

12-2009

Comparing Perceptions of the Nursing Profession Among Associate and Baccalaureate Nursing Students and Registered Nurses

Sherry R. Lovan

Western Kentucky University, sherry.lovan@wku.edu

Follow this and additional works at: http://digitalcommons.wku.edu/nurs_fac_pub



Part of the [Nursing Commons](#)

Recommended Repository Citation

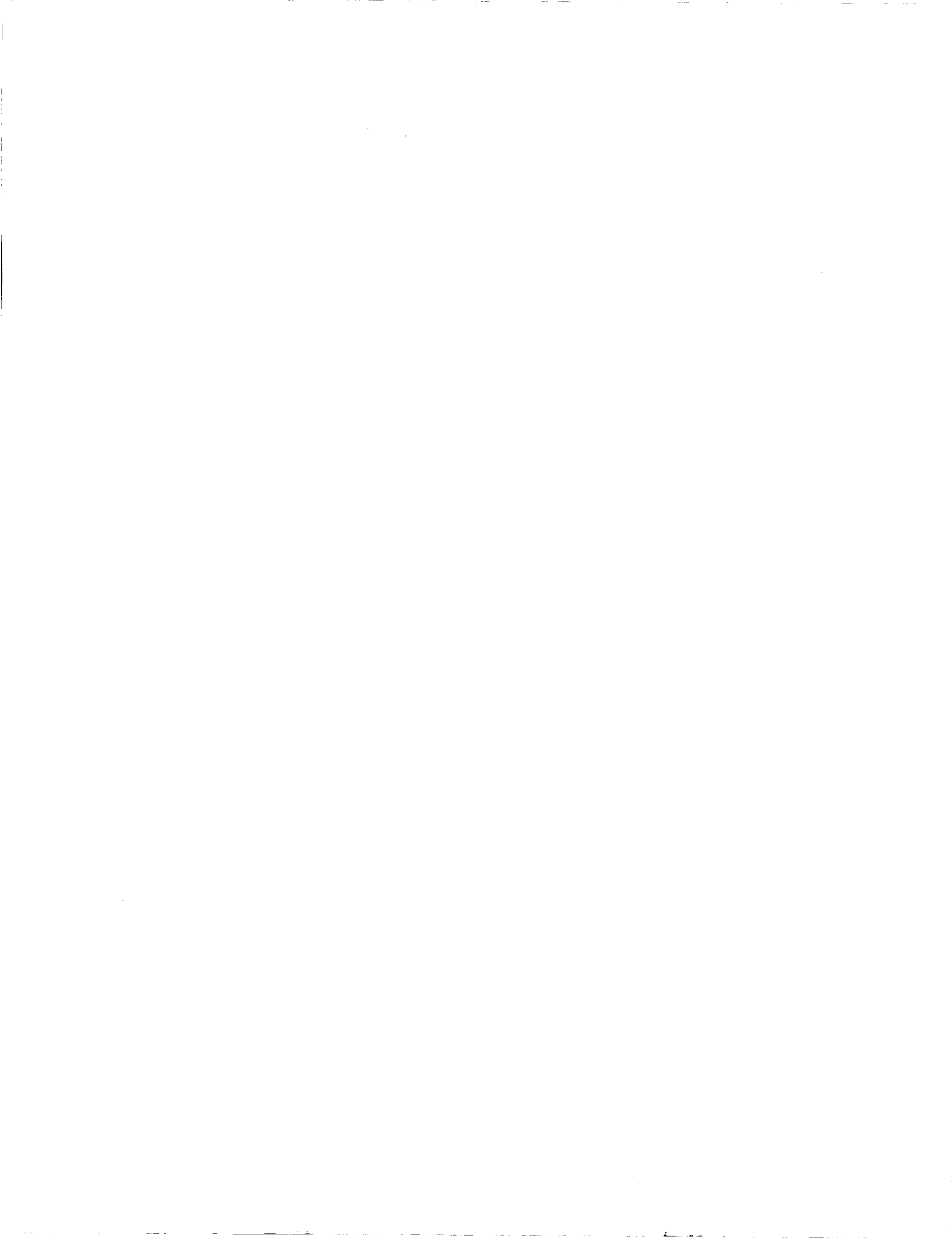
Lovan, Sherry R., "Comparing Perceptions of the Nursing Profession Among Associate and Baccalaureate Nursing Students and Registered Nurses" (2009). *Nursing Faculty Publications*. Paper 54.
http://digitalcommons.wku.edu/nurs_fac_pub/54

This Dissertation is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Nursing Faculty Publications by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

NOTE TO USERS

This reproduction is the best copy available.

UMI[®]



COMPARING PERCEPTIONS OF THE NURSING PROFESSION
AMONG ASSOCIATE AND BACCALAUREATE NURSING
STUDENTS AND REGISTERED NURSES

By

Sherry R. Lovan

A.D.N., Western Kentucky University, 1984

B.S.N., Western Kentucky University, 1986

M.S.N., Western Kentucky University, 2004

A Dissertation

Submitted to the Faculty of the

Graduate School of the University of Louisville

and

Graduate Studies and Research at Western Kentucky University

In Partial Fulfillment of the Requirements

For the Degree of

Doctor of Philosophy

Department of Leadership, Foundations, and Human Resource Education

University of Louisville

and

College of Education and Behavioral Sciences

Western Kentucky University

December 2009

UMI Number: 3401302

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI 3401302

Copyright 2010 by ProQuest LLC.

All rights reserved. This edition of the work is protected against unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

COMPARING PERCEPTIONS OF THE NURSING PROFESSION
AMONG ASSOCIATE AND BACCALAUREATE NURSING
STUDENTS AND REGISTERED NURSES

By

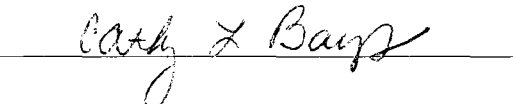
Sherry R. Lovan
A.D.N., Western Kentucky University, 1984
B.S.N. Western Kentucky University, 1986
M.S.N. Western Kentucky University, 2004

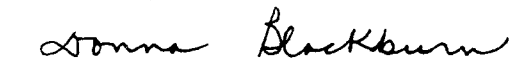
A Dissertation Approved on

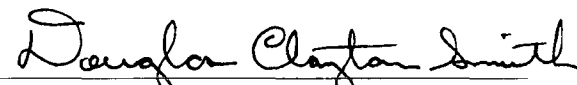
November 16, 2009

by the following Dissertation Committee:


Dissertation Director









DEDICATION

This dissertation is dedicated

First and foremost to God

Who provides the strength and wisdom to endure all things;

And to my family:

My husband, Michael J. Lovan

Who always believed I could do anything;

And to my children,

Rachel and John,

Who continue to inspire me daily.

ACKNOWLEDGEMENTS

A dissertation provides a tremendous opportunity to apply content acquired from previous coursework; therefore it is appropriate to acknowledge all the professors who stimulated the spirit of inquiry that led to this work. This manuscript reflects portions of their influence and inspiration.

I wish to acknowledge Steve Miller, my chairperson, who possesses an incredible work ethic and an unwavering dedication to student achievement. He invested countless hours reviewing and making recommendations to improve the organization and content of this document. Douglas Clayton Smith, my methodologist possessed statistical skills that proved invaluable. He deserves recognition for his exceptional commitment to doctoral students.

I was fortunate to have committee members who offered encouragement and patience; their support and critique were priceless. Members Donna Blackburn and Cathy Bays represented nursing and are commended for their dedication to professionalism. Ric Keaster provided substantive suggestions and much needed humor. I appreciate each member for his or her unique contributions.

I wish to thank the members of Kappa Theta, a local chapter of Sigma Theta Tau International for providing funds to assist with this research. Finally, I would like to acknowledge the nursing students and registered nurses who comprised the sample for this study. They provided information about their perceptions of nursing that made this research possible. I wish them much success and happiness in their nursing careers.

ABSTRACT

COMPARING PERCEPTIONS OF THE NURSING PROFESSION AMONG ASSOCIATE AND BACCALAUREATE NURSING STUDENTS AND REGISTERED NURSES

Sherry R. Lovan

November 16, 2009

The inconsistencies between the perception of the profession of nursing and the reality of practice can lead to problems in student attrition or result in disillusionment with a career in nursing after a new graduate enters practice. With the nursing shortage reaching critical levels, it is important to examine possible discrepancies that exist and address strategies to reduce them.

For this study, a quantitative design was selected to explore how the perception of the nursing profession compared among first-semester associate degree nursing students, first-semester baccalaureate nursing students, and registered nurses. A convenience sample $N = 238$ included 69 ADN students, 38 BSN students, and 131 registered nurses. Each participant completed the Perceptions of Professional Nursing Tool (PPNT) which measured perceptions utilizing the tenets of nursing Practice, Values, and Public Image.

French and Kahn's (1962) person-environment fit model served as a framework for this study. Data analysis included descriptive statistics and psychometric computations (factor analysis, Cronbach's alpha, and inter-scale correlations). Research questions asked

(a) What differences existed among the groups in regard to demographics? (b) What differences in the perception of the profession of nursing existed among the groups? and (c) To what extent does organizational context (ADN program, BSN program, and RN) affect the perceptions of nursing when controlling for demographics? Research questions were analyzed with ANOVA and/or ANCOVA techniques utilizing SPSS.

Findings revealed significant differences regarding demographics among the groups were age, healthcare experience, healthcare position, and education. The tenet of Practice was different among the groups (RNs scored higher); Values and Public Image revealed no significant differences. When controlling for demographic controls, Practice and Public Image were significantly different among the groups. BSN students and RNs revealed the most difference in their view of the public image of nursing (BSN students thought the public viewed nursing image higher than the RNs).

Recommendations for practice include (a) encouraging respect among nurses with all levels of education, (b) providing accurate information about nursing practice, (c) requiring a class about the profession to prospective nursing students, (d) incorporating RNs in practice into the classroom to talk about their work, and (e) addressing nursing stereotypes through frequent classroom examples from the media followed by discussions.

TABLE OF CONTENTS

	PAGE
DEDICATION.....	iii
ACKNOWLEDGMENTS.....	iv
ABSTRACT.....	v
LIST OF TABLES.....	vii
I. STATEMENT OF THE PROBLEM	
Introduction.....	1
Background.....	4
The Problem.....	12
The Purpose.....	13
Research Questions.....	14
Significance of the Study.....	16
Limitations of the Study.....	18
Definition of Terms.....	20
Summary.....	22
II. REVIEW OF THE LITERATURE	
Introduction.....	25
Nursing Values.....	26
Public Perception/Image of Nursing.....	32
Nurses Who Intend to Leave the Profession.....	48
Job Satisfaction/Perception of Registered Nurses.....	59
Student Perceptions of the Nursing Profession.....	77

Theoretical Foundation.....	91
Antecedent Studies	93
Summary.....	101
 III. METHODOLOGY	
Introduction.....	105
Population and Sample.....	106
Procedures for Data Collection.....	107
Instrumentation.....	108
Description of Variables	109
Validity Considerations.....	112
Statistical Analysis.....	113
Ethical Considerations.....	117
Summary.....	118
 IV. RESULTS	
Introduction.....	120
Protocol and Procedures.....	121
Data Screening.....	121
Descriptive Statistics.....	122
Psychometric Analysis.....	126
Research Questions.....	136
Summary.....	151
 V. DISCUSSION AND CONCLUSIONS	
Introduction.....	154

The Study in Brief.....	155
Discussion.....	156
Implications.....	169
Recommendations.....	171
Conclusions.....	176
REFERENCES.....	179
APPENDIX A.....	187
APPENDIX B.....	194
APPENDIX C.....	200
APPENDIX D.....	205
APPENDIX E.....	207
CURRICULUM VITAE.....	209

LIST OF TABLES

TABLE	PAGE
1. Descriptive Statistics for Continuous Levels of Demographic Variables.....	124
2. Descriptive Statistics for Nominal Demographic Variables.....	126
3. Factor Loadings for Practice Scale Items.....	129
4. Factor Loadings for Values Scale Items.....	130
5. Factor Loadings for Public Image Scale Items.....	131
6. Final Internal Reliability and Item Characteristics for Practice Scale Items.....	133
7. Final Internal Reliability and Item Characteristics for Values Scale Items.....	134
8. Final Internal Reliability and Item Characteristics for Public Image Scale Items.....	135
9. Inter-Scale Correlations.....	136
10. Analysis of Variance for Age, Experience, Position, and Education.....	141
11. Mean Comparisons for Demographic Factors for ANOVAs.....	142
12. Mean Comparisons for PPNT Subscales.....	143
13. ANOVA Comparing Associate Degree Students, Bachelor Degree Students, and Registered Nurses for Practice, Values, and Public Image.....	145
14. Scheffe Multiple Comparisons for Practice.....	146
15. ANCOVA for Practice.....	147
16. ANCOVA for Values.....	148
17. ANCOVA for Public Image.....	149
18. Adjusted and Unadjusted Group Means for Practice, Values, and Public Image....	150

CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

As a registered nurse (RN) for 25 years and a faculty member employed in a prelicensure nursing program, this author is concerned about how inconsistencies among people interested in a nursing career regarding their perceptions of nursing versus the reality of practice. At the beginning of a nursing program in 1982, this writer believed nursing was a respected career and an opportunity to make a positive difference in the world; lacking was any understanding of the realities of professional nursing. The motivation for pursuing nursing as a career after graduating from high school was simply to care for others, altruism, which is similar to that of beginning students today (e.g., Buerhaus, Donelan, Norman, & Dittus, 2005; Larsen, McGill, & Palmer, 2003).

The combined nursing curriculum for both the associate degree and bachelor degree programs attended included essential courses containing the subjects of care planning, health assessment, health promotion, therapeutic communication, ethics, professionalism, pharmacology, medical-surgical nursing, psychiatric nursing, maternal-child nursing, public health nursing, theory, and research. Rigorous course work provided a scientific foundation of knowledge necessary to pass the National Council Licensure Examination (NCLEX) and practice as a registered nurse. Although discussed to some extent throughout both programs, the nursing faculty could not fully articulate the stress a new nurse encounters upon entry into the work environment. For example, in the clinical

setting students cared for only one or two patients with an instructor available to offer assistance and support. As a new graduate, this nurse secured a position in a hospital on night shift (11 p.m.-7:30 a.m.) caring for 10 patients and supervising other healthcare personnel. Soon, this writer discovered that some disturbing realities of the profession included how many physicians routinely treated nurses as subordinates rather than team members; how some experienced nurses belittled new graduates; how nurses were expected to manage several crises simultaneously; how nurses worked holidays, weekends, and nights; how meeting patient care needs was physically exhausting; how nurses missed meals and bathroom breaks due to understaffing; and how inexperienced nurses were expected to prioritize urgent patient care needs and delegate responsibilities to other healthcare workers. It is acknowledged that this personal account may not identically reflect every new nurse's experience in the work environment, as each person's circumstance is unique. However, novice nurses have high turnover rates in the workplace with their limited experience in handling a full patient load and ability to multitask and triage patients. These specialized skills are not learned in college as they develop only with time and experience (Christmas, 2008).

Nursing is a demanding and multifaceted career that requires a major transition as the new graduate nurse evolves into a competent registered nurse. Novice nurses need support and mentoring from supervisors and experienced nurses to feel comfortable in their new role. The decision to embark on a nursing career requires much thought and consideration. Similar to all professions, there are positive and negative aspects to ponder regarding a career in nursing. Although the profession is challenging, it also provides opportunities for unique intrinsic rewards that make the career worth the effort. Wilson (2006) found that some of the major incentives nurses enjoyed in their career included

meaningful patient contact, a variety of interesting work, and opportunities for learning and professional growth.

In 2006, the U.S. Bureau of Labor Statistics reported nursing as the largest health care occupation with registered nurses holding 2.5 million jobs. Hospitals were the most popular employer, employing 59% of nurses while other nurses worked in the following areas: physician offices (8%), home health care services (5%), nursing care facilities (5%), employment services (4%), and outpatient care centers (3%). Of those nurses, 21% worked part-time and 7% held more than one job. Employment opportunities are plentiful for RNs and projected to grow much faster than average compared with all other occupations through 2016. This projection is largely due to the need to replace hundreds of thousands of experienced nurses who are predicted to leave the profession for retirement in the next few years (Bureau of Labor Statistics, 2009).

A career in nursing offers a vast array of employment choices and life experiences. For example, some nurses may select a position in a specialty area such as obstetrics where they care for families during the birth process, whereas others may prefer to work in a totally different area such as a hospice unit where they offer comfort and compassion to patients at the end of life. The members of the nursing profession are privileged to see people in all the stages of life and share in their most private and important moments. The best nurses incorporate art, science, experience, and intuition to advocate for patients to provide safe care (Christmas, 2008). In the healthcare setting, it is the nurse who spends the most time with the patient offering teaching, care, and reassurance. Healthcare organizations could not exist without nurses to care for their patients. Nurses are important because they save lives each day through their acute observation and critical thinking skills. The role of the nurse is vital to the safety and health of communities and nations.

Yet, increasingly, healthcare in this country and the rest of the world is in trouble; there are simply not enough nurses anymore.

Background

The United States is experiencing a nursing shortage that constitutes a critical workforce and public health issue for the entire population (e.g., Hart, 2005; Larsen et al., 2003; Noguera, 2006). This deficiency is occurring at a time when additional nurses are needed to care for the large and aging population of Baby Boomers (born from 1946-1964). It is estimated that 19 million Americans will reach the age of 65 and older by 2020 (Stuenkel, Nguyen, & Cohen, 2007). While older Americans currently compose 12.4% of the population, by the year 2030, this group will double to nearly 71 million that will account for 20% of this country's residents. People are living longer as leading causes of death have shifted from infectious disease and acute illnesses to chronic and degenerative diseases. Chronic conditions are common with 80% of older adults having at least one (Centers for Disease Control and Prevention, 2007). This sizeable and increasing elder population will necessitate a greater need for healthcare services that require more skilled nursing care and expertise than any other generation of Americans.

The American Hospital Association (2007) reported a national estimate of unfilled positions for RNs in hospitals at 116,000 in 2006. Experts call the present time "the calm before the storm" (Clarke & Cheung, 2008, p. 23). Conservative expert projections suggest the nursing deficit will grow to 285,000 by 2020, which is three times larger than other nursing shortages during the past 50 years (Buerhaus, Staiger, & Auerbach, 2008). A nursing shortage of this magnitude could cripple Americans' access to healthcare, weaken the quality of their healthcare, and threaten the population's safety (Donelan, Buerhaus, DesRoches, Dittus, & Dutwin, 2008). In everyday situations, a nursing shortage results in

delays in responses to patient needs; breakdowns in communication; increased wait time for surgery, tests, and procedures; and a compromised ability for nurses to detect complications at an early stage (Buerhaus, Donelan, Ulrich, Norman, Williams, & Dittus, 2005). Experts warn that if the current nursing shortage remains unresolved, the problem may soar to a deficit of 500,000 RNs by 2025 (Donelan et al., 2008). To reverse this projected deficiency, it is estimated that schools of nursing must graduate 30% more nurses, which would contribute an additional 30,000 nursing degrees to the current number earned each year (Allen & Aldebron, 2008).

The reasons for the nursing shortage are multidimensional and complex (Ingersoll, Olsan, Drew-Cates, DeVinney, & Davies, 2002). Some explanations include few individuals choosing nursing as a career in the 1980s and 1990s, the aging and retirement of registered nurses in practice, and the many RNs who choose to leave the profession for other employment (Nogueras, 2006; Swiadek, 2009). To compound the problem, the average age of an RN is 43.7 years, which distinguishes nurses as the oldest occupational group in the United States (Buerhaus et al., 2008). Younger representation of men and women (under age 40) among RNs has steadily decreased from 52% in 1984 to 26% in 2004 (Health and Human Services, 2006). By 2012, the largest age group of the RN workforce will be over the age of 50 (Buerhaus et al., 2008) and quickly approaching retirement age.

Buerhaus, Donelan, Norman et al. (2005) blamed three trends for the sharp reduction in the growth of the RN supply, beginning in the mid-1990s. The first trend included a declining interest in nursing as a career for women (who comprise nearly 95% of the nursing workforce according to the U.S. Department of Health and Human Services, 2004). Buerhaus, Donelan, Norman et al. indicated that women had more occupation

choices in the past 2 decades due to the women's movement and the removal of the glass ceiling that limited career mobility. With more options available, women graduating from high school in the late 1980s and 1990s were 30% to 40% less likely to become RNs compared with those graduating in the 1960s and 1970s (Staiger, Auerbach, & Buerhaus, 2008). The second trend involved the decline in the size of birth cohorts that occurred in the 1980s and 90s. Although graduation rates of Baby Boomers and Baby Busters are the same, fewer young people graduated from high school. Fewer high school graduates meant fewer students entering higher education and eventually the work force. A final trend included the falling salaries within the nursing profession between 1994 and 2000 due to the growth of managed care organizations which reduced the need for RNs in hospitals and home health organizations, thus affecting employment and earnings nationwide (Buerhaus, Donelan, Norman et al., 2005; Buerhaus & Staiger, 1999).

One way healthcare leaders attempt to alleviate the nursing shortage in their organization is through improving nurse retention strategies. This is a step in the right direction as researchers report that one of every three RNs who practice in acute care hospitals is dissatisfied with employment (Sochalski, 2002). In addition, the profession is at risk of losing one in five RNs for reasons other than retirement (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002). The evidence suggests that the work environment is a significant factor in nurse retention and job satisfaction. Factors related to job contentment include positive relationships with patients, supervisors, physicians, and nursing peers. While important, a nurse's salary and benefits contribute to job satisfaction to a lesser degree than other variables (Ellenbecker, Samia, Cushman, & Porell, 2007).

To combat the nursing shortage, corporate giant Johnson & Johnson launched a \$20 million campaign over a 2-year period using advertising to raise the public image of

nursing among the American public. In 2002, they launched the “Campaign for Nursing’s Future” due to a concern about the impact of the nursing shortage and its long-term implications to healthcare. This campaign was in response to the steep drop in enrollments and graduations from nursing education programs. The objectives of the campaign were to raise public awareness of nursing as a career, attract more people into the nursing profession, and retain current registered nurses. The campaign aired prime-time television advertisements about nursing, produced video and printed recruitment materials, developed a nursing Web site for potential applicants, and organized regional celebrations and fund-raising dinners to raise money for student scholarships, faculty fellowships, and grants to nursing schools to expand their capacity for student enrollment. While impossible to determine the extent the Johnson & Johnson campaign met the objectives, evidence suggested that nursing students became aware of the campaign and there is a strong likelihood that it contributed to an increase in enrollment in nursing education programs across the U.S. (Buerhaus, Donelan, Norman et al., 2005).

Student Enrollment

Attracting additional students to a career in nursing is an important step to increasing the number of nurses; however, funding cuts, and a lack of nurse educators, classrooms, and clinical space often prevent schools of nursing from expanding student enrollment. Due to scarce resources, schools are forced to offer fewer spaces for interested students who wish to apply. This restriction results in the rejection of many qualified candidates across the country. In 2006, the National League for Nursing reported the denial of one in three applications to diploma, associate, and bachelor degree programs. There is concern that this high rejection rate discourages students from applying to nursing programs. Sadly, the American Association of Colleges of Nursing (AACN) reported that

although current interest in nursing careers is high, almost 50,000 qualified applicants to professional nursing programs were turned away in 2008, including nearly 6,000 applicants to master's and doctoral degree programs. In this instance, survey data indicated an additional reason cited for not accepting students included insufficient preceptors (25.4%) to mentor nursing students. A preceptor is a practicing RN who volunteers to serve as a guide and resource in the clinical area for a student before graduation. While preceptors are usually uncompensated for their time and efforts, some healthcare organizations offer incentives for precepting such as fewer patient assignments or opportunities to advance within the organization (clinical ladder progression). Other reasons schools reported for restricting student enrollment included a lack of faculty (62.5%), insufficient clinical teaching sites (53.8%), limited classroom space (42.3%), and budget cuts (14.8%) (AACN, 2009).

A serious complication to the nursing faculty shortage is the large number of nursing educators approaching retirement age. In 2006, 63% of full-time nursing faculty members were between 45-60 years of age with 9% even older (Allen & Aldebron, 2008) and 54 years the average age of a doctoral-prepared nurse educator. It is projected that 200-300 doctoral-prepared faculty members are eligible to retire each year within the next 10 years. In addition, another 220-280 master's-prepared nurse faculty are expected to retire each year between 2012 and 2018 (Meyers, 2004). According to the U.S. Department of Health and Human Services 2004 survey, the number of nurses employed in nursing education has changed little since 1980. Considering the increase in the total number of nurses since then (instructors composed 3.7% of RNs in 1980), a decline in the overall percentage of RNs employed as nurse educators (2.4% of RNs in 2004) is a problem. Clearly, the recruitment and retention of nursing faculty is a major concern of nursing

program directors throughout the nation. Schools of nursing cannot survive without faculty and having too few nurse educators will prevent the expansion of student enrollment in nursing programs.

Another factor contributing to the nursing educator shortage is a lack of doctoral-prepared faculty. More than 56% of full-time nurse faculty are not educated at the doctoral level (Larson, 2006). Most university faculty positions require a doctorate that necessitates a nurse educator to obtain additional education, debt, and possibly delay full-time employment. Attracting practicing clinicians to teach in schools of nursing is difficult because academic salaries are not competitive with those of registered nurses, especially advanced practice nurses. In 2007, the average salary for a master's-prepared nurse educator was \$66,588 as compared with the average nurse practitioner earning \$81,517 (Allen & Aldebron, 2008). The decrease in pay, required additional education, and heavy faculty workloads may discourage registered nurses from embarking on a career in academia.

Increasing nursing student enrollments to fulfill the projected needs of the population will require major changes to occur in nursing education programs. These modifications include the successful recruitment of younger nurse educators, retention of current nursing faculty, increased funding to nursing programs, and better collaboration with leaders of healthcare organizations so that clinical sites and nurse preceptors are available to the student population. In addition, salaries for nursing faculty must increase so they are competitive with nurses in clinical practice.

Professionals Leaving the Field of Nursing

Some students find it difficult and highly competitive to gain admission to a nursing program. Often admission procedures require prospective students to maintain a

high grade point average in prerequisite courses, interview with faculty members, and take a preadmission test to be considered for admission. Once in the program, course work includes long hours in lecture, detailed preparatory clinical assignments, and clinical requirements of more than 12 hours a week with patients in the healthcare setting. Generally, students feel a sense of accomplishment when they graduate from a nursing program, pass the NCLEX, and launch into real nursing practice. Unfortunately for some graduates, the workplace is disappointing and alters their perception of nursing held before graduation. This change may cause them to question whether nursing was a good career choice after all.

The Joint Commission on Accreditation of Health Care Organizations (2002) described the evolving nursing crisis. The following is an excerpt that pertains to the issue of nursing education and practice:

There is what has been described as a “continental divide” between nursing education and nursing practice. In the academic setting, nurses, like other health professional disciplines, are educated in a silo. This problem is compounded by the lack of awareness of nursing faculty about actual nursing practice today; the virtual absence of clinical experience from the nursing school curriculum; and the lack of involvement of nurse clinicians in the education process. (p. 32)

This gap between the perception of nursing in education and real-life practice may contribute to some new graduates being at risk for leaving the profession although the percentages of nurses who exit are not found in the literature. Duchscher and Cowin (2004) describe the first months of practice as potentially chaotic, painful, and traumatic often leaving the new nurses feeling isolated, vulnerable, and uncertain. The novice nurse who experiences these feelings may experience low self-esteem, lack of self-confidence, and a sense of failure as a nurse (Duchscher & Cowin, 2004). It is logical that these disillusioned nurses may leave their present employment to seek other less stressful positions or they

may leave the profession completely (Seago, Spetz, Alvarado, Keane, & Grumbach, 2006).

Another group who is at risk for leaving the profession is the aging or “graying” nursing workforce. These nurses present another unique challenge during a time when nurses are in critical demand. Nursing is a physically demanding job that commonly requires long, 12-hour shifts, heavy lifting, and miles of walking each day. Fifield (2008) describes the impact of nurses reaching retirement age and the effects of the nursing shortage in her organization:

Nurses are retiring and quitting faster than new nurses can be trained. The demand has pushed some salaries to \$75,000 per year for an experienced nurse, more than what a nursing instructor earns. The small number of nurses with master’s degrees who are available and willing to teach exacerbates the overall shortage. The shortage is worsening. Everyone’s healthcare costs will rise; patient care will suffer. (p. 17)

Experienced nurses are needed to mentor beginning nurse graduates and support them in the work environment. The workplace is more demanding than ever with increased patient acuity, changes in reimbursement, access to care, and advanced technology (Christmas, 2008). Hospitals experience fewer turnovers when they employ mature nurses; research indicates age remains positively related to retention because older nurses stay in their present job more often than younger nurses (Ellenbecker, 2003). Healthcare organizations are beginning to understand that aging nurses contribute valuable wisdom from years of experience to the workplace. Nurse leaders are exploring ways to retain older nurses so they may assist novice nurses through the provision of resources, council, and assistance when caring for complex patients (Christmas, 2008).

Schools of nursing have the important responsibility of educating the next generation of nurses. To accomplish this, programs need to select only the best qualified applicants who will complete rigorous clinicals and coursework. These students are pushed

to think critically through detailed care planning and meet high professional standards to complete a program of study successfully. After graduation, they sometimes enter a workplace very different from the limited clinical setting they experienced in school. It is here where graduate nurses are vulnerable and may become disillusioned with the profession. Nurse managers and experienced nurses need to provide encouragement and guidance for these new nurses (Christmas, 2008; Daiski, 2004). Nurses approaching retirement age are excellent candidates for mentoring the next generation of nurses. Perhaps healthcare organizations could reduce the patient load of experienced nurses so they have the time and energy to invest in the next generation of nurses.

The Problem

The public knowledge base about the nursing profession is very limited and not well understood (Huffstutler et al., 1998). Similarly, students enter nursing education with a limited notion of the profession of nursing (Spouse, 2000). They decide to enter into a nursing career based on perceptions from stereotyped and idealized images (e.g., Hoke, 2006; Sand-Jecklin & Schaffer, 2006). Students establish their ideas of nursing from books, television programs, and/or movies that feature nurses, friends and family members, and nurses encountered in the healthcare setting. Sometimes this preconceived idea of nursing is not realistic. The reality of practice may alter the nursing student's perception of the profession during his or her course of study (Harvey & McMurray, 1997) or it may change after graduation, when the student assumes the role of the registered nurse. The future demand for additional nurses is cause to examine the public's opinion of nursing careers and how personal experiences, media messages, and socio-demographic factors shape these perceptions (Donelan et al., 2008).

Schools of nursing experience pressure from healthcare organizations and

communities to increase student enrollment to graduate more nurses to fill current vacancies and prepare for the future need; nursing positions are expected to grow an average of 23% by 2016, representing 587,000 new nursing positions (Allen & Aldebron, 2008). On the surface, greater enrollment may be the solution; however, increasing only the number of students may not be sufficient to solve the nursing shortage. There are instances when students are admitted to a nursing education program and discover nursing is not the career for them. Even worse, a nursing student may complete a program and then discover a nursing career differs from the perception they held when they began the program. These new nursing graduates may later decide to leave the profession and pursue other career interests. Therefore, to make a positive difference in the nursing shortage, schools of nursing must select and recruit nursing students who have an accurate perception of the nursing profession so that all students will experience a higher level of satisfaction with their career choice and actually practice as a nurse after graduation (Sand-Jecklin & Schaffer, 2006).

The Purpose

This quantitative study includes the administration of a survey instrument that measures the perceptions of the profession of nursing among first-semester nursing students in both a 2-year and a 4-year program of study and registered nurses. Students who begin a nursing program are ideal participants because clinical experiences have not influenced their perceptions of nursing. The students sampled include those accepted into a nursing program and enrolled in their first nursing course. The decision to sample two different educational levels of beginning students stems from the assumption that there is a lack of knowledge from the public about the different levels of nursing practice within the profession of nursing. The title *nurse* is often used to describe a licensed practical nurse

(LPN), a diploma graduate nurse, an associate degree nurse (ADN), and a baccalaureate nurse (BSN). To add to the confusion, graduates of an associate degree program and a baccalaureate degree program sit for the same National Council Licensure Examination (NCLEX-RN). Usually, the public is unaware that nurses earn master's degrees to practice as nurse practitioners, nurse midwives, nurse anesthetists, nurse administrators, and nurse educators. Some nurses also earn doctorates with either a clinical or research focus. Understanding how the varying levels of nursing education and titles could confuse the public about professional nursing practice is easy.

In this study, the registered nurse participants include all ages and educational levels from one local hospital. This study seeks to explore how the perception of the profession of nursing compares among first-semester associate degree nursing students, first-semester bachelor degree nursing students, and registered nurses. This research will assist nurse educators in understanding the perceptions of students and how they differ from registered nurses who possess experience in the field. Through this endeavor, nurse educators will gain knowledge necessary to assist in bridging the gap between nursing education and practice. Faculty may then use this information with students during class time by encouraging role-play or discussing case studies that highlight inaccurate perceptions. Furthermore, information obtained about the perception of nursing will enable nurse administrators to understand how the nurses employed in their organization view the profession. This knowledge may reveal the need to incorporate changes in the workplace that increase recruitment and retention for nurses in the organization.

Research Questions

Registered nurses work in a variety of traditional clinical settings such as hospitals, home health facilities, and long-term care. The public may not realize that nursing as a

profession has become increasingly sophisticated, specialized, and expansive in response to patients' complex medical conditions as well as advances in medical technology (Allen & Aldebron, 2008). Despite efforts to improve the public image of the nursing profession, nursing stereotypes continue to contribute to job dissatisfaction (Takase & Burt, 2001). The purpose of this study is to investigate the perception of the profession of nursing from multiple perspectives including first-semester nursing students as well as registered nurses with varying experience levels. Figure 1 represents a model of the relationships among the variables of demographics, organizational environment, and nursing perspectives. Specific empirical research questions for this study are derived from Figure 1, as follows:

To what extent do(es):

1. Differences with respect to the demographic factors exist among the following: (a) first-semester associate degree nursing students, (b) first-semester baccalaureate degree nursing students, and (c) registered nurses?
2. Differences in the perception of the profession of nursing (Practice, Values, and Public Image) exist among the following: (a) first-semester associate degree nursing students, (b) first-semester baccalaureate degree nursing students, and (c) registered nurses?
3. Organizational context (associate program, baccalaureate program, and RNs) affect the perception of the profession of nursing (Practice, Values, and Public Image), when controlling for demographics?

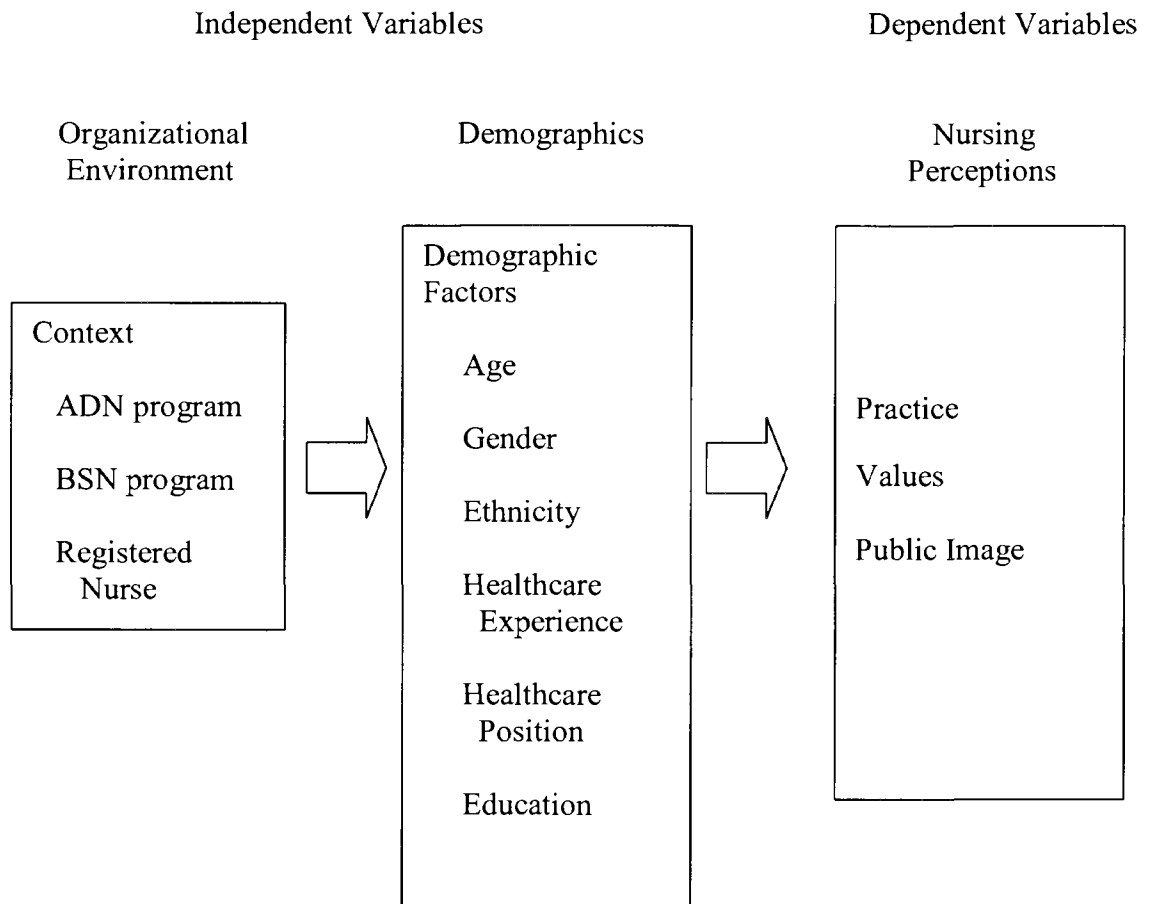


Figure 1. The relationship of demographic factors, organizational environment (associate nursing program, baccalaureate nursing program, and registered nurse), and the perception of the profession of nursing (Practice, Values, and Public Image).

Significance of the Study

First, through the research on the perception of the profession among nursing students and registered nurses, the investigator will learn the differences (if any) that exist among nursing students and registered nurses. These differences are valuable because understanding them will give the researcher knowledge that can bridge a potential gap between nursing education and the reality of nursing practice. Nursing faculty may incorporate this knowledge into presentations, group discussions, and clinical experiences

to assist nursing students in understanding the differences between stereotypes and the reality of nursing practice.

Second, the information from this study may assist middle school and high school counselors, parents, and nursing advisors in assisting potential nursing students in determining if nursing is a career they wish to pursue. Hoke (2006) suggests that providing accurate information about the reality of nursing as compared with what students hear in the media can result in young people considering nursing as a career choice. Furthermore, Sand-Jecklin and Schaffer (2006) encouraged accurately informing students about the roles, responsibilities, and opportunities within the profession to promote a higher degree of satisfaction with a career choice in nursing.

Third, the demographic differences (if any) among the students in the associate and baccalaureate programs will allow faculty to understand the background and characteristics of each group. This information may assist admission committee members during the interview process. Members may wish to incorporate questions that explore demographic differences in further detail. The demographic differences (if any) found in the practicing nurse group may help administrators who wish to pinpoint specific areas to improve retention within their organization.

Fourth, through the discovery of the perception of differences among the associate and baccalaureate students, faculty may choose to incorporate individualized changes or additions to the curriculum of each program to reflect the inaccurate perceptions of the profession found. In addition, educators will understand which areas of the profession are accurately perceived and will continue to support those perceptions. While the topic of professionalism is a common thread discussed throughout all nursing courses, faculty may find it helpful to know specific areas to address.

Fifth, this study will add to the body of knowledge in nursing by exploring the perception of the profession of nursing among three groups not previously found in the literature. Each sample represents a unique perspective of nursing but from a different context and from various settings.

Finally, the findings of this research study will assist nursing administrators in healthcare organizations in understanding the inconsistencies among the perception of the profession of nursing and the reality of nursing in the workplace. This is especially helpful for nurse managers who seek to improve the work environment with the goal of increasing job satisfaction for nurses within the organization.

Limitations of the Study

The purpose of this study is to explore how the perception of the profession of nursing compares among first-semester associate degree nursing students, first-semester bachelor degree nursing students, and registered nurses. This perception is limited by the tenets of Practice, Values, and Public Image as described by the survey instrument. It is acknowledged that other perceptions may be present that are not addressed in the survey.

While some of the participants are from other parts of the region, this study is limited by sampling bias in that respondents represent a convenience sample from one university, one community college, and one hospital in one medium-sized city. It is acknowledged that this sample may have different characteristics than those who could have participated from a larger population of students and registered nurses at other schools and hospitals from other parts of the country. The ability to generalize the results to other nursing populations is thus limited. Another limitation includes the sample size that also decreases the generalizability of the findings.

In addition, this study is limited in that findings may be influenced by the

circumstances in which the investigation occurs. The nursing shortage has motivated healthcare institutions to explore innovative ways to recruit and retain professional nurses. The registered nurses who participated in this study were employed by a hospital seeking Magnet recognition. They had experienced positive changes to the work environment from this endeavor. Magnet designation serves as a hallmark of excellence for nursing practice with research as an important component used to make an impact on practice and patient care. The five model components of the Magnet model include (a) transformational leadership; (b) structural empowerment; (c) exemplary professional practice; (d) new knowledge, innovation, and improvements; and (e) empirical quality results (Wolf, 2008).

Another limitation includes the collection of data from first-semester nursing students. It is unknown how a nursing student's perception of the profession of nursing transforms during course work. As students are exposed to patients in a variety of settings, their knowledge increases and their perceptions may change. This might be a good area for future study, i.e., how students' perceptions change after each semester of school.

Finally, the author personally collected data by visiting first-semester nursing students in the classroom and obtaining permission from their instructor. This nurse graduated from the programs sampled (ADN in 1982; BSN in 1986). The researcher taught in the ADN program part-time from 2000-2004 and currently teaches full-time in the last semester of the BSN program. Although this author does not instruct the students surveyed, the fact that she is a faculty member might present an advantage as the students may be more likely to complete the survey. This writer also worked as an RN (from 1985-1987) and has family members who are employed at the hospital where registered nurses were surveyed which may assist with recruiting volunteers to complete the survey.

This author acknowledges that many problems concerning the nursing shortage are

beyond the scope of this research. Numerous related situations involve students and nurses that merit inquiry including the phenomenon of students graduating from education programs yet never taking the NCLEX, students who pass the NCLEX and never practice, the incidence of nurses leaving the field to pursue non-nursing occupations, the complex problem of attracting registered nurses to nurse educator positions, and the effect of childrearing and caring for family on members of the profession.

Definition of Terms

The multiple levels of nursing education and practice create much confusion to the public. Misconceptions also abound about the nature of work involved in nursing practice (Huffstutler et al., 1998). It is unlikely that two people would define nursing alike. The following list of terms provides a directory of basic nursing terminology necessary to understand each level of nursing education and practice as used in this study.

The American Nurses Association (ANA) is the professional organization that represents the interests of the nation's 2.9 million RNs. ANA defines nursing as "the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations" (ANA, 2004, p. 7).

A licensed practical nurse (LPN) also known as a licensed vocational nurse (LVN) is not a registered nurse. An LPN has taken a 12- to 14-month post-high school educational course that focuses on basic nursing care. LPNs must pass a licensing exam (the NCLEX-PN) to work. In 2005, there were 710,000 LPNs in the U.S. (ANA, 2009).

Once commonplace, diploma nursing programs have diminished steadily and currently comprise only 4% of all basic RN education programs. They were usually

associated with a hospital and combined classroom with clinical instruction over a period of 3 years. Diploma graduates are eligible to take the NCLEX-RN to become licensed as a registered nurse (ANA, 2009).

The ANA (2009) describes the associate degree in nursing (ADN) education as a 2-year program designed for students wishing to pursue technical or bedside nursing. In 2005, ADN programs composed 58.9% of all U.S. basic nursing programs. An ADN prepares individuals for a defined technical scope of practice. Associate degree nurses learn nursing theory and technical proficiency in the classroom and clinical settings. ADN graduates are encouraged to return to school during their career to earn a bachelor's degree. After graduation, ADN students must pass the NCLEX-RN to obtain a license to practice.

A bachelor of science in nursing (BSN) is a 4-year university-based degree that offers course work in nursing theory, sciences, humanities, and behavioral science preparation necessary for the full scope of professional nursing responsibilities. The BSN provides the knowledge base necessary for advanced education in specialized clinical practice, research, or primary health care. In 2005, there were 573 U.S. colleges and universities that offered the BSN and 34.2% of registered nurses educated at this level. Most BSN programs concentrate studies on psychology, human growth and development, biology, microbiology, organic chemistry, nutrition, and anatomy and physiology during the first 2 years. The final 2 years include a focus on nursing curriculum that includes adult acute and chronic disease, maternal/child health, pediatrics, psychiatric/mental health nursing, and community/public health nursing. Additional courses include nursing theory, bioethics, management, research and statistics, health assessment, pharmacology, pathophysiology, and electives in complex nursing processes. Nursing faculty supervise

students in clinical practice during the last 2 years in hospitals, nursing homes, and community settings (ANA, 2009). BSN graduates must pass the NCLEX-RN (identical to the exam for the ADN graduate) to obtain a license to practice as a RN.

The National Council Licensure Examination (NCLEX-RN) is a standardized exam that each state board of nursing administers to determine if a candidate is prepared for entry-level nursing practice. Once successfully completed, the person may use the RN title and practice nursing while following the requirements of the Nurse Practice Act in the state in which he or she works as a nurse (ANA, 2009).

First-semester nursing students are those students accepted into a nursing education program (ADN or BSN) and enrolled in the first fundamental nursing course. For the first-semester nursing students in the ADN sample, they will most often be first-year students or sophomores in the community college setting. Many of these students are nontraditional students. For the students in the BSN sample, they will most likely be juniors or seniors in the university setting. BSN students are required to complete 2 years of prerequisites before application to the BSN program and this sample will largely consist of traditional students.

Summary

This chapter began with this author's concern about the inconsistencies that exist in potential students and the public about the perception of nursing and the reality of professional nursing practice. The writer's personal experience as a new nurse fueled this research as well as concern for the sustainability of nursing education and the profession. The current nursing shortage provides the rationale for investigating beginning nursing students and registered nurses' perceptions of nursing. Through this investigation, nursing educators and leaders will obtain another piece of the puzzle that will help to explain how

the tenets of Practice, Values, and Public Image affect the perception of the profession.

Nursing is a demanding and multifaceted career that requires a major transition for new graduates as they evolve into competent professionals. Novice nurses need experienced registered nurses available to mentor and encourage them in a challenging work environment affected by increased patient acuity levels, changes in reimbursement, access to care, and advanced technology (Christmas, 2008). New nurses deserve the opportunity to work through these difficulties so they may experience a career that provides unique intrinsic rewards such as meaningful patient contact, a variety of interesting work, and opportunities for learning and professional growth (Wilson, 2006).

As the nursing shortage grows, schools of nursing feel pressure from healthcare organizations to increase student enrollment. However, funding cuts, lack of nurse educators, classrooms, and clinical space often prevent the expansion of these programs. Student interest in the profession is currently high but the elevated rejection rate of applications fuels concern that students may lose interest in seeking a nursing degree (AACN, 2006). A shortage of nurse educators due to large numbers retiring and approaching retirement complicates matters even worse (Meyers, 2004). The recruitment and retention of nursing faculty is a valid concern for directors of nursing programs. The need to attract registered nurses to academia has never been greater. There is also a need for increased funding for nursing programs, better collaboration with healthcare organizations (to provide clinical sites and nurse preceptors), and salaries for nursing faculty that are competitive with registered nurses in practice.

Another concern is the matter of professionals leaving the field of nursing. Nursing students perform at high levels to graduate from programs and successfully pass the NCLEX to begin a career in nursing that is sometimes a disappointment. These nurses are

at risk for leaving their job or possibly a nursing career. The gap between nursing education and practice is a concern for educators, students, and registered nurses. The “graying” nursing workforce is yet another population at risk for leaving the profession. Nursing is a physically demanding job and older nurses may have difficulty working until they reach retirement age. These nurses are needed to share their expertise with the next generation of nurses. Nursing leaders are beginning to understand the value of employing older nurses and are exploring ways to retain them (Christmas, 2008).

Understanding the perception of the profession of nursing through the eyes of future nurses and registered nurses will provide valuable information to assist faculty and nurse leaders in bridging the gap between nursing education and practice. In addition, this information may serve as an impetus for improving conditions in the nursing workplace for registered nurses.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

One of the greatest challenges facing healthcare providers around the world is the current nursing shortage. As a result, schools of nursing experience pressure from healthcare organizations to increase student enrollment to produce more nurse graduates. Hospitals and other healthcare facilities strive to discover new strategies in the recruiting and retention of nurses needed to provide high-quality patient care in their organizations. In the quest for locating solutions to this growing problem, nursing faculty and healthcare administrators need to examine and address the complex factors that contribute to the sources of the nursing shortage.

One factor of concern is the attrition of nursing students in education programs. Little is known about how students perceive the nursing profession upon entry into a nursing education program (Sand-Jecklin & Schaffer, 2006). Students who seek nursing as a field of study as well as the public often possess little knowledge about the different levels of nursing practice or nursing education requirements (Huffstutler, Stevenson, Mullins, Hackett, & Lambert, 1998). This knowledge deficit results in some students entering a nursing program, only to drop out after they learn more about the profession (Harvey & McMurray, 1997). Some students may even finish a nursing education program and then discover that negative aspects of the work environment are not what they expected. This might result in new nurses experiencing disillusionment in their first years

of practice and prompt them to leave the profession (Hemsley-Brown & Faskett, 1999; Seago, Spetz, Alvarado, Keane, & Grumbach, 2006). The following chapter explores research that describes the various problems and issues that surround the nursing shortage. This information highlights research that examines (a) the topic of nursing values, (b) public perception/image of nursing, (c) nurses who intend to leave the profession, (d) job satisfaction/perception of the profession by practicing nurses, and (e) student perceptions of the nursing profession. Finally, the person-environment fit model provides a theoretical foundation for this study.

Nursing Values

Values are important because they motivate and reward behavior; likewise, values motivate and reward nurses. A conflict results when nurses live outside the values that inspired them to choose nursing. Unfortunately, this often leads to stress and exhaustion in the work environment (McNeese & Crook, 2003). As the nursing population becomes more diverse, the professional values of nursing change to reflect this increased diversity (Martin, Yarbrough, & Alfred, 2003). The examination of values in nursing is helpful in understanding the complex problem of the current nursing shortage.

Eddy, Elfrink, Weis, and Schank (1994) questioned if there were different perceptions about professional nursing values between senior baccalaureate nursing students and their nursing faculty. The American Association of Colleges of Nursing's Essentials and University Education for Nursing report (AACN, 1986) provided the operational framework for their research. The essential values identified in this report included altruism, equality, esthetics, truth, freedom, human dignity, and justice. The comparative design focused on four research questions: (a) Were there significant differences in the professional values of baccalaureate nurse educators and senior nursing

students? (b) Were there significant differences in their values depending on employment or enrollment in public or private institutions? (c) Were there significant differences in the values of senior nursing students who had and had not had courses in theology, philosophy, or ethics? and (d) Were there any variables or combination of variables that accounted for a significant amount of variance in the total professional value scores of students or faculty? A cluster sample of students and faculty involved successive random drawings for National League of Nursing-accredited baccalaureate programs in private and public institutions in four regions of the United States. The Professional Nursing Behaviors (PNB) instrument provided a professional values score for each subject.

Eddy et al. (1994) mailed 1,150 instruments to students with a 57% ($n = 656$) response rate; $n = 646$ were usable. Faculty received 495 instruments and returned 70% ($n = 350$); $n = 312$ were usable. Data analysis included paired dependent t tests to answer the first and third research questions. Multiple regression provided answers to the second and fourth research questions. Alpha was set at the 0.05 level of significance. The value scores of faculty were generally higher than those of students. Faculty rated the values of freedom, equality, and human dignity higher than students, while students rated the value of esthetics higher than faculty. The professional value scores of students and faculty in public institutions did not differ significantly from scores of those in private institutions. Students who had studied ethics, philosophy, and/or theology did not have significantly higher professional value scores than students who had not taken these courses. The variables of age, sex, attendance at a religious high school, and previous allied health experience did not account for a significant amount of variance in students' total values scores. Faculty with more years of teaching experience had higher value scores than faculty with fewer years of experience.

Eddy et al. (1994) recommended that nursing faculty role model sensitivity and empathy while caring for patients to help students learn to treat their clients with respect. Nurse educators should make assignments that reinforce the importance of professionalism, such as giving students credit for attending professional nursing meetings. Faculty also need to facilitate open discussions concerning value-laden issues. They found that values education may need more emphasis in graduate programs. Values workshops and mentoring by experienced faculty concerning teaching and evaluating the values component of professional education may assist new faculty members.

Martin, Yarbrough, and Alfred (2003) determined the congruency in nursing value orientation of graduating students in (a) baccalaureate and (b) associate degree programs. The authors chose the American Nurses Association (1985) Code for Nursing as the theoretical framework for this quantitative study. Researchers utilized the Nurses Professional Values Scale (NPVS) which included 11 subscales representing each value statement in the 1985 Code for Nursing. The NPVS contained 44 items and was norm-referenced with a Likert-type scale ranging from 1 (not important) to 5 (most important). A convenience sample included graduating students from 25 baccalaureate (BSN) and 46 associate degree nursing (ADN) programs in Texas. Researchers mailed 2,268 questionnaires to directors of each nursing program and received $n = 1,325$ usable surveys (58% response rate). Data were analyzed using (a) SPSS with t test and ANOVA to compare differences among the groups and (b) demographic characteristics. The least squares of difference used post hoc tests to determine how ethnic groups differed on three subscales.

Martin et al. (2003) found that senior nursing students in ADN programs did not differ significantly from the BSN senior nursing students on the total scale of value

orientation. Senior ADN students, however, scored significantly higher than did their BSN counterparts on 5 of 11 subscales of the NPVS. Male students from both the ADN and BSN programs scored lower than did female students on the NPVS. Asian/Pacific Islander students scored lower on the subscale related to respect for human dignity than Caucasian students, African American, Hispanic, and Native American students. Authors suggested that nursing is increasing in diversity that may result in a change in professional values. Faculty and students must be aware of the need for strong professional values so that nurses can manage patient care ethically and professionally. This study indicated significant differences in sex and gender concerning five subscales: right to privacy, responsibility and accountability, judgment, standards of nursing, and collaboration. Nursing faculty may find it helpful to re-evaluate teaching and mentoring strategies to retain and integrate essential professional values in nursing students.

Verplanken (2004) examined how value congruence related to nurses' job satisfaction. This descriptive, correlation design involved nurses ($N = 56$) in three surgical units of a regional hospital in Norway. The sample of convenience completed a questionnaire at work or at home. The survey contained four instruments (a) attitude scale containing 4 items, (b) Competing Values Framework containing 32 items with eight subscales, (c) Self-Report Habit Index containing 12 items, and (d) time pressure scale containing 14 items. Data analysis included means, standard deviations, and inter-correlations of the variables. Variables measured were (a) human relations, (b) open systems, (c) internal process, and (d) rational goal values. The researcher used multiple regression to examine job satisfaction and attitude along with four value congruence variables.

Verplanken (2004) found the largest correlation existed between job satisfaction

and attitude. Human relations and goal value congruence were also significantly correlated with job satisfaction. Value congruence, the match between prevalent and desired organizational values, directly affected job satisfaction and indirectly affected attitude. The author suggested a need for managers to pay more attention to human relations and social climate in the work place. Nurse leaders might concentrate on the morale of nurses while assessing the degree to which their expectations match the actual work environment.

Johnson, Haigh, and Yates-Bolton (2007) investigated changes in self-reported values of nursing students over the period 1983-2005 in light of changes in student demography. This replication study included a purposive sample of first-, second-, and third-year nursing students ($N = 618$, 100% response rate) at the Greater Manchester School of Nursing in England. After speaking at length with teachers and students, researchers administered questionnaires to students during class time. The 1983 sample included nursing students ($N = 176$) in their first and third year of study in Greater Manchester hospital-based schools of nursing. The questionnaire for the 1983 survey used the standard agree-disagree, 5-point Likert scale. The 2005 survey used the same questionnaire after adapting language that reflected contemporary practice. Data collected in 1983 were analyzed using a mainframe computer and SPSS. A Kolmogorov-Smirnov one-sample test showed the need for data to be analyzed nonparametrically. The 2005 data were analyzed using StudyResult (cited in Johnson et al.). This software allowed researchers to calculate probabilities when some raw data were unavailable.

Johnson et al. (2007) found that of the 176 students in 1983, six (3.4%) were male while in the 2005 sample, 68 (11%) of respondents were male. There were great differences in the age of entry to the profession; in 1983, 5% were more than 22 years of

age, in 2005, 63% were more than 22 years of age, and 37% were more than 30 years of age. These older students were assumed to have much greater domestic and family responsibility than 95% of 1983 students who were 21 years of age or younger. The 2005 sample was measurably less altruistic at the start of their program compared with the 1983 students. Modern students began nursing school by valuing altruism less but maintained the same degree of value consistently throughout the program. In 1983, the percentage of responses to the question about changing shifts at short notice to help revealed 54% students agreed with the statement. This number dropped to 22.5% in 2005, reflecting a 30% change in attitude. For honesty, the 2005 students scored significantly higher than the 1983 students in their admiration for this value. The percentage of students who agreed it was unprofessional to lie to patients doubled from 33% in 1983 to 66% in 2005. Johnson et al. explained this reassuring trend toward valuing greater honesty with patients as a change in social attitudes toward honesty in health care and the need to provide accurate information to patients. Student demographics changed in the 2005 study, most notably the increase in students over the age 30. This may explain why vocational altruism declined over the years. In addition, modern students are absorbing important ideals of the patient empowerment movement through valuing honesty. Johnson et al. suggest that nursing programs should recognize these changes in demographics and give students flexibility and educational support.

The literature review on values revealed the need for nursing faculty to model professionalism and place more emphasis on values during education (Eddy et al., 1994). The nursing workforce is changing in terms of cultural diversity; therefore, it is important for nursing faculty to re-evaluate teaching and mentoring strategies to retain and integrate essential professional values into practice (Johnson et al., 2007; Martin et al., 2003). In

addition, since registered nurses place great importance on good relationships with supervisors, it is helpful for nursing supervisors to assess periodically the expectations of nurses in the workplace (McNeese & Crook, 2003; Verplanken, 2004). McNeese and Crook found significant differences in values among nurses with bachelor degrees and associate degrees. Bachelor-prepared nurses had higher scores in esthetic values, creativity, and management. They further suggested that managers attempt to identify the values that influence motivation and job satisfaction for nurses to learn how best to recruit and retain nurses.

Public Perception/Image of Nursing

A factor of great concern to the nursing profession is the poor public image that persists in spite of rigorous campaigns to improve the public awareness of nursing. In 2002, Johnson and Johnson sponsored a large marketing effort known as “The Campaign for Nursing’s Future” to promote nursing as a career. They sought to raise public awareness of nursing as a career, attract more people of all ages and ethnic backgrounds into the nursing profession, and assist in retaining practicing nurses. The campaign aired television advertisements about nursing, produced video and printed recruitment materials, developed a nursing web site for potential applicants and organized fundraisers for student scholarships, faculty fellowships, and grants to nursing schools to expand student enrollment. This campaign continued for a 2-year period and is thought to have assisted in sparking student interest in nursing careers as evidenced by an increase in student applications to schools of nursing (Seago, Spetz, Alvarado, Keane, & Grumbach, 2006).

Journalists Buresh and Gordon (2006) devised a study that examined the representation of nurses in the health coverage of three major newspapers. They found

that nursing was underrepresented in news coverage; in fact, nurses were at the bottom of the list. The journalists concluded that there was little trace of nursing in the coverage of health care which led them to wonder how anyone could understand and value the profession of nursing. To improve this situation, they recommended that nurses find their voice and talk about the important work they do everyday.

Why are nurses important? What is the nature of nurses' work? Satterly (2004), a RN concerned with the professional image of nurses, partially answers these questions in the following excerpt:

Nurses and the important work they do everyday are inspiring. Whether it is in creating clinics for the homeless, helping patients to die with dignity, learning new ways to take care of stroke and heart disease patients, or teaching patients about caring for their health, the care provided by nurses is vital to the health of the nation. It is difficult to imagine a hospital, clinic, nursing home, or physician's office without a nurse to facilitate the patient's care and safety. But the ailing profession needs attention to survive the current crisis. Within some enlightened workplaces, nurses are already redefining their practice and redesigning their workplaces for optimal care. But more will need to be done to entice young people into the nursing ranks. The real value of their work will need to be recognized and rewarded, a task that is best not left to politicians and corporations, but to those who benefit the most--all of us who may one day need care. (p. 19)

The articles that follow pertain to the perception or image of the nursing profession as reported by various groups with multiple viewpoints. To successfully recruit young people to a career in nursing, the profession must accurately portray and possibly redefine nursing practice to the public.

Huffstutler et al. (1998) evaluated the perceptions of nursing's image by students, professionals, and other individuals who were not in the field of nursing. First-year and sophomore pre-nursing students (277) enrolled in a required nursing orientation course collected data for this qualitative study. Each student interviewed three different individuals (a university student, a professional person, and any other individual) as a

class project. The convenience sample included most students who were 18-22 years of age ($N = 831$). Three open-ended questions included (a) Nursing is...; (b) In my opinion, nurses are...; and (c) The most important requirement for becoming a nurse is....

Students recorded participant responses with no limitations regarding the length of the response. Researchers analyzed narrative responses using content analysis. All coders were faculty members at Auburn University School of Nursing. In response to the open-ended question, "Nursing is...", the overwhelming majority of participants responded that nursing is a "caring, helping profession." Some responded that nursing care was provided in doctors' offices. Others described nursing as a noble calling but often subordinate to medicine. Most indicated that physicians, not nurses were leaders in health care. Students described nursing as a profession with roles such as caregiver, teacher, coordinator, assistant to the physician, advocate, liaison, health promoter, administrator, manager, health care consultant, and practitioner. In response to the statement, "In my opinion, nurses are...", students commented that nurses were individuals who performed interventions to help others. Students provided a long list of both positive (caring, patient, unselfish, etc.) and negative (unkind, unfriendly, rude, etc.) personal characteristics to describe nurses. Other descriptions of nurses included being essential to the health care team and well educated. Regarding the final question, "The most important requirement for becoming a nurse is...", participants expressed the opinion that caring was the most important requirement for becoming a nurse. Other personal characteristics expressed included sincere, hardworking, attentive, honest, empathic, decisive, and concerned.

Huffstutler et al. (1998) found the meaning and practice of nurse caring are not well understood by the public. Participants failed to indicate any statements related to educational preparation for nurses or any attributes that are essential for the recognition

of nursing as a profession. Nursing is equated with caring and this altruistic component should continue within the profession; however, the public knowledge base about the nursing profession and the individuals who practice nursing is very limited. Researchers indicate that nurses must educate the public about the profession to change certain negative perceptions.

English researchers Hemsley-Brown and Faskett (1999) conducted research to provide a holistic view of how young people chose careers. They focused on (a) how nursing and engineering were perceived by students at different ages and (b) how these perceptions influenced decision making about subject choices, education and training pathways, and career ambitions. They also examined factors relating to image and status and made comparisons between nursing and young people's choice of career. The authors identified three school clusters to represent urban, suburban, and rural areas. In each area, one school provided focus groups in year 6 (aged 10-11), year 10 (aged 14-15), and year 12 (aged 16-17). Participants were selected from a single tutorial group in each school year group by selecting the first eight children alphabetically from the group list. The final sample ($N = 42$) included young people from ethnic minorities with the gender and social class matching those of the whole group. Qualitative and quantitative data provided insights to how young people perceived careers and how they made decisions. Single-sex focus groups enabled researchers to determine clear distinctions in perceptions based on gender. A scripted inquiry combined both open discussion by the group of a variety of issues, tape-recording for later transcription, and the use of questionnaires.

Hemsley-Brown and Faskett (1999) explored factors related to image and made comparisons between nursing and young people's choice of career. The perceived salary was not a significant factor in the decision to choose or reject nursing; the

overwhelming reason for making a career choice was interest and enjoyment. Although young people expressed admiration for the work of nurses, they rarely had a desire to become a nurse. The nursing profession remains vulnerable to some persistent image problems even among nurse majors. Researchers indicated that managers in hospitals need to improve the negative aspects of the work environment such as low prestige, less ability to work independently, and a higher risk of injury and disease. The authors warn that without improvements in the work environment, many new nurses will face disillusionment in their first years of practice. Furthermore, these novice nurses are at risk to leave the profession.

Staiger, Auerbach, and Buerhaus (2000) explored the various factors that resulted in only half as many women selecting nursing as a career more than 25 years ago. Data originated from two sources: (a) the U.S. Bureau of the Census Current Population Surveys (CPS) and (b) the information on career plans of college freshman reported in the Cooperative Institutional Research Program (CIRP). The CPS covered a nationally representative sample of more than 100,000 individuals that included demographic information and detailed questions about earnings and employment. Researchers have used survey data from the CPS extensively to estimate trends in unemployment, employment, and earnings. The authors obtained data from the CPS on all individuals aged 23-64 years of age ($N = 56,930$). The CIRP surveyed between 250,000 and 350,000 first-year students attending a nationally representative sample of between 300-700 2-year and 4-year colleges and universities. The survey provided background characteristics, attitudes, education, and future goals of new students entering college in the U.S. Survey data from the CIRP has been used widely and cited by researchers in higher education.

Staiger et al. (2000) observed changes in the CPS data and sorted them into three distinct components: population, age, and cohort effects. Researchers examined data from the CIRP, including the respondent's age, gender, career plans, and average grades in high school. The number of RNs observed in the most recent cohorts entering the labor market was 30% to 40% lower than that observed at similar ages for cohorts that entered the labor market 20 years earlier. There was an increase in interest among women in careers that were traditionally dominated by men, particularly in professional and managerial occupations. There was a decline in the average high school grades of women interested in nursing relative to all other first-year women.

Staiger et al. (2000) found that many women who would have entered nursing in the past are now entering managerial and professional occupations that were once traditionally male. The declining interest in nursing is driven by fundamental, permanent shifts in the labor market that are unlikely to reverse. Surveys of first-year students from the last 5 years show no evidence of any sustained re-emergence of interest in nursing. Authors are concerned that the challenges facing the nursing profession and a health care system that depends largely on nurses are daunting. They emphasize developing strategies that allow policymakers to strengthen both the current and future professional nursing workforce is crucial.

Registered nurses struggle with issues of professionalism amidst the stereotypes in modern society. Takese, Kershaw, and Burt (2001) investigated (a) nurse responses to the nursing image discrepancy, index of work satisfaction, and nursing performance and (b) the relationships among the discrepancy between the perceived image of nurses and nurses' self-concept, job satisfaction, and performance. They chose a random sample ($N = 80$) in this descriptive correlation design that consisted of registered nursing students in

postgraduate courses in the School of Nursing at a university in Western Australia. Data collection involved the administration of five questionnaires. The Porter Nursing Image Scale measured a nurse's self-image/self-concept using a Likert scale for rating. The Index of Work Satisfaction (IWS) consisted of two parts that ranked importance to satisfaction (Part A) and that of current satisfaction (Part B) on six dimensions: professional status, task requirements, pay, interaction, organizational policies, and autonomy. Ratings of Part A used paired comparisons and Part B used a Likert scale. The Six-dimension Scale of Nursing Performance measured nurses' performance including leadership, critical care, teaching and collaboration, planning and evaluation, interpersonal relations and communications, and professional development. A demographic questionnaire completed the data collection instruments. Data were analyzed by SPSS and descriptive statistics were used to summarize the characteristics of participants and responses on each scale. Researchers tested the relationships among the image discrepancy, nurses' job satisfaction, and performance. Female participants comprised 95% of the sample with most respondents employed in nursing part-time (45%) and full-time (43.8%). Most nurses had more than 10 years' experience (70%) and a diverse clinical background with the largest proportion from medical/surgical units (23%).

The Porter Image Scale indicated to Takese et al. (2001) that nurses perceived their public image more negatively than the way they viewed themselves, which led to image discrepancy. The IWS indicated a great discrepancy in the pay component, indicating a critical incongruity between the ideal and actual work environment. Pearson's correlation coefficients demonstrated a significant relationship between the image discrepancy and the nurse's job satisfaction. The discrepancy between the nurse's

self-image and his or her perceptions of the public's image of nursing resulted in lower job satisfaction. Authors found that despite efforts to improve the public image of their profession, nursing stereotypes remain, creating an environmental misfit where nursing practice is restrained. Healthcare organizations should address the lack of autonomous practice for nurses, unequal relationships with medical and other health professionals, and allocation of insufficient resources to nursing practice. This study encourages nursing's move toward greater professionalization. An improvement of nursing practice will require developing counteractive measures to the public stereotypes and subsequent environmental misfit.

Another study by Takese, Kershaw, and Burt (2002) investigated nurses' perception of the public image and how this perception related to nurses' psychological states (self-concept and self-esteem) and functional states (job satisfaction and performance). The nine hypotheses included the following: (a) There is a stronger relationship between nurses' self-concept and the degree of professional socialization than between nurses' self-concept and their perceived public image; (b) Nurses' self-concept is higher than the perceived public image of nurses; (c) The greater the discrepancy between the perceived public image of nurses and nurses' self-concept, the lower the nurses' self-esteem; (d) The more nurses negatively perceive the public image of nursing, the lower collective self-esteem develops; (e) There is a weaker correlation between nurses' personal self-esteem and collective self-esteem than between nurses' personal self-esteem and self-concept; (f) The greater the discrepancy between the perceived public image of nurses and nurses' self-concept, the lower the nurses' job satisfaction; (g) Nurses who report higher levels of collective self-esteem will report higher levels of job satisfaction; (h) Nurses' performance is more positively associated

with their self-concept and image discrepancy, but less related to nurses' collective self-esteem and job satisfaction; and (i) The greater nurses' performance, the better socialization with other health team members and society, leading to a positive public image.

Takese et al. (2002) chose a random sample ($N = 300$) that consisted of registered nursing students enrolled in postgraduate courses in a school of nursing in Western Australia. The final sample ($N = 80$) accounted for a 27.3% response rate. The following instruments were distributed by mail: (a) Demographic questionnaire, (b) Porter Nursing Image Scale, (c) Self-Esteem Scale, (d) Collective Self-Esteem Scale, (e) Index of Work Satisfaction, and (f) Six-Dimension Scale of Nursing Performance. Data were analyzed by SPSS Version 8.0 and included descriptive statistics to summarize the characteristics of participants. One-way analysis of variance was performed to examine the effects of nurses' background characteristics on their self-concept.

Using descriptive statistics, Takese et al. (2002) found that the Porter Nursing Image Scale showed participants perceived their public image more negatively than the way they perceived themselves, indicating the presence of image discrepancy. Most participants had positive self-esteem but were neither satisfied nor dissatisfied with their jobs. Nurses were dissatisfied with their salary. Researchers tested the effect of the nurses' professional socialization and found that nurses who were young, had a bachelor's degree, had less clinical experience, or worked in management, education, or research reported a more positive self-concept. Nurses who perceived their public image more negatively often reported a more negative concept. Nurses who socialized more with other health team members presented a more positive view of themselves. Nurse performance was more strongly associated with self-concept than the other variables.

Nurses' perceptions of how others view them are associated with the formulation of their self-concept. A nurse who perceives the public image more negatively is likely to develop low self-concept. Public stereotypes may hinder nurses from embracing a positive self-concept, self-esteem, and job satisfaction, leading to poor job performance. Nurses need professional socialization to foster positive personal self-esteem. A nurse with a positive self image will influence public stereotypes as well as improve the nurse's job performance (Takese et al.).

The nursing profession must find effective methods to improve the image of nursing and recruit students to combat the nursing shortage. Larsen, McGill, and Palmer (2003) conducted a descriptive study to examine the effects of motivating factors and characteristics of the nursing profession on students selecting nursing as a career. The authors surveyed students from three types of programs in North Carolina during the first month of their nursing program. The participating population consisted of 11 nursing programs in North Carolina. A convenience sample ($N = 495$) included two baccalaureate degree (BSN) nursing programs ($n = 99$), seven associate degree (ADN) programs ($n = 309$), and two diploma programs ($n = 87$).

Researchers Larsen et al. (2003) mailed surveys to the directors of each nursing program; beginning nursing students completed the surveys during the first month of school. The questionnaire included forced-choice answers for each question along with an "other" category and a section for comments to reinforce quantitative data. Researchers found small differences among the programs on the most influential factors in the students' decision to become a nurse but the differences were not statistically significant. Students identified the same three factors as the most influential: experience with a loved one or self being ill, past work experience, and having a family member or

friend who was a nurse. Images in the media were the least influential factor for the students. The data demonstrated that BSN students made career decisions later than diploma or ADN students.

Jinks and Bradley (2004) investigated newly recruited student nurses' views toward gender and stereotypes with the goal of pinpointing changes of attitude from 1992-2002. This comparative study included a sample of convenience ($n = 100$) of newly recruited student nurses in 1992 and ($n = 96$) newly recruited student nurses in 2002. Both groups of students were in similar educational and geographical settings. The data were collected by a researcher-developed questionnaire that used Likert scales. Development of the questionnaire was the focus of the 1992 study and included a literature review and survey of student nurses ($N = 76$) to generate questionnaire items. Data were collected in the classroom setting for both groups with 100 percent response rates. Data analysis included independent t tests to investigate any difference between 1992 and 2002 responses and chi-square on categorical non-parametric data.

Jinks and Bradley (2004) found that the sample of student nurses in 1992 were younger than the 2002 students with 59% of students in 1992 between 18-24 years compared with 39% of those in 2002. In 1992, 71% of student nurses indicated that women were more affectionate and caring than men compared with 21% of the student nurses in 2002. As for nursing as a profession, 70% of student nurses in 1992 agreed that nursing was female dominated while only 51% were of the same opinion in 2002. In 1992, 52% of student nurses agreed with the statement that "female nurses are seen as sex objects" while only 38% of the 2002 cohort agreed. Most gender and stereotypical attitudes of both groups of nursing students remained indecisive rather than in disagreement. The authors stated that non-dismissal of stereotypes in a group of newly

recruited student nurses was at odds with educational goals of producing a group of highly-qualified professional nurses. Curriculum planners and nurse educators should address negative stereotyping through a review of nursing history and damaging effects of gender stereotyping and discrimination.

Takese, Maude, and Manias (2006) examined how nurses perceive their public image, compared this with their self-image, and examined how this relationship affected their job performance and intention to leave their jobs. The correlation design included two research questions: (a) How do nurses perceive their public image compared with their self-image? and (b) How does the image affect nurses' work behavior? The related hypotheses were (a) The image fit is positively related to increased job performance and (b) The image fit is positively related to low turnover intention of nurses. Researchers mailed questionnaires to a convenience sample ($N = 943$) of registered nurses who had completed a 3-year nursing diploma or degree program working in a variety of clinical settings in Australia. A total of 346 questionnaires were returned with a response rate of 36.7%. Questionnaires included modified versions of the Porter Image Scale that measured nurses' self-image, the Task Performance Scale (Goodman & Svyantek, cited in Takese et al.) which measured job performance, and the Withdrawal Cognitions Scale that measured turnover intention. A focus group ($n = 6$) explored selective findings using open-ended questions. Validity and reliability of the modified instruments included a review by a panel of nursing experts using the Index of Content Validity and a pilot test with 16 students. A factor analysis established construct validity and Cronbach's (1951) alpha assessed reliability of the instruments. The rigor of data collection in the focus group included member checking and asking the group to review the transcription for accuracy. Data analysis for this correlation study included a paired t test to compare

nurses' self-image and their perception of the public image. Hypothesis testing included polynomial regression and response surface analysis. Focus group data were analyzed using the framework method (became familiar with the data through listening to the tape and reading transcriptions, identified a thematic framework, indexed the transcription, charted the index/sub-index, and interpreted the data).

Takese et al. (2006) found that nurses rated their overall self-image statistically significantly more positive than how they believed the public viewed them. This difference was more prominently observed in leadership aptitudes. They also rated themselves as more independent, intelligent, professional, and logical than their perceived public image. Nurses' view of their public image as caring agreed with how they viewed themselves. The authors suggested that although a negative perception of the public image had either no effect or a positive effect on nurses' organizational job performance, it could lead to increased turnover or intent to leave. In addition, the stress of changing the public image of nursing may cause frustration and job dissatisfaction among nurses that may contribute to a greater intention of nurses to quit their jobs. Reinforcing nurses' professional values of maintaining high standard care that sustains job performance is important. Takese et al. emphasize the importance of cultivating nurses' self-image as caring to help them cope with the pressure from the public's high expectation of nursing care.

In another study focused on student recruitment, Seago et al. (2006) proposed to determine whether students had different perceptions of a career in nursing, medicine, physical therapy, and high school teaching, comparing these perceptions between the non-nurse majors and nurse majors. The purposive sample ($N = 3,253$, 84% response rate) included students enrolled in lower-division math and science courses in eight

community colleges and four state universities in California's Central Valley. Research assistants distributed self-administered written questionnaires to all students in classes on the days selected for survey administration. The survey included items that addressed different dimensions of occupational attributes and asked the students to rate four occupations on each item: physical therapist, high school teacher, registered nurse, and physician. Data analysis included ANOVA, using Scheffe post hoc comparisons and chi-square tests to identify significant differences for each item according to either occupation group or to students' major type. Students had the most favorable impression of physicians, with perceptions of nursing being nearly as positive. Nursing was perceived positively concerning good income potential, good job security, interesting work, and making a difference in people's lives. Students had less favorable views of nursing in terms of prestige and status. Most students associated nursing with an occupation associated with job pressure and significant risk of injury. A low proportion responded that a nurse worked independently, which was the only item that rated lower than the other three occupations.

Seago et al. (2006) found that nursing majors rated nursing more highly on almost every characteristic than did students not majoring in nursing. For "women better suited," these students also perceived this characteristic to fit nurses more than the other three careers. Among nursing majors, fewer than 30% agreed that working independently "definitely applies" to nursing; fewer than 30% agreed that "a low risk of injury" and "not a lot of pressure" definitely applies to nursing. The authors expressed concern that nursing remains vulnerable to persistent image problems, most of which concern the work environment. These include low prestige, less ability to work independently, and a higher risk of injury and disease. The problematic aspects of the work environment must

be addressed to improve job satisfaction and retention of existing nurses. A long-term solution to the nursing shortage requires improved retention of nurses as well as increased recruitment of students into the profession. A possible consequence of maintaining the current work environment is that new nurses face disillusionment in their first years of practice and may leave the profession.

A similar study by British researchers Whitehead, Mason, and Ellis (2007) examined views of potential nursing students, aged 16 years and over, who were at the point of making career decisions about their future. In addition, they sought to identify factors that attracted young people to nursing. The authors found limited studies based in the United Kingdom that focused on the career decisions of young people while full-time students. A purposive sample included a population of students, aged 16 and over from three high schools in Liverpool and London, England. Students received a questionnaire during the school day during personal, social, and health education class. Researchers collected completed questionnaires at the end of class. They reported a response rate of 35.7% ($N= 106$) of the 297 questionnaires distributed. Quantitative analysis included tabulation of categorical data with use of frequencies, percentages, and incidence. Qualitative data analysis included three-level coding following a general categorization scheme grounded in the data. Respondents perceived nursing to be about “caring for people” and “making them well” and “helping people.” Students (58.5%) were aware that qualifications were required to study nursing but were unclear what they were. Other respondents (30.2%) did not know whether qualifications were required for nursing. This study indicates that high school students have a very limited view of nursing. While they acknowledge that nursing is associated with caring and helping people, they are unaware of the diversity within nursing and the nursing role. While some students recognized that

qualifications were needed in nursing, they were confused over what these were.

Whitehead et al. indicated that if the nursing profession wishes to stimulate interest in nursing as a potential career choice for high school graduates, the nursing profession and the government need increased awareness among young people regarding diversity of nursing. They need to provide more information about pay and career enhancement. Potential avenues for this dissemination of information include the media, teachers, and career services. The nursing profession needs to make potential nurses aware of the qualifications needed for a career in nursing.

The meaning of nursing practice is clearly not well understood by the public (Huffstutler et al., 1998; Whitehead et al., 2007). Research indicates that nurses believe the public perceives them more negatively than how they view themselves (Takese et al. 2002; Takese et al., 2006). Studies reveal that the public views nursing as a caring profession but believe nurses possess low prestige and are subordinate to medicine (Hemsley-Brown & Foskett, 1999; Huffstutler et al., 1998; Seago et al., 2006). These images are disturbing and contribute to RNs experiencing job or career dissatisfaction. Nurse educators must address nurse stereotyping with students through a review of nursing history and the harmful effects of gender stereotyping and discrimination (Jinks & Bradley, 2005). Authors Summers and Summers (2009) convey these concerns this way:

Nurses are the critical front-line caregivers in health care. For millions of people worldwide, nurses are the difference between life and death, self-sufficiency and dependency, hope and despair. Yet a lack of true appreciation for nursing has contributed to a shortage that is one of our most urgent public health crises. Many nurses feel that they've written in invisible ink, that their hard work is not understood, and the result is a lack of resources. The shortage of nurses is overwhelming the world's health systems. It is no exaggeration to say that our future depends on a better understanding of nursing. (p. xvi)

Nurses Who Intend to Leave the Profession

Nurses are voluntarily leaving the workplace before the normal age of retirement during a time when the shortage of nurses is reaching a critical level (Nogueras, 2006; Takese & Cranley, 2006). There is concern over the number of nurses who are dissatisfied with their nursing career and intend to leave the profession. Nursing turnover creates a tremendous expense for healthcare organizations as they pay for the recruitment and orientation of new nurses, experience periods of short staffing, and pay for overtime of current nursing staff. Healthcare organizations must understand what motivates nurses to leave positions so they can effectively develop retention strategies that encourage nurses to stay with their employers (Nedd, 2006).

United Kingdom researchers Collins, Jones, McDonnell, Read, Jones, and Cameron (2000) considered views of professionals allied to medicine in innovative roles, job satisfaction, career development, intention to leave the profession, and factors seen as hindering and enhancing effective working. The authors chose a blended design that included a mapping exercise and case studies to discover the range and purpose of new roles for nurses and professionals allied to medicine. The sample included nurses ($n = 452$) and professionals ($n = 162$) allied to medicine in the United Kingdom who were undertaking roles considered innovative or non-traditional. Data were collected by a self-completion postal questionnaire composed of 38 items. The questionnaire included closed and Likert questions with spaces for free text for explanation of answers. The final response rate was 78.5% ($N = 614$), of which 73.6% were nurses. Collins et al. analyzed quantitative data using SPSS 1993 and qualitative data through content analysis, coding, and classifying the data in terms of concepts and categories. The researchers found a high level of job satisfaction in both groups surveyed. Sixty-eight percent felt the new role had

enhanced their career prospects; however, 27% ($n = 163$) indicated they would leave their profession if possible. It is of interest that more than one in four nurses agreed with the statement that they would leave their profession if they could. The authors noted this was especially disturbing as all the nurse participants were working in innovative roles, were highly skilled, and had reached senior levels in their profession. The findings revealed the vast majority of respondents felt the innovative role provided them with a sense of job satisfaction. As a result of this research, Collins et al. suggested that new nurses need to feel competent to carry out their role and understand the boundaries of their practice. Facilitating career progression and encouraging nurses to feel well integrated with their peers in the work environment is essential for nurse managers.

In a multidisciplinary effort, Larrabee, Janney, Ostrow, Withrow, Hobbs, and Burant (2003) investigated the relative influence of RN attitudes, content of care, and structure of care on nurses' satisfaction and intent to leave. Hypotheses included (a) High context, structure, attitude, and job satisfaction scores negatively influence RN intent to leave and (b) High context, structure, and attitude scores positively influence RN job satisfaction. In this correlation design, a convenience sample ($N = 90$, 60% response rate) consisted of RNs employed at least 3 months on two medical, two surgical, and three intensive care step-down units at a 450-bed university medical center in West Virginia. Educational preparation included bachelor- (50%), associate- (33%), and diploma- (17%) prepared RNs. Several instruments measured the following variables: RN job satisfaction (Work Quality Index), intent to leave, nurse manager leadership style (Multifactor Leadership Questionnaire), unit turbulence, staffing, autonomy and control of practice, nurse/physician collaboration (Nurse Collaborative Practice Scale), support services, group cohesion (Group Cohesion Scale), psychological empowerment, hardiness

(Personal Views Survey III), and demographics. Larrabee et al. performed data analysis using SAS software Version 8 and used ANOVA to evaluate differences between intent to leave and job satisfaction. Correlation analyses identified bivariate correlations and multivariate regression analyses evaluated models that predicted RN job satisfaction and intent to leave. Predictors of intent to leave were evaluated using logistic regression followed by stepwise multiple regression.

Larrabee et al. (2003) found that significant correlates of RN job satisfaction included context, structure, and attitude variables. Interestingly, a nurse's age was not correlated with job satisfaction. More RNs indicated intent to stay (40.5%) than to leave (22.5%); more than a third (37.1%) evidenced uncertainty about staying in their positions. Those who had graduated less than 5 years earlier and RNs who had been in their current job less than 5 years were more likely to reveal intention to leave. Their reasons for desiring to leave their current job included moving away, dissatisfaction, becoming a full-time student, promotion, and better salary with benefits. Nurses who were satisfied with time devoted to patient care, who felt they had a variety of clinical challenges and opportunity to serve others, and who were engaged in research were 2.4 times more likely than other RNs to stay in their current job. Highly satisfied RNs perceived that they could get things done in their organization, indicated that support services demonstrated good responsiveness, initiated collaboration with physicians, and noted that their nurse manager used a transformational leadership style. The authors suggested that nurse leaders routinely monitor, evaluate, and implement strategies to address the satisfaction of RNs. Nurse managers should support a work milieu that includes a creative work environment with participative management if they wish to increase RN job satisfaction.

Lynn and Redman (2005) examined the relationship between organizational commitment, job satisfaction, and nurses' intention to leave their current position or nursing. This descriptive study utilized a mailed questionnaire to a multistate random sample of nurses ($N = 3,000$). Researchers received $n = 787$ (26% response rate) usable questionnaires. The questionnaire contained two parts, plus demographic questions. The first section of the questionnaire addressed professional and job satisfaction using six satisfaction items. Lynn and Redman measured job satisfaction with the Satisfaction in Nursing Scales (SINS), a 54-item Likert scale. The SINS contained four factors: workload, intrinsic satisfiers, collegiality, and administrative support. The second section of the questionnaire included the Organizational Commitment Questionnaire (OCQ) used to measure the extent respondents' evidence commitment to their employing institution. Data analysis included a stepwise multiple regression with SPSS software. Independent variables included age, educational level, and personal financial situation.

Lynn and Redman (2005) found the typical respondent to their survey was 44 years in age, European-American, and baccalaureate prepared. The negative predictors of intent to leave included professional satisfaction, satisfaction with workload, extent to which the nurses liked to work, and their satisfaction with colleagues. The nurses who had higher levels of professional satisfaction and whose families depended on them for financial support were less likely to want to leave nursing. A few of the nurses sampled (27%) reported they would prefer not to work. The aspects of work and professional satisfaction were primary predictors of nurses' intention to leave their current position and nursing. The authors indicated a need for further research to understand nurse satisfaction and their organizational commitment. They believed this information might provide insight into the nursing deficit. The high percentage of respondents who would

prefer not to work is disturbing considering the current nursing shortage. Nurse educators should continue to strengthen the view of nursing as more than a job and emphasize that it is a professional career.

Hart (2005) investigated the effects of hospital ethical climates on positional and professional turnover intentions of registered nurses and the relationships among demographic factors, employment characteristics, and positional and professional turnover intentions of registered nurses. In this study, the ethical climate included the organizational climate, ethical culture, moral climate, ethical environment, ethical dimension of the organizational culture, and ethical work environment. The author obtained a randomized list of 2,000 nurses from the Missouri State Board of Nursing. The sample consisted of registered nurses who worked a minimum of 40 hours each month in direct care in acute care hospitals in Missouri. Eight-page questionnaires contained three instruments: The Hospital Ethical Climate Survey, the Anticipated Turnover Scale, and the Nurse Retention Index with additional questions about demographic and employment characteristics. Researchers mailed surveys to 2,000 nurses; however, only $N = 463$ (23%) of the questionnaires were eligible for inclusion in the study. Quantitative analysis procedures included a correlation matrix with Pearson product-moment correlations to answer the question about relationships among demographic and employment characteristics, ethical climate, and nurses' positional turnover intentions. In addition, regression analysis tested the hypothesis about the ethical climate in acute care hospitals not affecting the positional turnover intentions of registered nurses. Finally, a multiple linear regression explained positional turnover intentions based on demographic factors and employment characteristics.

Hart (2005) found that experienced RNs and those who had been in their current

positions longer were more likely to report intentions to stay in those positions. In addition, nurses who responded that they had considerable control or complete control over their practice were more likely to report a higher intent to stay in their positions. Nurses who worked at hospitals using retention strategies also reported a greater intent to stay in their positions. The author found strong evidence that ethical climate was a significant factor in RNs' decisions to leave their positions or to leave the nursing profession. This study supported the finding that the hospital ethical climate is important in determining nurses' decision to leave their position or to leave the nursing profession.

Nedd (2006) examined the relationship between the intent to stay in an organization and the perceived access to organizational empowerment structures. Organizational empowerment structures included opportunity, information resources, and support within the nursing occupation. The central question in this descriptive, correlation design was whether perceived formal power, perceived informal power, and perceived access to work empowerment structures related to nurses self-reported intent to stay on the job. The random sample included registered nurses ($N = 500$) in the state of Florida. A total of $n = 206$ usable surveys resulted in a 42% response rate. Most of the respondents were female (93%) with age ranges from 23 to 68 years. The researcher administered four self-report scales and a demographic questionnaire by mail. The Job Activities Scale (JAS) included nine items that measured nurses' perceptions of formal power within the work environment. The Organizational Relationships Scale (ORS) included 18 items that measured nurses' perceptions of informal power within the work environment. The Conditions for Work Effectiveness Questionnaire (CWEQ) contained 31 items that measured perceived access to four work empowerment structures: opportunity, information, support, and resources. The researcher calculated frequencies

for the demographic variables and descriptive statistics for the JAS, ORS, CWEQ, and intent to stay instruments. The Pearson's product-moment correlation coefficients calculated relationships of (a) formal power, (b) informal power, (c) access to empowerment structures, and (d) demographic variables to intent to stay on the job.

Nedd (2006) found that nurses perceived moderate levels of empowerment at the workplace and perceived greatest access to opportunity in their positions followed by support, information, and resources. They believed they had access to knowledge development and skills necessary to advance in the organization. The intent to stay was significantly positively correlated with all empowerment variables including formal power, informal power, overall work empowerment, opportunity, information, support, and resources. There were no statistically significant relationships noted between self-reported intent to stay and the demographic variables of age, gender, years worked in nursing, years worked on current job, and level of education.

Nedd (2006) suggested that administrators and nurse managers assess nurses' perceptions of access to workplace empowerment. Once leaders identify issues surrounding nurses' intent to stay, interventions may be developed to assist in the retention of nurses. Nurse leaders should facilitate access to organizational structure of opportunity by providing nurses a chance to participate in work groups, task forces, committees, and organization projects. Nurses should serve as resources to other nurses to facilitate advancing skills and knowledge in the organization. Nurse managers should involve nurses in decisions regarding supplies and equipment for the unit. Another strategy for empowering nurses included rewarding nurses for a job well done.

Tourangeau and Cranley (2006) tested a hypothesized model of determinants of nurse intention to remain employed in their current acute care hospitals until retirement.

They developed a survey, *Determinants of Nurse Intention to Remain Employed*, which incorporated the following six predictors of nurse intention to remain employed: job satisfaction, manager ability and support, organizational commitment, burnout, work group cohesion and collaboration, and personal characteristics of nurses. Authors also selected the Ontario Nurse Survey that included sections to describe where nurses worked within their hospitals, evaluation of quality of patient care, career intention, history of injury, job-related feelings, condition of nursing practice environment, job satisfaction, selected patient discharge processes of care, and demographic information. Three additional instruments in the survey included the Maslach Burnout Inventory (MBI), the Revised Nursing Work Index (NWI-R), and the McCloskey Mueller Satisfaction Scale (MMSS). The MBI measured three dimensions of job-related burnout: emotional exhaustion, depersonalization, and personal accomplishment. The NWI-R measured the condition of the professional nursing practice environment. The MMSS measured global nurse job satisfaction and included eight distinct job satisfaction dimensions. The Institute of Social Research at York University in Toronto, Canada administered the survey through mailings to create the final dataset. Researchers analyzed data with SPSS Version 11.5 along with descriptive statistics and two multiple regression analytic models to test the hypothesized model.

Tourangeau and Cranley (2006) found an indicator of organizational commitment that was statistically significant: years employed in the hospital. The more years employed in their current hospital, the more likely nurses were to remain employed in that hospital until retirement. Another statistically significant predictor of intention to remain employed was indicated when a high level of teamwork was present in the workplace. Overall job satisfaction was also a significant predictor for intent to remain

with their employer. The higher nurses rated their satisfaction with coworkers and opportunities for interactions at work, the more likely nurses reported their intention to remain employed. Regression models explained 34% of variance in nurse intention to remain employed with their current hospital until retirement. The stepwise regression model indicated two statistically significant predictors of intention to remain employed: when a nurse experienced satisfaction with recognition and being a male nurse.

Tourangeau and Cranley indicated that four categories in the Determinants of Nurse Intention to Remain Employed were significant determinants of nurse intention to remain employed: job satisfaction, personal characteristics of nurses, work group cohesion and collaboration, and organizational commitment of nurses. The authors emphasized that strategies to strengthen the predictors identified may serve to promote more cohesive and collaborative work groups and strengthen nurse organizational commitment.

Nogueras (2006) investigated whether occupational commitment influenced RNs' intent to leave the nursing profession. The author chose the Three-Component Model of Occupational Commitment to describe the psychological link between individuals and their decision to continue in an occupation. The author asked eight questions: (a-c) Is there a significant relationship between RN (a) affective, (b) normative, (c) continuance occupational commitment, and RN intent to leave the nursing profession? (d-g) Is there a significant relationship between RN, (d) age, (e) gender, (f) level of education, (g) years of experience and occupational commitment to the nursing profession? (h) Is there a significant contribution, uniquely or as a linear composite, between the predictor variables of age, gender, educational level, years of experience in nursing, and occupational commitment to RN intention to leave the nursing profession? The author chose a nonexperimental, correlation study design. A sample of convenience included

RNs who responded to a notice in Nursing Spectrum magazine or on Nursing Spectrum's web site. Inclusion guidelines for this study included a current RN license and employment as an RN practicing in a clinical setting. Noguera collected data from 1,326 RNs for a period of 4 weeks resulting in 908 usable surveys (68% response rate). Instruments used for data collection included the demographic survey, the Occupational Commitment Survey 2000, and the Measure of Career Change Cognition.

Noguera (2006) analyzed the hypotheses using Pearson's correlation, Levine's Test for Equality of Variances, ANOVA, and hierarchical linear regression. The most significant finding was that RN level of education and RN occupational commitment were significant predictors of RN intent to leave the nursing profession. A higher level of education correlated with a greater occupational commitment and a lower intention to leave the nursing profession within the next year.

Takese, Yamashita, and Oba (2007) investigated how nurses' work values, perceptions of environmental characteristics, and organizational commitment were related to their leaving intentions. They presented two hypotheses: Hypothesis 1 stated the fit between nurses' work values and their perceptions of environmental supplies predicted their turnover intention. Hypothesis 2 stated the relationship between fit and nurses' turnover intention was completely mediated by organizational commitment. The sample of convenience included nurses from three public hospitals in Japan ($N = 849$). The mailed survey included the following instruments, the Job Orientation Questionnaire, the Organizational Commitment Scale, the Withdrawal Cognitions Scale, and demographic questions. Nurses ($N = 319$) returned usable questionnaires with a 37.5% response rate. Takese et al. (2007) analyzed data through a series of regression analysis including polynomial regression using SPSS version 12.0. Respondents were female

(98.7%), single (54.5%), and averaged 34.3 years in age. Nurses attached higher importance to having comfortable working conditions, professional privilege, opportunities for clinical challenges, and social rewards. Nurses who perceived a large volume of environmental supplies often exhibited low turnover intention; however, nurses who had high work values often manifested high turnover intention. Nurse managers should assess nurses' work values and perceptions of environmental supplies. Managers should give immediate praise for good nursing practice or publish it in an internal newsletter. Managers who provide support and try to build good relationships with their nursing staff improve nurses' perceptions of their environment. Nurse managers ought to assign a variety of tasks to nurses according to their abilities. Nurse leaders might communicate with their organizations and the public about the roles of nurses and the contributions they make to health care. This might serve to enhance the public and policymakers' understanding of nursing and facilitate a friendly environment for nurses.

McCarthy, Tyrrell, and Lehane (2007) investigated RN intent to stay in hospitals in the Republic of Ireland. Researchers chose a cross-sectional quantitative design utilizing questionnaires. Cluster sampling included RNs ($N = 352$) employed at least 6 months at ten hospital sites throughout Ireland. The Likert questionnaire measured RNs' intent to stay or leave their current employment and identified factors that encouraged them to stay. Researchers analyzed data using SPSS and included descriptive and inferential statistics (logistic regression models). Most RNs (66%) were between 21-35 years, female (97%), and single (54%). Eighty-three nurses (23%) intended to leave their current position and most (96%) anticipated no difficulty in finding another job. Many RNs (56%) with 3 or more years of experience expressed intent to leave. Kinship

responsibilities and job satisfaction were significant in predicting whether or not nurses would leave their present position. Regression analysis revealed that job satisfaction was the most accurate predictor of intent to stay. This study demonstrates a relationship between RNs with higher educational qualifications and turnover. Healthcare organizations might offer opportunities for nurses with bachelor's degrees to develop professionally to improve job satisfaction. Kinship responsibilities are a significant predictor of nurses' intent to stay or leave their position. Organizations might provide facilities to enable nurses who are mothers to provide for childcare during work hours.

Nurse leaders need to assess nurse job satisfaction periodically and use these assessments to formulate strategies to improve the working environment (Larrabee et al., 2003). Researchers found that the intent of the RN to leave the job before retirement decreased the longer the nurse stayed on the job and the higher the education level (Hart, 2006; Nogueras, 2006; Tourangeau & Cranley, 2006). Researchers found that about 25% of nurses would leave their job if they could, which is a cause of great concern during a time of nursing shortage (Collins et al., 2000; Larrabee et al., 2003).

Job Satisfaction/Perception of Practicing Nurses

Experts have attributed the nursing shortage to a 40% decline in interest in nursing careers related to a negative growth in salary and a growing dissatisfaction with the work environment. The shortage is continuing to expand as the largest group of nurses begins to retire and the number of nursing positions increases 21% (Ingersoll et al., 2002). Dissatisfaction with the work environment has been correlated with an increase in nurse turnover rates (Stuenkel, Nguyen, & Cohen, 2007). The characteristics of job satisfaction and perception of nursing from the viewpoint of practicing nurses may provide insight to the nursing shortage problem.

Kapborg and Fischbein (1998) investigated transition from a 3-year nursing program to a professional role as nurse. This qualitative design involved nurses ($N = 8$) who kept day-to-day diaries about their experiences in their everyday working situation. The sample consisted of six women and two men. Their average age was 24 years and all nurses had completed their education successfully and were licensed registered nurses. Researchers asked the following seven questions: (a) How did respondents experience the relevance of their education in relation to professional demands? (b) What kind of problems faced new registered nurses? (c) How were nurses treated when applying for employment? (d) How long was their orientation? (e) What kind of unit did nurses work? (f) How did new registered nurses experience their work? (g) How did new registered nurses communicate with patients and relatives? Participants received a checklist of duties to describe, including five major functions from their education program. They also received oral instructions to write about things that concerned them and were considered important. Researchers asked participants to describe whether they encountered situations that were difficult to manage or situations that they managed well in relation to their education. The new nurses sent their diaries to the researcher once a week for 2 months. Through content analysis of the data, Kapborg and Fischbein identified similar patterns of relationships and meanings. Similar concepts and statements formed a category based on interpretation by two independent persons. Researchers read diaries independently, then compared and consensually validated interpretations.

Participants reported they were treated well when they applied for employment. They worried the night before their first day on the job but were full of expectations. The length of orientation for the new nurses varied from 4 to 14 days. Participants worked in small and large hospitals on medical units. All the nurses were introduced to their new

positions with adequate preparation and support from the nursing staff.

Kapborg and Fischbein (1998) discovered that problems reported by participants included finding sufficient time to take care of the patients. The new nurses experienced difficulty in learning the new unit, managing paperwork, and caring for patients with serious or terminal illnesses. They also experienced difficulty with communication with relatives. The new nurses were uncertain to what extent they could answer questions. This was especially true when patients spoke a foreign language. They reported relationships with colleagues as unproblematic; all except one perceived no problem with physicians. All new nurses experienced a high workload and difficulty organizing their work. At the end of the working day, several reported the feeling of exhaustion and dissatisfaction. They had difficulty knowing which tasks to delegate to assistant nurses. None of the nurses reported problems attributed to deficiencies in their education.

Kapborg and Fischbein (1998) noticed that new nurses experience a difficult time between graduation and beginning their first position as a registered nurse. Closer cooperation between nursing faculty and nursing staff in medical areas may help students and new registered nurses obtain a realistic view of their future work and avoid “reality shock.” Nursing students need more time to feel competent in different situations and more education in communicating with patients and relatives.

McNeese-Smith (1999) identified and described staff nurse views of job satisfaction and dissatisfaction. This qualitative design included a convenience sample ($N = 30$) of staff nurses who worked in a university-affiliated hospital in California. The researcher recruited the sample from participants in an earlier descriptive survey on job satisfaction, productivity and organizational commitment (McNeese-Smith, 1995, cited in McNeese-Smith, 1999). Methodology included audio-taped, semi-structured interviews

collected by the researcher only, use of predefined questions and probing questions to clarify responses, and a search for sensitivity and understanding of the area of study as well as saturation of the data. Data collection occurred over a 6-week period, until the data from the interviews were duplicated and saturation obtained. Researchers analyzed the information using Statistical Analytical Software to determine frequencies and means of variables from the demographic questionnaire. Researchers transcribed and coded interviews with an inductive process of coding which resulted in categories and themes.

To attain reliability, the researcher and the assistant individually coded interviews, discussed the outcome, agreed upon changes, and separately coded the next interview. After six interviews, more than 80% of codes were consistent between the two researchers. These interviews were then recoded after a 2-day interval, by the same team, and were found consistent. Researchers applied the coding scheme to reanalysis of all interviews. The principal investigator also reviewed and discussed 100% of the coding of the interviews with the coder to assure consistency.

McNeese-Smith (1999) found the major causes of satisfaction for nurses included patient care, the pace and variety in an acute care environment, relationships with coworkers, and meeting personal and family needs. The major causes of dissatisfaction were work-overload, factors that interfere with patient care, co-workers who do not provide good patient care, and situations that feel unfair. Nurses who provide poor care, have a negative attitude, or are “burned out” create job dissatisfaction for nurses who want to provide good patient care. Nurse managers need to counsel and/or terminate poor employees who negatively affect the work environment and the quality of patient care. They must also ensure that policies and practices are consistently fair in the workplace. While nurses are primarily satisfied by providing direct patient care, the

nursing shortage will cause their role and focus to change to that of the organizer, coordinator, and manager of patient care. Nursing education and practice must assist nurses to identify satisfiers in a care coordination role rather than solely a direct care provider.

Janssen, de Jonge, and Bakker (1999) investigated specific relationships between work stressors and stress reactions. The authors asked three research questions: (a) What particular aspects of work contributed to the motivation of employees? (b) What aspects of work were particularly beneficial or detrimental to health? and (c) What aspects of work were the most likely to cause a person to leave the job? They chose a nonexperimental, cross-sectional study design. A sample of convenience was obtained from a general hospital in the Netherlands. Nurses ($N = 175$) employed for more than 2 months completed self-report questionnaires. A total of 156 useable questionnaires were returned (89% response rate). Nurses indicated responses on a variety of Likert scales on the following categories: mental work, social support, unmet career expectations, intrinsic work motivation, burnout, and turnover intention. Data analysis included correlation analysis (Pearson correlations) among all the variables with the assistance of structural equations modeling (SEM and LISREL). Researchers found that intrinsic work motivation was related to the quality of job content. Nursing professionals reported higher levels of emotional exhaustion when their work overload was high and when they received little social support. Nurses whose career-related expectations remained unrealized had a stronger intention to leave the work setting. Social support from colleagues was helpful in reducing and preventing emotional exhaustion.

Garrett and McDaniel (2001) explored the effects of environmental uncertainty, nurse characteristics, and perceptions of social climate on professional burnout. The

cross-sectional exploratory design involved a self-administered survey of registered nurses ($N = 287$) who worked in an acute care hospital in the U.S. Researchers received ($N = 77$) usable surveys, a 26.4% response rate. Data collection included the Work Environment Scale that consisted of 90 items and measured social climate; the Maslach Burnout Inventory Scale that contained 22 items and measured feelings of emotional exhaustion, depersonalization, and personal accomplishment; and the Perceived Environmental Uncertainty in Hospitals Scale that consisted of 14 items and measured the attributes of environmental dynamism, complexity, dominance, and need for information. Researchers analyzed data by mean and standard deviation scores that described the characteristics of each unit. Three multiple regression equations computed the emotional exhaustion, depersonalization, and personal accomplishment of participants.

Garrett and McDaniel (2001) found no statistically significant differences between mean levels of burnout for the participants. Participants perceived themselves as having above-average relationships in the work setting. Perceived environmental uncertainty, unity objective uncertainty, feelings of lack of supervisor support, and low work involvement explained 50% of the variability in emotional exhaustion. In an environment of uncertainty, authors found that having social support systems is important for nurses, particularly a supervisor who is supportive, to assist in coping with emotional exhaustion. A positive social climate in times of change and uncertainty can help buffer nurses from the negative effects of stress. A periodic assessment of the perceptions of environmental uncertainty in the workplace is useful to nurse managers in creating a positive work environment. Nurse managers should involve staff nurses in the development of policies, procedures, standards of care, and protocols

of a unit.

Ingersoll et al. (2002) investigated workforce characteristics and measured RN perceptions of work environment. In this quantitative study, researchers investigated how these variables contributed to short (1-year) and long-term (5-year) career intent. Random sampling included mailing questionnaires to 4,000 RNs practicing in the six-county Central Finger Lakes region from a list of licensed nurses from the New York State Department of Education. The final sample ($N = 1,853$, 46% return rate), included a majority (1,575) of nurses employed in both urban and rural areas. Other nurses surveyed were from rural counties ($n = 146$) while a few nurses ($n = 92$) worked in counties outside the targeted region. The questionnaire included two instruments that measured job satisfaction and affective commitment. The Organizational Commitment Questionnaire (OCQ) measured affective commitment by examining the consistency between organization goals and respondents' willingness to work for the good of the organization. The Index of Work Satisfaction (IWS) measured job satisfaction with six subscales (pay, professional status, group interaction, task requirements, organizational policies, and autonomy). Data analysis included SPSS with descriptive statistics and assessment of instrument internal consistency (reliability). ANOVA, chi-square, and multiple regression techniques detected differences in perceptions and career intent according to respondent characteristics. Differences in levels of job satisfaction existed for age, educational background, primary nursing role, primary employment setting, and primary specialty area. Post hoc comparisons determined that older nurses (those greater than 50 years) were significantly more satisfied than nurses younger than 50 years. Researchers found that master's-prepared nurses were significantly more satisfied than associate- and bachelor-prepared nurses. The highest degree of job satisfaction was

reported by nurse educators followed by advanced practice nurses. Staff nurses were the least satisfied of all respondents while critical care nurses were highly dissatisfied. Among staff nurses, nurses employed in nonhealth-related facilities, home care, and physician offices were most satisfied. The least satisfied nurses worked in hospital settings and nursing homes.

Ingersoll et al. (2002) found that nurses older than 50 years were significantly more committed to the goals of the organization. Nurses employed in urban areas were significantly less committed to the organization than nurses employed in the rural areas. School of nursing and home care nurses were the most committed. Bachelor-prepared nurses were more likely to report an intent to change positions but not necessarily leave nursing. Always, nurses who intended to stay at the same organization and in the same position had significantly higher satisfaction and commitment scores. The authors recommended that healthcare leaders monitor consistency between organizational and employees goals and values rather than focusing exclusively on job satisfaction as an indicator of overall organizational well-being. First, Ingersoll et al. suggest that organizations implement and reinforce longevity benefits, environmental changes, and flexible scheduling for long-term employees. Second, nurses need flexible schedules, sensitivity to the need for family-focused time away from work, and recognition of external factors that interfere with time in the work setting. Finally, the findings of this study indicate the importance of encouraging young people to consider careers in nursing and for them to begin working as a nurse at an early age.

Daiski (2004) investigated nurses' views on their relationships with other professionals and nursing colleagues, their perceptions of themselves, and their view of any changes needed. This descriptive and exploratory study employed purposive

sampling methods to obtain a variety of viewpoints from ($N = 20$) volunteer staff nurses from Canada. The researcher deliberately chose participants to obtain views from nurses of various age groups, diverse educational preparations, and practice experiences. Daiski collected data through interviews with broad, open-ended questions allowing for multiple responses. She audio-taped and transcribed the interviews, then analyzed them thematically. The findings were clarified with participants during and sometimes following the interviews. The author coded the interviews in three layers: (a) nurses' impressions, (b) professional relationships, and (c) ideas and insights about self-concepts as nurses.

Daiski (2004) found that nurses valued collaboration and acceptance by those outside nursing. They believed close collaboration with other healthcare providers improved the continuity of patient care. The nurse-physician relationship was described as problematic and unequal, but viewed as normal. Participants expressed concern about the lack of respect shown to them by others and felt their intra-professional relationships were no better. All suggested that "nurses eat their young," referring to the stressed relationship between practicing nurses and nursing students or newly hired nurses in the workplace. All participants thought their work was important but lacked acknowledgment. They suggested good relationships between nurse managers and staff nurses involved recognition of nurse's work. The author suggested that positive image changes for nursing needed to originate from practicing nurses and may only be achieved through greater advocacy for the profession. Researchers point out that nursing faculty should consider nursing curricula that raises awareness and teaches empowerment strategies. Workshops for nurses in the workforce are needed to emphasize non-hierarchical leadership and supportive relationships. Nurses must join to articulate their

common vision of nursing and its future clearly and confidently to gain self-confidence. Nurses must learn to respect and praise each other for jobs well done. New nurses require more experienced colleagues to mentor them in a kind and nurturing manner.

Buerhaus, Donelan, Ulrich, Kirby, Norman, and Dittus (2005) examined registered nurses' perceptions of nursing in general along with specific elements of their work (quality of professional relationships, satisfaction with a nursing career, and whether they would recommend nursing to others). This correlation design included data from two national, random surveys of RNs. The first survey (2002) included $N = 7,600$ RNs from a list of all RNs licensed to practice in the United States. A total of $N = 4,108$ RNs completed the survey (response rate of 55%). The second survey (2004) contained many of the same questions used in the first survey but also included questions that explored the workplace environment. Buerhaus, Donelan, Ulrich, Kirby et al. randomly selected nurses ($N = 3,000$) from a list of all RNs licensed to practice in the U.S. The response rate was 53% ($n = 1,697$) for completing the survey. Researchers analyzed data with SPSS version 11.5, using t tests (differences in proportions) and multiple regression analysis. Most participants were white, female, married, and worked in hospitals in urban and suburban areas.

Buerhaus, Donelan, Ulrich, Kirby et al. (2005) found significantly more RNs in both surveys satisfied with their jobs than those who were dissatisfied. RNs with graduate degrees were significantly more likely to be very satisfied with their present job. Results of the regression analysis showed the increase in job satisfaction was predicted by few variables (organizations that emphasized patient care, management recognition of their personal and family lives, satisfaction with salary and benefits, high job security, and positive relationships with other nurses and management). Decreases in job satisfaction

were predicted by nurses when stressed to the point of burnout, burdened by too many non-nursing tasks, assigned many patients, and possessed a negative overall view of the health care system. RNs agreed that nursing was a good career for men, those who wanted a secure job, those who did well in science, and those who ranked in the upper fifth of their high school class. Nurses did not believe nursing was a good career for those who wanted respect. RNs in 2004 were very satisfied with nursing and would recommend a nursing career more than in 2002. The authors emphasize that nurses are key influencers of teenagers and adults considering career choices. Recruiters should enlist practicing nurses to attract people to nursing. The increase in job satisfaction and in the number of RNs who would recommend a career in nursing should receive coverage in the media and newspaper. This positive coverage would encourage organizations, policymakers, hospital managers, and nursing associations who have worked hard to resolve the current nursing shortage and improve the workplace environment.

Wilson (2006) analyzed the reasons nurses in England chose to stay in nursing. This qualitative design included semi-structured interviews that allowed participants to describe in their own words motives for staying in nursing. Wilson did not attempt to control for extraneous variables; she believed that the decisions nurses made to stay in nursing could not be separated from their social context. The purposive sample ($N = 10$) consisted of registered nurses working on three medical units of a hospital who represented a diverse level of experience on their units. The author failed to supply information about data collection or the time she spent with the nurses. She states the opening question was, “What are your reasons for staying in nursing?”

Wilson (2006) reported that half the nurses interviewed stayed in practice because they enjoyed the job. All expressed satisfaction with nursing while acknowledging that

negative aspects existed. The analysis of data revealed four common themes: job content, work environment, balancing responsibilities, and recognition. Six of the nurses interviewed stated they stayed in nursing because of job enjoyment or satisfaction. They felt the things that interfered with patient contact were considered negative aspects of the job, and anything that compromised patient care was badly tolerated. The factors that contributed to job satisfaction included extended roles, paperwork, and skill mix. The trend toward extended roles and skill acquisition motivated their desire for continued education. Participants indicated that the diversity of a nursing career was important and included different opportunities in hospital settings. Frustrations occurred when nurses felt overworked and were unable to provide good patient care. The nurses suggested issues of workload, quality of patient care, staff morale, recruitment, and retention were interrelated. They suggested an improvement of staffing levels would address all problematic issues. The author indicated that improved staffing would also serve to boost morale that would lead to greater job satisfaction. In addition, she suggested that managers must stress good communication skills, demonstrate respect for patients and staff, and understand nursing issues at the unit level. The factors that enhanced job satisfaction of nurses included a variety of daily work; support and friendship of colleagues; ability to fit work around social responsibilities; and opportunities for learning, diversity, and promotion.

Kovner, Brewer, Wu, Cheng, and Suzuki (2006) examined the factors that influenced work satisfaction of a national sample of registered nurses in metropolitan statistical areas (MSAs). The random sample included RNs ($N = 4,000$) from 29 states and the District of Columbia with a final sample of $N = 1,538$ (response rate of 48%). The researchers studied four types of variables that included (a) RN demographic

characteristics and health, (b) MSA characteristics, (c) RN perceptions of the labor market, and (d) work setting. Instruments included scales that measured work attitudes and job satisfaction. Demographic data revealed that the most of RNs were white married women, had a mean age of 46.4 years, an average of 18.8 years of experience, worked in hospitals (61%), and earned an average of \$49,940 annual income.

Kovner et al. (2006) found that non-Hispanic Black RNs were less satisfied than non-Hispanic White RNs. Nurses who were in poor health were less satisfied than those with very good health. The only beneficial option in the work setting related to job satisfaction was having paid time off. RNs working in nurse education were more satisfied than those in hospitals, those working as managers were less satisfied than were nurses providing direct patient care. Compensation was not associated with job satisfaction; however, fairness of pay was related to satisfaction. Working shifts other than the day shift, shift length, and quantitative workload were not related to satisfaction. Supervisory support was related to RN work satisfaction as was work group cohesion. Researchers suggest that to recruit and retain minority nurses, managers should pay close attention to the needs of non-Hispanic Black nurses to determine how to increase their job satisfaction. Organizations might consider the following when formulating a strategy to retain nurses: paid time off, autonomy, variety, distributive justice, supervisory support, promotional opportunity, and organizational constraints.

In Sweden, researchers Hallin and Danielson (2007) examined registered nurse perceptions of their work and professional development 6 years after graduation. They chose a qualitative design that included in-depth interviews. Participants ($N = 15$) were selected randomly from two class registers of nursing students who graduated in 1996 from two university colleges in Sweden. Data were collected using a semi-structured

interview guide. The researcher established an informal conversation in the interviews that lasted 60-90 minutes. Nine interviews took place face-to-face while investigators interviewed six (due to distance from researcher) by telephone. The authors tape-recorded interviews and transcribed them verbatim. The researchers analyzed data using interpretive content analysis through dividing the text into meaning units. Each meaning unit was condensed, coded, labeled and organized into themes. Hallin and Danielson maintained an open and critical dialogue through analysis until they reached a consensus on themes. Interviews revealed complexity in experienced RNs' work and development. This was evident as a balance between appropriate/demanding work and between opportunities/obstacles themes. Nurses were conflicted in their attitudes toward their nursing roles. Participants described nursing as offering broad horizons and potential for advancement while they indicated feeling their expertise was undervalued. A significant finding was insufficient bridging between nursing education and employers' requirements of the profession.

Stuenkel et al. (2007) explored the differences in RN perceptions of their work environment by years in the profession and current position. They hypothesized that experienced nurses as well as nurses who remained in their current positions for many years would be satisfied and have positive perceptions of their work environment. The researchers chose a descriptive, exploratory design to examine acute care staff RNs' perceptions of their work environment based on number of years experience and number of years spent in their current position. A convenience sample consisted of RNs employed on all inpatient units of a large community hospital in California. A total of 744 questionnaire packets were distributed with $N = 169$ (28% response rate) returned. Questionnaires included demographics and the Work Environment Scale (WES). The

WES measures employees' perceptions of their current work setting. Participants answered 90 true-false questions that included nine items per subscale that measured positive and negative aspects of the work environment. Descriptive statistics included *t* tests, ANOVA, and the least significant difference (LSD) post hoc test.

Stuenkel et al. (2007) found no statistically significant differences in mean scores for any of the subscales between the groups of RNs who had 21 years of experience and those with fewer than 21 years of experience. Researchers used ANOVA to compare perceptions of the work environment among staff RNs by number of years in current position. A significant difference in mean scores for the Supervisor Support subscale led to the use of the LSD post hoc test. This test revealed the mean score for RNs with fewer than 2 years in their current position was higher and statistically significant from the RNs with 4-20 years of experience that suggested a high degree of supervisor support was a dominant factor in the work environment with the perception of supervisor support highest among RNs with the least time in their positions. This study found that newly hired nurses and senior nurses perceived the most support from their nurse managers. Creating and maintaining a healthy work environment for all RNs should include activities that recognize and reward nurses' contributions to patient care and the healthcare institutional goals. Researchers advised that failure to recognize a nurse's knowledge and efforts contribute to job dissatisfaction and ultimately lead to increased turnover.

Ellenbacker, Samia, Cushman, and Porell (2007) described retention strategies implemented by home care agencies and investigated the effect these strategies had on nurses' job satisfaction and nurses' intention to leave. The convenience sample included nurses ($N = 2,459$, 62% response rate) from 123 certified home healthcare agencies in the

six New England states. A structured questionnaire determined the agencies' current staffing adequacy and their recruitment and retention efforts. The agency-level data collection contained 12 closed-ended response items. The survey data used to measure job satisfaction of individual nurses included the Home Healthcare Nurse Job Satisfaction Scale (HHNJS), which contained 30 items using a 5-point Likert scale. The job satisfaction factors measured included, relationship with peers, relationship with patients, independence and work autonomy, salary and benefits, relationship with administration, stress and workload, relationship with physician, and professional pride. Data analysis included mean levels of job satisfaction and intent to stay among nurses compared among agencies employing different retention strategies. Multivariate regression estimated the marginal effects of individual retention strategies on the two outcome measures. Home care agencies (61%) reported current registered nurse vacancies and difficulty recruiting (66%) despite efforts to offer competitive salaries. Only three coefficient estimates were statistically significant at the .05 level in the nurse job satisfaction regression model. These variables included agency vacancies, recruiting difficulties, and shared decision making.

Ellenbacker et al. (2007) found that the only retention intervention that made a difference in home healthcare nurse job satisfaction was shared governance. No retention strategy directly affected nurse intention to stay in their jobs. The authors suggest that healthcare agencies adopt elements of shared governance where nurses are valued, supported, and allowed to function fully and grow professionally. Characteristics of these work environments include open and informed communication, provision for staff to make choices, quick action and decision turnaround, and consistent validation of nurses' ideas.

Donelan, Buerhaus, DesRoches, Dittus, and Dutwin (2008) conducted a national survey of Americans to examine the influence of societal demographics, perceptions of the nursing shortage, and media influences on perceptions of nursing careers. The data originated from two surveys: the National Survey of Registered Nurses in 2006 and the National Survey of the Public about Nursing in 2007. The interviews during the National Survey of the Public about Nursing utilized the Computer Assisted Telephone Interviewing system among a representative sample (N = 1,604) of respondents age 18 and older. A disproportionate stratified sampling design oversampled African American ($n = 299$) and Hispanic ($n = 319$) respondents. Authors reported the margin of error for total respondents as +/- 2.5% at the 95% confidence level. The standards developed by the American Association for Public Opinion Research indicated an overall response rate of 55.5%.

According to Donelan et al. (2008), the public was more likely to say that nurses were “overworked” and to describe nurses using the word “helper” while nurses (28%) described themselves as “professional.” Public respondents (75%) indicated that watching television, news stories, or advertisements had a positive impact on their respect for nurses. The public (62%) reported viewing news stories about nursing shortages and 61% believed there was a nursing shortage in their community. Nurses (81%) from the 2006 survey reported a nursing shortage in their community. The public attributed the nursing shortage to issues of salary and benefits whereas nurses identified issues of nursing faculty shortages and difficult working hours. Nursing, along with several other health/science careers, was viewed positively as a career choice with 70% of public rating nursing “very” or “somewhat positively.” Bivariate analyses of career ratings showed no significant differences in positive ratings of nursing careers by race, ethnicity, age,

hospitalization, or viewing television shows. More than half of Americans believed that nurses were underpaid. One in four Americans indicated they had considered nursing as a career. The reasons why they did not pursue a nursing career included conflicts of time, commitment, and financial or educational requirement barriers.

Donelan et al. (2008) found that the public was significantly more likely to recommend a career in nursing to qualified students than practicing nurses. The single largest influence on public opinion regarding nursing careers with the participants was personal experience with nurses as a patient or with family members. While people are exposed to nurses in a variety of media, this exposure is more helpful than harmful. A positive perception of nurses results when the public views news stories about nurses working during disasters, about the importance of nurses to patient safety, and about nurse shortages. Given that the data in this national survey of the public about nursing demonstrate the members of the profession are highly respected and that the majority would recommend nursing careers to qualified students, the authors' recommendations are noteworthy. It is important to expand the capacity of nursing education programs and continue efforts to increase public awareness of the career advancement and salary opportunities. The media is an important tool to recruit members of the population to consider a nursing career. Positive stories from nurses about the rewards of the profession are needed to have an impact on patients and the public. A prolonged and persistent effort is needed to educate people about nursing careers, stimulate the production of nursing faculty, and bring creative approaches to financing nursing education and workforce improvements to attract many interested candidates into the nursing profession.

A common perception shared by registered nurses that contributes to job dissatisfaction is a high workload and insufficient support from supervisors. Nurses

would experience higher levels of job satisfaction if they had enough time to deliver good patient care (Buerhaus, Donelan, Ulrich, Kirby et al., 2005; McNeese-Smith, 1999), received social support (Daiski, 2004; Garrett & McDaniel, 2001; Janssen et al., 1999; Stuenkel et al., 2007), experienced flexible work schedules (Ingersol et al., 2002), felt a higher morale in the work environment (Wilson, 2006), played a part in shared governance (Ellenbacker et al., 2007), and were rewarded with promotional opportunities/professional development (Kovner et al., 2006). Nurse educators need to collaborate with nurse managers and practicing nurses to present a realistic view of nursing to students during education preparation. The gap between education and nursing practice must be closed so that new nurses understand what the employer requires on the job and avoid “reality shock” (Hallin & Danielson, 2007; Kapborg & Fischbein, 1998).

Student Perceptions of the Nursing Profession

Young people choose or fail to select nursing as a career option based on their perceptions of the profession (Hoke, 2006). It is important for potential nursing students to hold a realistic view of nursing and a thorough knowledge of the opportunities offered by a nursing career before making the decision to pursue nursing education. Most schools of nursing have limited space available for nursing students. There is a current shortage of nursing faculty (Garbee & Killacky, 2008) as well as limited number of clinical sites to accommodate many students. Selecting carefully each student for admission into a nursing program is vitally important for admission committees. When a student drops out of nursing school, the community and healthcare organizations lose a potential nurse to assist with the nursing shortage problem. The following articles describe research related to student perceptions of the nursing profession.

Andersson (1993) conducted an ethnographic study to (a) identify what

preconceptions student nurses have of nursing when they enter nursing school and (b) how these views change during their course of study. The purposive sample consisted of nursing students ($N = 41$) at a school of nursing in the Swedish Midlands. The sample included 34 female and 7 male students; 21 students were married or living with a partner, and their work experience in healthcare ranged from 1 to 18 years. Data collection involved participant observation, interviews, and document analysis. The use of field notes validated each student response. Participant observations included 385 didactic sessions, 50 clinical settings, and 155 formal or informal interviews (60-90 minutes). Document analysis consisted of registers, syllabuses, test and examinations, essays and other written tasks, and evaluations. Data were analyzed continuously to discover potential interrelationships.

According to Andersson (1993), students' general understanding of nursing derived from what they believed they had seen nurses do. Their view was task-centered and their appreciation of nursing often isolated from the mental activity that lies behind the decisions made by nurses. They indicated tasks centrally specific to nursing such as administration, leadership, medical care, distribution of medication to patients, teaching, and information. At the beginning of their training, students were unclear of the responsibilities of nurses in relation to doctors but by the end of their training, they had begun to see the nurses' knowledge of and competence in caring science as complementary to the physician's knowledge of medicine. Students believed nursing activities were risk-filled and demanding so that they should only be carried out by highly skilled and competent personnel. Nursing was seen not only as a job but also as a way of being and thinking. They described a professional nurse as a good, friendly, kind, warm, and patient person.

Andersson (1993) found that student nurses perceived nursing and the registered nurse in a very traditional way. The author suggested these students were often left to themselves to search for a self-concept as a RN. Andersson recommended that nurses actively take part in promoting positive views of nursing and discourage misconceptions of nursing among students. Furthermore, nurse educators should expose student nurses' perspectives of nursing during nursing education. Nursing curriculum content should point students to what is valuable and desirable in the profession. Finally, nurse educators have the power to undermine some negative aspects of the prevailing perceptions and to strengthen the positive aspects of the profession.

While and Blackman (1998) explored the reasons why undergraduates chose nursing for a career. The cross-sectional survey design explored four questions: (a) What were the reasons for choosing nursing as a career? (b) What were the expectations, if any, of nursing? (c) Were those expectations met? and (d) How were expectations met or could be met? The convenience sample consisted of ($N = 40$) undergraduate nursing students attending one university. Participants were equally distributed across different degree programs. The sample ($n = 10$) included each of first-year pre-registration students, final year pre-registration students, final-year post-registration students, and final-year post-registration community students. Authors collected data through semi-structured interviews using a designed instrument pilot tested with four nurses. All interviews were tape-recorded and transcribed immediately after the interview. Researchers analyzed transcripts for manifest and latent content. They also subjected their inferences and conclusions to blind re-analysis to ensure consistency of interpretation.

According to While and Blackman (1998), nursing students (50%) stated the

satisfaction of working with and caring for people was a reason for entering nursing. They (37.5%) pursued nursing because of family influence, other health care professionals in the family, or nursing a sick relative. Most of the sample (65%) felt positive about their choice of nursing as a career although their positive perceptions were challenged with increasing experience in nursing. Several students (22.5%) reported mixed views of their choice of nursing; however, no first-year pre-registration students expressed a doubt about choosing nursing for a career. A minority (12.5%) of students viewed nursing as negative and a wrong choice. Students (50%) stated they expected to care for and work with people and they (42.5%) thought nursing a satisfying and rewarding career. Some students ($n = 12$) confessed they had little idea what to expect in nursing. Expectations were being or had been fulfilled by 42.5% of the sample while 20% held mixed views about whether their expectations of nursing were being met. Another 20% felt their expectations of nursing were not being met and expressed disappointment and disillusion. Nearly 30% of the sample mentioned conflict experienced within the clinical setting from power struggles between health care professionals, the hierarchical structure of the units, or the low status of nurses. These detracted from nursing as a career. Another 25% expressed disappointment in the demoralizing treatment of nurses, inadequate educational preparation for some aspects of nursing work, and inadequate support in the nurse's role. Other themes included limited resources and the exhausting nature of nursing work. Participants suggested two ways to improve the expectations of nursing being met: improved working conditions and treatment of nurses (27.5%) and enhancement of the professional status of nursing (12.5%). Students highlighted the need for nurses to join to form a more assertive group to contribute to the future of the profession.

While and Blackman (1998) suggested a focus on career guidance was an important component in improving retention of nurses. This was especially needed during a time of uncertainty as evidenced by over a quarter of the sample's claiming they had little idea of what to expect from a nursing career beyond the stereotype portrayed in the media. Students seeking information about nursing need to receive accurate information that provides a realistic view of the profession, good and bad, in contrast to a utopian picture. Working conditions and professional status are areas needed for improvement to benefit the morale of nurses and long-term recruitment of students into nursing programs.

Manninen (1998) conducted a longitudinal study to describe nursing student views of nursing. She examined how the traditional role of nurses has changed toward professionalism due to the development of nursing science. The author examined six groups of students including four specialties in nursing, public health nursing, and midwifery in Finland. She also investigated the differences among the six groups at 6, 18, and 30 months of education and at the end of the program. The researcher chose stratified sampling to select 50 students ($N = 300$) from each specialty area. Data were collected with a questionnaire (5-point Likert scale) which included five areas of students' self assessment. Manninen mailed the questionnaire to teachers in the health care institutes (26) and the teachers collected and returned the questionnaires ($n = 158$) to the researcher. The researcher conducted statistical analyses using SPSS including factor analysis to determine whether there were several aspects of nursing present. The dependent variables included the students' perceptions of nursing and independent variables were the length of education and specialization chosen. The researcher tested internal consistency of each variable using Cronbach's (1951) coefficient alpha. The alpha of the instrument varied from 0.82 to 0.90. The Lilliefors test using Kolmogorov-

Smirnov statistic was normal for the distributions of the summarized variables of six samples. The Levene test justified the use of parametric statistical methods for further analysis. ANOVA compared the differences in the summarized variables between the groups of students at the different phases of data collection and education.

In her 3-year follow-up study, Manninen (1998) found that students had understood nursing as promoting human health and well-being and being based on professionalism. The students of six specialties differed only slightly from each other. The students' development was congruent with the aims outlined in the curriculum.

Spouse (2000) studied the nature of pre-registration nursing students' images and beliefs on entry into nursing education and the extent to which they influenced their development to become nurses. This naturalistic, longitudinal study consisted of students ($N = 10$) in their first year of a 4-year nursing program. The criteria for inclusion in the study included (a) their class was clinically based and (b) the researcher had taught them in their first term. The questions "What conceptions of nursing do students hold on entry to their program and how do they influence their development?" provided an essential thread throughout the study. Spouse states the sample was a random convenience sample taken from a group of 35 students. A multi-method approach to data collection included five focus-group interviews where the students discussed their entry beliefs about nursing and case studies of their experiences of learning. The prime source of data collection included nearly 100 individual interviews that took place at different points in time. Supplementary data collection included illuminative artwork to illustrate how students felt as a student nurse. Observational visits to students in their practice setting and documentary evidence from the students' learning contracts provided additional sources used to triangulate interview data. Audio-recordings of all interviews were transcribed

verbatim. Data analysis included the constant comparative method. Students commented on their own interview transcripts and verified their own case study. The author used content analysis and an inductive approach to answer the research question.

Spouse (2000) found that 7 of the 10 students described guiding images that influenced their actions to pursue nursing education. These images seemed an integral part of their personality and were formulated over a long time. Some students lacked a clear knowledge of nursing education and what kind of work nursing involved. Two students expressed ambivalence about nursing as a career choice. Spouse suggested that faculty encourage students to recognize and verbalize their ideal image of practice and consider how they can apply this image to professional nursing. The author stated that it is important to the future of nursing and to the well-being of patients that students are encouraged to sustain their aspirations of good practice through their nursing education and clinical practice. These ideal images promote development of skillful expertise and artistry in nursing.

Haloburdo and Thompson (2001) explored the perception of nursing and nursing care in the United States among a group of foreign nursing students. This qualitative study involved Dutch nursing students ($N = 11$) who were in their third or fourth year of a basic nursing program in the Netherlands. They were all female, fluent in English, and participated in a 2-week study tour organized by a baccalaureate nursing program in the northeastern section of the U.S. During the visit, the students lived in college dormitories, attended selected classes, and participated in observational clinical experiences in various health care settings. For some experiences, the Dutch students were paired with American nursing students and accompanied registered nurses in their practice settings. Researchers conducted open-ended interviews with individual participants in the Netherlands. They

audio-taped interviews, then later transcribed them for analysis. Haloburdo and Thompson identified common themes with the contents of the interviews and each investigator analyzed them independently. They compared results to verify the findings, and then confirmed them with the participants.

According to Haloburdo and Thompson (2001), four major themes emerged regarding the perception of nursing in the U.S.: (a) the emphasis on medical rather than nursing care, (b) the differentiation in the nursing role as compared between the U.S. and Holland, (c) the lack of team nursing and collegiality, and (d) the presence of a legalistic environment. The students observed that U.S. nurses focused on the role of the physician (physical assessment) and on the technological aspects of patient care. They noted a lack of communication of caring known as social care by the Dutch. The Dutch students observed the individualistic nature of the practice of nursing in the U.S. They did not perceive a sense of working together for the patients, either between nurse colleagues, between students and registered nurses, or between nurses and other professional colleagues. They were cognizant of the litigious environment in the U.S. and how it influenced healthcare practices to the point of the students being reluctant to provide direct care to patients. The Dutch students feared being sued if something went wrong.

Haloburdo and Thompson (2001) pointed out that this study challenges American nurses to examine the driving forces behind nursing education and practice. They suggest that nursing faculty and leaders question the present implementation of the concept of caring in the current health care system. The absence of caring as a theme raises questions about what nursing in the United States claims and what is observed in practice.

Cook, Gilmer, and Bess (2003) conducted a qualitative, descriptive study to

develop an inductive framework of professional identity for nursing students. Purposive sampling included nursing students ($N = 109$) enrolled in a university nursing program. Seventy-five percent of the participants earned a baccalaureate or higher degree in a non-nursing discipline. They were asked an open-ended question, “What is your definition of nursing?” The question was asked anonymously using a coding format. The researchers accomplished their goal to identify and describe concepts used in the beginning students’ definitions of nursing through open coding. They examined data line by line and constructed themes, categories, and subcategories. As they analyzed data, themes and categories were refined. Next, Cook et al. developed categorization schemes and corresponding codes and definitions used to sort and organize the data using the Non-numerical Unstructured Data Indexing, Searching, and Theorizing (NUD*IST N4 Classic) computer program. They compared and contrasted coded data to develop mutually exclusive conceptual categories that reflected nursing students’ personal definitions of nursing. Researchers addressed confirmability, credibility, dependability, and transferability through each researcher coding data independently and then comparing results. When coding disagreements occurred, researchers discussed inconsistencies in data interpretation and reached consensus. In addition, an audit trail was established using the NUD*IST computer program for data management.

According to Cook et al. (2003), three major themes emerged from the data: nursing as a verb, noun, and transaction. These results demonstrate that nursing students enter educational programs with a conception of professional identity. The authors suggest use of data may lead to opportunities to improve nursing students’ educational experiences and development of professional identity.

Brodie et al. (2004) investigated the changing perceptions of the nursing

profession among students already enrolled in nursing education and how these changes in perceptions influence student attrition. The methodological framework involved two phases: (a) a qualitative and quantitative questionnaire survey of first-, second-, and third-year students ($n = 592$) and former students ($n = 58$) and (b) focus group discussions ($n = 7$) with students and semi-structured telephone interviews ($n = 30$) with former students. Authors stated they used a blended design to produce complementary data: quantitative and potentially generalizable data on trends and qualitative data that explored attitudes and experiences in greater depth. Brodie et al. constructed and pilot tested the questionnaire with two groups of students. In a sample of convenience, students received questionnaires during class with 2,864 questionnaires distributed and $N = 650$ returned (response rate was 22.8%). Phase Two involved focus group discussions and telephone interviews to obtain qualitative attitudinal data. Authors formulated questions for the focus groups from main themes generated by the questionnaire survey and formed the basis of an in-depth analysis of the main themes. The telephone interviews involved semi-structured interviews using the same structure and themes as the focus group discussions. Both focus groups and interviews were audio-taped. A research assistant transcribed and coded the data. Next, they entered data from the questionnaire into SPSS to produce descriptive and inferential statistics. Authors analyzed the transcriptions from the focus groups using the constant comparative method.

Brodie et al. (2004) found the perception of nursing significantly and increasingly differed from the perception students held before the beginning of their education. There was a clear relationship between changing perceptions of nursing and length of time students were subjected to both educational and clinical environments. Before entering nursing education, many students held misconceptions about nursing as a menial

occupation. They underestimated the depth of knowledge and responsibility of the nurses' role. As students progressed through the nursing curriculum, they realized the value of the nursing profession as independent, versatile, and diverse with potential career opportunities. Many students also recognized that nursing was undervalued by society. Most respondents thought nurses were underpaid. The students experienced a disparity between their initial perception of nursing practice and the stress of the occupation encountered later. Clinical placement allowed the students to experience first-hand the reality of nursing. The combination of long hours of work, heavy patient load, low pay, increased responsibilities, and concerns about legal liability made nursing appear extremely stressful and at times unattractive. Another dimension of negative experiences involved dysfunctional team interactions, unprofessional behavior, politics, racism, and poor morale involving practicing nurses.

Brodie et al. (2004) suggested that negative perceptions of nursing result from inaccurate public perception of the profession, chronic nursing shortage, undesirable working conditions, discordance between nursing philosophy, and the reality in practice. Changing and improving the overall student experience is an important goal for nurse faculty. Many students are disillusioned by the challenges they encounter in their education and clinical placements. Staff nurses, faculty, clinical leaders, nursing organizations, administrators, and the government must all work together to address the problem of society's image of nursing as an underpaid, overworked profession that lacks respect and has low morale.

Buerhaus, Donelan, Norman et al. (2005) assessed perceptions about a career in nursing, the nursing shortage, the decision to enroll in a nursing education program, and awareness and effect of the Johnson & Johnson Campaign for Nursing's Future. The

researchers employed Harris Interactive to conduct a national survey of nursing students. The random sample of nursing students included a mailed survey that asked questions about the nursing shortage and trends in nursing, current education and plans for future education, demographic information, and reasons for pursuing a career in nursing. A sample list of 4,000 names purchased from the American Student Lists of College Nursing Students provided the pool from which 1,000 names were randomly selected. The final sample included nursing students ($N = 510$, 54% response rate). In addition, 1,266 potential respondents received telephone calls providing interviews ($n = 54$) to improve geographic representation of the sample. Most of the participants were single, white, and women with an average age of 26 years with the greater part (76%) between 18 and 30 years. The majority of students were enrolled in nursing education programs before the Johnson & Johnson campaign in 2002.

Buerhaus, Donelan, Norman et al. (2005) found that most students (90%) agreed that nursing was a good career for men, for people who wanted a secure job, for people with academic ability, and for those who rank in the upper 20% of their high school class and were good at science. Most (90%) agreed that nursing was physically challenging and only 50% agreed that nursing was a good career for people who wanted respect. Significant differences existed between those students enrolled before the Johnson & Johnson campaign. Students newly enrolled after the campaign were more likely to agree that nursing was a good career for people who wanted respect. Students agreed that there was a shortage of nurses (97%) but differed on the reasons for the current shortage. More than half agreed that the demanding work schedules, not enough new graduates to fill jobs, physically and emotionally challenging work, and inadequate recognition for their contributions were the major reasons for the shortage. Only 43% thought that salary was

adequate and 20% believed that the availability of more attractive career opportunities were major reasons for the shortage. Students (93%) believed the nursing shortage would increase stress on nurses and the quality of patient care decrease. The students (60%) expected the shortage would result in nurses leaving nursing for other jobs; however, they also believed the shortage would lead to higher salaries for nurses, job choices, and more respect. Students enrolled in nursing education after the launch of the Johnson & Johnson campaign were more likely than students already enrolled to hold optimistic views about the future effects of the shortage.

Buerhaus, Donelan, Norman et al. (2005) found a factor that positively influenced the nursing student's decision to become a nurse was information or advice from practicing nurses. Another reason to pursue a nursing career included information or advice from friends, parents, and other family members. Students who enrolled after the Johnson & Johnson campaign were significantly more likely to report that news stories about the nursing shortage and information from Web sites were a positive influence on their decisions to become a nurse. There is strong evidence that the Johnson & Johnson Campaign for Nursing's Future made a positive impact on student's decision to pursue a career in nursing. Students (90%) said the advertisements made them feel good about becoming a nurse. Buerhaus Donelan, Norman et al. suggested that healthcare organizations, federal and state governments, nursing awareness campaigns, and other corporations work together to resolve the current nursing shortage and prevent a much larger shortage in the future as the RN workforce ages and nurses retire in large numbers. The future of nursing rests on the success of attracting more people to the profession, the capacity of nursing education programs to admit and successfully educate all those who want to become nurses, and the ability of the profession to retain its workforce.

Hoke (2006) investigated the effectiveness of presenting nursing as a viable career option to middle school students. This correlation design included a sample of convenience. Students in Grades 6, 7, and 8 ($n = 171$) completed a one-page questionnaire that (a) asked them to identify places where nurses work and the types of jobs nurses perform and (b) rate a series of statements using a Likert scale. The author reported Cronbach alpha coefficients of 0.70 to 0.93 for the questionnaire. After students completed the questionnaire, they viewed a 10-minute video about boys and girls in high school who decided to enter nursing. This video reflected the core values of the nursing profession. Following the video, students attended a presentation on the possibilities of the nursing profession, a discussion of what nurses do, and how to begin nursing education. Following the presentation, students completed a second questionnaire similar to the first one. Descriptive and inferential statistics included paired t tests to compare the means pre- and post-presentation. The paired t tests were significant at the 0.001 level. At least 41% of the students in each class indicated they were more interested in nursing than before the presentation.

Hoke (2006) found that this research supports the idea that middle school students' perceptions and attitudes toward nursing as a career may be influenced positively through a classroom presentation about a nursing career. Changing the public image of nursing in the minds of students may attract them to the nursing profession. Students lack a clear knowledge of nursing education and practice. The author noted that practicing nurses who provide information and advice influence students to seek a nursing career more than any other source. Nurses must promote a positive view of nursing and discourage the misconceptions about a career in nursing. Students need to receive realistic information about nursing education that supports an accurate view of

the nursing profession.

The articles reviewed about student perceptions of nursing revealed that students entered nursing education programs with a preconceived idea of the profession of nursing (Cook et al., 2003) and were positively influenced to enter the field by receiving information and advice from practicing nurses, friends, and family members (Buerhaus, Donelan, Norman et al., 2005). Students sometimes became disillusioned by the challenges they encountered during nursing education and in clinical placements (Brodie et al., 2004). Researchers found there was a need for faculty to support students in understanding the disparities that exist between what they perceived about nursing and the reality of what they experienced and to expose these perceptions during their education program (Andersson, 1993; Spouse, 2000). Students thinking about a career in nursing need to receive accurate information about a nursing career (Schaffer, 2006; While & Blackman, 1998) during career guidance. Buerhaus, Donelan, Norman et al. suggested the future of nursing depended on attracting more people to the profession, nursing education programs that successfully graduated students, and the retention of nurses in the workforce.

Theoretical Foundation

French and Kahn's (1962) person-environment fit model serves as a framework for this study because it describes how environment and personal characteristics affect one another to maintain a particular level of adjustment. A goodness of fit occurs when a person's abilities meet the requirements of the environment. Conversely, a state of maladjustment results when the person and the surroundings do not match. The state of misfit leaves the individual feeling dissatisfied, frustrated, and unable to achieve personal goals (French & Kahn). Person-environment fit refers to a harmonious relationship

between personal needs and environment characteristics (Takese, Maude, & Manias, 2005).

Little and Miller (2007) emphasized that the person-environment fit also included behavior from a workplace perspective. They noted a need for the persistent match between the workplace and employee characteristics, values, and beliefs. So in addition to an alignment between a person's abilities and position requirements, the best person-environment fit must also include a consideration of how an individual's values and beliefs agree with those held by the organization.

Nursing students enter nursing education programs with a perception of the nursing profession along with their own values and sense of self. After exposure to various clinical settings, healthcare professionals, and nursing faculty, these students begin to sense an alignment or fit with the profession of nursing. If this fit is not compatible, they experience a discord. During this time, the students either feel empowered with the decision to pursue nursing or they may experience disillusionment with their career choice.

French and Kahn (1962) indicated that social environment affected the psychological behavior of nurses. They suggested that nurses interpreted environmental information in a way that shaped their personal characteristics such as self-concept. The discrepancy between the images of nursing by the public and those by nurses results in a nurse-environment misfit. A related study by Takese, Kershaw, and Burt (2001) implied that stereotypes could cause a discrepancy between nurses' self-concept and the public image. Furthermore, an environmental misfit contributes to job dissatisfaction associated with low performance in the workplace. An example is a study by Takese, Maude, and Manias (2006) in Australia where they found that nurses' professional needs were not

met by their occupation's characteristics. Nurses reported the following as incongruent with their professional needs: opportunities to participate in decision-making, higher income, and professional recognition.

The person-environment fit theory highlights the importance of educating the public about the realities of the profession of nursing. When a person enters the field of nursing and understands what to expect and what is required of them, they have a better opportunity to enjoy a career in nursing. In addition, schools of nursing and healthcare organizations should make their values and expectations transparent to the person seeking admission or employment. Understanding the importance of aligning similar values is crucial to reducing student attrition and nursing turnover.

Antecedent Studies

Previous studies examined RNs' perceptions related to image discrepancy, the work environment, job satisfaction, and intent to leave (e.g., Buerhaus, Donelan, Ulrich et al., 2005; Ingersoll et al., 2002; Takese et al., 2001). However, lacking is research that investigated the actual perception of the profession of nursing among practicing nurses collectively using the tenets of Practice, Values, and Public Image. It is useful to understand how practicing nurses view these aspects of the profession to obtain relevant information to share with students seeking education or a career in nursing. This information is also helpful in determining which perceptions of nursing need attention and improvement by leaders of the profession.

While few studies address American nursing students' perceptions about the nursing profession, pertinent studies from other countries outside the U.S. investigated students' perception. One such study in Australia examined the effect of student's perceptions of nursing education before enrollment and their effect on attrition.

Researchers Harvey and McMurray (1997) investigated student nurses' perceptions of nursing experiences regarding (a) how perceptions related to previously held views of what nursing involved and (b) whether incongruencies between perceptions and experience contributed to attrition. This cross-sectional descriptive design examined previous studies on aspects of the student that included academic ability, conservatism, nursing self-efficacy, and situational factors including stress and social support. The participants ($N = 168$) included student nurses at a college in Australia who had commenced their nursing education in the 2 years before the study. Some students (35%) had withdrawn from classes while the remainder continued their nursing education. Of the 109 students continuing education, the purposive sample included $n = 57$ (52.3% response rate) and of the students who had withdrawn, the sample was $n = 16$ (45.7% response rate) who returned questionnaires. The groups did not differ significantly in age and all were female. An 18-item questionnaire included demographic information, previous nursing experience, and duration in nursing courses. Authors surveyed students concerning problems encountered on clinical placement using a Likert scale. Researchers examined expectations concerning what a student would learn in a nursing program. An evaluation of stressful experiences included financial pressures, living arrangements, social interaction and loneliness, and time and study management.

Harvey and McMurray (1997) found the most problematic aspect reported was difficulty related to travel to clinical placement with 35% of continuers and 25% of leavers experiencing problems. Science-based topics were rated as more difficult than other topics by both groups. A major difference occurred in the perceptions of content of material in nursing education; 59.6% of continuers considered the content of their course to differ from what they had thought a nurse would learn while 81.3% of leavers

perceived this discrepancy. The groups differed in their appraisal of the adequacy of the information they obtained before entry to the course; 39% of the continuers and 18% of the leavers felt that they obtained sufficient information. Students also reported experiencing financial pressures (70.6% of continuers, 62.5% of leavers). A significant difference was observed in the seeking of advice on time management and study skills, with 64.9% of continuers compared to 93.7% leavers not seeking much assistance.

Harvey and McMurray (1997) suggested that pre-entry perceptions of what was involved in nursing education frequently differed from the reality of what needed to be learned to reach professional nurse status. This discrepancy appeared to contribute to the decision to leave made by many students in nursing programs. The authors recommend that faculty on selection committees need to ensure that those students contemplating a career in nursing obtain realistic information regarding the content of nursing education. Students need to understand that nursing is built on scientific knowledge and know what is expected of them in a nursing program.

In Scotland, Kiger (1993) identified the extent to which disparity between initial and experience mediated images exist in nursing students as well as the implications of the differences. This qualitative design consisted of recorded interviews with individual student nurses as the primary data source. Purposive sampling included students ($N = 162$) from three intake groups at a single large college of nursing who answered a questionnaire containing questions about biographical details and three broad exploratory questions about nursing image. All students returned the questionnaires and 91 students (56.17%) indicated a willingness to participate in an interview.

According to Kiger (1993), data collection involved informal interviews with students ($N = 24$) who were between 17 and 36 years of age. The interviews allowed for

exploration of emerging themes to saturate categories and identify core categories. All students were interviewed three times, in the beginning of training, during the second clinical placement, and during their fourth or fifth clinical placement. Five substantive categories emerged from the first interview: pictures of nursing, the “good” nurse, what nursing entails, occupational labels, and being a student-becoming a nurse. One disparity identified between initial images and experience was that students were less able and willing to alter their images to accommodate staff behavior and attitudes they considered inappropriate. Some disparities between students’ initial images and their experience were easily accepted into their experience-mediated images. Differences they did not perceive as negatively affecting patient care or their own well-being seemed easily accommodated. Some students indicated the presence of a college “ideal” and clinical “real” version of nursing was not only understandable but desirable and useful.

Kiger (1993) found that students needed adequate faculty support to adapt effectively to the inevitable alterations in their perceived image. This encouragement includes welcoming students to the clinical area, introducing them to staff members, and orienting them to the work routine and patients; acknowledging students as individuals; recognizing students’ learning needs and trying to meet those needs; giving students the opportunity to articulate their concerns about their clinical experience; and providing explanations for the disparities they perceive between what they expected and what they experience.

One study compared ADN and BSN registered nurses’ perception of values. McNeese and Crook (2003) identified the extent values associated with the independent variables of age group and job stage and with the dependent variables of job satisfaction, productivity, and organizational commitment. They investigated relationships among

values and demographic variables of education, generation, ethnicity, gender, and role. In this correlation study, McNeese and Crook randomly selected a sample ($n = 412$) of registered nurses (RNs) from three private, not-for-profit hospitals in Los Angeles County. The RNs were primarily women (95%), over the age 40 (50%), and held at least a bachelor's degree (46%). The average number of years of experience as an RN was 15.6. The sample included the first hospital ($n = 110$, 65% response rate), the second hospital ($n = 133$, 50% response rate), and the third hospital ($n = 169$, 47% response rate). The survey packet contained seven survey instruments including personal demographic questions. One instrument, the work values inventory (WVI) addressed 15 values as three sub-scales, each describing the importance of the work characteristic using a 5-point Likert scale. Additional instruments in the survey packet included the respondent's present job, productivity, and organizational commitment scales. The Organizational Commitment Scale measured the identification and involvement in the goals and values of the organization. Data analysis included the use of SAS and SPSS through univariate and bivariate approaches. First researchers examined demographic variables for relationships with values; then they answered research questions about independent variables (values, age group, and job stage) and dependent variables (job satisfaction, productivity, and organizational commitment) using Spearman's correlation, analysis of variance (ANOVA) and t tests.

McNeese and Crook (2006) found significant differences for values among educational levels and conducted post hoc comparisons using the Bonferroni T test. Nurses with bachelor degrees had significantly higher scores in relation to esthetic values, creativity, and management than associate degree nurses. The younger nurses, Generation X, scored higher than the Boomers when comparing altruism. The

relationship between esthetics and age was the only positive relationship between age and individual work values. Significant negative relationships between age and values existed regarding pay and variety. Good supervisory relations were the highest rated value of the nurses. Entry-level nurses placed higher value on pay than mastery level nurses and disengaged nurses showed lower values for altruism than nurses in the entry stage. Nurses in the top third for job satisfaction, productivity, and organizational commitment had significantly higher scores for values while nurses in the lowest third of job satisfaction and organizational commitment had higher scores related to pay. Researchers suggested nurse managers focus on supporting nurses in the attainment of their values within the work setting. This suggestion is consistent with person-environment fit theory (French & Kahn, 1962) which emphasizes the importance of aligning the personal values with those of the organization. McNeese and Crook further recommended that nurse managers meet with staff nurses upon hire, after 3 months, and at least annually to examine the values, goals, and priorities of each nurse. Managers must become passionate advocates for their staff nurses and find methods to increase job satisfaction and decrease turnover.

A recent study by Leduc and Kotzer (2009) compared the values held by nursing students to new graduates and registered nurses who had practiced for at least 5 years. Values were measured using the Nursing Professional Values Scale (NPVS) developed by Weis and Schank (2000). This instrument measured nursing values based on the ANA Code of Ethics for Nurses (2001). The survey contained 44 items using a Likert-scale format. The survey included a demographic section containing questions about age, length of time as an RN, and length of time at the institution. An additional section inquired about an awareness of the ANA code and how it is used in practice and

presented in coursework.

The convenience sample included junior and senior baccalaureate nursing students ($N = 97$) from three state university programs and practicing nurses ($N = 46$ new graduates; $N = 84$ seasoned nurses) from an affiliated children's hospital. Leduc and Kotzer (2009) acknowledged that the sample ($N = 227$) represented a homogenous group in regard to curricula, clinical experiences, and educational preparation. Surveys were mailed to participants with a \$2.00 spending certificate for the cafeteria attached as an incentive for participation. Authors reported an overall response rate of 59 %.

Leduc and Kotzer (2009) found no significant differences in responses among the three groups. Pearson correlations revealed no significant relationship between years of experience and any of the statements on the survey. All three groups displayed congruence of values. However, significant differences were found regarding awareness of and course presentation of the code. More new graduates indicated awareness of the code than seasoned nurses or students. The findings indicate greater similarities than differences across the three groups. Authors emphasize the importance of capitalizing on the strengths of each generation of nurses. Additionally, they recommended that educators, administrators, and practitioners integrate the ANA Code of Ethics into academic and practice areas.

No studies were found that compared student nurse perceptions of the profession to those of registered nurses. This information would be helpful in understanding how nurse educators can enrich the current nursing content to include "real life" material that may assist new nurses as they enter the workplace.

In a study closest to the current research, Sand-Jecklin and Schaffer (2006) examined the impact of initial clinical experiences on nursing students' perceptions of the

profession. Researchers modified the Perceptions of Professional Nursing Tool (PPNT) which measured the perceptions of nursing among nurses, health care professionals, and health care consumers for use with nursing students. Items were removed from the PPNT that did not apply to the student population, three questions (open questions) were added, and several others were reworded to improve clarity. This adapted tool was piloted to reveal a coefficient alpha of .80 for the first inventory administration and .95 for the second. The sample convenience included sophomores at the beginning of their initial nursing course ($N = 85$). After 6 months of classroom instruction, students ($n = 74$) completed the inventory a second time. Paired t test comparisons revealed no significant differences in scores between the first and second datasets. Sand-Jecklin and Schaffer found student perceptions about the source of public information regarding nursing revealed significant differences in first-inventory responses. While few students identified the media as influencing their perceptions of nursing; many identified the media as influential in the public's perception. Nursing students indicated a negative perception about media portrayal of the nursing profession continues in spite of efforts to improve the public's view.

Sand-Jecklin and Schaffer (2006) found the majority of participants entered nursing school as a result of altruistic intentions which is consistent with other findings (e.g., Buerhaus, Donelan, Norman, et al., 2005; Larsen, McGill, and Palmer, 2003). Authors reported that upon entering the education program, 40 % planned to pursue advanced degrees; this number increased to 52 % only 6 months later. This is a cause for concern as a critical shortage of nurses exists in acute care bedside positions.

Authors Sand-Jecklin and Schaffer (2006) suggested that nurse educators and the nursing profession address the perceptions held about the profession, taking action to

promote positive perceptions within the profession and among future professionals and the public. A higher degree of student satisfaction in their choice of nursing and an improved student retention rate may result from accurately informing both students and the public about the roles, responsibilities, and opportunities within the profession of nursing.

This study differs from Sand-Jecklin and Schaffer's (2006) in that their research only involved one set of students in a baccalaureate nursing program. They surveyed the students initially before exposure to the clinical setting and then 6 months after clinical experiences. In this study, the sample includes first-semester associate degree students and baccalaureate nursing students. In addition, this study surveys registered nurses from various experience levels and areas of practice. This study is similar to Sand-Jecklin and Schaffer's study in that both explore the perception of the nursing profession utilizing the PPNT.

Summary

The current nursing shortage provides a valid reason to examine the perception of the profession of nursing as related to the tenets of practice, values, and image. This perception influences a student's decision to enter nursing school and is subject to change over time after exposure to the realities of the clinical setting (Sand-Jecklin & Schaffer, 2006). When students enter nursing programs with little knowledge regarding the reality of the profession, they may decide to pursue another career (Harvey & McMurray, 1997) or they may decide to leave the profession soon after entering nursing practice when it is not what they expected (Hemsley-Brown & Faskett, 1999; Seago, 2006).

People choose a career in nursing largely due to altruistic reasons: they want to

help and care for others (Buerhaus, Donelan, Norman, et al., 2005; Larson et al., 2003). When nurses experience conflict between their values and the work environment, stress and exhaustion often occur (McNeese & Crook, 2003) which may lead to a decrease in job satisfaction. Nursing faculty need to place more emphasis on values and professionalism during the education process (Eddy et al., 1994) to help students understand their role as a member of the profession. Nurse managers are encouraged to identify the values that influence motivation and job satisfaction for registered nurses to understand how best to recruit and retain nurses in the workplace (Verplanken, 2004).

A factor that contributes to nursing job or career dissatisfaction is the negative views of the public about the profession of nursing (Jinks & Bradley, 2005; Takese et al., 2001). Research indicates the meaning of nursing practice is not understood by the community (Huffstutler et al., 1998; Whitehead et al., 2007). Even after a multimillion dollar campaign by Johnson & Johnson (Buerhaus, Donelan, Norman et al., 2005) to increase the public image of nursing, studies show that nurses continue to believe the public perceives them more negatively than how they view themselves, contributing to a low self-concept (Takese et al., 2002; Takese et al., 2006). Nurses must address negative stereotyping and educate the public about the profession to improve the image of nursing (Huffstutler, 1998).

There is concern regarding the number of nurses who are dissatisfied with their nursing career and intend to leave the profession. Researchers found common perceptions contributed to job dissatisfaction, including a high workload and a lack of support from supervisors. Nurses experience high levels of job satisfaction when they have sufficient time to provide good patient care (Buerhaus, Donelan, Ulrich et al., 2005; McNeese-Smith, 1999), experience flexible work schedules (Ingersol et al., 2002), feel higher

morale in the work environment (Wilson, 2006), participate in shared decision making (Ellenbacker et al., 2007), and are rewarded with opportunities for professional development or personal promotions (Kovner et al., 2006). Nurse educators are encouraged to collaborate with RNs to present a realistic view of nursing practice to students during their education. This cooperation is necessary to close the gap between nursing education and practice so that new graduates understand what employers expect of them when they enter the work environment (Hallin & Danielson, 2007; Kapborg & Fischbein, 1998).

Students enter nursing education programs with a preconceived idea of the profession (Cook et al., 2003) and are vulnerable to feelings of disillusionment when they learn their view is not accurate (Brodie et al., 2004). Faculty must support students in understanding the differences that exist between their perceptions and the reality of professional nursing during the education process (Andersson, 1993; Spouse, 2000). It is essential for guidance counselors, parents, and advisors to present accurate information to students regarding the profession of nursing before they enter a program of study (Harvey & McMurray, 1997; Sand-Jecklin & Schaffer, 2006; While & Blackman, 1998).

School of Nursing admission committees must ensure that student applicants understand that nursing is built on scientific knowledge and communicate their expectations of students during a program of study (Harvey & McMurray, 1997). Students need faculty support to adapt effectively to the realities of the profession which requires nursing educators to acknowledge each student as individuals, recognize their specific learning needs, provide opportunities for students to verbalize their concerns, and offer explanations for the disparities they perceive between what they expected and what they experience (Kiger, 1993). Ideally, nurse educators and registered nurses should

address the perceptions held about the profession and promote positive aspects of the profession among future nurses and the public. The outcome of a higher degree of student satisfaction in their choice of nursing and improved student attrition may occur from accurately informing both students and the public about the roles and responsibilities within the profession (Sand-Jecklin & Schaffer, 2006).

CHAPTER III

METHODOLOGY

Introduction

Previous studies examined RNs' perceptions related to image discrepancy, the work environment, job satisfaction, and intent to leave (e.g., Buerhaus, Donelan, Ulrich, Kirby et al., 2005; Takese et al., 2001). However, lacking is research that investigates the actual perception of the profession of nursing among registered nurses collectively using the tenets of Practice, Values, and Public Image. These perceptions are useful in understanding how nurses in practice view these dimensions of their profession. It is helpful for nurse educators to obtain relevant information from RNs' perspectives to share with students seeking education or a career in nursing so they may have an accurate understanding of the nursing profession. This information will also assist leaders of the profession in determining which perceptions of nursing need attention and improvement.

Few studies in the literature conveyed American nursing students' perceptions about the nursing profession; this research addresses this gap. This study involved a survey and quantitative analysis of the perception of the profession of nursing among first-semester ADN nursing students, first-semester BSN nursing students, and registered nurses. The survey measured three tenets (subscales) that pertain to the profession of nursing which include Practice, Values, and Public Image.

The remainder of this chapter is divided into eight sections. These sections include the following: Population and Sample, Procedures for Data Collection,

Instrumentation, Description of the Variables, Validity Considerations, Statistical Analysis, and Ethical Considerations. This chapter concludes with a brief Summary of the methodology.

Population and Sample

First-semester nursing students in the 2009 fall semester for both the ADN and BSN nursing programs at Western Kentucky University (WKU) and registered nurses at the Medical Center of Bowling Green composed the population for this study. They included students from the Bowling Green and Glasgow campus and RNs in practice at the Medical Center of Bowling Green. Each population possessed several characteristics that were important to this study. First and most important, ADN and BSN students from this population hold perceptions about the profession of nursing that may or may not have been influenced by the practice setting. Students from both nursing programs represented different ages, gender, ethnicity, education (some were second-degree students), and healthcare experience. The practicing nurse population was also composed of diverse ages, gender, ethnicity, educational preparation levels, and healthcare experience.

The students and registered nurses represented a population of convenience regarding access in terms of selection among all students and registered nurses in the state of Kentucky. It is acknowledged that WKU nursing students and registered nurses from the Medical Center of Bowling Green may differ from other students and nurses throughout the state. On the other hand, both WKU and the hospital in question represent small town, rural Kentucky. There is reason to believe that nursing programs in the other regional universities as well as the professional nurses at large regional hospitals in the state are not that different from the target population. Less similar could be nursing programs in the large Research I universities and hospitals in the urban areas of the state.

However, there is no way to determine the extent of this distinction in this study.

From the student and practicing nurse population, the sample represented only those who responded to the survey. Although the request to participate in this study was personally extended by this researcher to the entire population of first-semester nursing students in ADN and BSN programs as well as registered nurses at the Medical Center of Bowling Green, a full census was not reached. The sample collected only represented a selected group of the population based on the willingness of the participants to complete the survey, subject to the bias of selection including volunteers rather than non-volunteers. This served as a weakness of the study; however, the researcher tried to increase the number of respondents through personally visiting the classroom of the students, explaining why the research was important to the profession, and administering the survey during class time. Furthermore, the researcher collected data in person from the registered nurses at the Medical Center of Bowling Green during a 2-day research poster presentation where RNs from all shifts and units were represented.

Procedures for Data Collection

This study required human subjects clearance from both the University of Louisville and Western Kentucky University where the author is a cooperative doctoral student. The Medical Center of Bowling Green had its own human subjects committee, so the author also obtained permission and approval from that institutional review board to collect survey data from RNs.

Once the approval process regarding human subjects was finalized, the author contacted instructors of both ADN and BSN fundamental nursing courses and scheduled a time for data collection. The researcher administered the survey to the students in the ADN program during a nursing orientation session which occurred a week before classes

started. Students in the BSN program completed the survey before their first nursing class during the first week in the fall 2009 semester. Next, the researcher contacted nursing administration at The Medical Center of Bowling Green and scheduled a time to collect data from registered nurses on various shifts. It was determined that the best opportunity to reach the majority of the RNs was during a 2-day research poster presentation where RNs from all shifts and units were represented. During this event, participants voluntarily completed the survey. The researcher personally distributed all the surveys and asked all participants to read the preamble attached at the beginning of the questionnaire (Appendix A) which indicated that continuation implied consent.

The survey was collected only on hard copy. The author collected completed questionnaires and coded these responses into the database. All surveys included identification codes to track individual respondent (student or nurse), program attended (ADN or BSN), and other demographic background. All codes were handled according to guidelines for confidentiality per research on human subjects.

Instrumentation

With the tenets of nursing Practice, Values, and Image in mind, Sand-Jecklin and Schaffer (2006) adapted the Perceptions of Professional Nursing Tool (PPNT) to measure the perceptions of nursing among nurses, health care professionals, and health care consumers. They modified the PPNT for use with nursing students by removing items that did not apply to the student population. Sand-Jecklin authored the PPNT and granted permission (Appendix D) to use the survey for this study and authorized modification of the instrument as needed.

The PPNT originally contained 32 items that measured the perceptions of nursing on a 5-point Likert scale (Rocchiccioli, 1992). Sand-Jecklin and Schaffer (2006)

modified the questionnaire to contain sections on demographics and the subscale items of Practice, Values, and Public image. For this study, one new item was added to the demographic section (ethnicity) and the question about previous healthcare work was modified to reflect the number of years of experience. Before the changes, the PPNT asked only if the respondent, a significant other, a family member, or a close friend worked in health care, thus eliminating a response that included the amount of time employed in healthcare. A question was also added to indicate current status, i.e., student in the ADN or BSN program or practicing nurse. The final survey is included in Appendix A.

Description of the Variables

This study focused on perceptions about the field of nursing held by student nurses and registered nurses. Specifically, the students' and nurses' sense of the nursing profession are as indicated on the PPNT (Sand-Jecklin & Schaffer, 2006) which included the fundamentals of nursing practice, values, and public image.

Independent Variables

The independent variables in this study, illustrated in Figure 1, consisted of two distinct types--demographic controls and organizational environment. The Demographic Controls were represented by six Demographic Factors in Figure 1. These included age, gender, ethnicity, healthcare experience, healthcare position, and education. The variables are defined conceptually in this Chapter. The operational definitions are presented in parallel in Appendix B.

Demographic Controls

Age. Students varied in age according to the different level of education programs. Generally, the associate degree nursing student at WKU was older than the average

bachelor degree nursing student, typically a traditional college student who enters higher education after graduating from high school. This discrepancy varies from semester to semester. Registered nurses represented all age groups as some were new to nursing while others were approaching retirement age. The diverse generational viewpoint of registered nurses enriched the findings of this study.

Gender. The majority of participants were female as nationally only 5% of the nursing workforce consists of men (Health and Human Services, 2004).

Ethnicity/Race. Most of the students from WKU and registered nurses employed at The Medical Center were Caucasian as this is the trend for this area in South Central Kentucky. However, several different categories were included to cover both racial and ethnic distinctions.

Education. This variable addressed the highest level of education obtained; choices included high school, technical school (LPN), diploma, associate, bachelor, master's, and doctoral education. Diploma nurse graduates were excluded from this study as diploma programs throughout the United States are diminishing and diploma education was not a variable in this study. There were no graduates from doctoral programs who completed the survey as registered nurses with terminal degrees are rare and seldom practice in hospitals in this region. Although these two options (diploma graduate, doctoral degree) were included as part of the survey (Appendix A, SQ 43), the categories were dropped from the operational definition (Appendix B) and subsequent analyses.

Healthcare Experience. This question asked about the length of time participants worked in healthcare. It seemed logical to think that if students reported previous healthcare experience, their perception of nursing might reflect more realistically about the profession.

Healthcare Position. This question inquired about what type of position the participant held in healthcare. The choices included none, certified nurse assistant (CNA), certified medical assistant (CMA), LPN, or RN.

Organizational Environment

Associate degree nursing program. A 2-year program designed for students wishing to pursue technical or bedside nursing. Upon graduation, an individual must pass the NCLEX-RN to obtain a license to practice as a registered nurse (ANA, 2009).

Bachelor degree nursing program. A 4-year university-based degree designed for students wishing to pursue professional nursing practice. Upon graduation, an individual must pass the NCLEX-RN to obtain a license to practice as a registered nurse (ANA, 2009).

Registered nurses. Registered nurses included those in practice who held an active RN license and were employed by The Medical Center of Bowling Green. This group included all ages, genders, ethnicities, education levels, and work experience.

Dependent Variables

Nursing perceptions were assessed using the PPNT, developed by Sand-Jecklin and Schaffer (2006). This tool measured the perceptions of nursing based on three subscales: Practice, Values, and Public Image.

Practice

The Practice subscale referred to how individuals perceived the role of the nurse in the healthcare setting. The PPNT (Sand-Jecklin & Schaffer, 2006) explored perceptions regarding the different levels of education (ADN or BSN), the importance of teaching health promotion and disease prevention, autonomy, competence, accountability, and physician/nurse collaboration.

Values

The Values subscale explored how participants viewed nursing as a profession. The survey contained questions that inquired about the importance of nursing, the characteristics of nurses, and their opinion of the profession as a whole.

Public Image

The Public Image subscale asked participants how they felt the public viewed nursing. The questions explored aspects of the profession that included whether the public considered nurses as professional, valuable, hard workers, intelligent, and other descriptors.

Validity Considerations

Sand-Jecklin and Schaffer (2006) modified the Perceptions of Professional Nursing Tool (PPNT) to use with nursing students. The instrument originally contained 32 items that measured perception of nursing practice and values on a 5-point Likert scale with reported reliability alphas of .84 for the Practice scale and .79 for the Values scale (Rocchiccioli, 1992).

Authors Sand-Jecklin and Schaffer (2006) adapted the original PPNT by removing items that did not apply to the student population and rewording several questions to improve clarity. They added three questions that addressed the dynamic nature of nursing and career diversity, resulting in 27 items, including 13 items in the Practice subscale and 14 items in the Values subscale. Authors added free response questions to address experiences that shaped student perceptions of nursing, reasons for pursuing a nursing career, and student-reported changes in perceptions about nursing from the first to the second inventory.

Researchers Sand-Jecklin and Schaffer (2006) piloted the adapted PPNT with

nursing students at a large mid-Atlantic university at the beginning of their sophomore year and before their first concepts and clinical courses. The researchers administered the PPNT a second time with students after they had experienced 6 months of classroom instruction and participated in direct patient care. Authors used a standard coefficient alpha to examine internal consistency with a resulting alpha of .80 for the first inventory administration and .95 for the second. The coefficient alphas for the Practice subscale were .73 and .89 for the first and second inventory administration. Reliability for the Values subscale was .67 and .90 for the first and second administration.

Following analysis of the pilot study, Sand-Jecklin & Schaffer (2006) made additional revisions to the PPNT. These changes included adding a separate subscale (Public Image) which contained items that measured student perceptions of the public's valuing of the nursing profession. Authors removed a question that related to student perceptions of other health care professionals' valuing of nursing because it was outside the realm of the three subscales identified. After revisions, the final PPNT consisted of 37 items within the subscales which included 13 items in Practice, 11 items in Values, and 13 items in Public Image.

The authors tested internal consistency of the PPNT with a standard coefficient alpha. Sand-Jecklin and Schaffer (2006) reported the alpha was .89 for the first inventory administration and .96 for the second. The coefficient alpha for the Practice subscale was .78 and .94. The reliability for the Values subscale was .91 and .95 and the Public Image subscale was .91 and .92.

Statistical Analysis

This research allowed the investigator to see differences in the participants' perceptions of nursing among associate degree students, baccalaureate students, and

registered nurses. The different statistical analyses are described in this section. Data checking procedures are also included.

Data Checking

After all the surveys were collected and prior to the actual computations of the descriptive statistics, the researcher screened data and checked for missing values. Since the data met the requirements for use in parametric analysis, the codings were entered into SPSS for analysis. To insure the accuracy of data entry, 10% of the surveys were randomly selected and checked against the coding values entered.

Surveys that contained only a few missing responses were included in the analysis; however, the researcher eliminated surveys with substantial numbers of items with missing data. *Substantial* was defined as 10% or more of all items or by the omission of an entire scale. According to Mertler and Vannatta (2005) deleting surveys with substantial missing values is a good alternative when only a few cases have missing values. The author acknowledges that eliminating these cases with missing data not only sacrifices subjects, but is also likely a source of systematic bias: the possibility that participants who omit items may be different from those who do not (Schafer & Graham, 2002). For this study, only two cases were lost due to missing data.

Descriptive Statistics

Descriptive statistics were computed for all variables. These computations were organized by the two types of independent variables, Demographic Controls and Organizational Environment, plus the dependent variable Nursing Perceptions. However, the descriptives for the dependent variable subscales in the PPNT (Sand-Jecklin & Schaffer, 2006) are included with the Cronbach's alpha as part of the reliability analysis.

Factor Analysis

Factor analysis is a method to examine the interrelationships among variables to identify clusters that are most closely linked together (Burns & Grove, 2005). Factor analysis in this study included the extraction method of maximum likelihood utilizing an oblique rotation. Tabachnick and Fidell (2001) recommend .32 as a minimum loading value because this loading equates to 10% overlapping variance with other items of that factor. This technique was applied to the items in the PPNT (Sand-Jecklin & Schaffer, 2006).

Cronbach's Alpha

Cronbach's (1951) coefficient alpha was used to measure the internal consistency of items in the survey. Although a reliability procedure, a high coefficient alpha suggests that the items are measuring the same construct. When an item is removed which does not fit with the others, the coefficient alpha becomes higher. A coefficient of .7 or better is generally acknowledged as adequate for internal consistency although reliabilities as low as .6 may be acceptable for exploratory research (Nunnally & Bernstein, 1994). As noted above, individual item characteristics are included here.

Inter-Scale Correlations

The inter-scale correlations were calculated between the three factors that comprise the subscales (Practice, Values, and Public Image) of the PPNT developed by Sand-Jecklin and Schaffer (2006). Factors that are interrelated may have coefficients that range from low (.09 - .24), to moderate (.25 - .48), to high (> .49) (cf. McMillan & Schumacher, 1997).

Research Questions

This study contained three research questions. The first investigated the differences with respect to the demographic factors that existed among the first-semester

associate degree nursing students, the first-semester baccalaureate degree nursing students, and registered nurses. The second research question investigated the perception of the profession of nursing (specifically, the tenets of Practice, Values, and Public Image) among the first-semester associate degree nursing students, the first-semester baccalaureate degree nursing students, and registered nurses. Finally, the third research question explored how organizational environment (associate program, baccalaureate program, and practice) affected the perception of the profession of nursing when controlling for demographics.

ANOVA

Analysis of variance (ANOVA) is a statistical technique that evaluates whether there are differences between average values across several population groups (Gravetter & Wallnau, 2004). In this study, the goal of the ANOVA was to determine whether the mean differences observed among the samples provide enough evidence to conclude there were differences across the three types of categories--associate degree students, bachelor's degree students, and RNs--with respect to the demographic factors (Research Question 1) or in the perception of nursing on the PPNT (Sand-Jecklin & Schaffer, 2006) among first-semester associate degree nursing students, first-semester bachelor degree nursing students, and registered nurses (Research Question 2). Because three of the demographic factors were measured at the nominal level, chi-square rather than ANOVA was required to compare the differences in frequency across the three groups for these variables.

ANCOVA

Analysis of covariance (ANCOVA) is an extension of ANOVA that allows the researcher to assess the main effects and interactions after the effects of other

concomitant variables are removed. Initial differences on the covariate are reflected after the effects of the covariate are removed through the adjustment of scores on the dependent variable (Mertler & Vannatta, 2005). In Research Question 3, the goal of the ANCOVA was to determine whether the mean differences observed among the samples provided enough evidence to conclude whether mean differences in organizational environment (ADN, BSN program, and registered nurse) affected the perception of the profession of nursing when controlling for demographics. Again, substantive consideration of the three variables and their level of measurement (nominal) led to the decision that only the three continuous measures were included as covariates in the ANOVAs.

Ethical Considerations

The researcher made every effort to ensure that all aspects of this research complied with ethical conduct of research. Federal rules for studies involving human subjects provided the guidelines for this study. In addition, the Human Subject Review Board (HSRB) at both the University of Louisville and WKU required that all researchers complete an on-line training course (CITI) in their field to obtain certification regarding the use of human subjects. The investigator successfully completed all modules required in July, 2009 (certification lasts for 3 years).

As a cooperative student at the University of Louisville and Western Kentucky University, the Human Subjects Protection Program Office (HSPPO) approved the study before data collection began. After approval of the proposal by the dissertation committee, the study was submitted to the HSPPO in both institutions. Because this study involved data collection at a hospital, the researcher also submitted the study to the Medical Center of Bowling Green's Human Subjects Review Board for approval. The

letters of approval from each of the three institutions are located in Appendix C.

Summary

This research addressed the perception of the nursing profession using the tenets of Practice, Values, and Public Image collectively from three distinct population groups: first-semester ADN, first-semester BSN students, and RNs. These perceptions are useful to nurse educators to bridge the gap between education and the reality of practice. In addition, nurse managers may become aware of perceptions in the workplace that require support or improvement.

Few studies in the literature focused on American nursing students' perceptions about the profession. To address this gap, this study surveyed the perceptions of first-semester nursing students in the 2009 fall semester at WKU (both the ADN and BSN program) and registered nurses who worked in different areas and on various shifts at one hospital. Students and registered nurses represented diversity in the areas of age, gender, ethnicity, education, healthcare experience, and positions in healthcare.

The researcher obtained permission (Appendix D) from the author of the PPNT (Sand-Jecklin & Schaffer, 2006) to modify and utilize the survey for this study. The PPNT measured the perception of the profession of nursing using the tenets of nursing Practice, Values, and Public Image. The survey contained 37 items followed by six demographic questions. Sand-Jecklin and Schaffer found the PPNT a reliable tool after analysis using coefficient alpha. The actual survey is located in Appendix A.

Data analysis included descriptive and psychometric statistics that included factor analysis and Cronbach's (1951) alpha for reliability data; inter-scale correlations, chi-square, ANOVA, and ANCOVA were computed to examine differences that existed between the groups sampled. The independent variables in this study included

Demographic Factors (age, gender, ethnicity, healthcare experience, position in healthcare, and education) and Organizational Context (ADN program, BSN program, and practicing nurse). The dependent variables were the perceptions of the profession of nursing based on three subscales: Practice, Values, and Public Image.

After receiving approval of the study by the University Human Subjects Committee from the University of Louisville and Western Kentucky University, the researcher received approval from the Human Subjects Review Board of The Medical Center of Bowling Green. All participants completed the survey after reading the preamble which was printed at the beginning of the survey (Appendix A) with the understanding that continuation implied consent.

CHAPTER IV

RESULTS

Introduction

This chapter presents the findings of survey data collected regarding the perceptions about the profession of nursing. First semester associate and baccalaureate students and registered nurses (RNs) completed surveys to convey these perceptions. Specifically, dependent variables included the students' and nurses' sense of the nursing profession as indicated on The Perceptions of Professional Nursing Tool (PPNT), developed by Sand-Jecklin and Schaffer (2006). While previous studies examined RNs' perceptions related to image discrepancy, work environment, job satisfaction, and intent to leave (e.g., Buerhaus, Donelan, Ulrich, Kirby et al., 2005; Takese et al., 2001), this research investigated the actual perception of the profession of nursing among registered nurses and first-semester nursing students collectively using the tenets of Practice, Values, and Public Image. These perceptions are useful in understanding how nurses in practice view these dimensions of their profession in comparison to the ideas of beginning students.

The remainder of this chapter is divided into sections that address Protocol and Procedures, Data Screening, Descriptive Statistics, Psychometric Analyses, the Research Questions, and a Summary. For the sections on descriptives and psychometrics, the information is arranged consistent with the two types of independent variables in Figure 1--Demographic Controls, Organizational Environment (ADN program, BSN program,

and registered nurse)--in addition to the dependent variables, Nursing Perceptions based on three subscales: Practice, Values, and Public Image.

Protocol and Procedures

The researcher obtained human subjects clearance from the University of Louisville and Western Kentucky University where the author is a cooperative doctoral student. The hospital had their own human subjects committee, so the study received approval from that institutional review board before data were collected from the RNs. The copies of the letters of approval from these three institutions are included in Appendix C.

Once the approval process regarding human subjects was finalized, the author contacted instructors of both ADN and BSN fundamental nursing courses, explained the nature of the research and scheduled a time for data collection. Surveys were administered to the ADN students during a nursing orientation program a week before classes began. The BSN students took the survey at the beginning of their first nursing class during the first week of the semester. Next, the researcher contacted the nursing administration at the hospital and scheduled a time to collect data from registered nurses. An opportunity to reach a large number of RNs occurred during a 2-day poster presentation where various shifts and units were represented. All the students and RNs completed the survey after reading the preamble attached at the beginning of the survey (Appendix A) with the understanding that continuation implied consent.

Data Screening

This research netted a sample of 247 surveys (69 ADN, 38 BSN students, and 140 registered nurses) from a population of 69 ADN, 38 BSN students, and over 700 RNs employed at the hospital. The researcher evaluated the surveys for missing data and

rejected nine as unusable. The eliminated surveys included five RNs who completed diploma nursing programs, a category not included in this research. In addition, two surveys contained a blank page which included a substantial amount of data; as explained in Chapter III, *substantial* was defined as 10% or more of all items. Other unusable surveys included one completed by an LPN and one by a registered nurse applicant (RNA). A RNA is an unlicensed person who has graduated from a nursing program but has not yet taken the National Council Licensure Examination (NCLEX); consequently this category is not included in this study. Following this protocol for data screening left a set of surveys ($N = 238$; 69 ADN, 38 BSN students, and 131 RNs) with adequate information on the independent variables. Beyond those surveys eliminated completely, none had any missing values items that required a substitution of mean values. However, several surveys contained missing values (in the subscales and/or demographics) that equaled less than the 10% amount identified as criteria for survey elimination. In these cases, pairwise deletion of missing data, which excluded surveys only from calculations involving the variables that had missing values, was selected as a method of analysis (Roth, 1994). In particular, one participant did not answer the questions for age and gender; this explains the different values for N in the tables that follow. The procedure for imputing mean values was not selected for the demographics or scale items because there were (a) few cases of missing data and (b) imputing overall mean values could create bias because it would not reflect the three distinct populations.

Descriptive Statistics

Descriptive statistics were computed and organized by the two types of independent variables--Demographic Controls and Organizational Environment--plus the dependent variable, Nursing Perceptions. However, the sample information for the three

dependent variable subscales was included with the reliability data. These calculations included constructing composite scale variables in which items for each scale were summed and then divided by the number of items in that scale.

Independent Variables

The two types of Independent Variables (Demographic Controls and Organizational Environment) are presented in separate sections. The specific variables under each section follow the outline in Figure 1.

Demographic Controls

The Demographic Control variables describe the sample participants with regard to their Age (AGE), Gender (GEN), Race/Ethnicity (RACE), Healthcare Experience (HE), Healthcare Position (HP), and Education (EDUC). Table 1 presents the descriptive statistics for age, experience, and education. These three variables are presented as continuous variables as self-reported by participants. The participants' age ranged from 18 to 67 years with a mean value of 35.3. The amount of healthcare experience reported by participants ranged from 0 to 40 years; the mean for work experience was 11.2 years. The mean education across the five levels for participants was 2.61; this equates to a mean of 13.97 if the five levels are translated into a continuous variable based on grade level with high school graduate equal to 12, ranging to 18 for a master's degree. The wide range of educational preparation included the following: high school graduate (35.7%), technical school (2.9%), associate (31.1%), bachelor (24.8%), and master's degree (5.5%).

Table 1

Descriptive Statistics for Continuous Level of Demographic Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Minimum	Maximum	Range
AGE	237 ^a	35.3	12.91	18	67	49
HE	238	11.2	11.52	0	40	40
EDUC	238	2.61	1.34	1	5	4

Note. HE = Healthcare Experience; EDUC = Education.

^aReflects one blank response on the survey regarding age.

The remaining demographic control values included Gender (GEN), Race/Ethnicity (RACE), and Healthcare Position (HP). These nominal variables are presented in Table 2 as frequencies and percentages. Regarding gender, the sample ($N = 237$) included 223 (94.1%) females and 14 (5.9%) males (one survey was missing information about gender). The findings for gender were comparable to the number of female and male nurses represented nationally; 95% of the nursing workforce are female with only 5% representation of males (Health and Human Services, 2004). However, because 94.1% of the sample was female, further analysis including gender as a variable was eliminated. Mertler and Vannatta (2005) advise that categorical variables with less than 10% are considered outliers and are usually deleted because scores in this category influence the analysis more than those in the category with 90% of the cases.

The participants in the sample were primarily Caucasian (96.6%). The other races reported in the survey included three African-Americans, one Hispanic, and four written responses in the "Other" category. The written responses consisted of Asian/White,

White/Hispanic, Hebrew, and one blank response. However, because 96.6% of the sample was Caucasian, further analysis including race as a variable was likewise eliminated.

The range of positions held in healthcare varied from no positions (58 students) to all nurses (100%) employed as RNs at the time of the survey. Three students reported employment as a LPN. The “Other” category included students who had worked in healthcare in the areas of a caregiver for a senior, x-ray tech, billing (2), medical assistant (2), surgical tech, medical office assistant, ER monitor tech, patient flow associate, assessments, paramedic, volunteer, student nurse, pharmacy tech, mental health associate, administrative assistant, and receptionist.

Table 2

Descriptive Statistics for Nominal Demographic Variables

Variable	Frequency	Percentage
GEN	237 ^a	100.0
Female	223	94.1
Male	14	5.9
RACE	238	100.0
Caucasian	230	96.6
Black/African American	3	1.3
Hispanic	1	.4
Other	4	1.7
HP	238	100.0
Not employed	58	24.3
CNA	28	11.8
LPN	3	1.3
RN	131	55.0
Other	18	7.6

Note. GEN = Gender; HP = Healthcare Position.

^aReflects one blank response on the survey regarding gender.

Psychometric Analyses

This section presents information on the construct validity of the subscales of Practice, Values, and Public Image. Factor analysis and Cronbach's alpha (for scale

reliability) are also computed. Inter-scale correlations for the three subscales are then presented.

Factor Analysis

Burns and Grove (2005) describe factor analysis as a method to examine the interrelationships among variables with the purpose to identify clusters that are most closely linked together. Factor analysis in this study included the extraction method of maximum likelihood that utilized an oblique rotation and scree test. Costello and Osborne (2005) recommend the scree test as the best choice to examine related factors through the examination of a graph of eigenvalues. The scree test provides the researcher a method to count the number of data points above the “break” to determine the number of factors to retain.

The factor analysis was conducted using two different approaches. First, each of the three subscales was examined separately with only the items for that scale entered. For each of the three scales, only one factor was derived. This procedure resulted in the loss of six items from the original 37, with adequate reliability. Second, when all 37 items of the survey were entered into a single factor analysis, two factors were produced but the items were not as tightly clustered. Due to inadequate reliability of values, 13 questions were lost in order to bring the scales to the acceptable .7 level of reliability (cf. Nunnally & Bernstein, 1994). Because the study had no criterion other than the nursing scales themselves, there was no way to determine whether the two-factor or three-factor solution was preferable regarding criterion validity. Thus the three factor solution was adopted for two primary reasons: (a) to maintain fidelity to the original author’s work with the PPNT (Sand-Jecklin & Schaffer, 2006) and (b) to minimize the loss of items.

Only variables with factor loadings that contribute a meaningful portion of the

explained variance are included in a factor. The minimal acceptable cutoff point for this is a minimum loading of .32, a rule of thumb adopted from Tabachnick and Fidell (2001). This equates to 10% overlapping variance with other items in that factor. Using these guidelines (in the approach that analyzed each subscale separately) resulted in the elimination of Questions 3 and 11 from Practice; Questions 2 and 6 from Values; and Question 1 from the Public Image subscale. Although Question 22 in the Values subscale was marginally above the .32 cut point, it was subsequently eliminated based on reliability analysis (see *Cronbach's Alpha*, below). Tables 3-5 present the Factor Matrix with initial and final loadings for each factor in each subscale.

Table 3

Factor Loadings for Practice Scale Items

Item	Initial Loadings	Final Loadings
Q3	.054	
Q10	.448	.433
Q11	.241	
Q12	.427	.420
Q13	.526	.542
Q14	.356	.358
Q15	.627	.640
Q16	.585	.593
Q17	.413	.392
Q18	.517	.508
Q19	.530	.517
Q20	.549	.540
Q21	.337	.347

Note. Wording for scale items is in Appendix B.

Table 3 presents both the original factor analysis and a second run (after Questions 3 and 11 of the Practice subscale had been eliminated). Examination of the two items suggested that they did not fit as well as the other questions, loading less than .32. Thus the Practice subscale now includes 11 indicators instead of the original 13 items.

Table 4

Factor Loadings for Values Scale Items

Item	Initial Loadings	Final Loadings
Q2	.168	
Q4	.501	.508
Q5	.349	.372
Q6	.216	
Q8	.552	.561
Q9	.385	.401
Q22	.344	
Q23	.639	.678
Q24	.459	.487
Q25	.515	.538
Q26	.549	.525

Note. Wording for scale items is in Appendix B.

Table 4 reflects both the original factor analysis and a second run after Questions 2, 6, and 22 of the Value subscale had been eliminated. Examination of the three items indicated that Q2 and Q6 did not match as well as the other questions. Q22 was marginally above the .32 cut point; however, subsequent reliability analysis indicated inadequate reliability with that item included. Table E1 (Appendix E) presents the internal reliability and item characteristics with Q22 included; it shows that the alpha jumps significantly from .68 to .72 with Q22 deleted. Cronbach's alpha provides rudimentary evidence on how tightly

and consistently a set of items cluster; accordingly, this information was considered in the final decision about the construct validity of the Values subscale.

Table 5

Factor Loadings for Public Image Scale Items

Item	Initial Loadings	Final Loadings
Q1	.196	
Q7	.641	.641
Q27	.477	.474
Q28	.748	.748
Q29	.794	.794
Q30	.697	.695
Q31	.632	.630
Q32	.668	.667
Q33	.715	.718
Q34	.763	.764
Q35	.698	.698
Q36	.792	.794
Q37	.746	.746

Note. Wording for scale items is in Appendix B.

Table 5 presents both the original factor analysis and a second run after Q1 of the Public Image subscale had been eliminated. Q1 did not correspond as well as the other questions, loading at .196. The Public Image subscale now includes 12

indicators instead of the original 13 items.

Cronbach's Alpha

Cronbach's (1951) coefficient alpha was used to measure the internal consistency (reliability) of items in the survey. Although a reliability procedure, a high coefficient alpha suggests that the items are measuring the same construct. The coefficient alpha is higher when an item which does not fit with the others is removed. A coefficient of .7 or better is generally acknowledged as adequate for internal consistency although reliabilities as low as .6 may be acceptable for exploratory research (Nunnally & Bernstein, 1994). For this study, the final computations of Cronbach's alpha (after items had been eliminated and the second factor analysis performed) for the subscales were Practice, .74; Values, .72; and Public Image, .92. The Public Image subscale has exceptional internal reliability; the .74 for Practice and the .72 for Values is adequate, just above the .7 criterion specified by Nunnally and Bernstein (1994). These results confirm the factor analyses for the three subscales. The final internal reliability and item characteristics for the three scale items are presented in Tables 6-8.

Table 6

Final Internal Reliability and Item Characteristics for Practice Scale Items

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum	Range	$\alpha - d^a$
Q10	4.56	.60	2	5	3	.72
Q12	4.37	.80	1	5	4	.72
Q13	4.68	.57	1	5	4	.71
Q14	4.23	.77	1	5	4	.73
Q15	4.74	.47	3	5	2	.71
Q16	4.73	.50	2	5	3	.71
Q17	3.62	.99	1	5	4	.73
Q18	4.59	.57	2	5	3	.71
Q19	4.79	.43	3	5	2	.71
Q20	4.34	.80	1	5	4	.70
Q21	4.20	.89	1	5	4	.73
Composite ^b	4.45	.46	3.63	4.80	1.17	.74

Note. Wording for scale items is in Appendix B.

^a $\alpha - d$ = alpha with item deleted.

^bValue for $\alpha - d$ for composite is Cronbach's alpha for the scale.

Table 6 presents the final Cronbach's alpha for the Practice subscale based on the factor analysis for that scale. Because Q3 and Q11 did not load above the .32 in the factor analysis, Cronbach's alpha was completed for only the remaining items. The final alpha for the Practice subscale was .74.

Table 7

Final Internal Reliability and Item Characteristics for Values Scale Items

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum	Range	$\alpha - d^a$
Q4	4.91	.36	1	5	4	.68
Q5	4.93	.24	4	5	1	.71
Q8	4.81	.47	2	5	3	.68
Q9	4.77	.53	2	5	3	.71
Q23	4.92	.29	3	5	2	.67
Q24	4.87	.33	4	5	1	.70
Q25	4.87	.38	2	5	3	.69
Q26	4.60	.52	3	5	2	.69
Composite ^b	4.84	.16	4.6	4.9	0.34	.72

Note. Wording for scale items is in Appendix B.

^a $\alpha - d$ = alpha with item deleted.

^bValue for $\alpha - d$ for composite is Cronbach's alpha for the scale.

Table 7 presents the Cronbach's alpha and descriptive statistics for the final set of items with coefficient alpha equal to .72 for the Values subscale. The factor analysis for the Values subscale revealed that Q2 and Q6 did not load sufficiently high to be included in the construct as derived initially (see Table 4). That left 9 of the original 11 items. Cronbach's alpha was calculated for these questions. Table E1, Appendix E; demonstrates that the alpha jumps significantly with Q22 deleted. Consequently, Cronbach's alpha was run a second time with Q22 omitted (the remaining 8 items). Thus, although Q22 was

marginally above the .32 cut point, further analysis revealed inadequate reliability with that item included.

Table 8

Final Internal Reliability and Item Characteristics for Public Image Scale Items

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum	Range	$\alpha - d^a$
Q7	4.08	.85	1	5	4	.91
Q27	3.92	.98	1	5	4	.92
Q28	4.01	.93	1	5	4	.91
Q29	3.89	.99	1	5	4	.91
Q30	3.11	1.16	1	5	4	.91
Q31	2.60	1.03	1	5	4	.91
Q32	3.09	.97	1	5	4	.91
Q33	3.48	.85	1	5	4	.91
Q34	3.94	.86	1	5	4	.91
Q35	3.61	.99	1	5	4	.91
Q36	3.73	.93	1	5	4	.91
Q37	3.59	1.02	1	5	4	.91
Composite ^b	3.58	.94	2.60	4.07	1.47	.92

Note. Wording for scale items is in Appendix B.

^a $\alpha - d$ = alpha with item deleted.

^bValue for $\alpha - d$ for composite is Cronbach's alpha for the scale.

Table 8 presents the final Cronbach’s alpha for the Public Image subscale based on the factor analysis. Only one item did not fit (Question 1) and was deleted. Cronbach’s alpha was calculated for the 12 remaining questions and yielded an alpha of .92 for the subscale, an exceptionally high internal reliability.

Table 9

Inter-Scale Correlations

Subscales	Values	Public Image
Practice		
Correlation	.54	.11
<i>p value</i>	< .001	.09
Values		
Correlation		.21
<i>p value</i>		< .001

Table 9 presents the inter-scale correlations among the three subscale items (Practice, Values, and Public Image) utilizing the factor scores from the final factor analysis runs. Both Practice and Public Image are related to Values as indicated by their significant low to moderate association. However, Practice and Public Image are not significantly correlated. Values and Practice are more closely related to one another than Values and Public Image. Overall, the correlations among subscales reveal that they are generally interrelated but measure very different aspects of nursing perceptions.

Research Questions

This study contained three research questions. The first investigated the differences in respect to the demographic factors that existed among the first-semester ADN students, the first-semester BSN students, and RNs. The second research question investigated the perception of the profession of nursing (specifically, the tenets of Practice, Values, and Public Image) among the first-semester ADN students, the first-semester BSN students, and RNs. ANOVA was the statistical technique used to answer Questions 1 and 2. For Research Question 1, Healthcare Position was measured nominally; chi-square was computed to compare frequency counts across the three groups of nurses for this variable. Finally, Question 3 utilized analysis of covariance (ANCOVA) to determine how organizational environment (ADN, BSN program, and registered nurse) affected the perception of the nursing profession when controlling for demographics.

ANOVA

The goal of the ANOVA in this research was to determine whether the observed sample means provided enough evidence to conclude there were significant differences (related to demographics) in the three groups sampled and if discrepancies in the perception of nursing among the nursing students and registered nurses existed (Research Questions 1 and 2). Mertler and Vannatta (2005) suggest three assumptions that confirm the validity of the results of the factorial ANOVA. The first assumption states that observations within each sample should be randomly sampled and independent of one another. The sample of both the first-semester ADN and BSN students included every student or 100% of the population. Since random sampling serves to present a good representative of the population, a 100% response rate is the ideal. The sample of RNs included only those who attended the research poster presentation; it is not known

whether everyone who attended the session completed a survey as all the RNs did not sign a record of attendance. This study is limited in its generalizability due to the employment of a convenience sample of RNs.

The second and third assumptions by Mertler and Vannatta (2005) state (a) that the distributions of scores on the dependent variable must be normal in the populations from which the data were sampled and (b) the distributions of scores on the dependent variable must have equal variances. Mertler and Vannatta explain that slight departures from normality may occur but even larger deviations seldom have much effect on the interpretation of the results. Levene's Test for Equality of Variances was used to test for equal variances; a nonsignificant Levene's test indicates equal variances. Mertler and Vannatta further state that one disadvantage of the tests of assumptions is that they are only appropriate for situations that involve equal size groups. In this study, the three groups are not of equal size, which presents yet another limitation of the results.

Research Question 1

To what extent do differences with respect to the demographic factors exist among the following: (a) first-semester associate degree nursing students, (b) first-semester baccalaureate degree nursing students, and (c) registered nurses?

The demographic factors examined in Question 1 included age, years of experience in healthcare, position in healthcare, and highest level of education. Gender and race were not included because both were nominally measured variables and comprised approximately 95% in one category; (see *Demographic Controls* under Descriptive Statistics, above.) The age of the participants ranged from 18 to 67 years. A Univariate ANOVA (see Table 10) revealed that age was significantly different for the three types of classifications examined, $F(2, 237) = 104.91, p < .001, \text{partial } \eta^2 = .47$.

Eta-squared (η^2) measures the strength of association or effect size between the independent and dependent variables (Mertler & Vannatta, 2005). Therefore, 47% of age difference can be attributed to organizational context. Scheffe's post hoc test was conducted to determine which groups were significantly different in age. Results revealed that all three groups were significantly different from each other. The average age for an ADN student was 27.8 years which was older than the mean age for the BSN student which was 21.9 years. The average age for RNs was 43.1 years (see Table 11).

To check on the equality of variance assumption for ANOVA computations, a Levene's test was performed. Levene's test for equality of variance is significant when the assumption is violated and not significant when the variances of the groups are equal. The Levene's test for organizational context on age was significant, indicating that the three groups had different variances. However, Mertler and Vannatta (2005) explain that even large deviations of variance seldom have much effect on the interpretation of the results.

A Univariate ANOVA revealed that experience was significantly different for the three types of groups examined, $F(2, 238) = 88.11, p > .001$, partial $\eta^2 = .43$. Scheffe's post hoc test was conducted to determine which groups were significantly different in experience. Results reveal that the ADN and BSN students were not different from each other but both student groups were significantly different from the RNs, who had more experience than the other two groups (see Table 11). The Levene's test for organizational context on experience was significant, indicating that the three groups had different variances. However, as previously stated Mertler and Vannatta (2005) explain that even large deviations of variance seldom effect the interpretation of the results.

Finally, a Univariate ANOVA (Table 10) revealed that education was

significantly different for the three types of classifications examined, $F(2, 238) = 223.76$, $p > .001$, partial $\eta^2 = .65$. Scheffe's post hoc test was conducted to determine which groups were significantly different in education. Results reveal that the ADN and BSN students were not different from each other but both student groups were significantly different from the RNs, who had more education than both student groups (see Table 11). The Levene's test for organizational context on education was not significant, indicating that the three groups had equal variances.

Chi-square is used to determine whether there are significant differences between the expected and the observed frequencies in one or more categories (Burns & Grove, 2005). In this study, a crosstabs chi-square was the statistical method used to analyze the variable--position in healthcare. As expected, there were significant differences in the frequencies of position among the groups, $\chi^2 (8, N = 238) = 255.24, p < .001$. All the RNs sampled held the position of RN at the time of the survey; the student groups were either not employed or worked in another job in healthcare other than that of a RN.

Table 10

Analysis of Variance for Age, Experience, and Education

Source	SS	df	MS	F	p	η^2
Age						
Between Groups	18597.52	2	9298.76	104.91	< .001	.47
Within Groups	20740.99	234	88.64			
Total ^a	334796.00	237				
Experience						
Between Groups	13472.63	2	6736.31	88.11	< .001	.43
Within Groups	17966.65	235	76.45			
Total	61124.00	238				
Education						
Between Groups	276.98	2	138.49	223.76	< .001	.65
Within Groups	145.45	235	.62			
Total	2048.00	238				

Note. Between groups is for the Organizational Environment: Associate degree nursing program, bachelor degree nursing program, and registered nurse.

^aMissing data for age accounts for the difference in the total degrees of freedom.

Table 11

Mean Comparisons for Demographic Factors for ANOVAs

Variable	<i>M</i>	<i>SD</i>	<i>N</i>
Age			
ADN student	27.81	8.30	68 ^a
BSN student	21.90	3.78	38
RN	43.09	10.95	131
Experience			
ADN student	4.02	5.65	69
BSN student	.92	1.26	38
RN	17.91	11.00	131
Education			
ADN student	1.46	.92	69
BSN student	1.34	.91	38
RN	3.59	.67	131

^a*N* = 68 because one ADN student did not complete the question for age.

Research Question 2

To what extent do differences in the perception of the profession of nursing (Practice, Values, and Public Image) exist among the following: (a) first-semester associate degree nursing students, (b) first-semester baccalaureate degree nursing students, and (c) registered nurses?

In this study, the goal of the ANOVA was to determine whether the mean differences observed among the samples provide enough evidence to conclude there were discrepancies in the perception of nursing among first-semester associate degree nursing

students, first-semester bachelor degree nursing students, and registered nurses.

Table 12

Mean Comparisons for PPNT Subscales

Variable	<i>M</i>	<i>SD</i>	<i>N</i>
Practice			
ADN student	-.22	.92	68
BSN student	-.52	.88	37
RN	.26	.76	130
Values			
ADN student	.08	.83	69
BSN student	.02	.71	38
RN	-.05	.94	131
Public Image			
ADN student	-.01	1.0	68
BSN student	.26	.76	37
RN	-.07	.97	129

Table 12 presents the mean comparisons of the three groups for the PPNT (Sand-Jecklin & Schaffer, 2006) subscales. The average values for Practice and Public Image indicated that BSN students differed in their perceptions from the RNs to a greater extent than the ADN students. The mean comparisons for Values were similar among the three groups.

A Univariate ANOVA (see Table 13) revealed significant differences in the perception of practice between the RNs and the ADN and BSN students, $F(2, 235) = 16.4, p < .001$, partial $\eta^2 = .12$. The Levene's test for Practice was significant, $p = .006$. Once more, Mertler and Vannatta (2005) explain that even large deviations in variance across samples seldom have much effect on the interpretation of the results, particularly when dealing with unequal cell size.

A second Univariate ANOVA (Table 13) revealed that Values were not significantly different across the nursing subgroups examined, $F(2, 238) = .50, p = .61$, partial $\eta^2 = .00$. Finally, a Univariate ANOVA (Table 13, again) revealed that Public Image was not significantly different for the three groups examined, $F(2, 234) = 1.68, p = .19$, partial $\eta^2 = .01$. For both Values and Public Image, $p = .350$ and $p = .254$ respectively, the Levene's test was not significant and well above the .05 level.

Table 13

ANOVA Comparing Associate Degree Students, Bachelor Degree Students, and Registered Nurses for Practice, Values, and Public Image Subscales

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Practice						
Between Groups	22.51	2	11.26	16.4	< .00	.12
Within Groups	159.23	232	.69			
Total ^a	181.75	235				
Values						
Between Groups	.76	2	.38	.50	.61	.00
Within Groups	178.56	235	.76			
Total ^a	179.32	238				
Public Image						
Between Groups	3.10	2	1.55	1.68	.19	.01
Within Groups	212.96	231	.92			
Total ^a	216.06	234				

Note. Between groups is for the Organizational Environment: Associate degree nursing program, bachelor degree nursing program, and registered nurse.

^aMissing data in the subscales account for the difference in the total degrees of freedom.

Table 13 presents the ANOVA comparing ADN, BSN students, and RNs for the three tenets (Practice, Values, and Public Image). The only significant differences were among the two student groups and RNs for the Practice subscale. There were no differences among the groups in the Values and Public Image subscales.

Scheffe's post hoc test (Table 14) was conducted to determine which groups were significantly different in their perception of practice. Results revealed significant differences in the views of practice among the RNs and both the ADN and BSN students in that RNs scores on average were significantly higher than both ADN and BSN students' scores

Table 14

Scheffe Multiple Comparisons for Practice

Organizational Environment	Sample	Mean Difference	Standard Error	<i>p</i>
ADN program	BSN program	.30	.17	.210
	Practice (RN)	-.49	.12	< .001
BSN program	ADN program	-.30	.16	.210
	Practice (RN)	-.79	.15	< .001
Practice (RN)	ADN program	.49	.12	< .001
	BSN program	.79	.15	< .001

Note. The mean differences represent the specific group minus the overall composite mean.

ANCOVA

Analysis of covariance (ANCOVA) is an extension of ANOVA that allows assessment of the main effects and interactions after the effects of other concomitant variables are removed (Mertler & Vannatta, 2005). Differences in each groups' scores on the dependent variable are presented both unadjusted (not taking the effects of the covariates into account) and adjusted (taking the effects into account) to allow an

examination of the effects of the covariates.

Research Question 3

To what extent does organizational context (ADN, BSN program, and registered nurse affect the perception of the profession of nursing (Practice, Values, and Public Image), when controlling for demographics?

In Research Question 3, the goal of the ANCOVA was to determine whether the mean differences observed among the samples provided enough evidence to conclude that discrepancies in organizational environment (associate program, baccalaureate program, and registered nurse) affect the perception of the profession of nursing when controlling for demographics.

Table 15

ANCOVA for Practice

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Between Groups	29.82	5	5.96	8.87	< .001	.16
Intercept	7.07	1	7.07	10.51	.001	.04
Age	3.03	1	3.03	4.50	.04	.02
Experience	.14	1	.14	.20	.65	.00
Education	.30	1	.30	.44	.51	.00
OE	2.18	2	1.09	1.62	.20	.01
Within	153.32	228	.67			
Total	183.15	234				

Note. OE = Organizational Environment: Associate degree nursing program, bachelor degree nursing program, and registered nurse.

Table 15 presents the Analysis of Covariance for the first subscale of the PPNT

(Sand-Jecklin & Schaffer, 2006), Practice. After controlling for demographics, the overall model for perception of practice was significant $F(5, 228) = 8.87, p < .001$. The type of ANCOVA computed used the Sums of Square III to which confidence intervals are given. From these, the meaningful differences between the three groups were as follows. The ADN students' mean scores continued to overlap with the BSN students' and RNs' as they had in the ANOVA analysis. The BSN and RN scores were significantly different from each other in the area of perception of practice. Again the RNs' views scored significantly higher than the BSN students. As for the demographics, age remained a significant influence on the perception of practice when controlling for these variables. Even though a significant difference was found for age, its effects on nurses' perceptions of practice were very small as assessed by the eta-squared.

Table 16

ANCOVA for Values

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Between Groups	3.88	5	.78	1.03	.40	.02
Intercept	.62	1	.62	.82	.37	.00
Age	.35	1	.35	.47	.50	.00
Experience	.42	1	.42	.55	.46	.00
Education	.00	1	.00	.01	.94	.00
OE	2.10	2	1.05	1.39	.25	.01
Within	174.63	231	.76			
Total	178.52	237				

OE = Organizational Environment: Associate degree nursing program, bachelor degree

nursing program, and registered nurse.

Table 16 presents the ANCOVA for the Values subscale. After controlling for demographics, the overall model for perceptions of Values was not significant $F(5, 231) = 1.03, p = .40$, across the three groups and the demographic variables.

Table 17

ANCOVA for Public Image

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Between Groups	9.90	5	1.98	2.19	.06	.05
Intercept	4.26	1	4.26	4.69	.03	.02
Age	3.48	1	3.48	3.83	.05	.02
Experience	.20	1	.20	.22	.64	.00
Education	.37	1	.37	.40	.53	.00
OE	7.58	2	3.79	4.17	.02	.04
Within	206.12	227	.91			
Total	216.03	233				

OE = Organizational Environment: Associate degree nursing program, bachelor degree nursing program, and registered nurse.

After controlling for demographics, the overall model for perceptions of Public Image (Table 17) came close to the alpha level of .05 but was not significant $F(5, 227) = 2.19, p < .06$. However, Intercept, Age, and Organizational Environment were all significant within the model. Meaningful differences between the groups were computed using the type of ANCOVA which used the Sums of Square III to form confidence

intervals. The ADN students' mean scores overlapped with the BSN students and RNs. The BSN and RN scores were significantly different in the perception of public image. Age remained a significant factor for influencing the perception of public image. Even though significant differences were found by organizational environment and age, the effect of the variables on public image were very small as assessed by the eta-squared.

Table 18

Adjusted and Unadjusted Mean Differences for Practice, Values, and Public Image

	Adjusted <i>M</i>	Unadjusted <i>M</i>
Practice		
ADN Students	-.23	-.21
BSN Students	-.45	-.52
RNs	.25	.27
Values		
ADN Students	.10	.09
BSN Students	.07	.02
RNs	-.06	-.05
Public Image		
ADN Students	.21	-.01
BSN Students	.60	.26
RNs	-.28	-.07

Note. The mean differences represent the specific group minus the overall composite mean.

Table 18 presents the adjusted and unadjusted mean differences for the two levels of nursing students and RNs, where the mean difference is the group mean minus the

overall sample mean. The unadjusted or raw mean differences represent values without correction. The adjusted means represent values computed after controlling for other effects in the model, in this instance the three co-variates--age, experience, and education.

Interpretation of the Adjusted and Unadjusted values requires examination of the ANCOVAs for the three PPNT subscales. For Public Image (Table 17), the type of program, and one co-variate, Age, were significant. The contrasts revealed no differences in the scores for either Practice or Values. There was, however, a significant difference in the BSN and RN scores related to Public Image.

Summary

The findings in this chapter are related to the three research questions presented in Chapter I. The first question investigated the differences with respect to the demographic factors that existed among first-semester associate degree nursing students, first-semester baccalaureate degree nursing students, and registered nurses. The second research question examined the perceptions of the profession of nursing (specifically, the tenets of Practice, Values, and Public Image) among first-semester associate degree nursing students, first-semester baccalaureate degree nursing students, and registered nurses. Finally, the third research question explored how organizational environment (associate program, baccalaureate program, and registered nurse) affected the perception of the profession of nursing when controlling for demographics.

Psychometric evaluation comprised calculations for factor analysis, scale reliability, and inter-scale correlations. The factor analysis included the extraction method of maximum likelihood utilizing an oblique rotation. When all 37 items of the survey were entered into a factor analysis, it became necessary to eliminate 13 questions to obtain an acceptable Cronbach's (1951) alpha level above .70. For this reason and in

order to maintain alignment to the original authors' work with the PPNT (Sand-Jecklin & Shaffer, 2006), the author entered each subscale separately for factor analysis. This ultimately resulted in the elimination of only six questions while producing an acceptable Cronbach's alpha level above .70 for each subscale. The final Cronbach's coefficient alpha yielded a composite value of .74 for Practice, .72 for Values, and .92 for the Public Image subscale. These values indicated an acceptable degree of internal reliability and provided additional confirmation of the factor analysis.

The demographic factors examined in Question 1 included age, years of experience in healthcare, position in the workplace, and highest level of education. The three groups were similar regarding the other two demographic factors--gender and race; however, both variables were eliminated from further analysis due to each category's potential for influencing the analysis more than any other variable (Mertler & Vannatta, 2005) due to more than 90% for females and for whites.

The results indicated a significant difference in the age of the RNs versus both groups of ADN and BSN students; there was also a significant difference between the age of the ADN and BSN students. Regarding years of healthcare experience, there was a significant difference in the years of healthcare experience of the RNs versus both groups of ADN and BSN students; however, there was not a significant difference in the years of healthcare experience among the ADN and BSN students. Finally, there was a significant difference in educational level for the RNs contrasted with both groups of ADN and BSN students; again however, there was not a significant difference in educational level when comparing the ADN and BSN students. For the last of the demographics variables, position in healthcare, it was not possible to compute an ANOVA because of nominal level measurement. The resulting frequency counts across

the types of position were examined via chi-square. Findings indicated that all three groups were significantly different regarding their positions in healthcare.

The second research question investigated perceptions of the nursing profession (specifically, the tenets of Practice, Values, and Public Image) among the first-semester ADN and BSN students compared to RNs. Data analysis utilizing ANOVA found significant differences in the perception of practice for the RNs versus both the ADN and BSN students. No differences were found among the ADN and BSN students. The second ANOVA revealed that values were not significantly different across the three types of groups examined. Similarly, no differences were found for the three types of organizational context for the Public Image subscale.

The third research question explored how organizational environment (associate program, baccalaureate program, and registered nurse) affected perceptions of the profession of nursing when controlling for demographics. Findings from the first ANCOVA indicated that the perception of practice was significantly different among the groups; among possible contrasts were the BSN students and RNs scores; significantly different for views of practice. Age was the only co-variate with a significant influence on the perception of practice. For the second ANCOVA, the perception of values was not significantly different among the three groups after controlling for demographics. Finally, the ANCOVA for Public Image produced a significant difference among the BSN students and RNs after controlling for demographics. Age was the only demographic factor influencing the perception of public image although the effect was very small as assessed by the eta-squared effect size.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Introduction

The current and growing nursing shortage continues to motivate nursing administrators, schools of nursing, and healthcare organizations to discover effective strategies to recruit students to a nursing career and to retain practicing nurses within the profession. At a time known as the “calm before the storm” (Clarke & Cheung, 2008, p. 23), a study on the perception of the profession of nursing is warranted given the history of the profession’s problems with high turnover rates and inaccurate public image (Jinks & Bradley, 2005; Takese et al., 2001). Confounding the problem are funding cuts in higher education and a growing scarcity of nurse educators, classrooms, and clinical space. Due to these limited resources, nursing programs are forced to offer fewer spaces to applicants and are unable to expand student enrollment. In many cases, schools actually turn away interested students who wish to enter nursing education programs (AACN, 2009).

Given the significance of a life-long career decision, a person who considers nursing certainly needs an accurate understanding of the profession before electing to invest the time, money, and energy into an educational program. When students enter nursing programs with too little or inaccurate knowledge about the nursing profession, they may decide to drop out and pursue another career (Harvey & McMurray, 1997) or choose to leave the profession soon after entering practice (Hemsley-Brown & Faskett,

1999; Seago, 2006). To address these issues, this study investigated the perceptions of the nursing profession held by first-semester students and compared them to registered nurses in practice. The remaining sections presented in this chapter include The Study in Brief, Discussion, Implications, Recommendations, and Conclusions.

The Study in Brief

This research study was a quantitative analysis of survey data that compared the perceptions of the profession of nursing across first-semester nursing students in a 2-year associate degree program, a 4-year baccalaureate program, and registered nurses. The research design is illustrated in Figure 1, p 16. In a study closest to the current research, Sand-Jecklin and Schaffer (2006) examined nursing students' views of the profession and compared them with the same students' perceptions 6 months later (after classroom and clinical experiences). Sand-Jecklin and Schaffer adapted The Perceptions of Professional Nursing Tool (PPNT) to measure the perceptions of the profession of nursing on a 5-point Likert scale. This study utilized the PPNT with only minor modifications after permission was granted by Sand-Jecklin (Appendix D). As nursing research evolves, survey tools need validation and use over time to demonstrate their value. This was the rationale for the selection of the PPNT (Sand-Jecklin & Schaffer) for this study.

The two types of independent variables measured in the survey consisted of (a) demographics, specifically, age, gender, race, experience in healthcare, position in healthcare, and education; and (b) the organizational environment of the participants--ADN program, BSN program, and registered nurse. The dependent variables were measured via three subscales from the PPNT (Sand-Jecklin & Schaffer, 2006): Practice, Values, and Public Image. The Practice subscale explored how respondents perceived the role of the nurse in the healthcare setting. The Values subscale asked how participants

viewed nursing as a profession. Finally, the Public Image subscale inquired about how subjects felt the public perceived the profession of nursing.

Data were analyzed to (a) examine the demographic differences that existed among the groups of participants (Research Question 1): (b) investigate the perceptions of the profession of nursing across the three categories using the tenets of Practice, Values, and Public Image (Research Question 2): and (c) investigate the perceptions of the three groups surveyed regarding Practice, Values, and Public Image of the nursing profession when controlling for demographics (Research Question 3). Preliminary data analysis included descriptive statistics and psychometric computations that consisted of factor analysis, Cronbach's (1951) alpha, and inter-scale correlations. Research Questions 1 and 2 were examined through ANOVA; Research Question 3 required ANCOVA. The study was limited to first-semester students at one university and RNs at one regional hospital in south central Kentucky. The sample consisted of $N = 238$ participants (including 69 ADN and 38 BSN students, plus 131 RNs).

This research received approval from both human subjects institutional review boards at the University of Louisville and Western Kentucky University. In addition, approval was obtained from the hospital's human subjects review board where the RNs were surveyed. Copies of the letters of approval from these three institutions are included in Appendix C.

Discussion

This section contains the following topics from Chapter IV--Descriptive Statistics, Psychometric Analyses, and the Research Questions. The findings are discussed and analyzed to explain how this study has contributed to the empirical research base.

The literature review revealed research that investigated RNs' perceptions related

to values, public image discrepancy, the work environment, and retention issues (e.g., Buerhaus, Donelan, Ulrich, Kirby et al., 2005; McNeese & Crook, 2003; Takese et al., 2001). Lacking was research that surveyed RNs about their actual perception about the profession of nursing. In addition, few studies reported American nursing students' perceptions about the nursing profession; this research study addressed this gap. Specifically, this study compared student perceptions of the profession of nursing to those of registered nurses. The goal of this research was to understand the differences in perceptions that exist among the groups so that those disparities may be addressed through education and collaboration with healthcare organizations. In addition, information collected from the RNs will be shared with nurse administrators and may serve as an impetus for enhancing the nurses' perceptions of professional nursing in the workplace.

Descriptive Statistics

The descriptive statistics were computed and organized by the two types of independent variables, Demographic Controls and Organizational Environment, plus the dependent variable, Nursing Perceptions. The demographic controls included age, gender, ethnicity, healthcare experience, healthcare position, and education. A discussion of each of these variables follows.

Analysis for Demographic Controls

The three variables measured at continuous levels included age, experience in healthcare, and education. The variables of age and experience were ratio measurements; however, education was an ordinal measure that closely approximated an interval scale. The distortion was so minimal that it was treated as though it was an interval level of measurement. Further, none of the interpretations for education involved any sense that a

specific result was proportional to other data on that scale. Thus the analyses conducted turned out to be robust to whatever minimal violation of assumptions occurred.

A total of 247 surveys were collected from 69 ADN, 38 BSN students, and 140 registered nurses. Nine surveys were unusable and eliminated due to missing data that (a) comprised 10% of the survey or (b) were completed by nurses not included in the sample identified (LPN, RNA, diploma graduates). This resulted in an overall sample $N = 238$, (69 ADN, 38 BSN students, and 131 RNs) with adequate information on the independent variables.

A few surveys contained missing values (in the subscales and/or demographics) that equaled less than the 10% limit identified as the criterion for survey elimination. In these circumstances, the practice of pairwise deletion of missing data was utilized, which excluded surveys from calculations involving variables for which they had missing data (Roth, 1994). An alternative strategy, imputing mean values for missing items, is not viable for this study because of the three distinct populations sampled. An overall mean would confound these distinctions and therefore represent some inherent bias.

In the current study, the participants' age ranged from 18 to 67 years with a mean value of 35.3 years. The average age for the ADN student was 27.8 years and the BSN student was 21.9 years. In this region of the state, several students who attend ADN programs are non-traditional. A BSN student is a traditional student who enters college soon after graduating from high school.

The majority of participants in this study were female (94.1%) while only 5.9% were male. Nationally, 95% of the nursing workforce consists of females with only 5% representation of males (Health and Human Services, 2004). Similarly, the majority of participants in the study were Caucasian (97%) which is the trend for this area in South

Central Kentucky. Further analysis that included gender and race (Table 2) as variables was eliminated because categories with less than 10% are considered outliers and are usually deleted (Mertler & Vannatta, 2005).

All RNs (131) held the position of registered nurse at the time of the survey. Table 2 presents the frequencies of positions in healthcare held by the participants. Over half (54%) of the students reported no experience in healthcare. Position in healthcare is a nominal level of measurement; therefore, this variable was eliminated from further analysis using ANOVA. Instead, the types of position were examined using frequency counts via chi-square.

Overall, the RNs had an average of 17.9 years of experience in healthcare as presented in Table 11. The ADN students reported 4 years work experience and the BSN students had less than 1 year experience. The education level of the participants ranged from high school to master's degrees. A few of the ADN (10) and BSN (6) students had earned associate or bachelor degrees in another field of study.

Analysis for Organizational Environment

The comparison of the perceptions of the nursing profession across the ADN, BSN students, and RNs comprised the essence of this study. As stated previously, the sample included ADN students ($N = 69$), BSN students ($N = 38$), and RNs ($N = 131$). The two studies in the literature that contrasted nursing students in different levels of education included (a) research by McNeese and Crook (2003) that compared ADN and BSN graduate RNs' perceptions associated with age and job stage with job satisfaction, productivity, and organizational commitment and (b) a study by Martin et al. (2003) that examined congruency in nursing value orientation among senior ADN and BSN students. Unlike the current study, McNeese and Crook found significant differences for values

among educational levels of students; BSN graduates had higher scores in relation to esthetic values, creativity, and management than ADN nurses. Similar to the current study, Martin et al. found that senior nursing students in ADN and BSN programs did not differ significantly on the total scale of values. However, neither McNeese and Crook nor Martin et al. compared student groups to RNs in practice.

A more recent study by Leduc and Kotzer (2009) examined the values of nursing students (BSN only) and compared them with those of new graduates and seasoned registered nurses. Similar to the findings from the current study, they found comparable values across the three groups; this refuted the idea that experience was necessary to develop professional values. However, unlike this study, they did not compare two different educational levels of students (ADN and BSN) to RNs. To the author's knowledge, ADN students, BSN students, and RNs' perceptions of the nursing profession have not been compared. In that regard, the findings of this study are unique and contribute to the body of existing research.

Analysis of Dependent Variables

The dependent variables in this study are perceptions of the nursing profession held by the AND students, BSN students, and RNs as measured on the Perceptions of Professional Nursing Tool (PPNT) (Sand-Jecklin & Schaffer, 2006). The PPNT was designed to measure the perceptions of nursing using three subscales (Practice, Values, and Public Image). To the author's knowledge, this is only the second study to use the adapted PPNT (Sand-Jecklin & Schaffer) for assessment of perceptions of the profession of nursing. Sand-Jecklin and Schaffer used the PPNT in a previous study to compare student perceptions about the nursing profession before their first nursing course to their views after 6 months of classroom and clinical instruction. Their research revealed that

scores on the nursing Practice, Values, and Public Image scale did not differ significantly after one semester of clinical experience. The actual descriptive information for these three subscales--Practice, Values, and Public Image--is included with Psychometric Analyses.

Psychometric Analysis

Originally Rocchiccioli (1992) created the PPNT to use with nurses, health care professionals, and consumers. Sand-Jecklin and Schaffer (2006) later modified the PPNT to examine the perceptions of nursing students. Rudimentary psychometric work on the PPNT indicated a need for further testing of the adapted survey. In this study, additional psychometrics performed on the instrument included (a) factor analysis and (b) the administration to a different population. In addition to factor analysis, Cronbach's (1951) alpha (for scale reliability) and inter-scale correlations were also computed.

Factor analysis included the extraction method of maximum likelihood utilizing an oblique rotation. The two methods for entering data into the factor analysis included (a) entering all 37 items of the survey and (b) entering each subscale separately. The first approach resulted in the elimination of 13 questions to obtain an acceptable alpha level. For this reason and to replicate more faithfully the original author's work with the modified PPNT (Sand-Jecklin & Schaffer, 2006), the second approach for entering each subscale separately was chosen. This resulted in the elimination of only six questions while retaining an acceptable alpha level above .70 (Nunnally & Bernstein, 1994). The coefficient alphas for the subscales were .74 for Practice, .72 for Values, and .92 for the Public Image. These values indicated an acceptable degree of internal reliability and confirmed the factor analysis. Sand-Jecklin and Schaffer reported standard coefficient alphas of .78 and .94 for Practice, .91 and .95 for Values, and .91 and .92 for first and

second inventory administrations respectively. Since this researcher found no evidence of factor analysis in the Sand-Jecklin and Schaffer's development of the PPNT, this study contributes to the psychometric understanding of the survey tool.

The inter-scale correlations among the three subscale items (Practice, Values, and Public Image) indicated that both Practice and Public Image were related to Values with low to moderate association. The correlations were not significant for the Practice and Public Image subscales. Values and Practice were more closely related to one another than Values and Public Image. The correlations among the three subscales revealed that they were generally interrelated but measured very different aspects of nursing views.

Analysis for Practice

For the Practice subscale, the factor analysis revealed that two items did not fit as well as others. These included Question 3--Nurses with BSNs are better prepared to enter the nursing profession than nurses with associate degrees, and Question 11--Nurses have considerable autonomy. These items were deleted from the factor analysis and a Cronbach's alpha was run a second time with the remaining items. This resulted in an alpha of .74 for the Practice subscale.

Analysis for Values

The factor analysis disclosed three items that did not fit as well as the other questions. These included Question 2--Nursing care is as important as physical therapy, Question 6--I respect the profession of nursing as much as the profession of law, and Question 22--Nurses are very organized. Question 22 was just above the .32 cut point for factor analysis but the Cronbach's alpha analysis indicated inadequate reliability with the item included. Appendix E presents Table E1 that demonstrates how the alpha jumps significantly with Question 22 deleted. The final Values subscale had an alpha of .72.

Analysis for Public Image

Following factor analysis, the Public Image subscale only contained one question that did not fit as well as the others. This was Question 1--Patients select a hospital based on nursing care. The Public Image alpha was calculated for the 12 remaining questions and yielded an exceptional alpha of .92

Research Questions

This study utilized analysis of variance (ANOVA) statistical techniques to evaluate whether there were mean differences observed among the three types of groups--ADN students, BSN students, and RNs. The research questions addressed those differences with respect to demographic factors (Research Question 1) and the perception of the profession of nursing among the groups (Research Question 2). In addition, analysis of covariance (ANCOVA) was used to determine whether mean differences observed among the samples provided enough evidence to conclude there were differences in the perception of the nursing profession among the three groups when controlling for demographics (Research Question 3).

The demographic factors gender and race were not examined (per results above) because the sample was over 90% female and Caucasian. Age, experience, and education were measured as continuous variables and ANOVA was utilized to compare the means for the three groups. Then, for position (nominal measurement), the frequency counts for the three groups for the different positions were compared via chi-square.

Research Question 1 Analysis

To what extent do differences with respect to the demographic factors exist among the following: (a) first-semester associate degree nursing students, (b) first-semester baccalaureate degree nursing students, and (c) registered nurses?

The age of the participants ranged from 18 to 67 years. The average age for the ADN student was reflective of the non-traditional student (27.8 years), while the mean age of the BSN student was indicative of a traditional college age student (21.9 years). The BSN students would be younger but they were required to finish 2 years of prerequisite courses before they could apply to the nursing program. The mean age for the RNs in this study was 43.1 years, a close approximation to the average age of RNs (43.7 years) in the U.S. (Buerhaus et al., 2008). Age was significantly different for all three groups.

Experience was also significantly different for the three groups examined. Further examination revealed that although the ADN students had more experience in healthcare (4 years) than the BSN students (.92 years), they were not different from each other but both student groups were significantly different from the RNs, who had more experience (17.9 years) than the other two groups.

In addition to age and experience, the level of education for the three groups was significantly different. The ADN students reported slightly more education than the BSN students but were not different from each other. However, both student groups were significantly different from the RNs, who had a higher level of education.

It is interesting to note that the only significant difference in this study among the ADN and BSN students was age. They were similar in their experience in healthcare and education level (ADN students were slightly higher in both). Both groups plan to complete a nursing education program within a 2-year period of time (BSN students already completed 2 years of prerequisite coursework), graduate, and take the same NCLEX-RN exam to obtain a license to practice as a RN. The difference among the two student groups is that the (older) ADN graduate is regarded as a bedside nurse with a

defined technical scope of practice while the (younger) BSN graduate is considered ready to enter professional nursing practice (ANA, 2009). Many regard this division in education preparation a factor that leads to confusion in the public about the profession of nursing. In addition, the requirement for ADN and BSN graduates to take the same licensure exam, yet assume different roles, promotes disharmony within the profession.

Research Question 2 Analysis

To what extent do differences in the perception of the profession of nursing (Practice, Values, and Public Image) exist among the following: (a) first-semester associate degree nursing students, (b) first-semester baccalaureate degree nursing students, and (c) registered nurses?

The primary purpose of this study was to determine whether the mean differences observed for the three subscales of the PPNT (Sand-Jecklin & Schaffer, 2006) are statistically different among first-semester associate degree nursing students, first-semester bachelor degree nursing students, and registered nurses.

ANOVA revealed that practice was significantly different for the three groups. Scheffe's post hoc test revealed that there were significant differences in the perception of practice among the RNs and the ADN and BSN students in that RNs' scores on average were significantly higher than both the ADN and BSN students' scores. There were no significant differences in the perception of practice among the student groups.

The mean scores for practice ranged from 3.62-4.79 with the lowest score reported on Question 17 about patient complications being avoided when nurses do their job correctly. It is unrealistic to believe that a nursing student who has never practiced in a healthcare setting would understand the connection between good nursing practice and positive patient outcomes; however, the nurses did understand. The growing body of research on evidence-based practice (EBP) reassures nurses that their knowledge and

actions make a positive difference in patient outcomes. The highest mean score reported on the practice subscale pertained to how physician/nurse collaboration improved health outcomes for patients. This is reassuring as Larrabee et al. (2003) found that highly satisfied RNs reported collaboration with physicians; when students understand this concept, perhaps they too will experience greater satisfaction in their work environment after graduation.

ANOVA revealed no significant difference in values for the three groups. The search of literature revealed several studies that examined the importance of values in nursing (Buerhaus, Donelan, Norman, et al., 2005; Larson et al., 2003). McNeese and Crook (2003) found that stress and exhaustion occur when nurses experience conflict between their values and the work environment. Clearly, nurses' values play an important role in the choice to pursue a nursing career and then later to remain in the profession. In this study, both student groups and registered nurses scored high on the subscale of Values. This is logical as students would certainly value the profession of nursing if they chose to pursue it as a career. The RNs would also understand the value of the profession as they see the firsthand effects of the important work nurses perform. With the mean scores very high for the survey questions on Values (4.60-4.94), it is likely that a ceiling effect (restriction of range) occurred. Because the responses across the three groups on the values scale did not have sufficient variability, this particular tenet, as formulated on the PPNT (Sand-Jecklin & Schaffer, 2006), is not capable of discerning whether there might be group differences. This clearly suggests the need for more work on this particular nursing values subscale, to develop a new or revised instrument with better psychometric properties.

Attention to specific items on the Values scale is instructive. It is interesting to

note that the lowest mean score (4.60) occurred on the Question 26, which asked if nurses were intelligent and creative. In a previous study, Huffstutler et al. (1998) asked students, professionals, and other individuals who were not in the field of nursing about their perceptions of the profession. They responded that caring was the most important requirement for becoming a nurse; other characteristics they listed included sincere, hardworking, attentive, honest, empathetic, decisive, and concerned. Missing from the list was that a nurse should be intelligent and creative. Andersson (1993) received a similar response from students who described a professional nurse as good, friendly, kind, warm, and patient. Again, there was no mention of nurses being intelligent or creative. Thus the current research confirms this previous work but in a more direct manner. Of all the different “values” on the Values subscale of the PPNT, the one on intelligence was rated the lowest. This is a concern as nurses routinely utilize critical-thinking skills to make potential life saving decisions and must think creatively to individualize care for each unique patient. Further, the lack of perception that nurses should be intelligent inevitably hurts the broader image of nursing compared to other professions.

ANOVA revealed that public image was not significantly different for the three groups. The Public Image mean scores ranged from 2.60-4.07 with Question 31 having the lowest score. This question asked if the public understood the complexity of nursing. The low scores to this question supports the assertion that Allen and Aldebron (2008) made about the public’s lack of awareness about the profession of nursing becoming increasingly sophisticated, specialized, and expansive in response to patients’ complex medical conditions as well as advances in medical terminology. In addition, a study by Brodie et al. (2004) found that beginning nursing students underestimated the depth of knowledge and responsibility of the nurses’ role. An unexpected finding in this study was

high mean score (4.08) response to Question 7, which asked if the public had a positive image of nursing. The responses contradicted previous research by Takese et al. (2001) and Takese et al. (2006) who found that nurses believed the public perceived them more negatively than how they viewed themselves and that the public believed nurses possessed low prestige. It is unfortunately noteworthy that these public perceptions are consistent with a profession where intelligence is not highly prized or widely perceived. Thus the results from this study for the Values subscale and the Public Image subscale can be seen as having similar implications, despite the differences in the meaning of the two tenets.

Research Question 3 Analysis

To what extent does organizational context (ADN, BSN program, and registered nurse) affect the perception of the profession of nursing (Practice, Values, and Public Image), when controlling for demographics?

Findings from ANCOVA indicated that the perception of Practice was significantly different among the groups. Based on confidence intervals, the BSN students' and RNs scores were significantly different but the ADN students' mean scores overlapped with both the BSN students and the RNs. Age remained a significant covariate for influencing the perception of practice. These findings support the assumption that the older the participant, the greater the understanding of professional practice.

After controlling for demographics, the perception of Values was not significantly different among the three groups. This finding is similar to the one by Martin et al. (2003) who found that senior nursing students in ADN programs did not differ significantly from BSN senior nursing students on the total scale of value orientation. Although Martin et al. did not survey RNs in their study, the student group's

findings were similar as those in this study. Another study by Leduc and Kotzer (2009) compared the values held by nursing students to new graduates and seasoned registered nurses. They too found no significant differences among the three groups in values.

Lastly, after controlling for demographics, the perception of Public Image was significantly different among the groups. The BSN students' scores were significantly higher than the RNs regarding the public image items, while the ADN students' mean scores overlapped with both the BSN students and RNs. Age continued to be a significant demographic influence on the perception of public image although its effect on public image was very small.

Findings from this study support previous research that indicate nurses believe their work is not well understood by the public (Huffstutler et al., 1998; Whitehead et al., 2007). Nurses also feel that the public perceives them more negatively than how they view themselves (Takese et al., 2002; Takese et al., 2006). Other studies revealed the discrepancy between nursing as a caring profession but one with low prestige (Hemsley-Brown & Foskett, 1999; Seago et al., 2006). These negative perceptions weaken a profession at a time when nurses are needed the most.

Implications

This research found that the first-semester ADN and BSN students began their education with comparable ideas regarding nursing practice, values, and public image. These students were more similar than different in every way examined with the exception of age. Building on this knowledge, nursing leaders and faculty should encourage both student groups to respect one another for the role they will fulfill in a dynamic healthcare system. There is a critical need for bedside or technical nurses as well as for professional nurses. During a shortage, nurses must band together and support one

another to solve the complex healthcare problems encountered today and in the future.

This study found significant differences in the perception of the profession of nursing in regards to practice among the RNs and the both the ADN and BSN students. This finding lends support to previous studies that suggested students enter nursing education with a limited notion of the profession of nursing (Spouse, 2000) and with preconceived ideas of the profession (Cook et al., 2003). It is important for students to receive relevant information about a professional career as a nurse before they begin an education program. Prospective students need to understand that nursing is a science and an art. While care is an essential part of nursing, the profession also utilizes an expanding base of scientific knowledge. This study supports the research of While and Blackman (1998) which suggested that students interested in a nursing career needed accurate information that provided a realistic view: both negative and positive aspects of the profession.

Sand-Jecklin and Schaffer (2006) also emphasized that schools of nursing must select and recruit students who have an accurate perception of the nursing profession so they will experience a higher level of satisfaction as a student and future nurse. It is especially important for students to feel they made the right decision to pursue a nursing career. Schools of nursing cannot afford to encounter attrition problems with their limited resources and few spaces available for applicants. A strategy for assessing student perceptions of the nursing profession includes meeting with the student several times before he or she applies to an education program to discuss the student's knowledge and views about the profession. Other strategies include requiring prospective students to participate in an application process that includes a written component and an interview session where the student is encouraged to write and express his/her views of the

profession.

Another excellent way to ensure students have an accurate view of the profession before they are admitted to a nursing program is to require a class that provides pertinent information about the nursing profession. This class should be taught by a nurse educator who is in touch with the realities of practice. Registered nurses representing various areas of practice should be invited to share personal accounts of the challenges and rewards of a nursing career. Course objectives should include an understanding of the profession as it relates to the ANA Code of Ethics, ANA Scope and Standards of Practice, the Nurse Practice Act, professional organizations, research, roles and responsibilities, and nurse stereotypes. A strategy for addressing nurse stereotypes might include a class discussion after viewing a clip depicting nurses on popular television shows such as ER, Scrubs, House, Mercy, or Gray's Anatomy.

Once students are admitted into a nursing education program, nurse educators must assist them in understanding the differences that exist between their perceptions and the reality of nursing practice (Andersson, 1993; Spouse, 2000). Strategies that may assist nurse educators in presenting a realistic view of nursing include sharing personal challenges and experiences encountered while in practice, inviting practicing nurses to speak to students about their work, incorporating case studies into curricula that require creative and critical-thinking, and incorporating discussion about the realities of practice into class time.

Recommendations

This study examined the perceptions of the profession of nursing among ADN and BSN students and RNs. Although the only significant findings for this study were related to Practice and Public Image, Values remain important to the future of the

profession. Several recommendations follow related to policy, practice, and future research.

Policy

For many years, nursing leaders have argued about the different levels of education preparation necessary for registered nurses. The existence of two separate education programs, one at the associate level and the other at the baccalaureate level causes confusion among potential nursing students and the public. To complicate matters further, there are licensed practical nurse (LPN) educational programs at vocational/technical schools. Registered nurses have several choices for advanced practice education (Master's degree) including nurse administrator, nurse practitioner (with specialty options), nurse educator, nurse anesthetist, nurse midwife, and others. In addition, RNs may choose to become certified in a number of specialty areas.

A major paradigm shift is required to end the confusion. This would involve change that would mandate only one level of education preparation for RNs governed (hypothetically) by the State Boards of Nursing. This would require LPN programs to transition into ADN programs. Graduates from ADN programs would have the new title Practical Nurse (PN) rather than RN after passing a national board exam for practical nurses. The education for the BSN student would remain the same. A graduate from a baccalaureate nursing program would retain the title of RN after successfully passing the national board exam for registered nurses. All nurses with advanced practice degrees would embrace the title advanced practice registered nurse (APRN) which has been recommended by National Council of State Boards of Nursing (2008). These changes would lead to fewer titles and promote a greater understanding of the nurses' role in healthcare.

Another policy change involves additional funding initiatives for nursing education. Staiger et al. (2000) found a declining interest in nursing driven by fundamental and permanent shifts in the labor market. They emphasized developing strategies that allow policymakers to strengthen both the current and future professional nursing workforce. Funding must focus on nurse recruitment that includes men and ethnic minorities in numbers that mirror the population. New strategies must raise awareness about the value of nurses in society. National campaigns to promote nursing as a career to high school students and college age students are needed to combat the nursing shortage.

Attempting to recruit large numbers of nursing students is futile unless funding initiatives for recruiting nurses into the faculty role are successful. To recruit practicing registered nurses into faculty roles, faculty salaries must compete with or surpass those of RNs in practice. In addition, schools of nursing administrators must ensure that new faculty receive tuition waivers and release time to complete doctoral programs. Finally, effective mentoring programs that pair senior faculty members with new faculty are essential to promote retention and job satisfaction.

Practice

Registered nurses in practice are the ideal recruiters for the next generation of nurses. They understand both the positive and negative aspects of the profession and sharing this with prospective nursing students is of the utmost importance. Job shadowing is an effective way for a person interested in nursing to see firsthand what is involved in nurses' work. Collaboration between the administrators at the high schools and healthcare organizations would make this possible. RNs who participate in recruiting and training students should receive a lower patient load and recognition for their contribution to the

profession.

Nurses should be encouraged to write about their work in magazines that reach a wide range of the population including adolescents. In addition to validating the important work they do, nurses would receive recognition from peers and society for sharing their experiences. Writing and publishing about nursing in an accurate manner would assist others in understanding the value of nursing and project a positive public image of the profession.

Future Research

Although there are numerous studies on RN job satisfaction and retention, there are limited studies that measure the RN's perception of the profession of nursing. The PPNT (Sand-Jecklin & Schaffer, 2006) measured a fraction of the information needed to understand the dynamics of a complex career. The psychometric testing and subsequent findings of the PPNT was suggestive of the need to revise some of the survey items. To the author's knowledge, there is no standard instrument used to measure the perception of nursing practice. A valid and reliable instrument would assist researchers in capturing an accurate view of the profession. Because of the uncertainties about the PPNT raised by this research, there is the need for revision of the PPNT as well as the development of new and more comprehensive instruments.

In a new instrument, there is a need for items in the scales that discriminate among individual nurses. The three subscales of the PPNT all had very high mean scores across the items that comprised them. This restriction of range means that the scale cannot distinguish different levels of the trait (everyone agrees with it).

Sand-Jecklin and Schaffer (2006) surveyed nursing students perceptions of the profession of nursing before their first nursing course and again 6 months later, after

completing clinical experiences. A prospective study that measured first-semester nursing students' perceptions of nursing at the beginning of their first course, and then measured their ideas after an entire program of study would explain how the education process affected student perceptions.

To what extent does the PPNT predict various outcomes related to nursing, such as turnover, job satisfaction, effectiveness in practicing, etc? Studies that utilize the PPNT or related scales as independent variables, rather than dependent measures are needed.

Before embarking on career path in education, most nursing faculty were employed as staff registered nurses. Some nurse educators continue to practice in healthcare settings from time to time, but most must discontinue employment outside of academia due to the long hours required for teaching, advisement, research, and service. Research is needed to examine nursing educator perceptions of professional nursing and compare them with those of RNs in practice. This would ensure that nursing faculty present an accurate view of the profession to students.

Researchers should examine and measure how nursing faculty model a positive image of the profession for students. Jinks and Bradley (2005) suggest a way to improve the public image is for faculty to review nursing history. Nursing history contains meaningful accounts of courageous role models who could be examined during class discussions. In addition, each nursing faculty member has unique qualities he or she contributes to the education of students. A study to examine faculty attitudes and behaviors that promote professionalism in students is needed.

Research must continue to address how the profession is impacted by inaccurate portrayals of nurses in media. In this study, the RNs and ADN students' perceptions were

similar; however, there were significant differences in the perceptions of public image among the BSN students and RNs in practice. How does this discrepancy impact the student? It is important to address this question as research has demonstrated that a negative perception of public image can lead to increased turnover or a desire to leave the profession (Takese et al., 2006). Research on the public image of nursing would assist leaders in government, healthcare organizations, and nurses to identify the additional work needed to improve the public image of nursing.

Finally, since the nursing profession is dominated by females of the Caucasian race, perhaps a research study to examine campaign strategies to attract males and minorities to the profession would assist with the nursing shortage. A qualitative study that investigated why males and/or minorities choose nursing might assist in formulating campaigns to attract these groups to nursing.

Conclusions

The nursing shortage looms, with projections of the deficit expected to reach 500,000 RNs by 2025 (Donelan et al., 2008). Given the present state of the economy, it is unlikely that education programs will receive the extra funds necessary to expand programs to graduate the additional 30,000 nurses each year needed to resolve this problem (Allen & Aldebron, 2008). Even if the funding were available, the predicament of a lack of doctoral-prepared faculty who teach in schools of nursing remains (Larson, 2006).

To address the nursing shortage, nurses must become involved in recruiting the next generation of nurses. Hoke (2006) found that nurses influence students to seek a nursing career more than any other source. It is important for nurses to speak to prospective nurses about the work they do (Buresh & Gordon, 2006). This study found

that the perception of practice differed significantly among the RNs and the first-semester nursing students. A higher degree of student satisfaction in their choice of nursing and improved student attrition will only occur when students receive accurate information about the roles and responsibilities within the profession (Sand-Jecklin & Schaffer, 2006).

Nurse educators, nurse managers, and RNs in practice must collaborate to present a realistic view of nursing during the education process. The gap between education and practice must be closed so that new nurses understand what the employer requires and reality shock is avoided (Hallin & Danielson, 2007; Kapborg & Fischbein, 1998). The practice of incorporating registered nurses into class time for presentations and discussion would serve to improve the collaboration between education and practice.

In addition to recruiting students suited for the profession of nursing, efforts must continue to transform the work environment of RNs so they experience greater job satisfaction and fewer turnovers. Research studies show certain work environments/factors that contribute to RNs' job satisfaction include appropriate workload, support from supervisors (Buerhaus, Donelan, Ulrich, Kirby et al., 2005; McNeese-Smith, 1999), social support from colleagues (e.g., Daiski, 2004; Garrett & McDaniel, 2001), flexible work schedules (Ingersol et al., 2002), shared governance (Ellenbacker et al., 2007), and rewards with promotional opportunities (Kovner et al., 2006). Healthcare organizations should adopt these practices and evaluate their effectiveness on nurse retention.

It is reassuring that this study did not find significant differences for values in the students or nurses' perceptions of nursing. It is easy to understand why values might be similar in students seeking a nursing career and RNs; both groups value the profession

highly. It is important for nursing faculty to continue to instill high standards and values into nursing students through frequent classroom discussions of their importance. Nurse managers are also encouraged to share journals and other publications with practicing nurses that promote professional values and ethics.

The image of nurses is portrayed in the media as less than professional. There is a need for campaigns at the national level to improve the public image of nursing, similar to Johnson & Johnson's Campaign for Nursing's Future in 2001 (Buerhaus, Donelan, Norman et al., 2005). In addition, professional nursing organizations need to ask members to protest programs that consistently depict the nurse in a nonprofessional manner. If 2.5 million RNs expressed their dissatisfaction, perhaps these programs would make changes to promote a positive image of nursing.

Finally, to improve the perceptions of the profession of nursing, each RN must assume personal responsibility for his/her professional image and strive for excellence that encourages professionalism in colleagues and inspires future nurses. The nursing profession is essential to the healthcare system and its members must address the issues that damage the perceptions of nursing while working to promote nursing as a unique and challenging career.

REFERENCES

- Allen, J. D., & Aldebron. J. (2008). A systematic assessment of strategies to address the nursing faculty shortage, U.S. *Nursing Outlook*, 56, 286-297.
- American Association of Colleges of Nursing. (1986). *Essentials of college and university education for professional nursing*. Washington, DC: Author.
- American Association of Colleges of Nursing. (2009). *Despite surge of interest in nursing careers, new AACN data confirm that too few nurses are entering the healthcare workforce*. Washington, DC: Author.
- American Hospital Association. (2007). *The 2007 state of America's hospitals--taking the pulse*. Retrieved July 7, 2009, from <http://www.aha.org/aha/content/2007/PowerPoint/StateofHospitalsChartPack2007.ppt>
- American Nurses Association. (2004). *Scope and standards of practice*. Retrieved June 14, 2009 from <http://www.nursingworld.org/MainMenuCategories/CertificationandAccreditation/AboutNursing.aspx>
- American Nurses Association. (2005). *Code of ethics for nurses with interpretive statements*. Retrieved March 26, 2009 from http://nursingworld.org/ethics/code/protected_nwcoe813.htm
- American Nurses Association. (2009). *About nursing*. Retrieved June 14, 2009 from <http://www.nursingworld.org/MainMenuCategories/CertificationandAccreditation/AboutNursing.aspx>
- Andersson, E. P. (1993). The perspective of student nurses and their perceptions of professional nursing during the nurse training programme. *Journal of Advanced Nursing*, 18, 808-815.
- Brodie, D. A., Andrews, G. J., Andrews, J. P., Thomas, G. B., Wong, J., & Rixon, L. (2004). Perceptions of nursing: Confirmation, change, and the student experience. *International Journal of Nursing Studies*, 41, 721-733.
- Buerhaus, P. I., Donelan, K., Norman, L., & Dittus, R. (2005). Nursing students' perceptions of a career in nursing and impact of a national campaign designed to attract people into the nursing profession. *Journal of Professional Nursing*, 21, 75-83.

- Buerhaus, P. I., Donelan, K., Ulrich, B. T., Kirby, L., Norman, L., & Dittus, R. (2005). Registered nurses' perceptions of nursing. *Nursing Economics, 23*, 110-143.
- Buerhaus, P., Donelan, K., Ulrich, B., Norman, L., Williams, M., & Dittus, R. (2005). Hospital RNs' and CNOs' perceptions of the impact of the nursing shortage on the quality of care. *Nursing Economics, 23*, 214-222.
- Buerhaus, P., Staiger, D., & Auerbach, D. (2008). *The future of the nursing workforce in the United States: Data, trends, and implications*. Boston: Jones and Bartlett.
- Buerhaus, P., & Staiger, D. (1999). Trouble in the nurse labor market? Recent trends and future outlook. *Health Affairs, 18*, 214-222.
- Bureau of Labor Statistics. (2008-2009). *Occupational outlook handbook, 2008-2009 edition*. Retrieved June 11, 2009 from www.bls.gov/oco/ocos083.htm#top
- Buresh, B., & Gordon, S. (2006). *From silence to voice: What nurses know and must communicate to the public* (2nd ed.). New York: Sage.
- Burns, N., & Grove, S. K. (2005). *The practice of nursing research conduct, critique, and utilization* (5th ed.). St. Louis: Saunders.
- Centers for Disease Control and Prevention. (2007). *The state of aging and health in America 2007*. Retrieved June 11, 2009 from http://www.cdc.gov/aging/pdf/saha_2007.pdf
- Christmas, K. (2008). How work environment impacts retention. *Nursing Economics, 26*, 316-318.
- Clarke, S. P., & Cheung, R. B. (2008). Where we stand and where we're headed. *Nursing Management, 39*, 22-27.
- Collins, K., Jones, M. L., McDonnell, A., Read, S., Jones, R., & Cameron, A. (2000). Do new roles contribute to job satisfaction and retention of staff in nursing and professions allied to medicine? *Journal of Nursing Management, 8*, 3-12.
- Cook, T. H., Gilmer, M. J., & Bess, C. J. (2003). Beginning students' definitions of nursing: An inductive framework of professional identity. *Journal of Nursing Education, 42*, 311-317.
- Costello, A. B. & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, & Evaluation, 10*(7), 1-9.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334

- Daiski, I. (2004). Changing nurses' dis-empowering relationship patterns. *Journal of Advanced Nursing*, 48, 43-50.
- Donelan, K., Buerhaus, P., DesRoches, C., Dittus, R., & Dutwin, D. (2008). Public perceptions of nursing careers: The influence of the media and nursing shortages. *Nursing Economics*, 26, 143-165.
- Duchscher, J. E., & Cowin, L. S. (2004). The experience of marginalization in new nursing graduates. *Nursing Outlook*, 52, 289-296.
- Eddy, D. M., Elfrink, V., Weis, D., & Schank, M. J. (1994). Importance of professional nursing values: A national study of baccalaureate programs. *Journal of Nursing Education*, 33, 257-262.
- Ellenbecker, C. H., Samia, L., Cushman, M. J., & Porell, F. W. (2007). Employer retention strategies and their effect on nurses' job satisfaction and intent to stay. *Home Health Care Services Quarterly*, 26, 43-58.
- Evans, M. (2008). Rejection noticed. *Modern Healthcare*, 38, 20.
- Fifield, M. L. (2008). Class care: Boston Welcome Back Center puts internationally educated nurses back to work. *New England Journal of Higher Education*, 22, 17-18.
- French, J. R. P., & Kahn, R. L. (1962). A programmatic approach to studying the industrial environment and mental health. *Journal of Social Issues*, 18, 1-47.
- Garbee, D. D., & Killacky, J. (2008). Factors influencing intent to stay in academia for nursing faculty in the southern United States of America. *International Journal of Nursing Education Scholarship*, 5, 1-15.
- Garrett, D. K., & McDaniel, A. M. (2001). A new look at nurse burnout. *Journal of Nursing Administration*, 31, 91-96.
- Gravetter, F. J., & Wallnau, L. B. (2004). *Statistics for the Behavioral Sciences* (6th ed.). Belmont, CA: Thomson.
- Hallin, K., & Danielson, E. (2007). Registered nurses' perceptions of their work and professional development. *Journal of Advanced Nursing*, 61, 62-70.
- Haloburdo, E. P., & Thompson, M. A. (2001). Perceptions of "nursing" and "nursing care" in the United States by Dutch nursing students. *Nursing and Health Care Perspectives*, 22, 130-135.
- Hart, S. E. (2005). Hospital ethical climates and registered nurses' turnover intentions. *Journal of Nursing Scholarship*, 37, 173-177.

- Harvey, V. C., & McMurray, N. E. (1997). Students' perceptions of nursing: Their relationship to attrition. *Journal of Nursing Education, 36*, 383-389.
- Health Resources and Services Administration: U.S. Department of Health and Human Services. (2004). *Findings from the 2004 national sample survey of registered nurses*. Retrieved June 13, 2009 from <ftp.hrsa.gov/bhpr/workforce/0306mss.pdf>
- Hemsley-Brown, J., & Foskett, N. H. (1999). Career desirability: Young people's perceptions of nursing as a career. *Journal of Advanced Nursing, 29*, 1342-1350.
- Hoke, J. L. (2006). Promoting nursing as a career choice. *Nursing Economics, 24*, 94-101.
- Huffstutler, S. Y., Stevenson, S. S., Mullins, I. L., Hackett, D. A., & Lambert, A. W. (1998). The public's image of nursing as described to baccalaureate prenursing students. *Journal of Professional Nursing, 14*, 7-13.
- Ingersoll, G. L., Olsan, T., Drew-Cates, J., DeVinney, B. C., & Davies, J. (2002). Nurses' job satisfaction, organizational commitment, and career intent. *Journal of Nursing Administration, 32*, 250-263.
- Janssen, P. M., de Jonge, J., & Bakker, A. B. (1999). Specific determinants of intrinsic work motivation, burnout and turnover intentions: A study among nurses. *Journal of Advanced Nursing, 29*, 1360-1369.
- Jinks, A. M., & Bradley, E. (2004). Angel, handmaiden, battleaxe or whore? A study which examines changes in newly recruited student nurses' attitudes to gender and nursing stereotypes. *Nurse Education Today, 24*, 121-127.
- Johnson, M., Haigh, C., & Yates-Bolton, N. (2007). Valuing of altruism and honesty in nursing students: A two-decade replication study. *Journal of Advanced Nursing, 57*, 366-374.
- Joint Commission on Accreditation of Health Care Organizations. (2002). *Health care at the crossroads: Strategies for addressing the evolving nursing crisis*. Retrieved June 13, 2009 from http://www.jointcommission.org/PublicPolicy/nurse_staffing.htm
- Jones, C. B. (1990). Staff nurse turnover costs: A conceptual model. Part 1. *Journal of Nursing Administration, 20*, 18-23.
- Kapborg, I. D., & Fischbein, S. (1998). Nurse education and professional work: Transition problems? *Nurse Education Today, 18*, 165-171.
- Kiger, A. M. (1993). Accord and discord in students' images of nursing. *Journal of Nursing Education, 32*, 309-317.

- Kovner, C., Brewer, C., Wu, Y. W., Cheng, Y., & Suzuki, M. (2006). Factors associated with work satisfaction of registered nurses. *Journal of Nursing Scholarship, 38*, 71-79.
- Larrabee, J. H., Janney, M. A., Ostrow, C. L., Withrow, M. L., Hobbs, G. R., & Burant, C. (2003). Predicting registered nurse job satisfaction and intent to leave. *Journal of Nursing Administration, 33*, 271-283.
- Larsen, P. D., McGill, J. S., & Palmer, S. J. (2003). Factors influencing career decisions: Perspectives of nursing students in three types of programs. *Journal of Nursing Education, 42*, 168-173.
- Larson, L. (2006). Who will teach the nurses we need? *H&HN: Hospitals & Health Networks, 80*, 8-12.
- Leduc, K., & Kotzer, A. M. (2009). Bridging the gap: A comparison of the professional nursing values of students, new graduates, and seasoned professionals. *Nursing Education Perspectives, 30*. 279-284.
- Little, P. S., & Miller, S. K. (2007). Hiring the best teachers? Rural values and person organization fit theory. *Journal of School Leadership, 17*, 118-158.
- Lynn, M. R., & Redman, R. W. (2005). Faces of the nursing shortage. *Journal of Nursing Administration, 35*, 264-270.
- Manninen, E. (1998). Changes in nursing students' perceptions of nursing as they progress through their education. *Journal of Advanced Nursing, 27*, 390-398.
- Martin, P., Yarbrough, S., & Alfred, D. (2003). Professional values held by baccalaureate and associate degree nursing students. *Journal of Nursing Scholarship, 35*, 291-296.
- McCarthy, G., Tyrrell, M. P., & Lehane, E. (2007). Intention to 'leave' or 'stay' in nursing. *Journal of Nursing Management, 15*, 248-255.
- McMillan, J. H., & Schumacher, S. (1997). *Research education: Conceptual approach*. (4th ed.). New Jersey: Celebration Press.
- McNeese-Smith, D. K., (1999). A content analysis of staff nurse descriptions of job satisfaction and dissatisfaction. *Journal of Advanced Nursing, 29*, 1332-1341.
- McNeese-Smith, D. K., & Crook, M. (2003). Nursing values and a changing nurse workforce. *Journal of Nursing Administration, 33*, 260-270.
- Mertler, C. A., & Vannatta, R. A. (2005). *Advanced and multivariate statistical methods* (3rd ed.). Glendale, CA: Pyrczak.

- Meyers, S. (2004). The nursing faculty shortage: Hospitals take action. *The Journal for Hospital Governing Boards*, 57, 24-27.
- National Council of State Boards of Nursing. (2008). *APRN Model Act/Rules and Regulations*. Retrieved November 15, 2009 from https://www.ncsbn.org/APRN_leg_language_approved_8_08.pdf
- National League for Nursing. (2006). *Nursing education research*. Retrieved July 27, 2009 from http://www.nln.org/research/slides/exec_summary.htm
- Nedd, N. (2006). Perceptions of empowerment and intent to stay. *Nursing Economics*, 24, 13-19.
- Nogueras, D. J. (2006). Occupational commitment, education, and experience as the predictor of intent to leave the nursing profession. *Nursing Economics*, 24, 86-93.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw Hill.
- Rocchiccioli, J. (1992). A study to develop an instrument to assess the perceptions of professional nursing. Unpublished doctoral dissertation. Virginia Commonwealth University, Richmond.
- Roth, P. L. (1994). Missing data: A conceptual review for applied psychologists. *Personnel Psychology*, 47, 537-560.
- Sand-Jecklin, K. E., & Schaffer, A. J. (2006). Nursing students' perceptions of their chosen profession. *Nursing Education Perspectives*, 27, 130-135.
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7, 147-177.
- Seago, J. A., Spetz, J., Alvarado, A., Keane, D., & Grumbach, K. (2006). The nursing shortage: Is it really about image? *Journal of Healthcare Management*, 51, 96-108.
- Satterly, F. (2004). *Where have all the nurses gone?* New York: Prometheus.
- Spouse, J. (2000). An impossible dream? Images of nursing held by pre-registration students and their effect on sustaining motivation to become nurses. *Journal of Advanced Nursing*, 32, 730-739.
- Staiger, D. O., Auerbach, D. I., & Buerhaus, P. I. (2000). Expanding career opportunities for women and the declining interest in nursing as a career. *Nursing Economics*, 18, 230-236.
- Stuenkel, D. L., Nguyen, S., & Cohen, J. (2007). Nurses' perceptions of their work

- environment. *Journal of Nursing Care Quality*, 22, 337-342.
- Summers, S., & Summers, H. J. (2009). *Saving lives: Why the media's portrayal of nurses puts us all at risk*. New York: Kaplan.
- Swiadek, J. W. (2009). The impact of healthcare issues on the future of the nursing profession: The resulting increased influence of community-based and public health nursing. *Nursing Forum*, 44, 19-24.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics* (3rd ed.). Cambridge, MA: Harper & Row.
- Takase, M., Kershaw, E., & Burt, L. (2001). Nurse-environment misfit and nursing practice. *Journal of Advanced Nursing*, 35, 819-826.
- Takase, M., Kershaw, E., & Burt, L. (2002). Does public image of nurses matter? *Journal of Professional Nursing*, 18, 196-205.
- Takese, M., Maude, P., & Manias, E. (2005). Nurses' job dissatisfaction and turnover intention: Methodological myths and an alternative approach. *Nursing and Health Sciences* 7, 209-217.
- Takese, M., Maude, P., & Manias, E. (2006). Impact of the perceived public image of nursing on nurses' work behavior. *Journal of Advanced Nursing*, 53, 333-343.
- Takese, M., Yamashita, N., & Oba, K. (2007). Nurses' leaving intentions: Antecedents and mediating factors. *Journal of Advanced Nursing*, 62, 295-306.
- Tourangeau, A. E., & Cranley, L. A. (2006). Nurse intention to remain employed: Understanding and strengthening determinants. *Journal of Advanced Nursing*, 55, 497-509.
- Verplanken, B. (2004). Value congruence and job satisfaction among nurses: A human relations perspective. *International Journal of Nursing Studies*, 41, 599-605.
- Weis, D., & Schank, M. J. (2000). An instrument to measure professional nursing values. *Journal of Nursing Scholarship*, 32, 201-204.
- While, A., & Blackman, C. (1998). Reflections on nursing as a career choice. *Journal of Nursing Management*, 6, 231-237.
- Whitehead, E., Mason, T., & Ellis, J. (2007). The future of nursing: Career choices in potential student nurses. *British Journal of Nursing*, 16, 491-496.
- Wilson, C. (2006). Why stay in nursing? *Nursing Management*, 12, 24-32.
- Wolf, G. (2008). Magnet recognition program: The next generation. *Journal of Nursing*

Administration, 38, 200-204.

APPENDIX A

THE PERCEPTIONS OF PROFESSIONAL NURSING TOOL (PPNT)

For IRB Approval Stamp

THE PERCEPTIONS OF PROFESSIONAL NURSING

Please read this Preamble carefully. The paragraph at the end signifies your agreement.

You are invited to participate in a research project by answering the attached survey about your perception of the profession of nursing. The study is being conducted by Dr. Stephen K. Miller and Sherry Lovan, cooperative doctoral student, Department of Leadership, Foundations and Human Resource Education at the University of Louisville and Western Kentucky University.

There are no known risks for your participation in this research study. The information collected may not benefit you directly. The information learned in this study may be helpful to others. The information you provide will assist others in understanding your unique view of the profession of nursing. Your completed survey will be stored in office 108E, Academic Complex at Western Kentucky University. The survey will take approximately 10-15 minutes to complete.

There is no compensation for participation.

While unlikely, individuals from the Department of Educational Administration, Leadership, and Research, the Institutional Review Board (IRB), the Human Subjects Protection Program Office (HSPPO), and other regulatory agencies may inspect these records. The data will be kept under lock and key. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed.

Taking part in this study is voluntary. By completing this survey you agree to take part in this research study. You do not have to answer any questions that make you uncomfortable. You may choose not to take part at all. If you decide to be in this study you may stop taking part at any time. If you decide not to be in this study or if you stop taking part at any time, you will not lose any benefits for which you may qualify.

If you have any questions, concerns, or complaints about the research study, you may contact the principal investigator, Dr. Stephen Miller, at (270) 745-4890.

If you have any questions about your rights as a research subject, you may call the Human Subjects Protection Program Office at (502) 852-5188. You can discuss any questions about your rights as a research subject, in private, with a member of the Institutional Review Board (IRB). You may also call this number if you have other

Preamble on Human Subjects

questions about the research, and you cannot reach the study doctor, or want to talk to someone else. The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this research study.

If you have concerns or complaints about the research or research staff and you do not wish to give your name, you may call 1-877-852-1167. This is a 24 hour hot line answered by people who do not work at the University of Louisville.

By completing the attached survey, you are voluntarily agreeing to participate in this research study.

Sincerely,

Dr. Stephen Miller
Principal Investigator
University of Louisville/Western Kentucky University
(270) 745-4890

Sherry Lovan
Co-Principal Investigator
Cooperative Doctoral Student
(270) 745-8769

The Perceptions of Professional Nursing Tool (PPNT)

Please circle one:

- ID: 1 Associate Degree Nursing Student
 2 Bachelor Degree Nursing Student
 3 Registered Nurse

Directions: Please use the following definitions to select the best response to the following statements. Please circle your choice.

- 1-If you STRONGLY DISAGREE (SD)
 2-If you DISAGREE (D)
 3-If you are UNDECIDED (U)
 4-If you AGREE (A)
 5-If you STRONGLY AGREE (SA)

	SD	D	U	A	SA
1. Patients select a hospital based on nursing care.	1	2	3	4	5
2. Nursing care is as important as physical therapy.	1	2	3	4	5
3. Nurses with bachelor's degrees (BSNs) are better prepared to enter the nursing profession than nurses with associate degrees.	1	2	3	4	5
4. Nurses work hard.	1	2	3	4	5
5. Nursing is a profession.	1	2	3	4	5
6. I respect the profession of nursing as much as the profession of law.	1	2	3	4	5
7. The public has a positive image of nursing.	1	2	3	4	5
8. Nursing is very complex.	1	2	3	4	5
9. Nursing is a rapidly changing profession.	1	2	3	4	5
10. Teaching health promotion and disease prevention in the community is as much a nursing responsibility as are other nursing roles in patient care.	1	2	3	4	5
11. Nurses have considerable autonomy.	1	2	3	4	5

(Please continue to next page.)

Directions: Please use the following definitions to select the best response to the following statements. Please circle your choice.

1-If you STRONGLY DISAGREE (SD)

2-If you DISAGREE (D)

3-If you are UNDECIDED (U)

4-If you AGREE (A)

5-If you STRONGLY AGREE (SA)

	SD	D	U	A	SA
12. Nurses are directly responsible for positive outcomes in their patients' health (e.g., prevention of secondary infections, fewer complications).	1	2	3	4	5
13. Nurses should question medical orders that they judge to be possibly incorrect.	1	2	3	4	5
14. Nurses need to learn skills that overlap with other healthcare staff skills (e.g., respiratory therapy, physical therapy, social work, etc.).	1	2	3	4	5
15. Optimum nursing care requires regular patient assessment.	1	2	3	4	5
16. Patient education is an important part of nursing practice.	1	2	3	4	5
17. Most patient complications are avoided when nurses do their jobs correctly.	1	2	3	4	5
18. Nurses improve the quality of patient care by planning the care specific to each patient and carrying out the identified plan.	1	2	3	4	5
19. Physician/nurse collaboration improves health outcomes for patients.	1	2	3	4	5
20. Nurses make key decisions regarding their patients' care.	1	2	3	4	5
21. If possible, nurses should care for the same patients every day.	1	2	3	4	5
22. Nurses are very organized.	1	2	3	4	5
23. The nurse is an important member of the health care team.	1	2	3	4	5
24. Nursing is diverse and offers many different career possibilities.	1	2	3	4	5
25. Nursing is challenging and rewarding.	1	2	3	4	5

(Please continue to next page.)

Directions: Please use the following definitions to select the best response to the following statements. Please circle your choice.

1-If you STRONGLY DISAGREE (SD)

2-If you DISAGREE (D)

3-If you are UNDECIDED (U)

4-If you AGREE (A)

5-If you STRONGLY AGREE (SA)

	SD	D	U	A	SA
26. Nurses are intelligent and creative.	1	2	3	4	5
27. The public considers nursing care to be as valuable as physical therapy.	1	2	3	4	5
28. The public believes that nurses work hard.	1	2	3	4	5
29. The public thinks of nurses as professionals.	1	2	3	4	5
30. The public respects the profession of nursing as much as the profession of law.	1	2	3	4	5
31. The public understands the complexity of nursing.	1	2	3	4	5
32. The public perceives nursing as a rapidly changing profession.	1	2	3	4	5
33. The public believes nurses are organized.	1	2	3	4	5
34. The public believes the nurse to be an important member of the healthcare team.	1	2	3	4	5
35. The public perceives nursing to be a diverse profession that contains many different career possibilities.	1	2	3	4	5
36. The public sees nursing as a challenging and rewarding healthcare career.	1	2	3	4	5
37. The public values the intelligence and creativity of nurses.	1	2	3	4	5

Demographic Information

38. What is your present age? ____ Years of age

39. What is your gender?

a. Female

b. Male

(Please continue to next page.)

40. Do you consider yourself...?

- a. Asian
- b. Black or African-American
- c. White
- d. Spanish/Hispanic/Latino
- e. Other (Please specify): _____

41. How many years of experience do you have working in healthcare?
(Round to the nearest year.)

____ Years of experience

42. If you are currently employed in the health care system, what is your position?

- a. Not employed
- b. Certified Nursing Assistant (CNA)
- c. Certified Medical Assistant (CMA)
- d. Licensed Practical Nurse (LPN)
- e. Registered Nurse (RN)
- f. Other (Please specify): _____

43. What is the highest degree you've earned?

- a. High School Graduate
- b. Technical School (LPN)
- c. Associate degree
- d. Diploma graduate
- e. Bachelor degree
- f. Master degree
- g. Doctoral degree

Thank you for participating in this study.

This study has been reviewed and approved by the WKU Human Subjects Institutional Review Board and the U of L Human Subjects Protection Program Office for human subject participation. If you have any questions about the study please contact Steve Miller by telephone at 270-745-4890. If you have questions about your rights as a participant please contact the Human Subjects Protection Program Office at 502-852-5188.

APPENDIX B

OPERATIONAL DEFINITIONS OF VARIABLES

OPERATIONAL DEFINITIONS OF VARIABLES

Introduction

The variables listed in this appendix are organized according to Figure 1. The two types of Independent Variables--Demographic Controls and Organizational Environment --are followed by the Dependent Variables. For each variable, the operational definition (including scale items if applicable), variable label code, and level of measurement are given, along with a cross-listing to the survey question (SQ) on which that construct appears in the PPNT (Sand-Jecklin and Schaffer, 2006) that subjects receive (Appendix A). All data are self-reported by participants.

Independent Variables

Demographic Controls

The Demographic Controls are represented by the six Demographic Factors in Figure 1.

Age (AGE).

Ratio scale based on self-reported age in years, from SQ 38.

Gender (GEN).

Nominal level, coded 0 = male, 1 = female, from SQ 39.

Race/Ethnicity (RACE).

Nominal level, from SQ 40, coded:

- 1 = Asian
- 2 = Black or African-American
- 3 = White

- 4 = Spanish/Hispanic/Latino
- 5 = Other

Healthcare Experience (HE).

Ratio scale based on self-reported experience working in healthcare in years, from SQ 41.

Healthcare Position (HP).

Nominal level, from SQ 42, coded:

- 1 = Not employed
- 2 = Certified Nursing Assistant (CNA)
- 3 = Certified Medical Assistant (CMA)
- 4 = Licensed Practical Nurse (LPN)
- 5 = Registered Nurse (RN)
- 6 = Other

Education (EDUC).

Interval scale based on self report. Although the intervals are not perfectly equal, they are so close that they do not preclude the interval ranking. Respondents circle highest level obtained, from SQ 43, coded:

- 1 = High School Graduate
- 2 = Technical School (LPN)
- 3 = Associate degree
- 4 = Bachelor's degree
- 5 = Master's degree

Organizational Environment

Context

ID: Dummy coded nominal variable. Registered nurse is the referent category, coded:

- 1 = Associate degree nursing student
- 2 = Bachelor degree nursing student
- 3 = Registered Nurse

Dependent Variable--Nursing Perceptions

Nursing Perceptions will be assessed using the PPNT, developed by Sand-Jecklin

& Schaffer (2006). This tool measures the perceptions of nursing based on three subscales: Practice, Values, and Public Image.

Practice Subscale

The Practice subscale refers to how individuals perceive the role of the nurse in the healthcare setting. The PPNT (Sand-Jecklin & Schaffer, 2006) explores perceptions regarding the different levels of education (ADN or BSN), the importance of teaching health promotion and disease prevention, autonomy, competence, accountability, and physician/nurse collaboration.

Practice Subscale Items--Interval five item scale with 5-point Likert response (5 = Strongly Agree):

SQ3: Nurses with bachelors degrees (BSNs) are better prepared to enter the nursing profession than nurses with associate degrees.

SQ10: Teaching health promotion and disease prevention in the community is as much a nursing responsibility as are other nursing roles in patient care.

SQ11: Nurses have considerable autonomy in their practice.

SQ12: Nurses are directly responsible for positive outcomes in their patients' health (e.g., prevention of secondary infections, fewer post-surgical complications, shorter hospital stays, etc.).

SQ13: Nurses should question medical orders that they judge to be possibly incorrect.

SQ14: Nurses need to learn skills that overlap with other healthcare staff skills (e.g., respiratory therapy, physical therapy, social work, etc.).

SQ15: Optimum nursing care requires regular patient assessment.

SQ16: Patient education is an important part of nursing practice.

SQ17: Most patient complications are avoided when nurses do their jobs correctly.

SQ18: Nurses improve the quality of patient care by planning the care specific to each patient and carrying out the identified plan.

SQ19: Physician/nurse collaboration improves health outcomes for patients.

SQ20: Nurses make key decisions regarding their patients' care.

SQ21: If possible, nurses should care for the same patients every day.

Values Subscale

The Values subscale explores how participants view nursing as a profession. The survey contains questions that inquire about the importance of nursing, the characteristics of nurses, and their opinion of the profession as a whole.

Valuing Subscale Items--Interval five item scale with 5-point Likert response (5 = Strongly Agree):

SQ2: Nursing care is as important as physical therapy.

SQ4: Nurses work hard.

SQ5: Nursing is a profession.

SQ6: I respect the profession of nursing as much as the profession of law.

SQ8: Nursing is very complex.

SQ9: Nursing is a rapidly changing profession.

SQ22: Nurses are very organized.

SQ23: The nurse is an important member of the health care team.

SQ24: Nursing is diverse and offers many different career possibilities.

SQ25: Nursing is challenging and rewarding.

SQ26: Nurses are intelligent and creative.

Public Image Subscale

The Public Valuing subscale asks participants how they feel the public views nursing. The questions explore aspects of the profession that include whether the public consider nurses to be professional, valuable, hard workers, intelligent, and other

descriptors.

Public Image Subscale Items--Interval five item scale with 5-point Likert response (5 = Strongly Agree):

SQ1: Patients select a hospital based on nursing care.

SQ7: The public has a positive image of nursing.

SQ27: The public considers nursing care to be as valuable as physical therapy.

SQ28: The public believes that nurses work hard.

SQ29: The public thinks of nurses as professionals.

SQ30: The public respects the profession of nursing as much as the profession of law.

SQ31: The public understands the complexity of nursing.

SQ32: The public perceives nursing as a rapidly changing profession.

SQ33: The public believes nurses are organized.

SQ34: The public believes the nurse to be an important member of the healthcare team.

SQ35: The public perceives nursing to be a diverse profession that contains many different career possibilities.

SQ36: The public sees nursing as a challenging and rewarding healthcare career.

SQ37: The public values the intelligence and creativity of nurses.

APPENDIX C

LETTERS OF APPROVAL FROM
INSTITUTIONAL REVIEW BOARDS:
UNIVERSITY OF LOUISVILLE
WESTERN KENTUCKY UNIVERSITY
THE MEDICAL CENTER OF BOWLING GREEN



INSTITUTIONAL REVIEW BOARDS

University of Louisville
MedCenter One, Suite 200
501 E. Broadway
Louisville, Kentucky 40202-1798

Office: 502-852-5188
Fax: 502-852-2164

To: Miller, Stephen
From: The University of Louisville Institutional Review Board (IRB)
Date: Tuesday, August 11, 2009
Subject: IRB Correspondence

Tracking #: 09 0381
Title: COMPARING PERCEPTIONS OF THE NURSING PROFESSION
AMONG ASSOCIATE AND BACCALAUREATE NURSING
STUDENTS AND REGISTERED NURSES

This study was reviewed on 8/7/2009 and determined by the chair of the Institutional Review Board that the study is exempt according to 45 CFR 46.101(b) under exempt category (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.. The study is exempt only if information that could identify subjects is not recorded.

Since this study has been found to be exempt, no additional reporting, such as submission of Progress Reports for continuation reviews, is needed. If your research focus or activities change, please submit a Study Amendment Request Form to the IRB for review to ensure that the study still meets exempt status. Best wishes for a successful study. Please send all inquires and electronic revised/requested items to our office email address at hsppofc:louisville.edu.

Patricia K. Leitsch

Board Designee: Leitsch, Patricia

Letter Sent By: Perkins, Erin, 8/11/2009 7:47 AM

*Full Accreditation since June 2005 by the Association for the Accreditation of
Human Research Protection Programs, Inc.*





A LEADING AMERICAN UNIVERSITY WITH INTERNATIONAL REACH
HUMAN SUBJECTS REVIEW BOARD

In future correspondence, please refer to HS10-012, August 4, 2009

Sherry Lovan
c/o Dr. Stephen Miller
Nursing
WKU

Sherry Lovan:

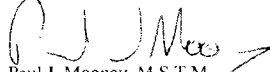
Your revision to the research project, *Comparing Perceptions of the Nursing Profession Among Associate and Baccalaureate Nursing Students and Registered Nurses*, was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

1. In addition, the IRB found that you need to orient participants as follows: (1) signed informed consent is not required; (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

This project is therefore approved at the Expedited Review Level until May 15, 2010.

2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future to determine the status of the project. Also, please use the stamped approval forms to assure participants of compliance with The Office of Human Research Protections regulations.

Sincerely,


 Paul J. Mooney, M.S.T.M.
 Compliance Coordinator
 Office of Sponsored Programs
 Western Kentucky University



HSRB # 10-012
 APPROVED 8/4/09 5:15 PM
 EXEMPT EXPEDITED FULL REVIEW
 DATE APPROVED 8/4/09

cc: HS file number Lovan HS10-012



Conie D. Smith
DIRECTOR, INSTITUTIONAL REVIEW BOARD

September 4, 2009

Sherry Lovan, MSN, RN
Stephen Miller, Ph.D.
1311 Lakemere Avenue
Bowling Green, KY 42103

RE: Comparing Perceptions of the Nursing Profession Among Associate and Baccalaureate Nursing Students and Registered Nurses (Protocol & Informed Consent Version Date: 07/27/09)

Dear Ms. Lovan and Dr. Miller:

An expedited review on the item noted above was conducted by The Medical Center IRB #1 on September 3, 2009. The Board acknowledged the item mentioned above. The Institutional Review Board is duly formed and constituted in accordance with FDA regulations and has approved Sherry Lovan, MSN, RN, and Stephen Miller, Ph.D., as the investigators in the study(ies) mentioned above.

You are required to notify the IRB of any changes of Investigator or site location, serious adverse events, amendments or changes in the protocol, significant protocol deviations, patient death, or termination of the study. The Medical Center IRB #1 is in compliance with the regulations of the Food and Drug Administration as described in 21 CFR parts 50 and 56, as well as the International Conference of Harmonization (ICH) Good Clinical Practice (GCP) guidelines for IRBs.

Please note that The Medical Center IRB #1 will conduct its annual review of all protocols in November of each year. If studies are expected to last beyond that date, you must request re-approval at the November meeting.

Sincerely,

Melinda Joyce, Pharm.D., Chair
The Medical Center IRB #1

MJ/ckj

Southern and Kentucky's Regional Medical Center
250 Paul Street • P.O. Box 9800 • Bowling Green, KY 42102-0800 • (270) 785-1000
www.TheMedicalCenter.org
A COMMITMENT TO HEALTH AND HUMANITY

APPENDIX D

PERMISSION TO USE PPNT

Hi Sherry,

Attached is a copy of the instrument as well as a copy with the subscales identified. This email also confirms my granting you permission to use the instrument. Good luck with your study. If you have questions, please let me know.

Kari

>>> "Sherry Lovan" <sherry.lovan@wku.edu> 2/20/2008 5:16 PM >>>

Hello,

I am investigating the use of the PPNT instrument in my study (dissertation) and wondered if you would direct me to the tool? I would like to build on your research study: Nursing Students' Perceptions of their Chosen Profession. As a novice nursing faculty member, I am deeply concerned about the expectations of students entering nursing programs as compared to what they experience in practice.

Thank you,

Sherry Lovan

APPENDIX E

INTERNAL RELIABILITY AND ITEM CHARACTERISTICS VALUES SCALE

ITEMS WITH QUESTION 22

Table E1

Internal Reliability and Item Characteristics for Values Scale Items With Question 22

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum	Range	$\alpha - d^a$
Q4	4.91	.36	1	5	4.0	.68
Q5	4.93	.24	4	5	1.0	.71
Q8	4.81	.47	2	5	3.0	.68
Q9	4.77	.53	2	5	3.0	.71
Q22	4.08	.76	2	5	3.0	.70
Q23	4.92	.29	3	5	2.0	.67
Q24	4.87	.33	4	5	1.0	.70
Q25	4.60	.52	3	5	2.0	.69
Composite ^b	4.75	.16	4.08	4.94	0.86	.68

Note. Wording for scale items is in Appendix B.

^a $\alpha - d$ = alpha with item deleted.

^bValue for $\alpha - d$ for composite is Cronbach's alpha for the scale.

Table E1 presents the Cronbach's alpha for the Values subscale based on the Factor analysis for that scale. Although Question 22 was marginally above the .32 cut point, further analysis revealed inadequate reliability with the item included. Table E1 shows that the alpha level increases to an acceptable level with Question 22 deleted. The alpha for the Values subscale was .72 with Question 22 eliminated (Table 7).

CURRICULUM VITAE

Sherry R. Lovan

Experience

July 2005-Present Position

Assistant Professor

Western Kentucky University

School of Nursing (BSN Program)

1906 College Heights Blvd. #11036, Bowling Green, KY 42101

Areas of instruction: Community Health Nursing (Course Coordinator),
Pediatric Nursing, Maternal-Child Nursing, Psychiatric-Mental Health
Nursing and Physical Assessment

2004-2005 Instructor

Western Kentucky University

Bowling Green, KY

BSN Program

Area of specialty: Maternal-Child Nursing

Other areas of instruction: Psychiatric-Mental Health Nursing, Pediatric
Nursing, Community Health Nursing and Physical Assessment

2000-2004 Clinical Instructor

Western Kentucky University

Bowling Green, KY

ADN Program

Area of specialty: Maternal-Child Nursing

1988-1996 Director of Education, Charge nurse, Staff nurse

Greenview Regional Hospital, Bowling Green, KY

1987-1988 Registered Nurse
Urgentcare Bowling Green, KY

1985-1987 Registered Nurse
The Medical Center Bowling Green, KY
Areas of experience included orthopedics, nursery/NICU and emergency room

Education

2005-2009 Cooperative Doctoral (Ph.D.) Program-Organizational Leadership

University of Louisville/Western Kentucky University
Dissertation: Comparing Perceptions of the Nursing Profession Among Associate and Baccalaureate Nursing Students and Registered Nurses
Successfully defended November 16, 2009

2001-2004 Western Kentucky University Bowling Green, KY
Master of Science in Nursing (Nurse Educator)

1982-1986 Western Kentucky University Bowling Green, KY
Bachelor of Science in Nursing
Associate of Science in Nursing

National Conferences Attended:

2003 National Conference for Nurse Educators: Assessing Program Outcomes
Indiana University, Indianapolis

2004 18th Annual Conference of the Southern Nursing Research Society:
International Nursing Research; Louisville, Kentucky

2005 30th Annual Nursing Workshop: Creative Teaching for Nursing
Educators; Memphis, Tennessee

2007 Sigma Theta Tau Honor Society of Nursing Chapter Leader Academy;
Indianapolis, Indiana

2008 American Association of Colleges of Nursing (AACN) Faculty
Development Conference; Nashville, Tennessee

Conventions Attended:

2006 Annual Convention: Kentucky Public Health Association,

Louisville, Kentucky

2007 Annual Convention: Kentucky Public Health Association,
Louisville, Kentucky

2008 Annual Convention: Kentucky Public Health Association,
Louisville, Kentucky

Faculty Development Activities:

Continuing Education Program, Strategies for Handling Workplace Conflicts, WKU School of Nursing, Greenview Regional Hospital and South Central AHEC, Bowling Green, KY, 7.8 credit hours (May 8, 2009).

Continuing Education Program, ANCC Magnet Designation: What is it?, South Central KY AHEC, Kentucky Nurses Association 7th district, Bowling Green, KY, 1.0 credit hour (February 17, 2009).

Continuing Education Program, Legal Challenges in Nursing Education, South Central KY AHEC and WKU School of Nursing, 5.1 credit hours (January 23, 2009).

Continuing Education Program, 11th Annual Research Day, Sigma Theta Tau, Kappa Theta, 3.6 credit hours (November 13, 2008).

Conference Attendance, 2nd Annual Regional Conference: Work Place Practices, KY Lakes Chapter AAOHN/ AHEC, Bowling Green, KY, 6.9 credit hours (September 26, 2008).

Self-Study Program, Basic/Refresher Course-Human Subjects Research Curriculum, CITI Collaborative Institutional Training Initiative (July 27, 2009).

Self-Study Program, Responsible Conduct of Research Curriculum, CITI Collaborative Institutional Training Initiative (June 19, 2008).

Continuing Education Program, What's That For? Pharmacology Update, WKU School of Nursing/AHEC, Bowling Green, KY, 3.0 credit hours (May 23, 2008).

Continuing Education Program, Expanding Nursing Knowledge: 10th Anniversary Celebration, Sigma Theta Tau-Kappa Theta Chapter, Bowling Green, KY, 3.3 credit hours (Nov., 2007).

Workshop, Critical Thinking Workshop, WKU, Bowling Green, KY. (September 28, 2007).

Workshop, Methamphetamines: Impacting Healthcare, Communities and You!, Kentucky Nurses Association, Bowling Green, KY, 6.1 credit hours (September 21, 2007).

Workshop, Critical Thinking Workshop, WKU, Bowling Green, KY. (August 21, 2007).

Continuing Education Program, Emergency Preparedness Training, South Central KY AHEC, WKU Dept. of Nursing, Bowling Green, KY, 3.5 credit hours (May 2, 2007).

Professional Organizations

American Nurses Association/Kentucky Nurses Association (Current)

Association of Women's Health, Obstetric and Neonatal Nurses (2004-2005)

Kentucky Public Health Association (2005-Present)

National League for Nursing (2004-Present)

Sigma Theta Tau International (2003-Present)

- Elected secretary of local chapter, Kappa Theta (2005-2011)

Southern Nursing Research Society (2004-2005)

Committees

Continuing Education Committee (2004-Present) Appointed Chair (2007-Present)

University Senate Member at Large (Elected 2006-2008)

Professional Academic Liaisons (PALS) committee (2006-Present) Coordinator 2008-2009

Certificate Committee (2006-Present)

Prelicensure Committee (2004-2008)

Academic Standards Committee (2005-2006)

Curriculum Committee (2006-Present)

College Academic Complaint Committee (2004-2005)

Sigma Theta Tau Research Day Committee (2004, 2006)

Nursing Living History Tea Committee (2007)
Nursing CE Advisory Committee (2007-Present)

Service

Precepted MSN graduate student. (January -May 2009).
Participated in nurse applicant interviews (March, 2009).
Participate in Academic Transitions Program (ATP) 2-4 times a year since 2004
Volunteer mentor at Dishman-McGinnis Elementary School. Fall 2009-
Board member of the Dream Factory (2005-Present)
 Co-Coordinated 2006 Disney Dream and 2006 Christmas Party
American Heart Association Heart Walk participant (2004, 2005, 2006)
Volunteer, Hotel Inc. 12/2008-Distributed food, drinks, and blankets to the homeless in Bowling Green
Board member of the Research Council at The Medical Center of Bowling Green (2008)
Logan County Farm Bureau, Provided blood pressure and cholesterol screening during annual meeting (9/2007)

Awards/Honors/Presentations

Recipient: Faculty Scholarship Award (WKU)-October 2009 for Research Study on Nursing Student Empathy
Recipient: Sigma Theta Tau-Kappa Theta Chapter Research Grant Award-August 2009
Golden Key International Honour Society 2009 (WKU)
Golden Key International Honour Society 2008 (University of Louisville)
Recipient: Federal Traineeship Award (WKU) 2002-2003
Recipient: Clara and Abe Pushin Scholarship (WKU) 2003-2004
Recipient: Honorable Mention Poster Presentation at Sigma Theta Tau Research Day (Topic: The Effects of Soy on Women's Health) 2003

Presentations

State Poster Presentation: Recurring Professional Issues Impacting Nursing Education and Practice: Decades of Change and Challenges for the Future; October 27, 2005 Kentucky Nurses Association Convention, Frankfort, Ky.

Regional Poster Presentation: Recurring Professional Issues Impacting Nursing Education and Practice: Decades of Change and Challenges for the Future; November 18, 2005 Sigma Theta Tau Research Day

Local Presentation: Mentoring the Living and Learning Community of CHHS; presented to the administration and unit managers of Greenview Regional Hospital; the purpose of the presentation was to assist the hospital in preparing for implementation of a mentoring program with the LLC community; July 26, 2006

Local Presentation: Engaging the Spirit: Best Practices for Student Success; session titled: Community Education on Selected Health

Promotion/Disease Prevention Topics; Western Kentucky University; 8/2006

Publications

Lovan, S. R. (2009). Education is the Key to the Prevention of Lawnmower Accidents. *Kentucky Nurse*, 57(4), 9.

Lovan, S. M. (2007). Student quiz questions for Chapter 1 of Nies/McEwin (ed.). *Community/Public Health Nursing: Promoting the health of populations*. St. Louis: Saunders

Siegrist, B. E., Lovan, S. M., Garrett, D. M. (2006). Accent on Research KNA Convention 2005 Poster Session Abstracts; Recurring professional issues impacting nursing education and practice: Decades of change and challenges for the future. *Kentucky Nurse*, 54 (1).