciplinary teams.	Female	311	4.44	.67	-.061	.951	Male	20	4.45	.60	Q13.IMP Perform a comprehensive client assessment.	Female	311	4.82	.49	1.588	.128	Male	20	4.55	.76	Q14.IMP Develop and implement a plan of care.	Female	311	4.64	.62	1.922	.069	Male	20	4.15	1.14	Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262	Male	20	4.35	1.14	Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*	Male	20	4.20	.83								
Q9.IMP Use computer information systems.	Female	311	4.09	.89	.423	.673																																																																																																
	Male	20	4.00	.86			Q10.IMP Delegate aspects of care to healthcare personnel.	Female	311	4.23	.80	1.507	.133	Male	20	3.95	1.10	Q11.IMP Initiate referrals to appropriate departments and agencies.	Female	309	4.15	.86	2.206	.028*	Male	20	3.70	1.03	Q12.IMP Work within interdisciplinary teams.	Female	311	4.44	.67	-.061	.951	Male	20	4.45	.60	Q13.IMP Perform a comprehensive client assessment.	Female	311	4.82	.49	1.588	.128	Male	20	4.55	.76	Q14.IMP Develop and implement a plan of care.	Female	311	4.64	.62	1.922	.069	Male	20	4.15	1.14	Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262	Male	20	4.35	1.14	Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*	Male	20	4.20	.83																			
Q10.IMP Delegate aspects of care to healthcare personnel.	Female	311	4.23	.80	1.507	.133																																																																																																
	Male	20	3.95	1.10			Q11.IMP Initiate referrals to appropriate departments and agencies.	Female	309	4.15	.86	2.206	.028*	Male	20	3.70	1.03	Q12.IMP Work within interdisciplinary teams.	Female	311	4.44	.67	-.061	.951	Male	20	4.45	.60	Q13.IMP Perform a comprehensive client assessment.	Female	311	4.82	.49	1.588	.128	Male	20	4.55	.76	Q14.IMP Develop and implement a plan of care.	Female	311	4.64	.62	1.922	.069	Male	20	4.15	1.14	Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262	Male	20	4.35	1.14	Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*	Male	20	4.20	.83																														
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Q12.IMP Work within interdisciplinary teams.	Female	311	4.44	.67	-.061	.951																																																																																																
	Male	20	4.45	.60			Q13.IMP Perform a comprehensive client assessment.	Female	311	4.82	.49	1.588	.128	Male	20	4.55	.76	Q14.IMP Develop and implement a plan of care.	Female	311	4.64	.62	1.922	.069	Male	20	4.15	1.14	Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262	Male	20	4.35	1.14	Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*	Male	20	4.20	.83																																																				
Q13.IMP Perform a comprehensive client assessment.	Female	311	4.82	.49	1.588	.128																																																																																																
	Male	20	4.55	.76			Q14.IMP Develop and implement a plan of care.	Female	311	4.64	.62	1.922	.069	Male	20	4.15	1.14	Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262	Male	20	4.35	1.14	Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*	Male	20	4.20	.83																																																															
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Q15.IMP Evaluate outcomes of client care.	Female	311	4.65	.60	1.155	.262																																																																																																
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Q16.IMP Assess client learning needs.	Female	311	4.59	.61	2.721	.007*																																																																																																
	Male	20	4.20	.83																																																																																																		

Table 11 (continued)

Competency		N	Mean	SD	t	Sig.																																																																										
Q17.IMP Implement and evaluate teaching plans.	Female	311	4.32	.77	2.834	.005*																																																																										
	Male	20	3.80	1.01			Q18.IMP Promote healthy lifestyles for individuals, families and communities.	Female	310	4.26	.77	1.715	.087	Male	20	3.95	1.10	Q19.IMP Apply research to nursing practice.	Female	311	3.82	.97	1.523	.143	Male	20	3.35	1.35	Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Female	309	4.11	.82	.594	.553	Male	20	4.00	.92	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Female	310	4.58	.60	1.586	.128	Male	20	4.25	.91	Q22.IMP Continue self-development in professional knowledge and skills.	Female	310	4.69	.53	2.468	.023*	Male	20	4.25	.79	Q23.IMP Implement care using critical pathways.	Female	308	4.00	.85	1.255	.210	Male	20	3.75	.91	Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	Female	310	4.26	.77	1.715	.087																																																																										
	Male	20	3.95	1.10			Q19.IMP Apply research to nursing practice.	Female	311	3.82	.97	1.523	.143	Male	20	3.35	1.35	Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Female	309	4.11	.82	.594	.553	Male	20	4.00	.92	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Female	310	4.58	.60	1.586	.128	Male	20	4.25	.91	Q22.IMP Continue self-development in professional knowledge and skills.	Female	310	4.69	.53	2.468	.023*	Male	20	4.25	.79	Q23.IMP Implement care using critical pathways.	Female	308	4.00	.85	1.255	.210	Male	20	3.75	.91	Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male	20	4.70	.80								
Q19.IMP Apply research to nursing practice.	Female	311	3.82	.97	1.523	.143																																																																										
	Male	20	3.35	1.35			Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Female	309	4.11	.82	.594	.553	Male	20	4.00	.92	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Female	310	4.58	.60	1.586	.128	Male	20	4.25	.91	Q22.IMP Continue self-development in professional knowledge and skills.	Female	310	4.69	.53	2.468	.023*	Male	20	4.25	.79	Q23.IMP Implement care using critical pathways.	Female	308	4.00	.85	1.255	.210	Male	20	3.75	.91	Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male	20	4.70	.80																			
Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Female	309	4.11	.82	.594	.553																																																																										
	Male	20	4.00	.92			Q21.IMP Involve family and/or significant others in decisions regarding client care.	Female	310	4.58	.60	1.586	.128	Male	20	4.25	.91	Q22.IMP Continue self-development in professional knowledge and skills.	Female	310	4.69	.53	2.468	.023*	Male	20	4.25	.79	Q23.IMP Implement care using critical pathways.	Female	308	4.00	.85	1.255	.210	Male	20	3.75	.91	Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male	20	4.70	.80																														
Q21.IMP Involve family and/or significant others in decisions regarding client care.	Female	310	4.58	.60	1.586	.128																																																																										
	Male	20	4.25	.91			Q22.IMP Continue self-development in professional knowledge and skills.	Female	310	4.69	.53	2.468	.023*	Male	20	4.25	.79	Q23.IMP Implement care using critical pathways.	Female	308	4.00	.85	1.255	.210	Male	20	3.75	.91	Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male	20	4.70	.80																																									
Q22.IMP Continue self-development in professional knowledge and skills.	Female	310	4.69	.53	2.468	.023*																																																																										
	Male	20	4.25	.79			Q23.IMP Implement care using critical pathways.	Female	308	4.00	.85	1.255	.210	Male	20	3.75	.91	Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male	20	4.70	.80																																																				
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	Male	20	3.75	.91			Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989	Male	20	4.70	.80																																																															
Q24.IMP Administer IV medications safely to assigned patients.	Female	309	4.70	.70	.014	.989																																																																										
	Male	20	4.70	.80																																																																												

*p < 0.05, two-tailed t-test

The male respondents (20) had lower mean scores (3.80, 3.70, 4.20, 3.80, 4.25) than the female respondents (311) mean scores (4.16, 4.15, 4.59, 4.32, 4.69) for the five competencies noted above. These data indicate male nurses had lower expectations than female nurses for these five entry-level competencies for the BSN graduate.

Null Hypothesis 3: There are no differences between nurses in acute healthcare agencies and faculty in BSN programs who are over 43 years of age and the nurses and faculty who are 43 years of age and under in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

A statistically significant difference at the .05 level, tested by using the t -test (equal variances were assumed if Levene's Test for Equality of Variances were greater than $p < 0.05$) was found for 3 of the 24 competencies in the "43 years of age and under" group. The null hypothesis was rejected. The findings are illustrated in Table 12.

The nurses in the acute healthcare agencies' mean score (4.55) was higher than the faculty's mean score (4.21) for Competency 5, assume responsibility/accountability for client satisfaction and lower (4.43, 3.61) than the faculty (4.69, 4.07) for Competency 16, assess client learning needs and Competency 19, apply research to nursing

Table 12

Means, Standard Deviation, and t-test for Equality of Means
for Nurses in Acute Healthcare Agencies and Faculty 43 Years
of Age and Under for the Importance of the 24 Competencies

Competency		N	Mean	SD	t	Sig.																																																															
Q1.IMP Use critical thinking to solve problems and to make decisions.	Faculty	29	4.93	.26	1.716	.091																																																															
	Acute	104	4.83	.38			Q2.IMP Establish and maintain a positive nurse/client relationship.	Faculty	29	4.79	.41	1.183	.242	Acute	104	4.68	.54	Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	29	4.66	.61	-.070	.944	Acute	104	4.66	.55	Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	29	4.31	.81	1.889	.061	Acute	104	3.99	.81	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	29	4.21	.82	-2.214	.029*	Acute	104	4.55	.71	Q6.IMP Utilize concepts of cost-effective care.	Faculty	29	4.21	.73	-.187	.852	Acute	103	4.24	.95	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	29	4.31	.66	-1.315	.191	Acute
Q2.IMP Establish and maintain a positive nurse/client relationship.	Faculty	29	4.79	.41	1.183	.242																																																															
	Acute	104	4.68	.54			Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	29	4.66	.61	-.070	.944	Acute	104	4.66	.55	Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	29	4.31	.81	1.889	.061	Acute	104	3.99	.81	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	29	4.21	.82	-2.214	.029*	Acute	104	4.55	.71	Q6.IMP Utilize concepts of cost-effective care.	Faculty	29	4.21	.73	-.187	.852	Acute	103	4.24	.95	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	29	4.31	.66	-1.315	.191	Acute	104	4.51	.74								
Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	29	4.66	.61	-.070	.944																																																															
	Acute	104	4.66	.55			Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	29	4.31	.81	1.889	.061	Acute	104	3.99	.81	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	29	4.21	.82	-2.214	.029*	Acute	104	4.55	.71	Q6.IMP Utilize concepts of cost-effective care.	Faculty	29	4.21	.73	-.187	.852	Acute	103	4.24	.95	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	29	4.31	.66	-1.315	.191	Acute	104	4.51	.74																			
Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	29	4.31	.81	1.889	.061																																																															
	Acute	104	3.99	.81			Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	29	4.21	.82	-2.214	.029*	Acute	104	4.55	.71	Q6.IMP Utilize concepts of cost-effective care.	Faculty	29	4.21	.73	-.187	.852	Acute	103	4.24	.95	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	29	4.31	.66	-1.315	.191	Acute	104	4.51	.74																														
Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	29	4.21	.82	-2.214	.029*																																																															
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Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	29	4.31	.66	-1.315	.191																																																															
	Acute	104	4.51	.74																																																																	

Table 12 (continued)

Competency		N	Mean	SD	t	Sig.																																																																																																
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	Faculty	29	4.10	.90	.538	.591																																																																																																
	Acute	103	4.00	.92			Q9.IMP Use computer information systems.	Faculty	29	4.17	.76	1.286	.201	Acute	104	3.91	1.01	Q10.IMP Delegate aspects of care to healthcare personnel.	Faculty	29	4.14	.95	-.036	.972	Acute	104	4.14	.81	Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	29	4.17	.85	.725	.470	Acute	103	4.03	.96	Q12.IMP Work within interdisciplinary teams.	Faculty	29	4.48	.63	.925	.357	Acute	104	4.35	.72	Q13.IMP Perform a comprehensive client assessment.	Faculty	29	4.83	.38	.006	.995	Acute	104	4.83	.58	Q14.IMP Develop and implement a plan of care.	Faculty	29	4.62	.82	.978	.330	Acute	104	4.46	.76	Q15.IMP Evaluate outcomes of client care.	Faculty	29	4.69	.66	1.125	.263	Acute	104	4.52	.74	Q16.IMP Assess client learning needs.	Faculty	29	4.69	.54	2.029	.047*	Acute	104	4.43	.79	Q17.IMP Implement and evaluate teaching plans.	Faculty	29	4.31	.71	.976	.331	Acute
Q9.IMP Use computer information systems.	Faculty	29	4.17	.76	1.286	.201																																																																																																
	Acute	104	3.91	1.01			Q10.IMP Delegate aspects of care to healthcare personnel.	Faculty	29	4.14	.95	-.036	.972	Acute	104	4.14	.81	Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	29	4.17	.85	.725	.470	Acute	103	4.03	.96	Q12.IMP Work within interdisciplinary teams.	Faculty	29	4.48	.63	.925	.357	Acute	104	4.35	.72	Q13.IMP Perform a comprehensive client assessment.	Faculty	29	4.83	.38	.006	.995	Acute	104	4.83	.58	Q14.IMP Develop and implement a plan of care.	Faculty	29	4.62	.82	.978	.330	Acute	104	4.46	.76	Q15.IMP Evaluate outcomes of client care.	Faculty	29	4.69	.66	1.125	.263	Acute	104	4.52	.74	Q16.IMP Assess client learning needs.	Faculty	29	4.69	.54	2.029	.047*	Acute	104	4.43	.79	Q17.IMP Implement and evaluate teaching plans.	Faculty	29	4.31	.71	.976	.331	Acute	104	4.13	.89								
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Q14.IMP Develop and implement a plan of care.	Faculty	29	4.62	.82	.978	.330																																																																																																
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	Acute	104	4.43	.79			Q17.IMP Implement and evaluate teaching plans.	Faculty	29	4.31	.71	.976	.331	Acute	104	4.13	.89																																																																																					
Q17.IMP Implement and evaluate teaching plans.	Faculty	29	4.31	.71	.976	.331																																																																																																
	Acute	104	4.13	.89																																																																																																		

Table 12 (continued)

Competency		N	Mean	SD	t	Sig.																																																															
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	Faculty	29	4.45	.91	1.874	.063																																																															
	Acute	104	4.12	.83			Q19.IMP Apply research to nursing practice.	Faculty	29	4.07	.96	2.216	.031*	Acute	104	3.61	1.11	Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	29	4.07	1.00	-.596	.552	Acute	102	4.18	.81	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	29	4.41	.82	-.906	.371	Acute	103	4.56	.62	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	29	4.59	.63	-.633	.528	Acute	103	4.66	.53	Q23.IMP Implement care using critical pathways.	Faculty	29	3.79	.82	-1.432	.154	Acute	103	4.04	.82	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	29	4.52	1.02	-1.835	.076	Acute
Q19.IMP Apply research to nursing practice.	Faculty	29	4.07	.96	2.216	.031*																																																															
	Acute	104	3.61	1.11			Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	29	4.07	1.00	-.596	.552	Acute	102	4.18	.81	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	29	4.41	.82	-.906	.371	Acute	103	4.56	.62	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	29	4.59	.63	-.633	.528	Acute	103	4.66	.53	Q23.IMP Implement care using critical pathways.	Faculty	29	3.79	.82	-1.432	.154	Acute	103	4.04	.82	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	29	4.52	1.02	-1.835	.076	Acute	102	4.87	.39								
Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	29	4.07	1.00	-.596	.552																																																															
	Acute	102	4.18	.81			Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	29	4.41	.82	-.906	.371	Acute	103	4.56	.62	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	29	4.59	.63	-.633	.528	Acute	103	4.66	.53	Q23.IMP Implement care using critical pathways.	Faculty	29	3.79	.82	-1.432	.154	Acute	103	4.04	.82	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	29	4.52	1.02	-1.835	.076	Acute	102	4.87	.39																			
Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	29	4.41	.82	-.906	.371																																																															
	Acute	103	4.56	.62			Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	29	4.59	.63	-.633	.528	Acute	103	4.66	.53	Q23.IMP Implement care using critical pathways.	Faculty	29	3.79	.82	-1.432	.154	Acute	103	4.04	.82	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	29	4.52	1.02	-1.835	.076	Acute	102	4.87	.39																														
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Q24.IMP Administer IV medications safely to assigned patients.	Faculty	29	4.52	1.02	-1.835	.076																																																															
	Acute	102	4.87	.39																																																																	

* $p < 0.05$, two-tailed t -test

practice. The range of mean scores for the 24 competencies, for the 104 nurses from the acute healthcare agencies was 3.61-4.87; for 29 faculty the range of mean scores was 3.79-4.93 who are 43 years of age and under. Faculty in BSN

programs, who are 43 years of age and under, had a higher range of mean scores for the importance of the competencies than nurses in the acute healthcare agencies.

A statistically significant difference at the .05 level, tested by using the t -test (equal variances were assumed if Levene's Test for Equality of Variances were greater than $p < 0.05$) was found in 8 of the 24 competencies in the "over 43 years of age" group. The null hypothesis was rejected. The findings are displayed in Table 13.

The range of mean scores for the 24 competencies, for the 94 nurses from the acute healthcare agencies was 3.64-4.83; for 96 faculty the range of mean scores was 3.94-4.85, who are over 43 years of age. This finding indicates the faculty's range of mean scores is higher than the nurses from the acute healthcare agencies and is similar to the finding in the 43 years of age and under group.

The nurses in the acute healthcare agencies mean scores (4.62, 4.24) were higher than faculty mean scores (4.17, 3.94) for Competency 5, assume responsibility/ accountability for client satisfaction and Competency 20, participate in quality improvement monitoring processes in the healthcare agency and lower (4.07, 4.59, 4.51, 4.22, 4.12, 3.64) than faculty (4.30, 4.80, 4.73, 4.48, 4.47, 4.08) for six competencies: (4) apply knowledge of cultural diversity to client care; (14) develop and implement a plan of care; (16) assess client learning needs; (17) implement and evaluate teaching plans; (18) promote healthy lifestyles

Table 13

Means, Standard Deviation, and t-test for Equality of Means
for Nurses in Acute Healthcare Agencies and Faculty Over 43
Years of Age for the Importance of the 24 Competencies

Competency		N	Mean	SD	t	Sig.																																																															
Q1.IMP Use critical thinking to solve problems and to make decisions.	Faculty	96	4.85	.38	.388	.698																																																															
	Acute	94	4.83	.48			Q2.IMP Establish and maintain a positive nurse/client relationship.	Faculty	96	4.82	.38	1.352	.178	Acute	94	4.73	.51	Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	96	4.66	.50	-.617	.538	Acute	94	4.70	.53	Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	96	4.30	.73	2.026	.044*	Acute	94	4.07	.82	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	96	4.17	.75	-4.656	.000*	Acute	94	4.62	.57	Q6.IMP Utilize concepts of cost-effective care.	Faculty	96	4.10	.76	-1.749	.082	Acute	93	4.29	.70	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	96	4.53	.65	-1.317	.190	Acute
Q2.IMP Establish and maintain a positive nurse/client relationship.	Faculty	96	4.82	.38	1.352	.178																																																															
	Acute	94	4.73	.51			Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	Faculty	96	4.66	.50	-.617	.538	Acute	94	4.70	.53	Q4.IMP Apply knowledge of cultural diversity to client care.	Faculty	96	4.30	.73	2.026	.044*	Acute	94	4.07	.82	Q5.IMP Assume responsibility/accountability for client satisfaction.	Faculty	96	4.17	.75	-4.656	.000*	Acute	94	4.62	.57	Q6.IMP Utilize concepts of cost-effective care.	Faculty	96	4.10	.76	-1.749	.082	Acute	93	4.29	.70	Q7.IMP Assume responsibility/accountability for client outcomes.	Faculty	96	4.53	.65	-1.317	.190	Acute	94	4.65	.58								
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	Acute	94	4.65	.58																																																																	

Table 13 (continued)

Competency		N	Mean	SD	t	Sig.																																																																																																
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	Faculty	96	4.06	.88	-.532	.595																																																																																																
	Acute	93	4.13	.84			Q9.IMP Use computer information systems.	Faculty	96	4.21	.75	.842	.401	Acute	94	4.11	.91	Q10.IMP Delegate aspects of care to healthcare personnel.	Faculty	96	4.27	.72	.042	.967	Acute	94	4.27	.88	Q11.IMP Initiate referrals to appropriate departments and agencies.	Faculty	96	4.19	.79	.397	.692	Acute	93	4.14	.87	Q12.IMP Work within interdisciplinary teams.	Faculty	96	4.54	.61	1.252	.212	Acute	94	4.43	.66	Q13.IMP Perform a comprehensive client assessment.	Faculty	96	4.81	.49	.638	.524	Acute	94	4.77	.52	Q14.IMP Develop and implement a plan of care.	Faculty	96	4.80	.54	2.599	.010*	Acute	94	4.59	.61	Q15.IMP Evaluate outcomes of client care.	Faculty	96	4.74	.60	1.440	.152	Acute	94	4.62	.57	Q16.IMP Assess client learning needs.	Faculty	96	4.73	.45	2.843	.005*	Acute	94	4.51	.60	Q17.IMP Implement and evaluate teaching plans.	Faculty	96	4.48	.71	2.390	.018*	Acute
Q9.IMP Use computer information systems.	Faculty	96	4.21	.75	.842	.401																																																																																																
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	Acute	94	4.22	.76																																																																																																		

Table 13 (continued)

Competency		N	Mean	SD	t	Sig.																																																															
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	Faculty	96	4.47	.70	3.330	.001*																																																															
	Acute	94	4.12	.76			Q19.IMP Apply research to nursing practice.	Faculty	96	4.08	.84	3.418	.001*	Acute	94	3.64	.95	Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	Faculty	96	3.94	.79	-2.731	.007*	Acute	94	4.24	.76	Q21.IMP Involve family and/or significant others in decisions regarding client care.	Faculty	96	4.65	.54	1.453	.148	Acute	94	4.52	.63	Q22.IMP Continue self-development in professional knowledge and skills.	Faculty	96	4.75	.50	1.644	.102	Acute	94	4.62	.61	Q23.IMP Implement care using critical pathways.	Faculty	94	3.95	.81	-.498	.619	Acute	94	4.01	.94	Q24.IMP Administer IV medications safely to assigned patients.	Faculty	96	4.58	.83	-1.174	.242	Acute
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*p < 0.05, two-tailed t-test

for individuals, families, and communities; (19) apply research to nursing practice. Faculty rated six competencies

higher than nurses in acute healthcare agencies in the "over 43 years of age" group.

Null Hypothesis 4: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years, and 30 years or more of nursing education experience and the nurses and faculty with 0-9 years, 10-19 years, 20-29 years and 30 years or less of nursing education experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

Data analysis shown in Table 14 shows the null hypothesis was rejected. A significant difference at the .05 level, tested by using ANOVA and Post Hoc Multiple Comparison Tests (Least Squares Difference Method), occurred among the faculty with 0-9 years, 10-19 years, 20-29 years and 30 years or more of nursing education experience for Competency 23: implement care using critical pathways. The mean score for faculty with 30 years or more was 3.33; the mean score for faculty with 20-29 years was 4.41; the mean score for faculty with 10-19 years was 3.87 and the mean score for faculty with 0-9 years was 3.85. Faculty with 20-29 years of nursing education experience had higher expectations of the importance of implementing care using critical pathways than all other faculty groups.

Also a significant difference at the .05 level, tested by using ANOVA, occurred among the nurses in acute

Table 14

Mean, Standard Deviation, ANOVA, and Post Hoc Multiple Comparisons Test for Competency 23: Implement Care Using Critical Pathways: Faculty in BSN Programs with 0-9 Years, 10-19 Years, 20-29 Years, and 30 or More Years of Nursing Education Experience

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig
Between Groups	5.556	3	1.852	2.910	.037*
Within Groups	77.651	122	.636		
Total	83.206	125			

* $p < 0.05$

Post Hoc Multiple Comparisons Test		
Years of Nursing Education Experience		Sig
1 0-9	2 10-19	.896
	3 20-29	.011*
	4 30 and more	.274
2 10-19	1 0-9	.896
	3 20-29	.022*
	4 30 and more	.262
3 20-29	1 0-9	.011*
	2 10-19	.022*
	4 30 and more	.033*
4 30 and more	1 0-9	.274
	2 10-19	.262
	3 20-29	.033*

* $p < 0.05$

Table 14 (continued)

Descriptives

Years of Nursing Education Experience	N	Mean	SD
1 0-9	67	3.85	.78
2 10-19	39	3.87	.86
3 20-29	17	4.41	.71
4 30 and more	3	3.33	.58
Total	126	3.92	.82

healthcare agencies for Competency 3: establish and maintain positive relationships with other members of the healthcare team. The mean for 20-29 years of nursing education experience was 3.00; the mean for 10-19 years of nursing experience was 4.50; and the mean for 0-9 years of nursing education experience was 4.70. Post Hoc Multiple Comparison Tests were not able to be calculated for the nurses in the acute healthcare agencies due to the small sample size in the 10-19 years of nursing education experience and 20-29 years of nursing education experience categories. Table 15 reveals the data analysis. Practicing nurses with 0-9 years of nursing education experience had higher expectations of the importance of establishing and maintaining positive relationships with other members of the healthcare team than the other groups of practicing nurses.

These findings pointed to the fact that the perceptions of faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years and 30 years or more of nursing education experience differed in the rating of the importance of

Table 15

Means, Standard Deviation, ANOVA for Competency 3: Establish and Maintain Positive Relationships With Other Members of the Healthcare Team: Nurses in Acute Healthcare Agencies with 0-9 Years, 10-19 Years, 20-29 Years, and 30 or More Years of Nursing Education Experience

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig
Between Groups	2.928	2	1.464	5.333	.006*
Within Groups	54.895	200	.274		
Total	57.823	202			

*p < 0.05

Descriptives			
Years of Nursing Education Experience	N	Mean	SD
1 0-9	200	4.70	.52
2 10-19	2	4.50	.71
3 20-29	1	3.00	
Total	203	4.68	.54

Competency 23, implement care using critical pathways. In fact, the faculty with 30 years or more had the lowest mean score (3.33), and the faculty with 20-29 years had the highest mean score (4.41). Also, data indicated that there was variability in the perceptions of nurses in acute healthcare agencies with 0-9 years, 10-19 years, 20-29

years, and 30 years or less of nursing education experience in the rating of the importance of Competency 3, establish and maintain positive relationships with other members of the healthcare team. The agency nurses with 0-9 years of nursing faculty experience had the highest mean score (4.70) and in descending order the nurses with 20-29 years of nursing faculty experience had the lowest mean score (3.00).

Null Hypothesis 5: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years and 30 years or more of clinical nursing experience and nurses and faculty with 0-9 years, 10-19 years, 20-29 years and 30 years of less of clinical nursing experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

The results of the data analysis in Table 16 shows that the null hypothesis was rejected. A significant difference at the .05 level, tested using ANOVA and Post Hoc Comparison Tests (Least Squares Difference Method), occurred in all faculty groups: 0-9 years, 10-19 years, 20-29 years and 30 years and more of clinical nursing experience for Competency 17, implement and evaluate teaching plans. Faculty with the least amount of clinical nursing experience (0-9 years) had the lowest mean score (4.15) and faculty with the highest number of years of clinical experience had the highest mean score (4.82).

Table 16

Means, Standard Deviation, ANOVA, Post Hoc Multiple Comparisons Test for Competency 17: Implement and Evaluate Teaching Plans, for Faculty in BSN Programs with 0-9 Years, 10-19 Years, 20-29 Years, and 30 Years or More of Clinical Nursing Experience

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig
Between Groups	4.893	3	1.631	3.444	.019*
Within Groups	58.724	124	.474		
Total	63.617	127			

* $p < 0.05$

Post Hoc Multiple Comparisons Test		
Years of Clinical Nursing Experience		Sig
1 0-9	2 10-19	.136
	3 20-29	.163
	4 30 and more	.002*
2 10-19	1 0-9	.136
	3 20-29	.806
	4 30 and more	.047*
3 20-29	1 0-9	.163
	2 10-19	.806
	4 30 and more	.019*
4 30 and more	1 0-9	.002*
	2 10-19	.047*
	3 20-29	.019*

* $p < 0.05$

Table 16 (continued)

Descriptives			
Years of Clinical Nursing Experience	N	Mean	SD
1 0-9	20	4.15	.88
2 10-19	34	4.44	.56
3 20-29	52	4.40	.77
4 30 and more	22	4.82	.39
Total	128	4.45	.71

A significant difference at the .05 level, tested using ANOVA and Post Hoc Comparison Tests (Least Squares Difference Method), occurred for the nurses in acute healthcare agencies in the groups 10-19 years, 20-29 years and 30 years or more of clinical nursing experience for Competency 4, apply knowledge of cultural diversity to client care. Agency nurses with 30 years or more had the lowest mean score (3.69) and agency nurses with 20-29 years of clinical nursing experience had the highest mean score (4.26). The data analysis is exhibited in Table 17.

Null Hypothesis 6: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs by position held and experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee. The positions that were analyzed included nurse administrators;

Table 17

Means, Standard Deviation, ANOVA, Post Hoc Multiple Comparisons Test for Competency 4: Apply Knowledge of Cultural Diversity to Client Care, for Nurses in Acute Healthcare Setting with 0-9 Years, 10-19 Years, 20-29 Years, and 30 Years or More of Clinical Nursing Experience

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig
Between Groups	6.471	3	2.157	3.424	.018*
Within Groups	125.351	199	.630		
Total	131.823	202			

* $p < 0.05$

Post Hoc Multiple Comparisons Test		
Years of Clinical Nursing Experience		Sig
1 0-9	2 10-19	.848
	3 20-29	.096
	4 30 and more	.116
2 10-19	1 0-9	.848
	3 20-29	.040*
	4 30 and more	.129
3 20-29	1 0-9	.096
	2 10-19	.040*
	4 30 and more	.003*
4 30 and more	1 0-9	.116
	2 10-19	.129
	3 20-29	.003*

* $p < 0.05$

Table 17 (continued)

Descriptives			
Years of Clinical Nursing Experience	N	Mean	SD
1 0-9	46	4.00	.82
2 10-19	69	3.97	.79
3 20-29	62	4.26	.68
4 30 and more	26	3.69	1.01
Total	203	4.03	.81

most experienced, acute care BSN nurses; most recent, BSN graduates in acute care; and faculty in BSN programs.

As shown in Table 18 the null hypothesis was rejected. A significant difference occurred at the .05 level of significance in 12 entry-level competencies. The one-way ANOVA and Post Hoc Multiple Comparisons (Least Squares Difference Method) statistical tests established a significant difference in the following competencies:

(1) Competency 4: apply knowledge of cultural diversity to client care. The significant difference occurred between faculty from BSN programs (mean score: 4.29) and the most experienced acute care BSN nurses (mean score: 4.00).

(2) Competency 5: assume responsibility/accountability for client satisfaction. The significant difference occurred among faculty from the BSN programs (mean score: 4.14), the most experienced acute care BSN

Table 18

Means, Standard Deviation, ANOVA and Post Hoc Multiple Comparisons Tests: Nurse Administrators; Most Experienced, Acute Care BSN Nurses; Most Recent, BSN Graduates in Acute Care; and Faculty in BSN Programs

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig
Competency 4: Apply knowledge of cultural diversity to client care.					
Between Groups	5.414	3	1.805	2.989	.031*
Within Groups	189.555	314	.604		
Total	194.969	317			
Competency 5: Assume responsibility/accountability for client satisfaction.					
Between Groups	16.380	3	5.460	11.799	.000*
Within Groups	145.308	314	.463		
Total	161.689	317			
Competency 6: Utilize concepts of cost-effective care.					
Between Groups	7.438	3	2.479	4.030	.008*
Within Groups	191.929	312	.615		
Total	199.367	315			
Competency 9: Use computer information systems.					
Between Groups	17.332	3	5.777	7.898	.000*
Within Groups	229.702	314	.732		
Total	247.035	317			

Table 18 (continued)

	Sum of Squares	df	Mean Square	F	Sig
Competency 12: Work within interdisciplinary teams.					
Between Groups	4.265	3	1.422	3.640	.013*
Within Groups	122.619	314	.391		
Total	126.884	317			
Competency 14: Develop and implement a plan of care.					
Between Groups	4.027	3	1.342	3.264	.022*
Within Groups	129.168	314	.411		
Total	133.195	317			
Competency 16: Assess client learning needs.					
Between Groups	4.359	3	1.453	4.020	.008*
Within Groups	113.478	314	.361		
Total	117.836	317			
Competency 17: Implement and evaluate teaching plans.					
Between Groups	6.174	3	2.058	3.527	.015*
Within Groups	183.209	314	.583		
Total	189.384	317			
Competency 18: Promote healthy lifestyles for individuals, families and communities.					
Between Groups	7.737	3	2.579	4.339	.005*
Within Groups	186.043	313	.594		
Total	193.779	316			
Competency 19: Apply research to nursing practice.					
Between Groups	16.481	3	5.494	5.710	.001*
Within Groups	302.110	314	.962		
Total	318.591	317			

Table 18 (continued)

	Sum of Squares	df	Mean Square	F	Sig
Competency 20: Participate in quality improvement monitoring processes in the healthcare agency.					
Between Groups	9.680	3	3.227	5.006	.002*
Within Groups	201.764	313	.645		
Total	211.445	316			
Competency 24: Administer IV medications safely to assigned patients.					
Between Groups	4.433	3	1.478	3.314	.020*
Within Groups	139.579	313	.446		
Total	144.013	316			

*p < 0.05

Post Hoc Multiple Comparisons Test

Competency 4. Apply knowledge of cultural diversity to client care.		Sig
Faculty	Acute BSN Nurse, Low Experience	.062
	Acute BSN Nurse, High Experience	.007*
	<u>Nursing Administrators</u>	<u>.073</u>
Acute BSN Nurse, Low Experience	Faculty	.062
	Acute BSN Nurse, High Experience	.810
	<u>Nursing Administrators</u>	<u>.480</u>
Acute BSN Nurse, High Experience	Faculty	.007*
	Acute BSN Nurse, Low Experience	.810
	<u>Nursing Administrators</u>	<u>.462</u>
Nursing Administrators	Faculty	.073
	Acute BSN Nurse, Low Experience	.480
	<u>Acute BSN Nurse, High Experience</u>	<u>.462</u>

Table 18 (continued)

Post Hoc Multiple Comparisons Test		
Competency 5. Assume responsibility/accountability for client satisfaction.		Sig
Faculty	Acute BSN Nurse, Low Experience	.112
	Acute BSN Nurse, High Experience	.000*
	<u>Nursing Administrators</u>	<u>.000*</u>
Acute BSN Nurse, Low Experience	Faculty	.112
	Acute BSN Nurse, High Experience	.279
	<u>Nursing Administrators</u>	<u>.074</u>
Acute BSN Nurse, High Experience	Faculty	.000*
	Acute BSN Nurse, Low Experience	.279
	<u>Nursing Administrators</u>	<u>.257</u>
Nursing Administrators	Faculty	.000*
	Acute BSN Nurse, Low Experience	.074
	<u>Acute BSN Nurse, High Experience</u>	<u>.257</u>
Competency 6. Utilize concepts of cost-effective care.		Sig
Faculty	Acute BSN Nurse, Low Experience	.165
	Acute BSN Nurse, High Experience	.254
	<u>Nursing Administrators</u>	<u>.007*</u>
Acute BSN Nurse, Low Experience	Faculty	.165
	Acute BSN Nurse, High Experience	.042*
	<u>Nursing Administrators</u>	<u>.003*</u>
Acute BSN Nurse, High Experience	Faculty	.254
	Acute BSN Nurse, Low Experience	.042*
	<u>Nursing Administrators</u>	<u>.125</u>
Nursing Administrators	Faculty	.007*
	Acute BSN Nurse, Low Experience	.003*
	<u>Acute BSN Nurse, High Experience</u>	<u>.125</u>
Competency 9. Use computer information systems.		Sig
Faculty	Acute BSN Nurse, Low Experience	.000*
	Acute BSN Nurse, High Experience	.055
	<u>Nursing Administrators</u>	<u>.674</u>

Table 18 (continued)

Post Hoc Multiple Comparisons Test		
Acute BSN Nurse, Low Experience	Faculty	.000*
	Acute BSN Nurse, High Experience	.002*
	<u>Nursing Administrators</u>	<u>.000*</u>
Acute BSN Nurse, High Experience	Faculty	.055
	Acute BSN Nurse, Low Experience	.002*
	<u>Nursing Administrators</u>	<u>.032*</u>
Nursing Administrators	Faculty	.674
	Acute BSN Nurse, Low Experience	.000*
	<u>Acute BSN Nurse, High Experience</u>	<u>.032*</u>
Competency 12. Work within interdisciplinary teams.		Sig
Faculty	Acute BSN Nurse, Low Experience	.004*
	Acute BSN Nurse, High Experience	.052
	<u>Nursing Administrators</u>	<u>.792</u>
Acute BSN Nurse, Low Experience	Faculty	.004*
	Acute BSN Nurse, High Experience	.093
	<u>Nursing Administrators</u>	<u>.009*</u>
Acute BSN Nurse, High Experience	Faculty	.052
	Acute BSN Nurse, Low Experience	.093
	<u>Nursing Administrators</u>	<u>.129</u>
Nursing Administrators	Faculty	.792
	Acute BSN Nurse, Low Experience	.009*
	<u>Acute BSN Nurse, High Experience</u>	<u>.129</u>
Competency 14. Develop and implement a plan of care.		Sig
Faculty	Acute BSN Nurse, Low Experience	.016*
	Acute BSN Nurse, High Experience	.011*
	<u>Nursing Administrators</u>	<u>.129</u>
Acute BSN Nurse, Low Experience	Faculty	.016*
	Acute BSN Nurse, High Experience	.385
	<u>Nursing Administrators</u>	<u>.160</u>
Acute BSN Nurse, High Experience	Faculty	.011*
	Acute BSN Nurse, Low Experience	.385
	<u>Nursing Administrators</u>	<u>.385</u>

Table 18 (continued)

Post Hoc Multiple Comparisons Test		
Nursing	Faculty	.129
Administrators	Acute BSN Nurse, Low Experience	.160
	<u>Acute BSN Nurse, High Experience</u>	<u>.385</u>
Competency 16. Assess client learning needs.		Sig
Faculty	Acute BSN Nurse, Low Experience	.008*
	Acute BSN Nurse, High Experience	.005*
	<u>Nursing Administrators</u>	<u>.053</u>
Acute BSN Nurse, Low Experience	Faculty	.008*
	Acute BSN Nurse, High Experience	.347
	<u>Nursing Administrators</u>	<u>.170</u>
Acute BSN Nurse, High Experience	Faculty	.005*
	Acute BSN Nurse, Low Experience	.347
	<u>Nursing Administrators</u>	<u>.481</u>
Nursing Administrators	Faculty	.053
	Acute BSN Nurse, Low Experience	.170
	<u>Acute BSN Nurse, High Experience</u>	<u>.481</u>
Competency 17. Implement and evaluate teaching plans.		Sig
Faculty	Acute BSN Nurse, Low Experience	.010*
	Acute BSN Nurse, High Experience	.010*
	<u>Nursing Administrators</u>	<u>.108</u>
Acute BSN Nurse, Low Experience	Faculty	.010*
	Acute BSN Nurse, High Experience	.319
	<u>Nursing Administrators</u>	<u>.133</u>
Acute BSN Nurse, High Experience	Faculty	.010*
	Acute BSN Nurse, Low Experience	.319
	<u>Nursing Administrators</u>	<u>.413</u>
Nursing Administrators	Faculty	.108
	Acute BSN Nurse, Low Experience	.133
	<u>Acute BSN Nurse, High Experience</u>	<u>.413</u>

Table 18 (continued)

Post Hoc Multiple Comparisons Test		
Competency 18. Promote healthy lifestyles for individuals, families and communities.		Sig
Faculty	Acute BSN Nurse, Low Experience	.130
	Acute BSN Nurse, High Experience	.001*
	<u>Nursing Administrators</u>	<u>.006*</u>
Acute BSN Nurse, Low Experience	Faculty	.130
	Acute BSN Nurse, High Experience	.659
	<u>Nursing Administrators</u>	<u>.834</u>
Acute BSN Nurse, High Experience	Faculty	.001*
	Acute BSN Nurse, Low Experience	.659
	<u>Nursing Administrators</u>	<u>.725</u>
Nursing Administrators	Faculty	.006*
	Acute BSN Nurse, Low Experience	.834
	<u>Acute BSN Nurse, High Experience</u>	<u>.725</u>
Competency 19. Apply research to nursing practice.		Sig
Faculty	Acute BSN Nurse, Low Experience	.203
	Acute BSN Nurse, High Experience	.001*
	<u>Nursing Administrators</u>	<u>.000*</u>
Acute BSN Nurse, Low Experience	Faculty	.203
	Acute BSN Nurse, High Experience	.461
	<u>Nursing Administrators</u>	<u>.328</u>
Acute BSN Nurse, High Experience	Faculty	.001*
	Acute BSN Nurse, Low Experience	.461
	<u>Nursing Administrators</u>	<u>.690</u>
Nursing Administrators	Faculty	.000*
	Acute BSN Nurse, Low Experience	.328
	<u>Acute BSN Nurse, High Experience</u>	<u>.690</u>
Competency 20. Participate in quality improvement monitoring processes in the healthcare agency.		Sig
Faculty	Acute BSN Nurse, Low Experience	.199
	Acute BSN Nurse, High Experience	.012*
	<u>Nursing Administrators</u>	<u>.008*</u>

Table 18 (continued)

Post Hoc Multiple Comparisons Test		
Acute BSN Nurse, Low Experience	Faculty Acute BSN Nurse, High Experience <u>Nursing Administrators</u>	.199 .006* .004*
Acute BSN Nurse, High Experience	Faculty Acute BSN Nurse, Low Experience <u>Nursing Administrators</u>	.012* .006* .797
Nursing Administrators	Faculty Acute BSN Nurse, Low Experience <u>Acute BSN Nurse, High Experience</u>	.008* .004* .797
Competency 24. Administer IV medications safely to assigned patients.		
		Sig
Faculty	Acute BSN Nurse, Low Experience Acute BSN Nurse, High Experience <u>Nursing Administrators</u>	.032* .005* .174
Acute BSN Nurse, Low Experience	Faculty Acute BSN Nurse, High Experience <u>Nursing Administrators</u>	.032* .648 .213
Acute BSN Nurse, High Experience	Faculty Acute BSN Nurse, Low Experience <u>Nursing Administrators</u>	.005* .648 .213
Nursing Administrators	Faculty Acute BSN Nurse, Low Experience <u>Acute BSN Nurse, High Experience</u>	.174 .213 .213

*p < 0.05

Descriptives

Competency	N	Mean	SD
4. Apply knowledge of cultural diversity to client care.			
Faculty	118	4.29	.72
Acute BSN Nurse, Low Experience	23	3.96	.77
Acute BSN Nurse, High Experience	96	4.00	.82
Nursing Administrators	81	4.09	.81
Total	318	4.13	.78

Table 18 (continued)

Descriptives			
Competency	N	Mean	SD
5. Assume responsibility/accountability for client satisfaction.			
Faculty	118	4.14	.77
Acute BSN Nurse, Low Experience	23	4.39	.78
Acute BSN Nurse, High Experience	96	4.56	.65
Nursing Administrators	81	4.68	.54
Total	318	4.42	.71
6. Utilize concepts of cost-effective care.			
Faculty	118	4.12	.75
Acute BSN Nurse, Low Experience	23	3.87	1.01
Acute BSN Nurse, High Experience	95	4.24	.83
Nursing Administrators	80	4.43	.69
Total	316	4.22	.80
9. Use computer information systems.			
Faculty	118	4.19	.77
Acute BSN Nurse, Low Experience	23	3.35	1.15
Acute BSN Nurse, High Experience	96	3.97	.95
Nursing Administrators	81	4.25	.77
Total	318	4.08	.88
12. Work within interdisciplinary teams.			
Faculty	118	4.54	.58
Acute BSN Nurse, Low Experience	23	4.13	.63
Acute BSN Nurse, High Experience	96	4.38	.64
Nursing Administrators	81	4.52	.67
Total	318	4.46	.63
14. Develop and implement a plan of care.			
Faculty	118	4.75	.63
Acute BSN Nurse, Low Experience	23	4.39	.84
Acute BSN Nurse, High Experience	96	4.52	.62
Nursing Administrators	81	4.60	.63
Total	318	4.62	.65

Table 18 (continued)

Descriptives			
Competency	N	Mean	SD
16. Assess client learning needs.			
Faculty	118	4.71	.47
Acute BSN Nurse, Low Experience	23	4.35	.78
Acute BSN Nurse, High Experience	96	4.48	.68
Nursing Administrators	81	4.54	.61
Total	318	4.57	.61
17. Implement and evaluate teaching plans.			
Faculty	118	4.45	.69
Acute BSN Nurse, Low Experience	23	4.00	.85
Acute BSN Nurse, High Experience	96	4.18	.85
Nursing Administrators	81	4.27	.74
Total	318	4.29	.77
18. Promote healthy lifestyles for individuals, families and communities.			
Faculty	118	4.44	.77
Acute BSN Nurse, Low Experience	23	4.17	.78
Acute BSN Nurse, High Experience	95	4.09	.80
Nursing Administrators	81	4.14	.74
Total	317	4.24	.78
19. Apply research to nursing practice.			
Faculty	118	4.07	.86
Acute BSN Nurse, Low Experience	23	3.78	1.04
Acute BSN Nurse, High Experience	96	3.61	1.03
Nursing Administrators	81	3.56	1.06
Total	318	3.78	1.00
20. Participate in quality improvement monitoring processes in the healthcare agency.			
Faculty	118	3.97	.83
Acute BSN Nurse, Low Experience	23	3.74	.81
Acute BSN Nurse, High Experience	95	4.25	.79
Nursing Administrators	81	4.28	.78
Total	317	4.12	.82

Table 18 (continued)

Descriptives			
Competency	N	Mean	SD
24. Administer IV medications safely to assigned patients.			
Faculty	118	4.58	.83
Acute BSN Nurse, Low Experience	23	4.91	.29
Acute BSN Nurse, High Experience	95	4.84	.55
Nursing Administrators	81	4.72	.60
Total	317	4.72	.68

nurses (mean score: 4.56), and nursing administrators (mean score: 4.68).

(3) Competency 6: utilize concepts of cost-effective care. The faculty in the BSN programs (mean score: 4.12), the most experienced acute care BSN nurses (mean score: 4.24), the most recent BSN graduates (mean score: 3.87), and the nurse administrators (mean score: 4.43), all had significant differences in their perceptions of the importance of this entry-level competency.

(4) Competency 9: use computer information systems. A significant difference was calculated between faculty (mean score: 4.19) and most recent BSN graduate (mean score: 3.35); between nurse administrators (mean score: 4.25) and most recent BSN graduate (mean score: 3.35); and between the most recent BSN graduate (mean score:

3.35) and the most experienced, acute care BSN nurse (mean score: 3.97).

(5) Competency 12: work within interdisciplinary teams. A significant difference was revealed between faculty (mean score: 4.54) and most recent BSN graduates (mean score: 4.13), and between nurse administrators (mean score: 4.52) and most recent BSN graduates (mean score: 4.13).

(6) Competency 14: develop and implement a plan of care. A significant difference was established between faculty (mean score: 4.75) and most recent BSN graduates (mean score: 4.39); between faculty (mean score: 4.85) and most experienced acute care BSN nurses (mean score: 4.52).

(7) Competency 16: assess client learning needs. A significant difference was established between faculty (mean score: 4.71) and most recent BSN graduates (mean score: 4.35); between faculty (mean score: 4.71) and most experienced acute care BSN nurses (mean score: 4.48).

(8) Competency 17: implement and evaluate teaching plans. A significant difference was established between faculty (mean score: 4.45), most recent BSN graduates (mean score: 4.00); among faculty (mean score: 4.45), most experienced acute care BSN nurses (mean score: 4.18) and nurse administrators (mean score: 4.27).

(9) Competency 18: promote healthy lifestyles for individuals, families and communities. A significant difference was established among faculty (mean score: 4.44), most experienced acute care BSN (mean score: 4.09), and nurse administrators (mean score: 4.14).

(10) Competency 19: apply research to nursing practice. A significant difference was established among faculty (mean score: 4.07), most experienced acute care BSN (mean score: 3.61), and nurse administrators (mean score: 3.56).

(11) Competency 20: participate in quality improvement monitoring processes in the healthcare agency. A significant difference was established among faculty (mean score: 3.97), most experienced acute care BSN (mean score: 4.25), and nurse administrators (mean score: 4.28). A significant difference was established between nurse administrators (mean score: 4.28) and most recent BSN graduates (mean score: 3.74).

(12) Competency 24: administer IV medications safely to assigned patients. A significant difference was established among faculty (mean score: 4.58), most recent BSN graduates (mean score: 4.91), and most experienced acute care BSN nurses (mean score: 4.84).

These findings denote differences in the perception of the degrees of importance of entry-level competencies needed by BSNs by nurse administrators, most experienced acute care BSN nurses, most recent BSN graduates and faculty in the BSN

programs. Faculty rated the importance of the competencies higher than nurse administrators for four competencies: (4) apply knowledge of cultural diversity to client care; (12) work within interdisciplinary teams; (18) promote healthy lifestyles for individuals, families and communities; and (19) apply research to nursing practice. Nurse administrators rated the importance of entry-level competencies higher than faculty for four competencies: (5) assume responsibility/accountability for client satisfaction; (6) utilize concepts of cost-effective care; (9) use computer information systems; and (20) participate in quality improvement monitoring processes in the healthcare agency. Most experienced acute care BSN nurses rated the importance of four competencies higher than faculty: (24) administer IV medications safely to assigned patients; (20) participate in quality improvement monitoring processes in healthcare agency; (15) assume responsibility/accountability for client satisfaction and (6) utilize concepts of cost-effective care. Most recent BSN graduates rated Competency 24, administer IV medications safely to assigned patients, higher than faculty and most experienced acute care BSN nurses. Most recent BSN graduates rated seven competencies lower than faculty and nurse administrators: (6) utilize concepts of cost-effective care; (9) use computer information systems; (12) work within interdisciplinary teams; (14) develop and implement a plan of care; (16) assess client learning needs; (17) implement

and evaluate teaching plans; and (20) participate in quality improvement monitoring processes in the healthcare agency. Nurse administrators and the most experienced acute care BSN nurses tended to rate the same competencies higher in importance than faculty: 5, 6, 9, and 20. Most experienced BSN nurses and most recent BSN graduates rated the importance of administration of IV medications higher than faculty. Faculty tended to rate the importance higher for competencies 4, 12, 14, 16, 17, 18, and 19. Overall, nursing faculty had higher expectations of the importance of more entry-level competencies than nurse administrators, most experienced BSNs and most recent BSN graduates.

Null Hypothesis 7: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with degrees higher than master's degrees and those nurses and faculty who have master's degrees or less, in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

Data analysis revealed no significant differences in perceptions of the degrees of importance of entry-level competencies needed by BSNs between nurses in acute healthcare agencies and faculty in BSN programs with degrees higher than a master's degree. A significant difference at the .05 level, tested by using ANOVA, occurred in the faculty group who have a master's degree or less for Competency 4: apply knowledge of cultural diversity to

client care; and Competency 24: administer IV medications safely to assigned patients. Therefore, the null hypothesis was rejected. The mean score for faculty who have a master's degree or less for Competency 4: apply knowledge of cultural diversity to client care was lower (4.19) than the mean score for faculty with a doctoral degree (4.49). The mean score for faculty with master's degrees or less for Competency 24, administer IV medications safely to assigned patients, was higher (4.73) than the mean score for faculty with a doctoral degree (4.31). Table 19 shows the statistical analysis that supports these findings.

There were no differences in perceptions of the importance of the entry-level competencies between nurses in acute healthcare agencies and faculty with doctoral degrees. But, there were differences in perceptions of the degrees of importance of entry-level competencies needed by BSNs between nurses in acute healthcare agencies and faculty in BSN programs with master's degrees or less. A significant difference at the .05 level, tested by using ANOVA, was found for Competency 5, assume responsibility/accountability for client satisfaction; Competency 14, develop and implement a plan of care; Competency 16, assess client learning needs; Competency 17, implement and evaluate teaching plans; Competency 18, promote healthy lifestyles for individuals, families and communities; and Competency 19, apply research to nursing practice. The data are shown in Table 20.

Table 19

Means, Standard Deviation, and ANOVA for Competency 4 and Competency 24: Faculty in BSN Programs Who Have a Master's Degree or Less and Faculty with Doctoral Degrees

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig
Competency 4: Apply knowledge of cultural diversity to client care.					
Between Groups	2.677	1	2.677	5.048	.026*
Within Groups	66.823	126	.530		
Total	69.500	127			
Competency 24. Administer IV medications safely to assigned patients.					
Between Groups	5.247	1	5.247	7.325	.008*
Within Groups	90.253	126	.716		
Total	95.500	127			
*p < 0.05					
Descriptives					
Competency	N	Mean	SD		
4. Apply knowledge of cultural diversity to client care.					
Doctoral	51	4.49	.78		
Master or Below	77	4.19	.69		
Total	128	4.31	.74		
24. Administer IV medications safely to assigned patients.					
Doctoral	51	4.31	1.10		
Master or Below	77	4.73	.62		
Total	128	4.56	.87		

Table 20

Means, Standard Deviation and ANOVA: Faculty and Nurses in
Acute Healthcare Agencies Who Have a Master's Degree or Less

ANOVA					
Competency	Sum of Squares	df	Mean Square	F	Sig
5. Assume responsibility/ accountability for client satisfaction.					
Between Groups	10.499	1	10.499	22.207	.000*
Within Groups	130.483	276	.473		
Total	140.982	277			
14. Develop and implement a plan of care.					
Between Groups	2.452	1	2.452	5.481	.020*
Within Groups	123.462	276	.447		
Total	125.914	277			
16. Assess client learning needs.					
Between Groups	3.039	1	3.039	7.098	.008*
Within Groups	118.170	276	.428		
Total	121.209	277			
17. Implement and evaluate teaching plans.					
Between Groups	4.793	1	4.793	7.599	.006*
Within Groups	174.074	276	.631		
Total	178.867	277			
18. Promote healthy lifestyles for individuals, families and communities.					
Between Groups	7.307	1	7.307	11.823	.001*
Within Groups	169.964	275	.618		
Total	177.271	276			

Table 20 (continued)

Competency	Sum of Squares	df	Mean Square	F	Sig
19. Apply research to nursing practice.					
Between Groups	15.514	1	15.514	15.926	.000*
Within Groups	268.862	276	.974		
Total	284.374	277			

*p < 0.05

Descriptives

Competency	N	Mean	SD
5. Assume responsibility/accountability for client satisfaction.			
Acute BSN Nurse	201	4.58	.65
Educator	77	4.14	.77
Total	278	4.46	.71
14. Develop and implement a plan of care.			
Acute BSN Nurse	201	4.52	.69
Educator	77	4.73	.60
Total	278	4.58	.67
16. Assess client learning needs.			
Acute BSN Nurse	201	4.47	.71
Educator	77	4.70	.49
Total	278	4.53	.66
17. Implement and evaluate teaching plans.			
Acute BSN Nurse	201	4.17	.83
Educator	77	4.47	.68
Total	278	4.26	.80
18. Promote healthy lifestyles for individuals, families and communities.			
Acute BSN Nurse	200	4.11	.80
Educator	77	4.47	.75
Total	277	4.21	.80

Table 20 (continued)

Descriptives			
Competency	N	Mean	SD
19. Apply research to nursing practice.			
Acute BSN Nurse	201	3.60	1.03
Educator	77	4.13	.85
Total	278	3.75	1.01

The mean score for faculty was higher, for five of the six competencies, than for nurses in acute healthcare agencies.

Rank-order of Entry-level Competencies

The open-ended question #25, on the survey instrument, requested the subject to "from the above list of entry-level competencies, please rank the three that you perceive to be the most important for entry-level competencies for BSNs." Tables 21, 22, and 23 respectively, present the competency, frequency, and percent of the most important competency, the second most important competency, and the third most important competency.

Overall, the ranking was (1) to use critical thinking to solve problems and to make decisions; (2) perform a comprehensive client assessment; and (3) assume responsibility and accountability for client outcomes.

Summary of the Findings

This study examined six demographic variables. The variables were tabulated by descriptive statistics.

Table 21

The Most Important Entry-Level Competency as Perceived by
Nurses in Acute Healthcare Agencies and Faculty in BSN
Programs

Competency	Frequency	Percent
Q1.IMP Use critical thinking to solve problems and to make decisions.	170	51.2
Q2.IMP Establish and maintain a positive nurse/client relationship.	20	6.0
Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	4	1.2
Q5.IMP Assume responsibility/accountability for client satisfaction.	3	.9
Q6.IMP Utilize concepts of cost-effective care.	1	.3
Q7.IMP Assume responsibility/accountability for client outcomes.	10	3.0
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	5	1.5
Q10.IMP Delegate aspects of care to healthcare personnel.	3	.9

Table 21 (continued)

Competency	Frequency	Percent
Q12.IMP Work within interdisciplinary teams.	2	.6
Q13.IMP Perform a comprehensive client assessment.	67	20.2
Q14.IMP Develop and implement a plan of care.	6	1.8
Q15.IMP Evaluate outcomes of client care.	2	.6
Q16.IMP Assess client learning needs.	2	.6
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	2	.6
Q19.IMP Apply research to nursing practice.	1	.3
Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	1	.3
Q21.IMP Involve family and/or significant others in decisions regarding client care.	1	.3
Q23.IMP Implement care using critical pathways.	1	.3

Table 21 (continued)

Competency	Frequency	Percent
Q24.IMP Administer IV medications safely to assigned patients.	22	6.6
Total	323	97.3
Missing System	<u>9</u>	<u>2.7</u>
Total	332	100.0

Table 22

The Second Most Important Entry-Level Competency as Perceived by Nurses in Acute Healthcare Agencies and Faculty in BSN Programs

Competency	Frequency	Percent
Q1.IMP Use critical thinking to solve problems and to make decisions.	43	13.0
Q2.IMP Establish and maintain a positive nurse/client relationship.	23	6.9
Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	19	5.7
Q4.IMP Apply knowledge of cultural diversity to client care.	3	.9

Table 22 (continued)

Competency	Frequency	Percent
Q5.IMP Assume responsibility/accountability for client satisfaction.	11	3.3
Q6.IMP Utilize concepts of cost-effective care.	7	2.1
Q7.IMP Assume responsibility/accountability for client outcomes.	46	13.9
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	5	1.5
Q10.IMP Delegate aspects of care to healthcare personnel.	7	2.1
Q12.IMP Work within interdisciplinary teams.	9	2.7
Q13.IMP Perform a comprehensive client assessment.	65	19.6
Q14.IMP Develop and implement a plan of care.	22	6.6
Q15.IMP Evaluate outcomes of client care.	6	1.8
Q16.IMP Assess client learning needs.	1	.3

Table 22 (continued)

Competency	Frequency	Percent
Q17.IMP Implement and evaluate teaching plans.	1	.3
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	4	1.2
Q19.IMP Apply research to nursing practice.	1	.3
Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	1	.3
Q21.IMP Involve family and/or significant others in decisions regarding client care.	5	1.5
Q22.IMP Continue self-development in professional knowledge and skills.	11	3.3
Q23.IMP Implement care using critical pathways.	3	.9
Q24.IMP Administer IV medications safely to assigned patients.	27	8.1
Total	320	96.4
Missing System	<u>12</u>	<u>3.6</u>
Total	332	100.0

Table 23

Third Most Important Entry-Level Competency as Perceived by
Nurses in Acute Healthcare Agencies and Faculty in BSN
Programs

Competency	Frequency	Percent
Q1.IMP Use critical thinking to solve problems and to make decisions.	20	6
Q2.IMP Establish and maintain a positive nurse/client relationship.	23	6.9
Q3.IMP Establish and maintain positive relationships with other members of the healthcare team.	15	4.5
Q5.IMP Assume responsibility/accountability for client satisfaction.	13	3.9
Q6.IMP Utilize concepts of cost-effective care.	8	2.4
Q7.IMP Assume responsibility/accountability for client outcomes.	33	9.9
Q8.IMP Coordinate the care of the client across settings in healthcare agency.	13	3.9
Q9.IMP Use computer information systems.	3	.9

Table 23 (continued)

Competency	Frequency	Percent
Q10.IMP Delegate aspects of care to healthcare personnel.	10	3.0
Q12.IMP Work within interdisciplinary teams.	11	3.3
Q13.IMP Perform a comprehensive client assessment.	22	6.6
Q14.IMP Develop and implement a plan of care.	23	6.9
Q15.IMP Evaluate outcomes of client care.	23	6.9
Q16.IMP Assess client learning needs.	4	1.2
Q17.IMP Implement and evaluate teaching plans.	9	2.7
Q18.IMP Promote healthy lifestyles for individuals, families and communities.	16	4.8
Q19.IMP Apply research to nursing practice.	8	2.4
Q20.IMP Participate in quality improvement monitoring processes in the healthcare agency.	5	1.5

Table 23 (continued)

Competency	Frequency	Percent
Q21.IMP Involve family and/or significant others in decisions regarding client care.	5	1.5
Q22.IMP Continue self-development in professional knowledge and skills.	31	9.3
Q23.IMP Implement care using critical pathways.	3	.9
Q24.IMP Administer IV medications safely to assigned patients.	17	5.1
Q25	1	.3
Total	316	95.2
Missing System	<u>16</u>	<u>4.8</u>
Total	332	100.0

Additionally, three research questions and seven null hypotheses were tested with frequency distributions, narrative analysis of themes, t -tests for independent samples, ANOVA, Post Hoc Multiple Comparison Tests (Least Squares Difference Method) and Kendall's tau b. The data analyses for the research questions and null hypotheses are detailed in Tables 4 through 20.

All seven null hypotheses were rejected as there was a significant difference in: (1) perceptions of the degrees of

importance of entry-level competencies needed by BSNs between nurses in acute healthcare agencies and faculty in BSN programs; (2) perceptions of the degrees of importance of entry-level competencies needed by BSNs between the male and female respondents; (3) perceptions of the degrees of importance of entry-level competencies needed by BSNs between respondents who are over 43 years of age and those who are 43 years of age and under; (4) perceptions of the degrees of importance of entry-level competencies needed by BSNs according to years of nursing education; (5) perceptions of the degrees of importance of entry level competencies needed by BSNs according to years of clinical nursing experience; (6) perceptions of the degrees of importance of entry-level competencies needed by BSNs according to position held and experience; (7) perceptions of the degrees of importance of entry-level competencies needed by BSNs according to levels of education. Care plans, bed-making, and bed-bathing were the top three competencies identified that remain part of the current BSN education but were perceived as no longer necessary. The most frequently identified entry-level competencies needed for BSN graduates, not identified as an entry-level competency on the questionnaire included technical skills and legal and ethical standards. The most important entry-level competency (use critical thinking to solve problems and to make decisions) is displayed in Table 21. The second most important entry-level competency (perform a comprehensive

client assessment) is displayed in Table 22. The third most important entry-level competency (assume responsibility/accountability for client outcomes) is displayed in Table 23.

Chapter 5 provides a summary, discussion of the research findings, conclusions, implications for nursing service/education, and recommendations for future research.

CHAPTER 5

Summary, Findings, Conclusions and Recommendations

This chapter presents a summary and discussion of the research findings. It also offers conclusions, implications for nursing service/education, and recommendations for future research.

Summary

Striking changes are occurring in the American healthcare system: Reorganization of care in hospitals, redesign of staffing patterns, an increase in patient acuity, shorter length of stay in the acute healthcare settings, and fewer residents have impacted the profession of nursing. The majority of registered nurses practice in acute healthcare agencies (Keepnews, 1998) and this is expected to continue in the future. The American Association of Colleges of Nursing (1998) reports that with the rising complexity of acute care, the need for RNs in hospitals will increase by 36% by 2020. Therefore, it is crucial that education and service focus on providing a reasonable cost-effective educational program and positive transitional work environment for the new BSN graduate (Stull & Katz, 1986).

This study focused on the identification of entry-level competencies needed by Bachelor of Science in Nursing

(BSN) degree graduates who will begin employment in acute healthcare agencies, in the next 10 years in Tennessee. The purpose of the study was to gain increased awareness of the competencies needed by graduates of BSN programs in Tennessee in order to meet the demands of the acute healthcare agencies. The opinions of nurse educators, nurse administrators, recently graduated BSNs, and experienced BSN graduates were solicited to assess the congruency of perceptions.

A listing of 24 entry-level competencies was determined from a review of the literature, a review by nursing experts, and a pilot study conducted in February, 1998. Eighty-two nurse administrators, 96 experienced BSNs, 23 recent BSN graduates, 117 faculty members, and 11 Dean/Directors completed the questionnaire which contained two parts: a demographic survey and a 24-item entry-level competency scale. The subjects were requested to rate the importance of the entry-level competencies on a 5-point Likert-type scale; asked to indicate whether they had observed the competency in new BSN graduates; rank-order the importance of the entry-level competencies; list any additional entry-level competencies that they felt were needed for BSN graduates; and to list any competencies in which most BSNs are currently trained but that are no longer necessary.

Three research questions and seven hypotheses were posed. Descriptive and inferential statistical techniques

included t -tests for independent samples, ANOVA, Post Hoc Multiple Comparison Tests (Least Squares Difference Method), Kendall's tau b, frequency distributions, and measures of central tendency. The statistical analyses were performed using Microsoft Access, Version 2.0 and SPSS for Windows Release 8.0.0 (22 Dec. 1997).

The investigator found that there was a statistically significant difference between nurses in acute healthcare agencies and faculty in BSN programs in the perceptions of the importance of the entry-level competencies needed by BSN graduates. In addition, the findings indicated that there was a weak (Kendall's tau b [correlation coefficient] < 0.3) but significant relationship across 20 entry-level competencies between the ratings of the importance of the competency and the observation of the competency in new BSN graduates. The relationship was inverse; that is, the higher the perceived importance of the competency, the less frequently the competency was observed or vice versa. This phenomenon occurred between the rating of the importance of three competencies and the observation of these competencies. This has implications for future curriculum development.

The rank-order of the importance of the 24 entry-level competencies was: (#1) to use critical thinking to solve problems and to make decisions; (#2) perform a comprehensive client assessment; and (#3) assume responsibility and accountability for client outcomes. Technical skills and

legal/ethical standards were the two most frequently mentioned competencies not stated on the instrument but viewed as additional competencies needed by BSN graduates. Care plans, bed-making, and bed-bathing were the three most frequently recorded competencies that remain part of current BSN education but are no longer perceived as necessary.

Discussion of Research Findings

The research findings were validated by discussion of the three research questions and seven hypotheses. Research Question 4 and Research Question 5 are discussed in concert with the seven hypotheses. Even though the findings are specific to the state of Tennessee, several implications have surfaced that might impact education/service nationwide.

Research Question 1: What are the degrees reported to which the entry-level competencies have been observed in new BSN graduates by nurses in acute healthcare agencies and faculty in the schools/colleges of nursing in Tennessee?

The findings indicated that there was a connection between the subjects' scoring of the importance of each competency and the scoring of the observation of each competency. For example, if the subject rated the importance of the competency high, then the subject tended to rate the observation of that competency high. Also, a bimodal distribution of means was tabulated from the means of the 24 competencies in the Importance column. These data clearly

illustrated that the mean recorded for the observation of the higher-ranked competencies was totally separated from the mean recorded for the observation of the lower-ranked competencies. There were 11 competencies in the lower-ranked importance group. Therefore, the subjects would have tended to rank the observation of that competency lower too. The lower-ranked competencies were: (4) apply knowledge of cultural diversity to client care; (6) utilize concepts of cost-effective care; (8) coordinate the care of the client across settings in healthcare agency; (9) use computer information systems; (10) delegate aspects of care to healthcare personnel; (11) initiate referrals to appropriate departments and agencies; (17) implement and evaluate teaching plans; (18) promote healthy lifestyles for individuals, families, and communities; (19) apply research to nursing practice; (20) participate in quality improvement monitoring processes in the healthcare agency; and (23) implement care using critical pathways.

The Virginia Hospital Association (1992) Survey on new RN competencies reported hospitals expected new nurse graduates to supervise ancillary nursing staff effectively and to understand concepts of quality assurance and improvement. But, in fact, these competencies were not evident in the actual performance of the new nurse graduate. These data are comparable to the findings in this study for 2 of the 11 competencies in the lower-ranked importance group: delegate aspects of care to healthcare personnel, and

participate in quality improvement monitoring processes in the healthcare agency. In the study conducted by Joyce-Nagata, Reeb, and Burch (1989), similar baccalaureate competencies were not evidenced in nursing practice by nursing administrators: (1) identifies multiple resources available to implement the plan of care and selects those most likely to facilitate goal achievement; (2) plans experiences pertinent to the learning needs of nursing team members; (3) critiques existing studies in nursing and other disciplines; (4) conducts action oriented, time limited, minimally complex studies; and (5) applies findings of own and research of and for the improvement of client care.

The fact that 11 of the 24 entry-level competencies were not observed as frequently as the other 13 entry-level competencies in new BSN graduates might be attributed to what Sullivan and Decker (1997) refer to as "low skill recognition." The authors write that "low skill recognition" is the tendency for new graduates not to remember they have demonstrated various skills and knowledge required of a registered nurse. Thus, when the new graduate moves from a student role to a graduate nurse role in a changing healthcare system that is unpredictable and chaotic, they rapidly become disoriented. The disorientation the new graduate experiences could be the explanation for this finding. Perhaps, the expectations of the new graduate by nurses in acute healthcare agencies and faculty in BSN programs is unrealistic. For that reason, practicing nurses

and educators need to jointly discuss and possibly define only the very basic core competencies for the new BSN graduate, so the transition period from student to graduate will not be overwhelming and disorienting.

There were three exceptions to the tendency for the ranking of the importance of the competency to be connected to the ranking of the observation of that competency, for: (1) use critical thinking to solve problems and to make decisions; the mean for the Importance column was 4.84 (high) and the mean for the Observation column was 3.07 (low); for (7) assume responsibility/accountability for client outcomes; the mean for the Importance column was 4.54 (high) and 3.00 (low) for the Observation column; and for (9) use computer information systems; the mean for the Importance column was 4.08 (low) and 3.19 (high) for the Observation column.

One explanation for these findings may be related to the particular competency and how that competency is perceived by new BSN graduates. New graduates are consumed by their desire to competently perform complex technical skills and may perceive competencies such as critical thinking and accountability for client outcomes as less important during their initial transition period in an agency. Also, BSN graduates may have the conviction that they possess these skills and can demonstrate them, successfully, after they have mastered the technical skills required by the agency.

Ability to use technology in the workplace has been stressed frequently in the literature: Butts and Wimer (1992), Johnson (1995), Manuel and Sorensen (1995), and Pew (1991). Therefore, the high mean score (3.19) found for the observation of Competency 9, use computer information systems, is reasonable. The low mean score (4.08) in the Importance column for the same competency might be due to the fact that each agency is unique, has its own computer system, and needs to personally orient the new employee to its software programs. Maybe, the recent emphasis on computer information systems in nursing curricula is somewhat misguided at present.

Research Question 2: What are the additional competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee, as perceived by nurses in acute healthcare agencies and faculty in BSN programs?

The most frequently cited additional competencies were technical skills, legal and ethical standards, organizational skills, and leadership skills. Eubanks (1992) suggested that the curricula of nursing schools needed to be changed to enfold the hospitals' new expectation of nurses. The study, cited in her article, identified eight competencies needed by new RNs: "IV therapy care, caring for heavily acute patient load, caring for more than two patients, care management, leadership and collaboration, awareness of total quality management (TQM), awareness of

healthcare legislative and financial environments, and working within new patient care practice models" (p. 50). Primms' (1986) recommendations for BSN management competencies mirror the responses recorded for this question. These two studies corroborate the findings of this study. Therefore, is there a message for the faculty related to changes that are occurring in practice patterns in the service setting that need to be considered in curriculum development? The answer is clearly an affirmative one.

Alspach (1990) predicted hospitals in the future will be critical care centers and that all direct care will be provided by highly skilled technical nurses. The ANA (1997) identified technical competencies were required of RNs who remain in acute care. The American Association of Colleges of Nursing (1998) wrote new graduates who possess the most education and advanced skills will find a strong market. The report also cited the fact that hospitals are experiencing shortages of nurses in critical and acute care and operating areas.

Additionally, with the increase in acuity of hospitalized patients the skill base and scope of practice of the BSN graduate might need to be broadened to include critical care competencies (Aiken, 1990; Alspach, 1990; Anderson, 1993; Oermann, 1991, 1994; Oermann, Dunn, Munro, & Monahan, 1992; Oermann & Provenzano, 1992; and Porte-Gendron, Simpson, Carlson, & Van de Kamp, 1997). In the qualitative study conducted by Porte-Gendron et al. (1997) a

competency list was developed for baccalaureate nursing curricula and hospital inservice programs to integrate new graduates into critical care. This study illustrated the fact that critical care competencies have changed over the past 10 years. Thus, nurse educators and nurse managers needed to evaluate the competencies currently taught in their programs and consider modifications in curricula, if needed.

The second most frequently cited additional competency in the present study was related to legal and ethical standards. Although professional nurses have been legally accountable for their actions since the turn of the century, the changing healthcare environment mandates nurses be informed of the legal and ethical aspects of their profession (Deloughery, 1998). Additional competencies listed included: organization skills/priority setting and leadership skills. In the investigator's opinion these three concepts were interwoven in many of the competencies listed on the questionnaire, but this was apparently unclear to the subjects.

These findings reveal the need for nurse educators to design curricula to include more technical competencies, legal/ethical standards, organizational skills/priority setting, and leadership skills.

Research Question 3: What are the competencies that remain part of current BSN education but are no longer necessary as perceived by nurses in acute healthcare

agencies and faculty in the schools/colleges of nursing in Tennessee?

Care plans were identified most often as an unnecessary skill. Deloughery (1998) writes with the use of computerized client records, managed care, and case management, the use of standardized care plans and critical pathways have been increasing. Because of this trend, the finding is not surprising.

Bed-making and bed-bathing were also identified as unnecessary skills still taught in BSN curricula. This finding is, also, not surprising as several authors note that other personnel may be performing these tasks. One of the trends affecting nurses' employment as described by Canavan (1997) is "the skill ratio is declining in acute-care settings, with proportionately fewer registered (RNs) and more licensed practical nurses and nurse assistants being utilized" (p. 13). Maffeo (1998) affirms the unlicensed assistive personnel (UAP) are replacing RNs performing tasks such as giving bed baths, changing soiled linen, obtaining blood gases, changing feeding tubes, etc. Should faculty consider elimination of these competencies (care plans, bed-making, and bed-bathing) in the curriculum design? The investigator believes they should. Faculty in BSN programs and practicing nurses, in the region served by each school/college of nursing, should discuss the impact of these changes (financially/outcomes/quality) for academia and the service agency. Possibly, instructor time spent on

teaching these skills in the clinical laboratory could be converted to more clinical hours, for the student, in the service agency.

The initial purpose of this study was to identify entry-level competencies needed by graduates of BSN programs in Tennessee, in order to meet the demands of the acute healthcare agencies. Thus, having identified these entry-level competencies the faculty in the BSN programs would have a solid foundation for planning and designing core content for future curriculum that would meet the demands of the acute healthcare agencies. This next section will provide a discussion of the findings related to the hypotheses tested.

Null Hypothesis 1: There are no differences between nurses in acute healthcare agencies and faculty in BSN programs in their perceptions about the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee.

The null hypothesis was rejected for 12 of the 24 entry-level competencies. Means for three of the competencies were higher for nurses in acute healthcare agencies than for faculty in BSN programs: (5) assume responsibility/accountability for client satisfaction; (20) participate in quality improvement monitoring processes in the healthcare agency; and (24) administer IV medications safely to assigned patients. Current trends in acute

healthcare agencies account for this data. Prescott (1993) writes that hospitals will have to convince consumers that the quality of provided services equals or exceeds that offered by competing institutions. Thus, the need for BSNs to assume responsibility/accountability for client satisfaction is to ensure clients will want to return to their agency for future care needs. In addition, she stated that many hospitals are using a continuous quality improvement process to monitor quality of patient care. In a study conducted by Butts and Witmer (1992), performing IV administration was rated sixth in a list of important competencies expected by nursing managers of new graduates.

The means for the remaining nine competencies were lower for nurses in acute healthcare agencies than faculty in BSN programs. These included: (1) use critical thinking to solve problems and to make decisions; (4) apply knowledge of cultural diversity to client care; (9) use computer information systems; (14) develop and implement a plan of care; (15) evaluate outcomes of client care; (16) assess client learning needs; (17) implement and evaluate teaching plans; (18) promote healthy lifestyles for individuals, families, and communities; and (19) apply research to nursing practice. One explanation for this occurrence of higher mean scores for faculty in BSN programs than nurses in acute healthcare agencies may be related to the "hyperturbulence" of American health care as described by Shortell, Gilles and Devers (1995). The authors write that

several of the requirements for a hospital to be successful, in the future, will be to provide quality service, draw on patient satisfaction, and outcome data.

Because of these expectations in acute healthcare agencies, nurses are confronted, daily, with issues of patient satisfaction, quality improvement monitoring, and the safe administration of IV medications. Starting IVs is an invasive skill that places the patient and nurse at risk for infection: the patient, because of the possibility of contaminated equipment or needles; and the nurse, because of the possibility of danger of a needle stick from contaminated blood and/or body fluids (Ingram, 1996). All healthcare agencies have risk management programs that review and appraise safety and risk aspects of patient care routinely (Sullivan & Decker, 1997). Therefore, educators from the academic environment who are not faced daily with these critical issues, place emphasis on a repertoire of competencies instead of focusing on the day-to-day critical competencies needed for survival by the new BSN graduate in an acute healthcare setting. Is this appropriate in today's healthcare climate of cost-containment and reduced length of time for new graduate orientation?

The answer to this question will have to be resolved by nursing faculty and practicing nurses who are willing to continuously dialogue about revising the curriculum to meet the demands of the service agencies. Nurse educators have developed BSN curricula and have views of nursing

competencies that seem to be dissociated from those of practicing nurses. If we assume that experienced practicing nurses are a better authority than are nurse educators, then the inevitable conclusion is that the curriculum needs to be strengthened to meet the expectations of practice. In particular, BSN curricula may need more emphasis on: (1) responsibility/accountability for client satisfaction; (2) participation in quality improvement monitoring processes in the healthcare agency; and (3) administration of IV medications.

Null Hypothesis 2: There are no differences between the male and female respondents in acute healthcare agencies and faculty in BSN programs in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee.

The null hypothesis was rejected for 5 of the 24 entry-level competencies: (4) apply knowledge of cultural diversity to client care; (11) initiate referrals to appropriate departments and agencies; (16) assess client learning needs; (17) implement and evaluate teaching plans; and (22) continue self-development in professional knowledge and skills. The male respondents (20) had lower mean scores than the female respondents (308) for the above five entry-level competencies. These data indicate that male nurses had lower expectations than female nurses for these five entry-level competencies for the BSN graduate.

Null Hypothesis 3: There are no differences between nurses in acute healthcare agencies and faculty in BSN programs who are over 43 years of age and the nurses and faculty who are 43 years of age and under in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

The null hypothesis was rejected. The range of mean scores for nursing faculty tended to be higher than the range of mean scores for acute healthcare nurses in both age groups.

The practicing nurses in both age groups ranked (5) responsibility/accountability for client satisfaction higher than faculty. The practicing nurses in the "over 43 years of age" group ranked (20) participate in quality improvement monitoring processes in the healthcare agency higher than nursing faculty. The ANA (1996) study supports these findings. The skill sets identified for RNs who stay in acute care will emphasize nurses' developing good interpersonal skills in dealing with patients and physicians, in order to market the hospital to these groups. Also, the study reports nurses are being asked to provide treatment more efficiently through monitoring of the processes.

Nursing faculty ranked the competencies: (4) apply knowledge of cultural diversity to client care; (14) develop and implement a plan of care; (16) assess client learning

needs; (17) implement and evaluate teaching plans; (18) promote healthy lifestyles for individuals, families, and communities; and (19) apply research to nursing practice higher than practicing nurses. Nursing faculty seasoned with academic and professional wisdom have been found to emphasize concepts of cultural diversity (Kulwicki & Bolonik, 1996). A trend identified by Deloughery (1998): two minorities in particular have increased in numbers in America over the past 20 years: 15 million Spanish-speaking persons and 3.5 million Asian Americans. Population projections show an acceleration in this trend by the year 2025. This projection further supports the importance of applying knowledge of cultural diversity to client care. Faculty were responsive to futuristic trends identified by healthcare and nursing leaders (ANA, 1996; Manuel & Sorensen, 1995; NLN, 1991) demonstrated by the ranking of the importance of these competencies: (16) assess client learning needs; (18) promotion of healthy lifestyles for individuals, families, and communities; and (19) applying research to nursing practice higher than nurses in acute healthcare agencies.

The findings seem reasonable based on the difference in focus and orientation of educators versus service personnel. Nursing educators practice in an academic environment. Therefore, they tend to project and envision futuristic needs for the BSN graduate, in an effort to maintain the graduates' identity and marketability in the 21st century.

Whereas, service personnel are working in such a highly competitive, changing acute care environment that causes them to primarily focus on what they need to know to survive today. This dissimilarity can be resolved if both parties are willing to take time to focus on the immediate outcomes needed by the new BSN graduate. The only impediment to the success of this endeavor would be the time commitment by both parties. Certainly, the effort will have to be given high priority to be successful.

Null Hypothesis 4: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years, and 30 years or more of nursing education experience and the nurses and faculty with 0-9 years, 10-19 years, 20-29 years, and 30 years or less of nursing education in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

The null hypothesis was rejected. The mean score for faculty with 30 years and more of nursing education experience was lower than all faculty groups for the competency item 23: implement care using critical pathways. This finding was predictable based on the recent evolution of this type of care planning concept in acute healthcare settings. Possibly, faculty with 30 years or more of nursing education experience have not been exposed clinically to the increasing use of critical pathways, nor has there been an

abundance of nursing research in the literature, validating their effectiveness versus nursing care plans.

In addition, the findings reveal that nurses in acute healthcare agencies with 0-9 years of nursing education experience mean score was higher than all other groups of nurses for the competency item 3: establish and maintain positive relationships with other members of the healthcare team. The average years of nursing education experience for nurses in acute healthcare agencies was found to be 0.44 years. The majority of practicing nurses (200 out of 203) were in this category. For that reason, this finding is reflective of the fact that practicing nurses today are participating on care teams in acute healthcare agencies. These care teams are generally interdisciplinary, involving personnel from other services/disciplines to plan care for clients (Sullivan & Decker, 1997; Wunderlich, Sloan, & Davis, 1996). Hence, nurses in acute healthcare agencies realize the importance of maintaining positive relationships with other members of the healthcare team.

Null Hypothesis 5: There are no differences between nurses in acute healthcare agencies and faculty in BSN programs with 0-9 years, 10-19 years, 20-29 years, and 30 or more of clinical nursing experience and nurses and faculty with 0-9 years, 10-19 years, 20-29 years, and 30 years or less of clinical nursing experience in their perceptions of the degrees of importance of entry-level competencies needed

by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

The null hypothesis was rejected. The findings reveal nursing faculty with the highest number of years of clinical nursing experience had the highest mean score for the competency item 17: implement and evaluate teaching plans. Practicing nurses with 30 years or more of clinical nursing experience had the lowest mean score for the competency item 4: apply knowledge of cultural diversity to client care. The insight gained from years of clinical nursing experience (average 19.67 years) may have been the reason nursing faculty ranked the importance of Competency 17, implement and evaluate teaching plans, high. This finding is similar to recommendations made by Primm (1986) and Stull (1986) for the BSN graduate. Faculty have possibly witnessed nurses not providing clients with needed health information related to their disease condition as frequently as needed during their years of clinical experience. For that reason and the fact that clients' length of stay is drastically reduced in the acute healthcare agencies, faculty have higher expectations for the importance of this competency item 17, implement and evaluate teaching plans, than practicing nurses.

Factors that might have impacted the low ranking of the Competency 4, apply knowledge of cultural diversity to client care, in practicing nurses with 30 years or more of clinical nursing might have been: (1) Tennessee has not experienced a great influx of Hispanics, Asians, or persons

from the Middle East; and (2) the concept has received increasingly more attention in nursing education than in healthcare in the past 10 years; therefore this group of nurses would not have been exposed to this phenomenon in their nursing education program.

Null Hypothesis 6: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs by position held and experience in their perceptions of the degrees of importance of entry-level competencies needed by BSNs to begin practice in acute healthcare agencies, in the next 10 years in Tennessee. The positions analyzed included nurse administrators; most experienced, acute care BSN nurses; most recent BSN graduates; and faculty in BSN programs.

The null hypothesis was rejected. The findings indicated there was a marked difference in the perceptions of the degrees of importance of entry-level competencies needed by BSNs by nurse administrators, most experienced acute care BSN, most recent BSN graduate and faculty in BSN programs for 12 competencies: (4) apply knowledge of cultural diversity to client care (nursing faculty's perception of the importance of this competency was higher than the most experienced BSN nurse); (5) assume responsibility/accountability for client satisfaction (nursing faculty's perception of the importance of this competency was lower than all practicing nurses); (6) utilize concepts of cost-effective care (nursing faculty's

perception of the importance of this competency was lower than nurse administrators and the most experienced BSN nurse); (9) use computer information systems (nurse administrators' perception of the importance of this competency was higher than nursing faculty and all BSN nurse respondents); (12) work within interdisciplinary teams (nursing faculty's perception of the importance of this competency was higher than nurse administrators and most recent BSN graduates); (14) develop and implement a plan of care (nursing faculty's perception of the importance of this competency was higher than all BSN nurse respondents); (16) assess client learning needs (nursing faculty's perception of the importance of this competency was higher than all BSN nurse respondents); (17) implement and evaluate teaching plans (nursing faculty's perception of the importance of this competency was higher than all BSN nurse respondents); (18) promote healthy lifestyles for individuals, families, and communities (nursing faculty's perception of the importance of this competency was higher than the nurse administrators and most experienced BSN nurses); (19) apply research to nursing practice (nursing faculty's perception of the importance of this competency was higher than nurse administrators and most experienced BSN nurses; (20) participate in quality improvement monitoring processes in the healthcare agency (nurse administrators' perception of the importance of this competency was higher than nursing faculty and all BSN respondents); and (24) administer IV

medications safely to assigned patients (most recent BSN graduates' perception of the importance of this competency was higher than nursing faculty and most experienced BSN nurses).

The findings regarding the perceptions of the most recent BSN graduates related to IV medications was consistent with the recent ANA study (1996) recommendation to sharpen technical skills, and the Butts and Witmer (1992) call for IV administration competency. The ANA study (1996) also recommended that RNs who work in acute healthcare agencies develop and maintain excellent relations with patients and physicians in order to market their agency and provide treatment in the context of financial accountability. It is therefore not surprising that the nurse administrators had high expectations for competency items (5): assume responsibility/accountability for client satisfaction and (6) utilize concepts of cost-effective care.

Recommendations from Primm (1986) and Stull (1986) support the nursing faculty's perception of the importance of the teaching role of the BSN graduate. In addition, Edwards' (1996) and Nursing Administrators from Upper East Tennessee recommend that BSNs focus on wellness and be committed to lifelong learning. With the above differences in perceptions of which entry-level competencies are important for BSN graduates, it seems advisable for curriculum planners to rethink these issues.

The differences in perceptions between nursing educators and practicing nurses regarding which entry-level competencies are most important for BSN graduates is similar to the disharmony reported between nursing education and nursing service by Ehrat (1979). One goal for the projects headed by Primm (1986) and Stull (1986) was consensus for entry-level competencies for BSNs, between nursing service and nursing education. That goal is still evolving as evidenced by this study and studies by del Bueno (1994), Eubanks (1992), Johnson (1995), and Manuel and Sorensen (1995). In contrast, Stull and Katz (1986) report finding education and service having similar expectations of new graduates. The problem they encountered was the functioning of the new graduate. For instance, the nurse administrators reported the new graduate did not exhibit the technical skills required of the position. Once again, these findings suggest that nursing educators and practicing nurses in acute healthcare systems periodically review the curricula in BSN programs as to their relevancy to clinical practice.

Null Hypothesis 7: There are no differences between the nurses in acute healthcare agencies and faculty in BSN programs with degrees higher than master's degrees and those nurses and faculty who have a master's degree or less in their perceptions of the degrees of importance of the entry-level competencies needed by BSNs to begin practice in acute healthcare agencies in the next 10 years in Tennessee.

The null hypothesis was rejected. Nursing faculty with a doctoral degree had higher perceptions of the importance of Competency 4, apply knowledge of cultural diversity to client care, than nursing faculty with a masters' degree or less. Nursing faculty with a masters' degree or less had higher perceptions of the importance of Competency 24, administer IV medications safely to assigned patients, than nursing faculty with a doctoral degree. Ingram's (1996) study reported similar findings: Subjects with advanced degrees had lower expectations for monitoring IVs.

Perceptions of nurses in acute healthcare agencies and faculty in BSN programs with master's degrees or less differed significantly in their perceptions of the importance of six entry-level competencies. Once again, faculty in BSN programs had higher expectations for the importance of competencies (14) develop and implement a plan of care; (16) assess client learning needs; (17) implement and evaluate teaching plans; (18) promote healthy lifestyles for individuals, families and communities; and (19) apply research to nursing practice. Also, nurses in acute healthcare agencies had, as previously noted, higher expectations of the importance of Competency 5, assume responsibility/accountability for client satisfaction. These findings are similar to findings reported earlier in this study. Thus, these data reinforce the need for faculty and nurses in acute healthcare agencies to meet and discuss entry-level competencies needed by BSN graduates that both

could support and begin to realistically implement in their respective institutions.

Conclusions

1. Changes in healthcare necessitates the nursing educators and the nurses in acute healthcare agencies periodically evaluate BSN curricula as to their relevancy to clinical practice.

2. The differences between nurses in acute healthcare agencies and faculty in BSN programs in their perceptions of which entry-level competencies are important for BSN graduates deserve attention and thought by curriculum planners.

3. Practicing nurses and faculty should meet periodically to discuss these findings in light of the need to reduce costly orientation programs in agencies for the new BSN graduate.

4. Nurses in acute healthcare agencies and faculty in BSN programs need to discuss why the competencies ranked in the "higher importance" group weren't being observed as frequently in BSN graduates; i.e., critical thinking.

5. The recent emphasis on competency with computer systems in nursing curricula is not perceived as important to nurses in acute healthcare agencies and may need to be modified by curriculum designers.

6. Increased emphasis on technical skills, legal/ethical standards, organizational skills/priority setting,

and leadership skills may be needed in BSN curriculum being designed and planned by faculty.

7. The importance of care plans, bed-making, and bed-bathing should be reconsidered by educators when designing future curricula.

Implications for Nursing Service/Education

1. The changes in the American healthcare system mandates consideration of the cost of orientation for the BSN graduate in the acute healthcare agencies related to the expected competencies and outcomes.

2. The differences in the perceptions of the importance of entry-level competencies between nurses in acute healthcare agencies and nursing faculty may well contribute to the disorientation in the new BSN graduate.

3. The lower ranking of the observation of 11 entry-level competencies needs to be addressed in the context of concerns relevant to their need by the new BSN graduate.

4. The additional competencies: technical skills, legal and ethical standards, organizational skills, and leadership skills need to be considered in future curriculum planning.

5. Faculty in BSN programs should consider designing and planning a course devoted solely to the teaching of critical thinking concepts.

Recommendations for Future Research

Based on the findings of this study, several areas of further study are recommended:

1. The need for a critical care course track in BSN programs should be investigated due to the increased acuity of patients in acute healthcare agencies and the findings in this study supporting the need for more technical skills.

2. Teaching strategies to develop effective outcomes of critical thinking.

3. Establish joint meetings between service personnel and nursing faculty to discuss curriculum design in light of the healthcare changes.

4. Evaluate the application of the entry-level competencies in practice by the BSN graduate.

5. Curriculum content and its applicability to the service arena.

6. Nursing faculty and service personnel discuss the cost-effectiveness and outcomes of the possible elimination of writing of nursing care plans, bed-making and bed-bathing in nursing curricula.

7. Whether increased clinical experiences for the BSN student would impact the outcomes.

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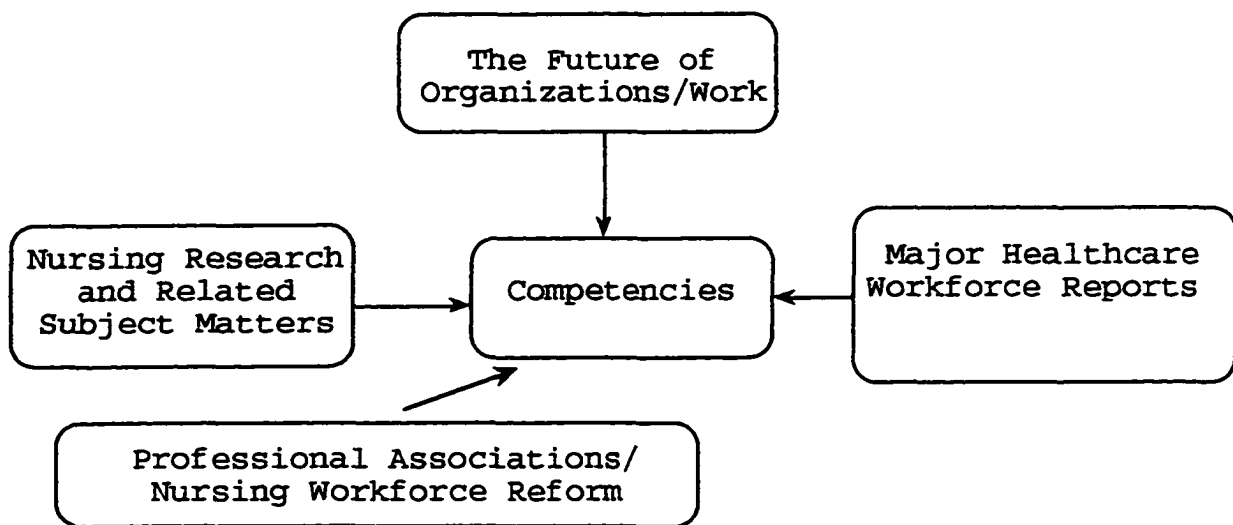
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APPENDICES

APPENDIX A
FACTORS THAT IMPACT ON IDENTIFICATION OF
ENTRY-LEVEL COMPETENCIES NEEDED BY
BACCALAUREATE OF SCIENCE IN NURSING (BSN)
GRADUATES TO ASSUME CAREERS IN ACUTE
HEALTHCARE AGENCIES

Factors That Impact on Identification of
Entry-level Competencies Needed by
Baccalaureate of Science in Nursing (BSN)
Graduates to Assume Careers in Acute Healthcare Agencies



- Pew Health Professions Commission Reports
- Healthy America: Practitioners for 2005
- Healthy People 2000
- Joint Commission on Accreditation of Healthcare Organizations
- National Conference Report: Overview: Multiskilling and the Allied Health Workforce
- Health Resources & Services Administration (Newslink)
- National Academy for State Health Policy
- Department of Health & Human Services Report
- State Nurse Practice Acts
- State Licensure Laws

Professional Associations/
Nursing Workforce Reform

- American Nurses Association
- National League for Nursing
- American Organization of Nurse Executives
- American Hospital Association
- American Association of Colleges of Nursing

Nursing Research and Related Subject Matters

- Research Conducted by Service Agencies/ Academe
- Expectations of Employers
- Competency Statements
- Standards

The Future of Organizations /Work

- Predictions of Future Organizations and Work

APPENDIX B
ENTRY-LEVEL COMPETENCIES FOR BSN
GRADUATES: MATRIX

Entry-Level Competencies for BSN Graduates: Matrix

Competencies	Vision for Nursing Education NLN 1993	AACN 1997	AACN AONE NOADN Diff Practice 1995	Acute Care Nurse in Transition ANA 1996	CO Diff Practice Model 1992	MS Competency Model 1997	SC Regional Consortia 1997	Nursing Ed. Advisory Comm (NEAC) Report (Texas) 1993	Primm 1986	Stull 1986	Healthy America: Practitioners for 2005 1991	Pew Health Professions Commission 1995
1. Use critical thinking to solve problems and to make decisions.	X	X				X	X	X				
2. Establish and maintain a positive nurse/client relationship.		X			X	X	X	X		X		
3. Establish and maintain positive relationships with other members of the healthcare team.	X	X	X	X	X			X		X		
4. Apply knowledge of cultural diversity to client care.	X	X			X		X	X			X	

Competencies	Vision for Nursing Education NLN 1993	AACN 1997	AACN AONE NOADN Diff Practice 1995	Acute Care Nurse in Transition ANA 1996	CO Diff Practice Model 1992	MS Competency Model 1997	SC Regional Consortia 1997	Nursing Ed. Advisory Comm (NEAC) Report (Texas) 1993	Primm 1986	Stull 1986	Healthy America: Practitioners for 2005 1991	Pew Health Professions Commission 1995
5. Assume responsibility/accountability for client satisfaction.		X					X	X				
6. Utilize concepts of cost effective care.	X	X	X				X	X	X		X	X
7. Assume responsibility/accountability for client outcomes.		X				X	X	X			X	
8. Coordinate the care of the client across settings in healthcare agency.		X		X			X		X		X	

Competencies	Vision for Nursing Education NLN 1993	AACN 1997	AACN AONE NOADN Diff Practice 1995	Acute Care Nurse in Transition ANA 1996	CO Diff Practice Model 1992	MS Competency Model 1997	SC Regional Consortia 1997	Nursing Ed. Advisory Comm (NEAC) Report (Texas) 1993	Primm 1986	Stull 1986	Healthy America: Practitioners for 2005 1991	Pew Health Professions Commission 1995
9. Use computer/information systems		X				X	X	X			X	
10. Delegate aspects of care to healthcare personnel.		X	X				X	X	X	X		
11. Initiate referrals to appropriate departments and agencies.			X						X			
12. Work within interdisciplinary teams.	X	X	X			X	X		X			X
13. Perform a comprehensive client assessment.		X	X	X	X		X	X	X			

Competencies	Vision for Nursing Education NLN 1993	AACN 1997	AACN AONE NOADN Diff Practice 1995	Acute Care Nurse in Transition ANA 1996	CO Diff Practice Model 1992	MS Competency Model 1997	SC Regional Consortia 1997	Nursing Ed. Advisory Comm (NEAC) Report (Texas) 1993	Primm 1986	Stull 1986	Healthy America: Practitioners for 2005 1991	Pew Health Professions Commission 1995
14. Develop and implement a plan of care.		X	X		X	X		X	X	X		
15. Evaluate outcomes of client care.		X	X		X	X		X	X	X		
16. Assess client learning needs.		X	X		X	X		X	X	X		
17. Implement and evaluate teaching plans.		X	X	X	X	X		X	X	X		
18. Promote healthy lifestyles for individuals, families and communities.	X	X		X			X	X			X	

Competencies	Vision for Nursing Education NLN 1993	AACN 1997	AACN AONE NOADN Diff Practice 1995	Acute Care Nurse in Transition ANA 1996	CO Diff Practice Model 1992	MS Competency Model 1997	SC Regional Consortia 1997	Nursing Ed. Advisory Comm (NEAC) Report (Texas) 1993	Primm 1986	Stull 1986	Healthy America: Practitioners for 2005 1991	Pew Health Professions Commission 1995
19. Apply research to nursing practice.	X	X	X		X	X		X	X			
20. Ability to participate in quality improvement monitoring processes in the healthcare agency.		X					X	X				X
21. Involve family and/or significant others in decisions regarding client care.					X		X			X	X	

Competencies	Vision for Nursing Education NLN 1993	AACN 1997	AACN AONE NOADN Diff Practice 1995	Acute Care Nurse in Transition ANA 1996	CO Diff Practice Model 1992	MS Competency Model 1997	SC Regional Consortia 1997	Nursing Ed. Advisory Comm (NEAC) Report (Texas) 1993	Primm 1986	Stull 1986	Healthy America: Practitioners for 2005 1991	Pew Health Professions Commission 1995
22. Continue self-development in professional knowledge and skills.		X			X		X				X	

References:

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2. American Association of Colleges of Nursing. (1997). Draft: Proposed outline for essentials of baccalaureate education for professional nursing practice.
3. American Association of Colleges of Nursing, American Organization of Nurse Executives, National Organization for Associate Degree Nursing. (1995). A model for differentiated nursing practice. Washington, DC: American Association of Colleges of Nursing.
4. American Nurses Association. (1996). The acute care nurse in transition. Washington, DC: American Nurses Publishing.
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9. Primm, P. L. (1986, May/June). Entry into practice: Competency statements for BSNs and ADNs. Nursing Outlook, 34(3), 135-136.
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11. Pew Health Professions Commission. (1991, October). Healthy America: Practitioners for 2005, pp. 1-26, 68-78.
12. Pew Health Professions Commission. (1995, December). Reforming health care workforce regulation: Policy considerations for the 21st century.

APPENDIX C
TIME TABLE

Time Table

January 17, 1998	Approval by Institutional Review Board (IRB)
February 2, 1998	Pilot Study
February 4, 1998	Funding Approved: College of Nursing Internal Research
March 17, 1998	Revised questionnaire sent to IRB
March 30, 1998	First mailing to Deans/Directors/Faculty in BSN Programs
April 4, 1998	First mailing to Nursing Administrators/ BSN Graduates in acute healthcare agencies
April 17, 1998	Approval by IRB for revisions in questionnaire
May 9, 1998	Second mailing to Nursing Administrators/ BSN graduates in acute healthcare agencies

APPENDIX D
COVER LETTERS

February 2, 1998

Dear Colleague:

I am a doctoral candidate in the Educational Leadership Program at East Tennessee State University, Johnson City, Tennessee. For my dissertation, I am interested in the identification of entry-level competencies needed by Bachelor of Science in Nursing (BSN) graduates who will begin employment in acute healthcare agencies, in the next ten years, in Tennessee. The problem is there is not a clear understanding of the entry-level competencies needed by BSN graduates who will begin careers in acute healthcare agencies, in Tennessee, in the next decade. Furthermore, it is not known whether nurse educators and nurses in acute healthcare agencies agree on the entry-level competencies needed by BSN graduates to assume careers in these agencies. As a nurse in an acute healthcare agency, you have knowledge of the entry-level competencies that are needed by BSNs to assume careers in acute healthcare agencies.

You are one of Tennessee's nurses, in an acute healthcare agency, being asked to give comments on the attached **pilot questionnaire**. It is extremely important that each questionnaire be completed and returned to me, by February 27, 1998. Then, if revisions are needed in the questionnaire, they can be made before I begin the research study. I would like to begin the research study in March, 1998.

Please time yourself when filling out the questionnaire. Also, please make comments in the space provided, if any part of the questionnaire is unclear or difficult to understand. All individual responses will be anonymous. Participation is voluntary.

Please feel free to write to me or call me at (423) 439-5636 if you have any questions. Your response is sincerely appreciated. I couldn't do it without your help. Thanks so much for your time and support!!!!!!!!!!

Sincerely,

Marjorie King, MNED, CNA, RN
1702 Woodland Avenue
Johnson City, TN 37601

March 30, 1998

Dear Colleague:

I am a doctoral candidate in the Educational Leadership Program at East Tennessee State University, Johnson City, Tennessee. My dissertation topic focuses on the identification of entry-level competencies needed by Bachelor of Science in Nursing (BSN) graduates who will begin employment in acute healthcare agencies, in the next ten years, in Tennessee. The purpose of this study is to gain increased awareness of the competencies needed by graduates of BSN Programs in Tennessee in order to meet the demands of acute healthcare agencies. The input of Nurse Educators, Nurse Administrators, recently graduated BSN graduates and experienced BSN graduates are being solicited to gain awareness of congruency of perceptions.

As the Dean/Director in a BSN Program, you are being asked to give your perception of the importance of identified entry-level competencies on the attached questionnaire. I am also seeking your assistance in requesting your faculty in the BSN Program complete a questionnaire, as well. The average time to complete the questionnaire is approximately 20 minutes. It is important that each questionnaire be completed and returned, so that the study results will truly represent the thinking of Tennessee's Deans/Directors and faculty members in a BSN Program.

All individual responses will be anonymous. Participation is voluntary. All information on individual questionnaires will be kept strictly confidential and reported in aggregate form only. The code in the upper right hand corner of the questionnaire will enable me to track responses and follow through with requests for responses that have not been sent. You may receive a summary of the results by writing to me at the address below. Enclosed is the questionnaire and a stamped pre-addressed envelope for return of the questionnaire. Please return the questionnaire as soon as possible. Thank you!!!!

Please feel free to write to me or call me at (423) 439-5636 if you have any questions. Your response is sincerely appreciated. I couldn't do it without your help!!!!

Sincerely,

Marjorie King, MNED, CNAA, RN
1702 Woodland Avenue
Johnson City, TN 37601

March 30, 1998

Dear Colleague:

I am a doctoral candidate in the Educational Leadership Program at East Tennessee State University, Johnson City, Tennessee. My dissertation topic focuses on the identification of entry-level competencies needed by Bachelor of Science in Nursing (BSN) graduates who will begin employment in acute healthcare agencies, in the next ten years, in Tennessee. The purpose of this study is to gain increased awareness of the competencies needed by graduates of BSN Programs in Tennessee in order to meet the demands of acute healthcare agencies. The input of Nurse Educators, Nurse Administrators, recently graduated BSN graduates and experienced BSN graduates are being solicited to gain awareness of congruency of perceptions.

As a faculty member in a BSN Program, you are being asked to give your perception of the importance of entry-level competencies identified on the attached questionnaire. The average time to complete the questionnaire is approximately 20 minutes. It is important that each questionnaire be completed and returned, so that the study results will truly represent the thinking of Tennessee's faculty members in a BSN Program.

All individual responses will be anonymous. Participation is voluntary. All information on individual questionnaires will be kept strictly confidential and reported in aggregate form only. The code in the upper right hand corner of the questionnaire will enable me to track responses and follow through with requests for responses that have not been sent. You may receive a summary of the results by writing to me at the address below. Enclosed is the questionnaire and a stamped pre-addressed envelope for return of the questionnaire. Please return the questionnaire as soon as possible. Thank you!!!!

Please feel free to write to me or call me at (423) 439-5636 if you have any questions. Your response is sincerely appreciated. I couldn't do it without your help!!!!

Sincerely,

Marjorie King, MNED, CNAA, RN
1702 Woodland Avenue
Johnson City, TN 37601

April 4, 1998

Dear Colleague:

I am a doctoral candidate in the Educational Leadership Program at East Tennessee State University, Johnson City, Tennessee. My dissertation topic focuses on the identification of entry-level competencies needed by Bachelor of Science in Nursing (BSN) graduates who will begin employment in acute healthcare agencies, in the next ten years, in Tennessee. The purpose of this study is to gain increased awareness of the competencies needed by graduates of BSN Programs in Tennessee in order to meet the demands of acute healthcare agencies. The input of Nurse Educators, Nurse Administrators, recently graduated BSN graduates and experienced BSN graduates are being solicited to gain awareness of congruency of perceptions.

As a Nurse Administrator, you are being asked to give your perception of the importance of entry-level competencies identified on the attached questionnaire. I would also appreciate your seeking two nurse volunteers: one, the **most recent** BSN graduate (between 3 months and 5 years of nursing experience) and the **most experienced** BSN graduate (between 5 years and 25+ years of nursing experience) to complete the questionnaire. The average time to complete the questionnaire is approximately 20 minutes. It is important that each questionnaire be completed and returned, so that the study results will truly represent the thinking of Tennessee's nurses in acute healthcare agencies.

All individual responses will be anonymous. Participation is voluntary. All information on individual questionnaires will be kept strictly confidential and reported in aggregate form only. The code in the upper right hand corner of the questionnaire will enable me to track responses and follow through with requests for responses that have not been sent. You may receive a summary of the results by writing to me at the address below. Enclosed is the questionnaire and a stamped pre-addressed envelope for return of the questionnaire. Please return the questionnaire as soon as possible. Thank you!!!!

Please feel free to write to me or call me at (423) 439-5636 if you have any questions. Your response is sincerely appreciated. I couldn't do it without your help!!!!

Sincerely,

Marjorie King, MNED, CNA, RN
1702 Woodland Avenue
Johnson City, TN 37601

April 4, 1998

Dear Colleague:

I am a doctoral candidate in the Educational Leadership Program at East Tennessee State University, Johnson City, Tennessee. My dissertation topic focuses on the identification of entry-level competencies needed by Bachelor of Science in Nursing (BSN) graduates who will begin employment in acute healthcare agencies, in the next ten years, in Tennessee. The purpose of this study is to gain increased awareness of the competencies needed by graduates of BSN Programs in Tennessee in order to meet the demands of acute healthcare agencies. The input of Nurse Educators, Nurse Administrators, recently graduated BSN graduates and experienced BSN graduates are being solicited to gain awareness of congruency of perceptions.

As one of Tennessee's nurses in an acute healthcare agency, you are being asked to give your perception of the importance of entry-level competencies identified on the attached questionnaire. The average time to complete the questionnaire is approximately 20 minutes. It is important that each questionnaire be completed and returned, so that the study results will truly represent the thinking of Tennessee's nurses in acute healthcare agencies.

All individual responses will be anonymous. Participation is voluntary. All information on individual questionnaires will be kept strictly confidential and reported in aggregate form only. The code in the upper right hand corner of the questionnaire will enable me to track responses and follow through with requests for responses that have not been sent. You may receive a summary of the results by writing to me at the address below. Enclosed is the questionnaire and a stamped pre-addressed envelope for return of the questionnaire. Please return the questionnaire as soon as possible. Thank you!!!!

Please feel free to write to me or call me at (423) 439-5636 if you have any questions. Your response is sincerely appreciated. I couldn't do it without your help!!!!

Sincerely,

Marjorie King, MNED, CNAA, RN
1702 Woodland Avenue
Johnson City, TN 37601

May 9, 1998

Dear Nurse Administrator:

Four weeks ago, questionnaires were mailed to you requesting input about perceptions of what are the important entry-level competencies for BSN graduates. Both you and your staff are being asked to provide input based on your experiences. Your responses regarding what entry-level competencies are needed by BSN graduates is critical and your feedback will be included in future planning for BSN students. As of today, I have received two questionnaire from your agency. For your convenience, I have enclosed one questionnaire and stamped pre-addressed envelope for return of the questionnaire. Thanks again for your assistance. This study can not be completed without you!

Please feel free to write to me or call me at (423) 439-5636 if you have any questions. Your response is sincerely appreciated. I couldn't do it without your help!

Sincerely,

Marjorie King, MNED, CNAA, RN
1702 Woodland Avenue
Johnson City, TN 37601

APPENDIX E
QUESTIONNAIRE

**PERCEIVED IMPORTANCE OF ENTRY-LEVEL
COMPETENCIES FOR BACHELOR OF SCIENCE
IN NURSING (BSN) GRADUATES**

QUESTIONNAIRE

Demographic Information

1. Gender (check one): male female
2. Year of your birth _____
3. Years as a faculty member in a BSN program _____
4. Years of clinical nursing experience _____
5. Current position held _____
6. Level(s) of nursing education completed: Please check all that apply from the following list:
 - Diploma Associate Degree in Nursing
 - Bachelor of Science in Nursing
 - Master's Degree—Please check your primary area of specialization from the following list:

<input type="checkbox"/> Obstetrical/Gynecological Nursing	<input type="checkbox"/> Administration/Management
<input type="checkbox"/> Critical Care	<input type="checkbox"/> Nursing Education
<input type="checkbox"/> Medical/Surgical	<input type="checkbox"/> Pediatrics
<input type="checkbox"/> Mental Health	<input type="checkbox"/> Primary Care
 - Other (please specify) _____
 - Doctoral Degree—Please check your primary area of specialization from the following list:
 - Education
 - Research
 - Clinical (please specify) _____
 - Administration/Management
 - Other (please specify) _____

Directions:

We are trying to determine the entry-level competencies for BSN graduates. The following is a list of entry-level competencies for the BSN graduate as identified by review of the literature. Please indicate whether you think the competency is important for BSNs beginning their professional practice, by filling in the appropriate circles:

1 = not important, 2 = somewhat important, 3 = neutral, 4 = important, 5 = extremely important

Also, please complete the right hand column labeled "Observation," at the top. Please indicate the degree to which you have observed the competency in new BSN graduates, by filling in the appropriate circles: 1 = never, 2 = infrequently, 3 = frequently, 4 = very frequently, 5 = always (In the event you have not had the opportunity to observe new BSN graduates within the past year, please leave the Observation column blank.)

	<u>Importance</u>	<u>Observation</u>
Example: Use critical thinking to solve problems and to make decisions.	① ② ③ ④ ●	① ② ● ④ ⑤

<u>Entry-Level Competencies</u>	<u>Importance</u>	<u>Observation</u>
1. Use critical thinking to solve problems and to make decisions.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
2. Establish and maintain a positive nurse/client relationship.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
3. Establish and maintain positive relationships with other members of the healthcare team.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
4. Apply knowledge of cultural diversity to client care.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
5. Assume responsibility/accountability for client satisfaction.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
6. Utilize concepts of cost-effective care.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
7. Assume responsibility/accountability for client outcomes.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
8. Coordinate the care of the client across settings in healthcare agency.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
9. Use computer information systems.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
10. Delegate aspects of care to healthcare personnel.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
11. Initiate referrals to appropriate departments and agencies.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
12. Work within interdisciplinary teams.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
13. Perform a comprehensive client assessment.	① ② ③ ④ ⑤	① ② ③ ④ ⑤
14. Develop and implement a plan of care.	① ② ③ ④ ⑤	① ② ③ ④ ⑤

Entry-Level Competencies

Importance

Observation

15. Evaluate outcomes of client care.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
16. Assess client learning needs.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
17. Implement and evaluate teaching plans.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
18. Promote healthy lifestyles for individuals, families and communities.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
19. Apply research to nursing practice.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
20. Participate in quality improvement monitoring processes in the healthcare agency.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
21. Involve family and/or significant others in decisions regarding client care.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
22. Continue self-development in professional knowledge and skills.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
23. Implement care using critical pathways.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>
24. Administer IV medications safely to assigned patients.	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/>

25. From the above list of entry-level competencies, please rank the three that you perceive to be the most important for entry-level competencies for BSNs. Please indicate your ranking by listing the most important skill as number "1" in the first space below, the second most important skill as number "2" and the third most important skill as number "3".

1. _____

2. _____

3. _____

26. Please list any additional entry-level competencies that you feel are needed for BSN graduates that have not been listed in the questionnaire:

27. Please list any competencies which you believe remain part of current BSN education but are no longer necessary.

THANK YOU! YOUR INPUT IS SINCERELY APPRECIATED

Please place the completed questionnaire in the stamped, addressed envelope and mail it to:
Marjorie King
1702 Woodland Avenue
Johnson City, TN 37601

CURRICULUM VITAE

MARJORIE S. KING

- Personal Data: Date of Birth: January 14, 1933
Place of Birth: Pittsburgh, Pennsylvania
Marital Status: Widow
- Education: Public Schools, Pittsburgh, Pennsylvania
and West Sunbury, Pennsylvania
Shadyside Hospital School of Nursing,
Diploma in Nursing, August, 1953
Duquesne University, Pittsburgh,
Pennsylvania, BSN, May, 1970
University of Pittsburgh, Pittsburgh,
Pennsylvania, MNEd with Major in Nursing
Administration, May, 1976
- Professional Experience: Various staff and leadership positions,
Veterans Administration Medical Center,
Butler, Pennsylvania, 1962-1976
Assistant Chief, Nursing Service, VA
Medical Center, North Chicago, Illinois,
1976-1980
Chief, Nursing Service, VA Medical Center,
Fargo, North Dakota, 1980-1983
Chief, Nursing Service, VA Medical Center,
Northport, New York, 1983-1987
Chief, Nursing Service, VA Medical Center,
Mountain Home, Tennessee, 1987-1993
Instructor, Department of Professional
Roles and Mental Health Nursing, College
of Nursing, East Tennessee State
University, Johnson City, Tennessee,
1993-1996
Assistant Professor (tenure track),
Department of Professional Roles and
Mental Health Nursing, College of
Nursing, East Tennessee State
University, Johnson City, Tennessee,
1996-present
- Publications/
Abstracts: Garmany, J. D., Gonzalez, F., Ketron, M.,
Bismark, L., Hall, J., Terry, K.,
Wilhoit, K., & King, M. (1998).
"Implementation of Critical Incident
Stress Debriefing at the Johnson City
Medical Center Emergency Department."

- Tennessee Nurse, Vol. 61, No. 4, pp. 20-22.
- King, M. S., Assessment of the Management of Patient Care Course Outcomes, Inter-Agency Conference Group: Research Based Practice in a Shifting Health Care Environment Book of Abstracts, September 20, 1996 (p. 21) Augusta, GA.
- King, M. S., "Change Projects: A Collaborative Effort Between Nursing Students, Preceptors and healthcare Agencies," Nurse Educator, Vol. 21, No. 3, May/June 1996, p. 42, 50.
- King, M. S., Empowering Women Students. Tennessee Planning Committee, National Identification Program for the Advancement of Women in Higher Education: Proceedings of the 1995 Women's Conference, October 5-6, 1995 (p. 46-48), Nashville, TN.
- King, M. S., Change Projects: A Collaborative Effort Between Student/Preceptor/Agency. Sigma Tau, Sigma Epsilon Chapter Book of Abstracts, March 21, 1995 (p. 14), Johnson City, TN.
- King, M. S., & Danoff, V. L., "Taking a Tip from Big Business," Nursing Success Today, Vol. 3, No. 10, October 1986, pp. 22-27.

Honors and Awards:

- Faculty/Staff Volunteer of the Month for March, East Tennessee State University, Johnson City, TN, 1997.
- Adult Educator of the Year, East Tennessee State University, Johnson City, TN, 1997.
- Chair, Residential Division, United Way 1995 Campaign (had largest percentage over goal), Johnson City, TN, 1995.
- 1995 Council on Nursing Administration Award, Tennessee Nurses Association.
- Tennessee Nursing Association District V, Nursing Administration Award, 1995.
- Director's Commendation, Mountain Home, TN, January 1993.
- Special Contribution Award, Mountain Home, TN, September 1992.
- Certificate of Appreciation, National Committee for Employee Support of the

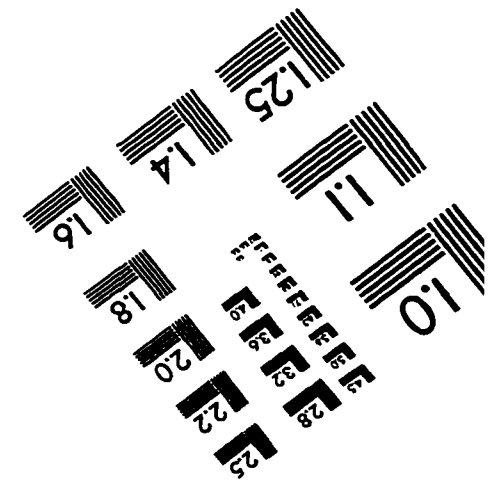
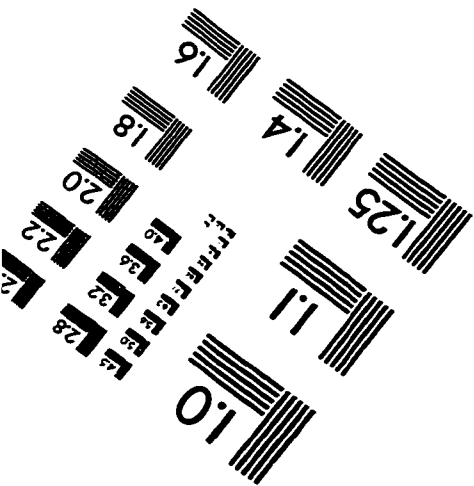
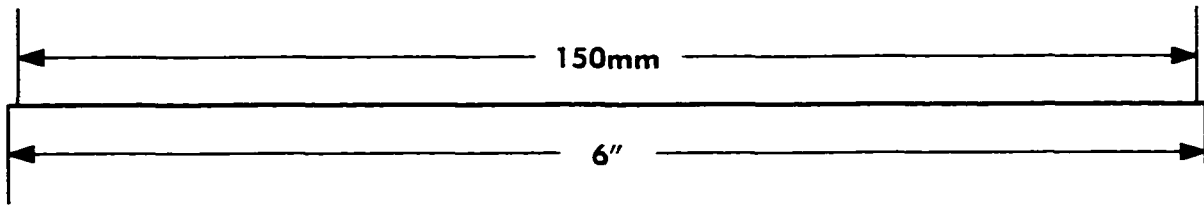
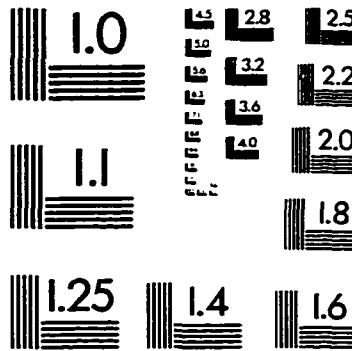
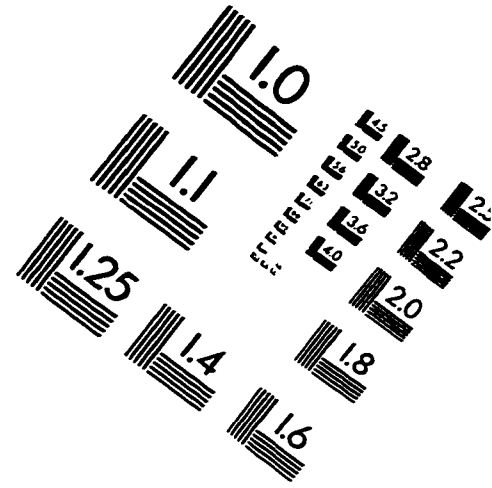
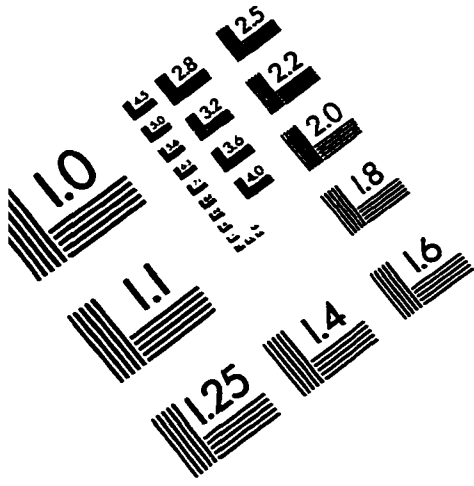
Guard and Reserve, Mountain Home, TN,
August 1992.

Chairperson of the Division (CFC) that made
the largest percentage over goal: United
Way, Mountain Home, TN, November 1991.

United Tennessee Veterans Association
Service Award (Administrative Category),
Mountain Home, TN, October 1990.

Special Contribution Award, Mountain Home,
TN, October 1990

IMAGE EVALUATION TEST TARGET (QA-3)



APPLIED IMAGE . Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989

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