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The University of Southern Mississippi

FACTORS INFLUENCING NURSE FACULTY'S JOB SATISFACTION AND INTENT TO STAY

by

Sally Pulver Ruel

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2009

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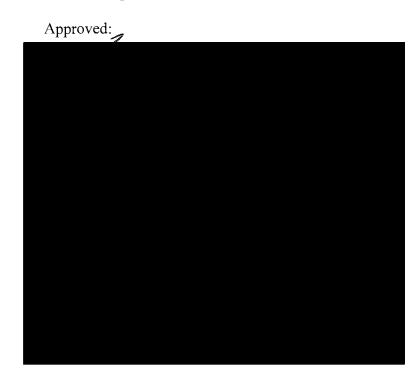
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ABSTRACT

FACTORS INFLUENCING NURSE FACULTY'S JOB SATISFACTION AND INTENT TO STAY

by Sally Pulver Ruel

May 2009

This study of nurse faculty examined the relationship of role conflict, role ambiguity, and work role balance, and their influence on job satisfaction and intent to stay in AACN nursing schools offering baccalaureate and higher degree programs within the United States. In light of the current nursing and nursing faculty shortage, this research was undertaken in an attempt to identify statistically significant predictors of job satisfaction and intent to stay in nursing education.

An online survey was conducted over seven weeks during the fall of 2008 and early spring 2009. A stratified random sample of each of the four regions within the AACN schools of nursing with 16 or more full-time faculty having baccalaureate and higher degree programs of study resulted in 22 nursing schools. The Role Questionnaire (Rizzo, House, & Lirtzman, 1970) was used to measure role conflict and role ambiguity and the Abridged Job Descriptive Index (Stanton, Sinar, Balzar, Julian, Thorenson, Aziz et al., 2001) and Abridged Job In General Scale (Stanton, Sinar, Balzar, & Smith, 2002) were used to measure job satisfaction. Researcher revised Work Role Balance was used to determine the faculty's perception of role balance. Demographic data were collected using a researcher developed survey. A researcher revision of Price's Intent to Stay Scale was used to measure faculty intent to stay at their current job and present university

(Garbee, 2006; Kosmoski & Calkin, 1986; Price & Mueller, 1981; Yoder, 1995). All instruments were combined into one survey.

There were a total of 243 responses from 923 potential participants for a response rate of 26%. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted job satisfaction ($R^2 = .393$, F (5,160) =20.74, p<.05) and intent to stay ($R^2 = .083$, F (5,161) =2.93, p<.05). Findings suggested nurse faculty perceived role conflict, role ambiguity and work role balance impacted their job satisfaction and intent to stay at their current institution. Pearson's correlation revealed significant moderately strong relationship existed between overall job satisfaction(r =.376, p<.05) and overall intent to stay.

In relationship to whether a significant difference existed between job satisfaction and intent to stay based on length of contract, years of service and rank, findings revealed no significant 3-way or 2-way interactions. However, the multivariate test indicated the main effect, rank, was significant for the dependent variable job satisfaction - Pillai's Trace = .07, F(6, 396) = 2.55, p = .02. Tukey HSD Post hoc comparisons for rank and job satisfaction were then performed to determine among which academic ranks the significant differences existed. Those holding the rank of Professor were the least satisfied, while the Assistant Professors indicated the highest level of job satisfaction.

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CHAPTER I

INTRODUCTION

The nursing shortage has created national concern regarding the future health and welfare of American citizens. Buerhaus, Straiger, & Auerbach (2000) suggested the nation will experience a 20% nursing shortage by the year 2020 or in excess of 400,000 Registered Nurses (RNs). The Health Resources and Services Administration (HRSA) projected the nursing shortage would expand from the present 30 to 44 states and the District of Columbia by the year 2020 (HRSA, 2002). It is projected that nearly 40,000 job openings for RN's every year through 2014 will be posted in the states located in the Southern Education Region Board (SREB) geographic area (SREB, 2007). Based upon these predictions, it is imperative to address the nursing shortage. Historically, when faced with a nursing shortage, the main solution has been to increase enrollment in nursing programs. However, that approach will not work for the present or the future, because of the concurrent national nursing faculty shortage.

While significant attention has been paid to the shortage of nurses who provide care to patients, there is an increasing concern about the impending shortage of nursing faculty. The shortage of nursing faculty has the potential to be far more problematic since without a significant number of faculty, the ability to meet the projected supply and demand of nurses is restricted. According to the SREB Council on Collegiate Education for Nursing, a reported 26,000 qualified applicants were denied admission to collegiate nursing programs in the region in 2006. The stated reason for turning away potential

nursing students was a lack of nursing faculty as well as available clinical sites (SREB, 2007).

This trend is mirrored in nursing schools across the United States. Nationwide, schools of nursing turned away 40,285 qualified applicants from baccalaureate and graduate nursing programs in 2007 (AACN, 2008a). Nearly three quarters of the respondents indicated the nursing faculty shortage as the primary reason for denying entrance into nursing schools. The other reasons cited by the American Association of Colleges of Nursing (AACN) report for not admitting qualified students were inadequate clinical sites, classroom space, clinical preceptors, and budget constraints (AACN, 2008a).

An earlier report (AACN, 2005) included the following reasons for the nursing faculty shortage: aging of the nurse faculty cadre, and increasing job competition luring nurse faculty to clinical positions with fewer demands than faculty positions. While interest in nursing as a career continues to flourish, the nurse faculty shortage hinders the enrollment of qualified applicants, further exacerbating the national crisis of the nursing shortage. The nurse faculty shortage must be addressed in order to solve the nursing shortage, since education precedes practice.

During a shortage of nurse faculty, attention needs to be paid to the issues associated with retention. In a recent survey, the most critical issues regarding recruitment and retention of nurse faculty were: limited pool of doctorally prepared faculty, noncompetitive salaries, lack of qualified applicants, locating faculty to match the specialty needs, excessive faculty workload, and finding individuals open to teaching

and research expectations (AACN, 2008b). Nurse faculty employed in institutions of higher education are expected to engage in the demands of the tripartite mission, which include the scholarship of teaching, research, and service.

Nursing faculty must excel in teaching, conduct meaningful research, and be involved in community service. Faculty members are challenged to meet the expectations of all three domains of scholarship, sometimes without a clear understanding of the level of importance attached to each. The lack of clarity can result in role ambiguity and role conflict. Role ambiguity, is defined as "the degree to which information is lacking on expectations, methods, and consequences of role performance" (Latack, 1981, p. 89) and role conflict is defined as "the perceived incongruence between role requirements placed on a focal person and his/her orientations, interests, and values" (Miles, 1976, p. 174).

Gormley (2005) found role ambiguity and role conflict were affected by the varying percentages of research, teaching and service. She described this phenomenon of the interplay between the tripartite mission, role conflict and ambiguity as work role balance. Without clarification of work role balance, faculty members have the potential to develop role strain (Gormley, 2005; Hinshaw, 2001; Mobily, 1991). Role strain is defined as feelings of distress one experiences, while role ambiguity occurs when role expectations are unclear, difficult, conflicting or seemingly impossible to accomplish (Hardy & Conway, 1978). Role ambiguity and role stress, when combined with job dissatisfaction have been found to be negative predictors of nurse faculty intent to stay (Disch, Edwardson, & Adwan, 2004; Gormley, 2003; Gormley, 2005).

Since the nursing faculty shortage negatively impacts the overall nursing shortage, exploring the factors that contribute to the attrition of nurse faculty may aid in solving both shortages. Nurse faculty's perception of role conflict, role ambiguity, and work role balance may be negatively correlated to job satisfaction and intent to stay. Therefore, this study of nurse faculty examined the relationship of role conflict, role ambiguity, and work role balance, and their influences on job satisfaction and intent to stay in AACN nursing schools offering baccalaureate and higher degree programs within the United States. Research that adds knowledge relative to nurse faculty job satisfaction and intent to stay is vital to solving the nursing shortage. By determining significant predicting factors of intent to stay, administrators in academia will be better equipped to develop sound faculty recruitment and retention strategies.

Problem Statement

As a result of the nursing shortage, an increase in nurse faculty stress has emerged as academic administrators succumb to pressure from the public to increase enrollment (Hinshaw, 2001). The increase in enrollment, while socially and politically sensitive, further complicates the clarification of work role balance as more emphasis is placed on teaching. Since there is a nursing faculty shortage, a tremendous need for retention of nurse faculty is of paramount importance. Retention may be influenced by role demand associated with the tripartite mission. For these reasons, it is imperative to identify the relationship between role ambiguity, role conflict, work role balance and job satisfaction and intent to stay.

Purpose

The purpose of this study was to determine if role conflict, role ambiguity, and role balance predict job satisfaction and intent to stay in nursing faculty selected from a stratified random sample of nursing schools representing each of the four AACN regions in the United States. The results of this study will provide administrators with data relative to retention of nurse faculty by determining factors affecting job satisfaction and intent to stay.

Conceptual Framework

The framework of this study was based primarily on Kahn, Wolfe, Quinn, Snoek and Rosenthal's *Theory of Role Dynamics* (1964) focusing on the key concepts of role conflict and role ambiguity. Kahn et al. studied the effects of the environment on the physical and mental well-being of the individual. In this theory, environment was defined as consisting of the groups to which the individual belonged within the formal organization. The individual plays a variety of roles within these groups and organizations. Specific characteristics of the organizations and expectations of the groups determine behaviors of the focal person (Kahn et al., 1964). For this study the *focal person* will be referred to as nurse faculty.

The major concepts of the *Theory of Role Dynamics* are *organization*, *office* and *role* (Kahn et al., 1964). *Organization* is defined as an open dynamic system; *office* is defined as a specific position in an organization in terms of structure with a defined set of activities; *role* is defined as the specific activities performed by individuals occupying the office exhibiting a set of defined behaviors. *Organization* is defined in this study as the school or college of nursing; *office* will be defined as the faculty's rank; and *role* will be

defined as the various expectations of teaching, research or service. These defined nurse faculty behaviors and roles may also vary depending on years of service and faculty rank.

Role conflict occurs when the various role senders have different role expectations for the employee or focal person. The *role sender* is defined as a manager, administrator or colleague who represents different levels of the chain of command within the *organization*. *Role expectations* refer to a set of expected behaviors.

Additionally, there may be pressure imposed on the individual or focal person toward different behavior expectations. Role ambiguity occurs when information required to perform job duties or role requirements is lacking or not effectively communicated from the role sender to the focal person (Kahn et al., 1964).

This theory can easily be applied to the role expectations of nurse faculty in the academic setting as required by the tripartite mission of colleges and universities.

Researchers have linked job satisfaction to role conflict and role ambiguity (e.g., Fain, 1985; Hardy & Conway, 1978). Job satisfaction has been reported as a predictor of intent to stay (e.g., Garbee, 2006; Garbee & Killacky, 2008; Sourdif, 2004). The Theory of Role Dynamics guided this study on factors influencing nurse faculty's perception of role conflict, role ambiguity, work role balance and job satisfaction and intent to stay.

Research Questions

- 1. Can perception of role conflict, role ambiguity and role balance statistically significantly predict nursing faculty's job satisfaction?
- 2. Can nurse faculty's perception of role conflict, role ambiguity, and role balance statistically significantly predict nurse faculty's intent to stay?

- 3. Is there a statistically significant relationship between job satisfaction and intent to stay among nursing faculty?
- 4. Is there a statistically significant difference between job satisfaction and intent to stay based on length of contract, years of service and rank?

Definition of Terms

For the purpose of this study, the conceptual and/or operational definitions are:

Baccalaureate and higher nursing schools refer to those institutions that have membership in the AACN and have programs at the baccalaureate and graduate level of education, excluding schools with only a baccalaureate nursing degree program.

Job Satisfaction is defined as "the feelings a worker has about his or her job experiences in relation to previous experiences, current expectations, or available alternatives" (Balzar et al., 2000, p. 7). Job satisfaction will be assessed using a score from the Abridged Job Descriptive Index (Stanton, Sinar, Balzar, Julian, Thorenson, Aziz et al., 2001) and the Abridged Job In General Scale (Stanton, Sinar, Balzar, & Smith, 2002).

Intent to stay is the desire or intention to remain employed within an organization (Price & Mueller, 1981; Yoder, 1995). Intent to stay will be assessed using a score from the Intent to Stay Scale, which was originally developed by Price and Mueller (1981), then revised to fit the nurse faculty role by Garbee (2006).

Office is operationally defined as the faculty's rank within the university or college system.

Organization is defined as the school or college of nursing.

Rank is traditional collegiate rankings of Instructor, Assistant Professor, Associate Professor, and Professor.

Role is defined as the various expectations of nurse faculty in teaching, research or service.

Role ambiguity is "the degree to which information is lacking on expectations, methods, and consequences of role performance" (Latack, 1981, p. 89). Role ambiguity will be assessed as a score on Rizzo, House, and Lirtzman's (1970) Role Ambiguity Scale.

Role Conflict is "the perceived incongruence between role requirements placed on a focal person and his/her orientations, interests, and values" (Miles, 1976, p. 174). Role conflict will be measured operationally in this study by Rizzo, House, and Lirtzman's (1970) Role Conflict scale.

Work Role Balance is the percent of time nurse faculty spend on each of the three domains of nursing: teaching, service and research during an academic year (Middaugh, 2002). Work Role Balance will be assessed as a score on investigator modified questions of role balance initially developed by Gormley (2005).

Years of Service is the number of years with employment at the current institutions.

Assumptions

The following assumptions apply to this study:

- 1. Nurse educators respond honestly to survey questions, because of assurance of anonymity and confidentiality of their responses.
 - 2. The survey instruments chosen represent the constructs under investigation.

- 3. The independent variables of role conflict, role ambiguity, and work role balance along with demographic data may not have had the only effect on the dependent variables of job satisfaction and intent to stay.
- 4. Nurse educators are unique individuals with their own subjective perceptions of role conflict, role ambiguity and work role balance.

Scope and Delimitations

The scope of this study was limited to full-time nurse educators in AACN baccalaureate and higher degree nursing programs in the United States. Only schools of nursing with sixteen or more full-time faculty were used in this study. The findings helped to fill the gap in the literature in understanding predictive factors of intent to stay in nursing education in AACN schools of nursing in an effort to improve retention and develop recruitment strategies. The study findings influence retention of nursing faculty, thus having a potential impact on both the nurse faculty shortage and the nursing shortage.

The limitations of this study were:

- 1. The sample consisted of volunteer participants and the research was based on self-report measures which are more likely to have response bias.
- 2. The participation was dependent on the Dean or Director appointing a gatekeeper or contact person.

Significance of the Study

The significance of this study was that it included a broader number of variables to inform a model that helps explain nurse faculty job satisfaction and intent to stay.

According to Gormley (2003), previous studies related to nurse faculty job satisfaction

were limited to one or two factors. To date, research studies on nurse faculty intent to stay were limited to one study by Garbee and Killacky (2008). Additionally, there were no studies to date, addressing all of the variables of relationship between the nurse faculty's perception of role ambiguity, role conflict, and work role balance to job satisfaction and intent to stay in academe.

The tripartite mission, a tradition in higher educational institutions, has challenged faculty and administrators to achieve a balance in role expectations of teaching, research and service. Dissatisfaction with work role balance may influence the retention of nurse faculty. Thus, exploration of multiple factors relative to nurse faculty job satisfaction and intent to stay will be conducted on a national level in an effort to increase knowledge generation regarding the faculty shortage, provide professional application and influence social change.

Knowledge Generation

The findings of this research provide a basis for building knowledge related to intent to stay and job satisfaction in nurse educators. This research addresses a gap in the available literature to assist in determining factors which predict job satisfaction and intent to stay in nurse faculty. Previous research indicated that a relationship exists between role conflict, role ambiguity and job satisfaction, but no effort was made to relate these factors to intent to stay.

Garbee (2006) and Garbee and Killacky (2008) examined leadership behavior, organizational commitment, mentoring, job satisfaction and intent to stay, but did not study nurse faculty role conflict, role ambiguity, and work role balance. While Gormley's (2005) study addressed role conflict, role ambiguity, role balance, organizational

commitment, organizational climate, and turnover intention, the study did not include the factor of job satisfaction. Gormley (2005) reported, "Nurse faculty perceived an increase in role ambiguity and role conflict when experiencing a low or moderate component of research work role balance and a high component of teaching role balance in these universities with a strong emphasis on the research mission." The current research study attempted to determine the influence of role conflict, role ambiguity, and work role balance as predictors of job satisfaction and intent to stay to add to the body of nursing knowledge.

Professional Application

The findings of this study provide academic nurse leaders and administrators useful information in creating work environments to improve job satisfaction. This data assists administrators to retain nurse faculty thereby enhancing the capacity for increased student enrollment.

Social Change

The findings will potentially have a positive impact on the nurse faculty shortage and ultimately the nursing shortage by increasing the capacity of nursing schools to increase enrollment. By increasing the enrollment in schools of nursing, the number of registered nurses (RN's) will increase, thus improving access to health care for the public.

Conclusion

In summary, this study addresses some of the variables as factors that influence faculty job satisfaction and retention in baccalaureate and higher degree programs within AACN accredited nursing schools in the United States. This study examines the influence

of nurse faculty's perception of role ambiguity, role conflict and work role balance on job satisfaction and intent to stay in nursing education.

Chapter I provided an introduction to the study, the problem statement, purpose, the conceptual framework, research questions, a definition of terms, and the significance of the study. Chapter II provides a review of the literature. The variables of role conflict, role ambiguity, work role balance, job satisfaction and intent to stay were examined and significant studies that contribute to the clarification of the concepts and the methodology of the study are discussed. Chapter III provides a detailed description of the procedure for conducting the research study, the target population, a description of the research tools including validity and reliability, methods of data analysis and protection of human subjects. Chapter IV describes the sample obtained for this study and presented the findings of the data analysis for each of the four research questions. Chapter V discusses the research findings in light of the conceptual framework, identifies new knowledge and compares the findings of this research to previous studies. Additionally, conclusions, implications and recommendations for future research were discussed.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The review of the literature provided background information related to the theoretical framework upon which this study was based, the current climate of higher education in the United States and the variables of role conflict, role ambiguity, work role balance, job satisfaction and intent to stay. Since the nursing shortage is of national concern, and an adequate supply of qualified nurse faculty is directly related to enrollment in nursing schools, the nurse faculty shortage will also be included (Hinshaw, 2001). The following section begins with a background on higher education, followed by an overview of the Role Dynamics Theory, the theoretical basis for this study, and how it guided the research questions.

Higher Education

From a historical perspective, higher education in the United States began in 1636 with the founding of Harvard as a well-rounded general education consisting of a core curriculum of Latin, Greek, Mathematics, and Morality and was designed for young men of wealth and privilege. A shift in focus from general education to a more specialized and professional focus occurred in United States colleges around the middle of the 1800's (Boyer & Levine, 1981).

The primary focus of preparing leaders of the future shifted in the late 1800's to a focus on advancing knowledge (Gaff, 1991). The research movement originated from the German philosophy, *Wissenschaft*, which placed emphasis on both teaching and research. As this philosophy evolved, American faculty devoted more time to research with less

effort to teaching (Miller, 1988). By the close of the 19th century, institutions of higher learning were forced to change to meet the needs of the industrial age. From specialization, already established professional schools, departments and graduate studies further expanded, increasing the complexity of the faculty role (Davis, 1995).

It was the focus of research in addition to teaching that led to increased expectations of faculty in higher education. While some institutions may place more emphasis on research, the expectation is that faculty members remain involved in all three domains of scholarship (Rieg & Helterbran, 2005).

Boyer (1990) introduced a model of scholarship in *Scholarship Reconsidered* in an effort to revitalize the emphasis on teaching by including instruction as a form of scholarship. Boyer's model included four domains of scholarship: discovery (research), integration (interpretation and interdisciplinary contact), application (involvement in solving pertinent social issues), and teaching (imparting and advancing knowledge). Boyer suggested all four domains should be considered valuable and should be evaluated fairly. It was Boyer's intent that the four domains of scholarship would facilitate faculty success in meeting the expectations of the tripartite mission (Boyer, 1990).

According to Dua (1994), administrators and faculty are constantly challenged in assisting faculty to balance faculty work load related to the three domains of scholarship. This struggle to balance the multifaceted expectations in academe often leads to role stress. Researchers have focused on stress, workload, burnout, role strain and turnover among university faculty in an attempt to address the balance of the faculty role (Boardman & Bozeman, 2007; Daly & Dee, 2006; Fuhrman, 1994; Goodwall, 1970; Spaights, 1980).

Perceived heavy teaching loads, research requirements and community service responsibilities may overwhelm faculty causing role stress (Kingston-Mann & Sieber, 1996). These workplace stressors potentially have negative effects on job satisfaction (Sanderson, Phua, & Herda, 2000). In turn, dissatisfaction in the organization may lead to intentions to resign from the institution or leave academe for other job opportunities (Johnsrud & Rosser, 2002; Rosser, 2004).

Nursing in Higher Education

The educational journey for nursing profession has been a long one, starting in the clinical setting as an apprenticeship all the way to the present day university setting. No consistent standard in nursing schools for hiring teachers with graduate degrees existed before 1899. In 1899, Teachers College established a program to train graduate nurses (Gaynon, 1985). In 1909, the University of Minnesota moved their diploma nursing education into the realm of academe (Kalisch & Kalisch, 1986). The stimulus for advancing nursing education to a professional status came from a study funded by the Rockefeller Foundation (Goldmark, 1923).

The landmark study known as the Goldmark Report was conducted between 1919 and 1921. The title of the report was *Nursing and Nursing Education in the United States*, which highlighted three main areas of concern regarding the state of nursing education: lack of standardization in nursing curriculum, qualifications of nursing faculty did not include a college degree, and nursing students performing non-nursing duties (Goldmark, 1923). In 1924, the first autonomous college based nursing school, Yale School of Nursing, was established with its own Dean, budget and faculty awarding the first baccalaureate in nursing degree (Kalisch & Kalisch, 1986).

True nursing research as we recognize it today, did not come to fruition until the 1950's and it was not until the 1960's that nursing research began to flourish and expand (Kalisch & Kalisch, 1986). As a result of the slow expansion of nursing into higher education, nurse faculty had difficulty meeting the same rigorous promotion and tenure standards of other professional schools in colleges and universities. As a result, many nurse faculty were terminated, causing schools to close, further hindering the growth of nursing knowledge and the future of the nursing profession. Thus, the establishment of nursing programs as academic units in institutions of higher education added the expectations of the tripartite mission to the already demanding expectations of clinical competency and practice (Kalisch & Kalisch, 1986).

With the transition of nursing education into higher education, nursing literature reported the challenge faced by nurse faculty to meet increased expectations. Increased expectations continued to put additional strain on nurse faculty resulting in resignations (Hinshaw, 2001). As a result of role demand, some schools of nursing placed an emphasis on the adaptation of Boyer's Model and continued to explore creative ways to meet expectations (Paskiewicz, 2003).

Nursing Faculty Shortage

The nursing profession has experienced nursing shortages in the past, but this nursing shortage is more significant because of the critical shortage of faculty to educate nurses. The classic AACN White Paper (2003a) regarding the shortage of nursing faculty pointed out the following contributing factors:

- aging of faculty
- resignations

- salary discrepancies
- expense of graduate school
- diminished supply of enrollees and graduates to fill faculty positions
- time to complete doctoral degree and age upon completion of degree
- faculty workload demands and role expectations
- optional career choices

In August, 2002, Congress and President George W. Bush passed the Nurse Reinvestment Act (NRA) P.L. 107-205 (Donley, Flaherty, Sarsfield, Taylor, Maloni, & Flanagan, 2002). This bill was pertinent to the nurse faculty shortage as it amended Title VIII of the Public Health Service Act and included a provision for a Nurse Faculty Loan Program (AACN, 2003b)

AACN'S 2005 report on the nurse faculty shortage reported that the national need for RNs continues to expand, but schools of nursing have a limited capacity for accepting applicants primarily due to the nurse faculty shortage. Factors contributing to the nurse faculty shortage included: budget constraints, aging faculty, and job competition from clinical settings (AACN, 2005).

Later, another national report listed similar results. AACN (2008a) *Nursing*Shortage Fact Sheet reported contributing factors to the nurse faculty shortage included: aging of the nurse faculty continuing to climb, anticipated retirements over the next ten years, limited pool of master's and doctorally prepared nurses to add to the potential list of nurse faculty, and the offer of higher wages in clinical and private institutional settings with fewer demands than in faculty positions. According to AACN's 2008a report, nursing schools in the United States were forced to turn away 40,285 applicants qualified

to enter baccalaureate and graduate nursing programs in 2007 alone. These individuals were denied the opportunity to become nurses as a result of deficiencies in clinical sites, classroom space, clinical preceptors, budgetary funds and inadequate number of qualified nurse educators. Nearly three quarters of the schools surveyed blamed faculty shortages as the primary reason for denying enrollment to their undergraduate nursing programs.

The SREB states and the District of Columbia are projected to have nearly 40,000 job openings for RN's every year through 2014. According to a report from the 2007 SREB Council on Collegiate Education for Nursing, "26,000 qualified applicants were denied admission to collegiate nursing programs in the region in 2006, mainly due to the lack of nursing faculty and facilities to teach them" (SREB, 2007).

The trends of turning away thousands of qualified applicants demonstrated a continued interest in nursing as a profession, but a serious lack of faculty resources to support the number of interested students. Thus, the nursing shortage is perpetuated by the nurse faculty shortage by hindering student enrollment. Since education precedes practice, the nurse faculty shortage must be addressed before the nursing shortage can addressed.

The role expectations of teaching, research, and service may lead to role stress thus negatively impacting the nurse faculty shortage. Hinshaw (2001) supported the notion that role stress, particularly role conflict, role ambiguity and work role balance could potentially be blamed for the looming shortage of nurse faculty. This assertion was supported by Brendtro and Hegge (2000) when they revealed that "more realistic expectations" were viewed by respondents as an incentive to recruit nurse into the role of nurse faculty. As a result of nurse faculty resignations and retirements, institutions are

faced with the dilemma of reducing enrollment (Hinshaw, 2001). Concern over the consequences relative to increased faculty expectations influenced the conceptual framework for this study, the Theory of Role Dynamics (Kahn et al., 1964). The following section focuses on the *Theory of Role Dynamics*.

Theory of Role Dynamics

According to Hardy and Conway (1978), role theory involves a large and diverse array of interdisciplinary research related to social behavior and the factors or influences that shape that behavior. Significant research was conducted in industrial organizations on nonprofessional workers in an attempt to understand the physical and mental health effects of the environment within an organization and a group of individuals. As a result of this research, the *Theory of Role Dynamics* was developed by Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964). Within these organizations and groups the individual, labeled the focal person, plays various roles and the focal person has role-related relationships within a *role set*. The individual's *role set* plays a major part in defining the role of the focal person through role expectations (Kahn et al., 1964).

Within the concept of role several role-related concepts were identified: role set, role expectation, role pressure, role force, and role behavior. Within each *office* in the university or *organization* certain individuals who are directly and indirectly related to the focal person is the *role set*. Merton (1957) defined *role set* as the persons with whom the focal person has role-related relationships. Another definition of *role set* is a set of role expectations concerning behavior for a specific position in a social structure (Rizzo, House, & Lirtzman, 1970).

This leads to the next concept of *role pressures* which are the specific responsibilities and set objectives of the *office* may or may not be formally imposed by the supervisor or requirements and demands imposed on the employee or *focal person* by the *role sender* or members of the *role set*. For this discussion, the *focal person* will be the nurse faculty. Each member of the focal person's role set asserts certain pressures, which in turn are interpreted through the arousal of a considerable psychological force within the focal person, known as the *role forces*. *Role behavior* was defined as being relevant to the organization, but not necessarily in agreement with the expectations of the organization due to uncontrollable variable within and outside of the organization (Kahn et al., 1964).

Role expectations were defined as the "prescriptions and proscriptions held by a role set" (Kahn, et al., 1964, p. 14). Kahn added that role expectations are not limited to a job description, but may also include and extend to how a person should act, thoughts and beliefs, relationships with others, specific acts, personal characteristics or styles. In a university setting, this may be likened to acceptable role modeling behaviors while representing the university in the community of interest.

All four types of role conflict result from pressures placed upon the role sender from one or more members of a role set. The combination of *inter-sender conflict* and *person role conflict* occurs when the focal person has difficulty prioritizing the many role expectations and pressures and is referred to as *role overload*, which was found to be the most common form of role conflict (Kahn et al., 1964). *Role Conflict* has been defined as "the perceived incongruence between role requirements placed on a focal person and his/her orientations, interests, and values" (Miles, 1976, p. 174). Rizzo, House, and

Lirtzman (1970) purported a relationship existed between role conflict, anxiety and job dissatisfaction and had the potential of causing resignations from the organization. Schuler, Aldag, and Brief (1977) conducted an analysis of the scales of role conflict and role ambiguity. Both were found to be valid constructs with negative association to job satisfaction and aspects of poor job performance.

Role ambiguity was defined as inadequate communication of information regarding job performance and duties as well as potential consequences for poor or inadequate performance (Kahn et al., 1964). Role ambiguity was similarly defined as "the degree to which information is lacking on expectations, methods, and consequences of role performance" (Latack, 1981, p. 89). Rizzo and associates also found role ambiguity to be related to job tension and job satisfaction. In summary, role conflict and ambiguity negatively influence organizational factors such as job satisfaction thus the impact on intent to stay is implied.

Role Ambiguity and Role Conflict in Higher Education

According to Rosser (2004), higher education as a result of faculty role stress, is challenged to retain faculty in an environment of increased public scrutiny regarding faculty members' productivity and workload. The consequence of public demands has intensified the demand in performance in the three domains of scholarship, which led to job dissatisfaction and intent to leave (Rosser, 2004). These increased pressures and higher performance demands may lead to over-stimulation. In Role Dynamics Theory, higher demands lead to over-stimulation, which was defined as role overload (Kahn et al., 1964).

In a study of university faculty, role overload was found to correlate with burnout which is defined as exhaustion leading to lack of productivity (Klenke-Hamel & Mathieu, 1990). Olsen (1993), in a study conducted in a single public research university, queried 52 first year faculty and 47 faculty at the end of their third year using an open-ended interviews and questionnaire. Significant negative correlations between faculty perceptions of job satisfaction and stress during the first three years as faculty members were revealed, while Lease (1999) found no significant relationship existed between years of experience and work stress.

Boardman and Bozeman (2007) studied role strain among 21 faculty working in research centers. Open ended questions regarding role strain and role overload or intersender conflict was posed to participants, who admitted to experiencing both. While role strain and role conflict have been used interchangeably in some research, Boardman and Bozeman preferred to term the phenomena 'role strain'. The researchers also asked various questions that were termed as "indirect proxies" of role strain including conflicts concerning expectations from within and outside their own departments such as publications, grant writing, and mentorship of students with associations outside their departments. The respondents reported having administrative support for time spent on scholarly work including publications and grants. The authors attributed this support to the importance placed on publishing in peer reviewed journals and acquisition of funding sources.

Nurse Faculty Role Ambiguity, Role Conflict and Work Role Balance

A plethora of research focused on specific aspects of role conflict and ambiguity relative to *Role Dynamics Theory* in nursing education exists in the literature (Cavenar, 1987; Fain, 1985; Gormley, 2005; Mobily, 1991; Poindexter, 1982; Rapson, 1980). Poindexter (1982) conducted research on college-level nursing faculty (n=225) from programs offering a PhD degree in nursing to determine if academic preparation and academic assignments had any effect on job satisfaction on role conflict and role ambiguity. According to Poindexter, the correlation between role conflict and job satisfaction was negative and moderately significant (r = -.34, p < .05) and the correlation between role ambiguity and job satisfaction was a positive and moderately significant (r = .30, p < .05). Further findings of this study indicated doctorally prepared faculty perceived lower levels of role conflict and higher satisfaction with pay and promotion and tenure than master's prepared faculty. Higher satisfaction scores were found in faculty teaching primarily in graduate programs as compared to faculty teaching in undergraduate programs.

In a similar study, Fain (1985) examined the relationship between role conflict, role ambiguity, and job satisfaction among 285 nurse educators employed in National League for Nursing (NLN) accredited baccalaureate nursing programs within six New England states. The Job Descriptive Index (Smith, Kendall., & Hulin, 1969) was used to measure job satisfaction. Role conflict and role ambiguity were measured by the Role Questionnaire. Findings revealed job satisfaction correlated negatively with role ambiguity (r = -.282, $p \le .05$) and role conflict (r = -.374, $p \le .05$). The study also indicated a significant negative relationship existed between nurse faculty's perceptions

of the five facets of job satisfaction of pay, promotion, supervisor, work on present job and co-workers and role conflict and ambiguity.

Cavenar (1987) limited her study to factors influencing retention among faculty in nursing schools offering doctor of philosophy degree programs. She examined the relationship between communication, role conflict and ambiguity, job satisfaction and retention. This national survey rendered a 76% return rate with findings of geographic location followed by role conflict (r = -.370, p < .05,) and ambiguity (r = -.194, p < .05) as significantly related to job satisfaction. Additionally, Cavenar found lower communication leads to low work satisfaction which was directly and indirectly related to higher ambiguity and lower retention. The Role Questionnaire (Rizzo, House, & Lirtzman, 1970) was used to measure role conflict and role ambiguity.

In an examination of role strain in 102 full-time tenure track nurse faculty working in Carnegie Research I Universities, Mobily (1991) reported 50 % of the participants had a moderate to high degree of role strain as a result of poor orientation for their roles and high job expectations including conducting research and gaining external funding. The major contributors of role strain were intra-sender and inter-role conflict as well as role overload.

Rapson (1980) studied multiple-task role requirements as a source of perceived role ambiguity, role conflict, and role overload among 138 university nursing faculty. The two instruments used for data collection were the Multiple-Task Questionnaire (Weisbord, Charns, & Lawrence, 1978) and the Role Questionnaire (Rizzo et al., 1970). Information was also collected to determine the extent of multiple tasks expectations, the impact of these expectations on promotion, and perceptions of role conflict, ambiguity

and overload. The participants confirmed that multiple tasks (administrative duties, teaching, research, and patient care) were required for promotion. The faculty perceived role conflict to be the highest role stress related to insufficient time to perform expected tasks as well as role overload. Rapson's study findings in a single large urban university support a more recent study on work role balance, that of Gormley (2005).

Similar to Mobily (1991), Gormley's (2005) study surveyed 316 doctorally prepared nurse faculty working in Carnegie Research I Universities examining the influence of organizational climate, role ambiguity, and role conflict and nurse faculty work balance on organizational commitment and turnover intention. According to Gormley, nurse faculty members teaching in universities have the role expectations of teaching, research, and service. They are challenged to demonstrate a high level of achievement in teaching, conduct meaningful research, and be involved in community service. Gormley found the distribution of time spent in research, teaching and service or work role balance negatively affected role ambiguity and role conflict. The increase in role conflict and ambiguity occurred when faculty experienced low to moderate levels research role balance with high levels of teaching (Gormley, 2005).

Work role balance was defined as the percent of time nurse faculty spend on each of the three domains of nursing: teaching, service and research during an academic year (Gormley, 2005; Middaugh, 2002). The expectation of accomplishing all three domains of scholarship leaves faculty in a dilemma, as each domain has a mutual level of importance leading to role strain or conflict with respect to work role balance (Gormley, 2005; Hinshaw, 2001; Mobily, 1991). Additionally, a significant and moderately strong relationship existed between role ambiguity and turnover (r = .368, p < .05) and role

conflict and turnover intention (r = .381, p < .05). (Gormley, 2005). Role stress, role ambiguity and faculty dissatisfaction were reported as reasons for faculty to resign their positions (Disch, Edwardson, & Adwan, 2004; Gormley, 2005).

Job Satisfaction

An extensive number of publications address job satisfaction, but very few studies on nurse faculty member's job satisfaction have involved more than two contributing factors (Gormley, 2003; Garbee, 2006). Gormley (2003) conducted a meta-analysis of six research articles addressing factors affecting nurse faculty's job satisfaction in baccalaureate or higher degree nursing programs. Only two of the articles, Kennerly (1989) and Fain (1987), examined more than one factor.

Kennerly (1989) studied the relationship of job satisfaction and the subscales of Leader Behavior, using the Leader-Behavior Description Questionnaire-Form XII (LBDQ-XII) and organizational characteristics in 181 full-time nurse faculty. Fain (1987) researched the relationship between role conflict and role ambiguity and job satisfaction in 285 full-time nurse faculty. Three of the six articles in Gormley's Meta-analysis used the Job Descriptive Index to measure job satisfaction (Christian, 1986; Donahue, 1986; Fain, 1987) and the revised Job Descriptive Index (JDI-R) was employed by one of the articles (Snarr & Krochalk, 1996).

Researchers have frequently cited reduced job satisfaction as a consequence of role stress (Fain, 1985; Kahn et al., 1964; Poindexter, 1982; Rizzo et al., 1970). *Job Satisfaction* is defined as "the feelings a worker has about his or her job experiences in relation to previous experiences, current expectations, or available alternatives" (Balzar,

et al., 2000, p.7). This definition of job satisfaction supports research of role stress related to job expectations.

Gruenberg (1980) suggested two basic classes of job satisfaction theory exist. The first classification of job satisfaction was known as process theory in which the individual makes judgments about work issues according to their frame of reference. Expectations theory is one of the more significant process theories. Smith, Kendall and Hulin (1969) apply expectation theory to their definition of job satisfaction as the individual's affective responses to facets of the job situation. An individual's frame of reference stems from past experiences and expectations which guide the individual's perception of job satisfaction through their responses to the job facets. The second class, termed content theory, attempts to determine for which needs values or expectations of the individual are important in determining satisfaction. Herzberg's (1966) theory was identified as content theory.

Herzberg (1966) in his Two-Factor Motivation Theory viewed job satisfaction as a product of an individual's need to grow psychologically and identified strong determiners of job satisfaction or satisfiers as achievement, recognition, the work itself, responsibility, and advancement. Satisfiers were considered to be intrinsic while dissatisfiers were found in the external environment. Company policy, and administration, supervision, salary, interpersonal relations, and working conditions were identified as the dissatisfiers (Herzberg, 1966).

Job Satisfaction has been established as a predictor of intent to stay (Kosmoski & Calkin, 1986; Price & Mueller, 1981; Sourdif, 2004). Gormley, 2003, in a meta-analysis revealed six research articles conducted on nurse faculty's perception of job satisfaction

in baccalaureate or higher degree nursing programs, but Fain's (1985) study in particular formed the basis for the current research. Fain (1985) conducted a study investigating the relationship between nurse faculty job satisfaction and their perception of role conflict and role ambiguity. The Role questionnaire was used to measure role conflict and role ambiguity while the Job Descriptive Index was employed to measure nurse faculty job satisfaction. As expected, a negative correlation existed between job satisfaction role ambiguity (r = -.282, $p \le .05$) and role conflict (r = -.374, $p \le .05$). Both role ambiguity and role conflict proved to be significantly related to job satisfaction with low to moderate significance. The findings of this study support the hypothesis of role theorists that role ambiguity and conflict negatively impact job satisfaction (Hardy & Conway, 1978; Kahn et al., 1964; Rizzo et al., 1970).

Moody (1996) conducted a national survey of 44 nursing schools with a random sample of 285 faculty. The survey included demographic variables, role orientation, organizational characteristics and job satisfaction. Using a stepwise linear regression-correlation analysis, the strongest relationship reported was between salary and job satisfaction with a beta value of .296. The second highest relationship was between the degree program in which faculty taught with a beta value of .124. Faculty members teaching in graduate degree programs were more satisfied than those teaching in undergraduate nursing programs. The third strongest variable was the length of faculty contract with a beta value of .116. The findings indicated faculty with 9-month contracts reported higher job satisfaction than faculty with 12 month contracts. These findings support studying faculty satisfaction based on demographic variables of length of contract, rank and years of service.

Disch, Edwardson, and Adwan (2004) conducted a statewide survey of full-time nurse faculty teaching in licensed practical nursing programs, associate degree programs and baccalaureate programs in Minnesota. Faculty from all three programs reported being engaged in teaching and scholarly roles including writing, presentations and consulting. The report cited that only nine percent would not choose a faculty position again, indicating the majority of faculty members were satisfied with their career choice. Since this study only included the state of Minnesota, the results can not be generalized.

In a more recently published research article, Garbee (2006) surveyed nurse faculty within the SREB states. The results of this survey indicated job satisfaction as having a moderate positive correlation significant to intent to stay one year, (r = .401, p < .05), and five years (r = .358, p < .05). Further discussion of Garbee's study will be included in the following section on intent to stay.

Intent to Stay

Because of the impact of the nurse faculty shortage on the nursing shortage, intent to stay was chosen as one of the dependent variables for the present study. Determining the predictor variables of intent to stay may lead to improvement in retention of nurse faculty. The definition of intent to stay is the desire to remain within a particular organization (Price & Mueller, 1981; Yoder, 1995). Since minimal literature was found regarding intent to stay in the nursing faculty role, the literature review includes studies related to intent to stay in general, intent to stay in nursing and intent to stay in the role of nurse faculty as well as intent to leave, since, according to organizational theorists, it is the parallel form of intent to stay. Intent to stay has been viewed as the immediate

precursor to seeking alternative employment, thus intent to leave predicts turnover (Bluedorn, 1982; Mobely, 1977).

Bluedorn (1982) developed a model of turnover combining three turnover models from a study of insurance company employees over a period of one year. The participants were asked questions pertaining to both intent to stay and intent to leave. The predictors of turnover identified in the study were environmental opportunity, the routine nature of the work, age and intent to stay or leave. Intent to leave was positively correlated to actual turnover and intent to stay was positively correlated to actually remaining employed.

In a study of nursing turnover, intent to stay was shown to be related to job satisfaction (Price & Mueller, 1981; Kosmoski & Calkin, 1986; Sourdif, 2004). Kosmoski and Calkin (1986) reported management, promotion opportunities and colleagues contributed to increased intention to stay in critical care nurses. Additionally, findings indicated the best predictor of intent to stay was satisfaction with work activities (R = .43, p < .05).

In a study of over a thousand registered nurses, it was suggested that intent to stay was related to job satisfaction and opportunities for promotion (Price & Mueller, 1981). Similarly, the findings of a research study of 108 nurses employed at university health center in Montreal indicated a significant correlation existed between intent to stay and satisfaction at work and with administration (Sourdif, 2004). While both studies were based on hospital nursing staff, findings are relevant to nurse faculty's job satisfaction, opportunities for promotion and tenure as well as intent to stay.

There were three research studies significant to nurse faculty intent to stay and job satisfaction (Cavenar, 1987; NLN, 2005a; Garbee, 2006). In the first study, Cavenar (1987) limited her study to factors influencing retention among faculty in nursing schools offering doctor of philosophy degree programs. While the dependent variable was retention, intent to stay is implied since intention precedes action (Garbee, 2006). Cavenar's national survey examined the relationship between communication, role conflict and ambiguity, job satisfaction and retention. The findings revealed lower levels of communication lead to low scores in work satisfaction which was directly and indirectly related to higher ambiguity, thus resulting in lower retention.

The second study was by the National League of Nurses (NLN) in 2005. Working with students in an intellectually stimulating environment, contributing to the profession, and having autonomy and flexibility were identified as primary reasons for staying in the faculty role, according to the NLN report. Reasons for leaving were cited as low pay, heavy workload, and extensive work hours (NLN, 2005a).

In the third study, Garbee (2006) reported job satisfaction had a strong positive correlation to intent to stay in a nursing faculty position for one year and five years. However, without a healthy work environment, organizational commitment and job satisfaction may diminish, thus reducing faculty's intention to stay in nursing education (NLN, 2005a; NLN, 2005b; Rudy, 2001).

The inverse of intent to stay is intent to leave, or turnover intention. Researchers of faculty turnover have examined various reasons faculty leave or have intentions to leave academic institutions (Barnes, Agago, & Coombs, 1998; Gormley, 2005; Johnsrud & Rosser, 2002; Rosser, 2004; Zhou & Volkwein, 2004). A study based on a national

survey of full-time tenured faculty excessive time commitments and a lack of a sense of community predicted to intent leave academia (Barnes, Agago, & Coombs, 1998). In a study of faculty members' morale, and intent to leave, the level of morale was most relevant to the individual level of intent to leave (Johnsrud & Rosser, 2002).

A National study revealed perceptions of faculty members work life directly impact job satisfaction and intent to leave (Rosser, 2004). In a comparison of tenured versus nontenured faculty, intent to leave was influenced in both groups by the following factors: pay, job security, seniority, doctoral degree and academic rank (Zhou & Volkwein, 2004). Based on a study of nurse faculty from Carnegie Research Institutes, role ambiguity, organizational commitment and organizational climate were found to be predictors of intent to leave (Gormley, 2005).

Nursing literature on turnover revealed job satisfaction, intent to stay and intent to leave were all pertinent to retention of nurses (Cavenar, 1987; Garbee, 2006; Garbee & Killacky, 2008; Hayes, O'Brien-Pallas, Duffield, Shamian, Buchan, & Hughes, 2006).

Based on a random cluster sample of 39 schools of nursing in states within the Southern regional Education Board (SREB), Garbee (2006) reported significant strong positive correlations between intent to stay for one and five years and job satisfaction.

Hayes et al. (2006) studied the views of nurse executives and nurses who left the nursing profession to discover retention strategies. Besides the obvious impact nurse faculty turnover has on the nursing shortage, institutions suffer the negative consequences of a decline in the morale of faculty who remain in the institution and the costs of recruiting qualified replacements (Mobely, 1982; Price, 1997).

Summary

In summary, the review of literature solidified the link between the nurse faculty shortage and the study's variables of role conflict, role ambiguity, work role balance, job satisfaction and intent to stay (Cavenar, 1987; Disch, Edwardson, & Adwan, 2004; Fain, 1985; Garbee, 2006; Garbee & Killacky, 2008; Gormley, 2005; Hinshaw, 2001; Kosmoski & Calkin, 1986; Price & Mueller, 1981; Sourdif, 2004). Since research linked job satisfaction and intent to stay to retention, it was imperative to determine factors that influence both dependent variables.

Thus, the sparse research related to nursing faculty intent to stay and work role balance supported the investigation of these variables in the current study. While role stress and job satisfaction have been studied relative to nurse faculty, reexamining the impact of the study variables and broadening the sample to a national survey was warranted in light of the current nurse faculty shortage. Furthermore, replication of studies with different participants and in different settings gives credence to similar results. Replication of nursing research adds to the body of knowledge by providing valid, reliable and generalizable results, thus an adequate foundation for making the necessary changes in nursing practice (Polit & Hungler, 1995). Chapter III includes a description of the research design and approach, the setting for the study, the sample under investigation, instrumentation, procedures used for data collection, data analysis and protection of human subjects.

CHAPTER III

METHODOLOGY

Overview

This chapter includes a description of the research design and approach, the setting for the study, the sample under investigation, instrumentation, procedures used for data collection, data analysis and protection of human subjects. The purpose of this study was to determine whether nurse faculty's perception of role conflict, role ambiguity, and work role balance are predictors of job satisfaction and intent to stay. The relationship between the dependent variables of job satisfaction and intent to stay among nurse faculty was also examined.

The population for this study was nursing faculty employed in AACN schools that offer baccalaureate and graduate programs of nursing, and had at least 16 full-time faculty. An online survey was sent to faculty recruited from a stratified random sample of qualified nursing schools. Quantitative research methods were used to answer the research questions. Data analysis was conducted using Statistical Package for Social Sciences (SPSS) software, version 15.0, for descriptive, correlational, multiple regression and multivariate analysis of variance (MANOVA) statistics.

Protection of Human Subjects

Approval from The University of Southern Mississippi Institutional Review Board (IRB) to conduct this research was obtained prior to data collection. In addition, some schools required approval from their IRB and it was obtained. Consent to participate in the study was assumed if participants completed the survey. A letter was sent to faculty in the sample population, which assured confidentiality in disclosure and

reporting and that only aggregate data would be reported. Subjects were informed that their responses would remain confidential and their participation was voluntary and could be terminated at any time.

Research Design

Quantitative research methods were selected to answer the research questions. The design of the study was primarily a correlational study, but to answer one of the fourth research question a between group comparison design analysis was included. The correlational design (Brink & Wood, 1998, p. 164) was employed to analyze whether nurse faculty's perception of role ambiguity, role conflict, and work role balance can predict job satisfaction and intent to stay. The statistical methods included simultaneous multiple regression for research question 1: Can perception of role conflict, role ambiguity and role balance statistically significantly predict nursing faculty's job satisfaction? and research question 2: Can nurse faculty's perception of role conflict, role ambiguity, and role balance statistically significantly predict nurse faculty's intent to stay? Pearson's correlation was used to answer research question 3: Is there a statistically significant relationship between job satisfaction and intent to stay among nursing faculty? While the between-subject design used MANOVA to answer research question 4: Is there a statistically significant difference between job satisfaction and intent to stay based on length of contract, years of service and rank? Demographic data were analyzed using descriptive statistics.

Sample/Setting

The population for this study was approximately 9,918 full-time nursing faculty from schools with at least 16 full-time faculty offering baccalaureate and higher degree

programs, with the schools being identified as having membership in AACN within the United States. A stratified random sampling technique was used to select institutions within the four geographic regions (North Atlantic, South, Midwest, and West) to achieve geographic proportionality and representation.

A membership list of the AACN programs of nursing was used to identify the baccalaureate and higher degree nursing programs in the United States. Additionally, a data set of the number of full-time faculty at each institution with baccalaureate and higher degree programs with regional designations was produced by Dr. Di Fang of the AACN. This list was used to conduct a G*power 3, a general power analysis program to determine the necessary sample size (Erdfelder, Faul, & Buchner, 1996). It was determined using G*power 3 that 130-150 surveys were needed to measure the variables of this study to achieve a 70%-80% confidence interval respectively. Expecting a 15% return rate (personal communication, Dr. J.T. Johnson, August 21, 2008), approximately 1,000 surveys were required to obtain the desired number of completed protocols.

Nursing schools were selected using a table of random numbers for each of the four regions. Randomization of target populations using a random table of numbers was used to improve the representativeness and generalizability of the sample to the target population (Polit & Hungler, 1995). According to Brink and Wood (1998), a large random sample is an essential component of a correlational design and the generalizability of the sample is vital to the external validity of the study. The North Atlantic Region had approximately 1779 fulltime faculty; the Midwest Region had approximately 2892 full-time faculty; the Southern Region had approximately 3761 full-time faculty; the Western Region had approximately 1486 fulltime faculty.

A convenience sample was used to select faculty participants from each of the randomly selected institutions, since randomizing was prohibited by using online data collection. The sample was determined by dividing the number of full-time faculty within each region by the total number of full-time faculty within schools of nursing with 16 or more full-time faculty in AACN institutions offering baccalaureate and higher programs. This resulted in a percentage, which was used to determine the number of faculty needed within each geographic region. The percentage was applied to the total of 1,000 surveys needed. Thus, the target sample from each region was as follows: North Atlantic, 18%; Midwest 29%; South, 38%; and West, 15%.

The initial sample consisted of 28 schools of nursing with 1139 potential participants. Of the 28 schools, 17 of the schools agreed to participate with 717 potential participants resulting in 152 returned surveys by the end of the fall semester.

Approximately 10 surveys had missing data, requiring recruitment of additional subjects. Because of the timing of the semester break, a second request was sent at the beginning of the spring semester to the schools who had not responded resulting in a total of 22 schools and 243 completed surveys with a return rate of 26%.

Procedure

A letter describing the study was sent to the Dean/Director of each of the participating institutions. The letter included the purpose of the study, the relevance to nursing, information on the instruments, number of items, and the approximate time commitment. The letter also requested the dean/director to name an institutional gatekeeper to send the surveys out to the faculty.

Once the gatekeeper was identified, a letter describing the study, along with a hyperlink to the survey was sent to the gatekeeper who forwarded the survey to the nurse faculty from each of the selected schools of nursing. The letter explained the purposes of the study, the benefits of participating, the amount of time required, and assurance that only aggregate data will be reported and that confidentiality will be maintained. Also in the letter was a statement explaining that the zip codes of the school and participant will be requested as a requirement for use of the AJDI and AJIG instruments. Since survey was sent on-line to nurse faculty, completing the questionnaire signified consent to be in the study.

The questionnaire was administered via Zoomerang. Zoomerang is an online service used to provide professionals to create, send out, collect and analyze data collected for a contracted fee (www.zooomerang.com, 2008).

Several strategies were employed to increase the survey response rate. First, the participants were informed of the approximate time commitment required for completing the survey. Second, that it was not necessary to commit a designated time slot to complete the survey as participants were able to leave the survey and return to the same place. Third, follow-up e-mails were sent to the gatekeepers after two weeks to increase the return rate. Lastly, an incentive to participate was offered to respondents by offering a chance to win one of four iPods.

Instrumentation

The variables of this study are: role conflict, role ambiguity, work role balance, job satisfaction and intent to stay. Table 1 presents the instrument that was used to

measure each variable. Demographic data was collected to describe the sample (Kosmoski & Calkin, 1986; Garbee, 2006; Price & Meuller, 1981; Yoder, 1995). Demographic data included questions to elicit age, gender, highest degree earned, academic rank, tenure status, number of years at current institutions, length of current contract, personal zip code, and zip code of institution. All instruments were combined into one online survey.

Table 1

<u>Instruments</u>	
Variable	Instrument
Role conflict	Role Questionnaire (Rizzo, et.al., 1970)
Role ambiguity	Role Questionnaire (Rizzo, et.al., 1970)
Work role balance:	Work Role Balance (Gormley, 2005) (Revised by
	researcher for this study)
Job Satisfaction	AJDI (Stanton, Sinar, Balzar, Julian, Thorenson, Aziz et
	al., 2001) and AJIG (Stanton, Sinar, Balzar, and Smith,
	2002)
Intent to stay	Intent to Stay Scale (Price & Meuller, 1981; Kosmoski &
	Calkin, 1986; Yoder, 1995; Garbee, 2005) (Revised by
	researcher for this study)

Abridged Job Descriptive Index and the Abridged Job in General Scales

The AJDI and the AJIG were used to measure the dependent variable of job satisfaction. According to Kinicki, McKee-Ryan, Schriesheim, and Carson (2002), the original Job Descriptive Index (JDI) has been used more than any other inventory to assess job satisfaction. Spector (1997, p.12) claimed the JDI is the "most carefully developed and validated" job satisfaction measure. The JDI measures job satisfaction on the basis of five facets: Work on Present Job, Present Pay, Opportunities for Promotion, Supervision, and Coworkers. The Job in General (JIG) scale is used to evaluate global job satisfaction not captured by the five facets in the JDI (Balzar et al., 2000). The data obtained from the JDI and the JIG captured the characteristics of overall job satisfaction.

Validity and reliability has been established for each of the five facets of the JDI. Validation studies were conducted from 1959 to 1964 (Smith, Kendall & Hulin, 1969). Balzer, Kihm, Smith, Irwin, Bachiochi, Robie et al. (2000) reported that the JDI had high levels of discriminate and convergent validity.

Balzar et al. (2000) reported high coefficient alphas of reliability ranging from .86 to .92 on the 1997 version of the JDI when distributed in conjunction with the JIG from studies conducted in over 1600 cases. The alpha coefficients for the five facets were as follows: (1) Work on present job had a coefficient of .90; (2) Present pay had a coefficient of .86; (3) Opportunities for promotion had a coefficient of .87; (4) Supervision; and (5) the co-workers scale had a coefficient of .91. The JIG had the highest coefficient of .92 (Balzer et al., 2000). Smith, Kendall, and Hulin (1969) reported that the scoring format of the JDI which is a 3-point response scale (Y, N, or ?) was found to be the best scoring scheme.

In this study, the abridged versions of the JDI (Stanton, Sinar, Balzar, Julian, Thorenson, Aziz et al., 2001) and the JIG Scales (Stanton, Sinar, Balzar, & Smith, 2002) were chosen in an effort to increase the number of completed protocols, since incomplete surveys may adversely affect the validity of the questionnaire. The Abridged Job Descriptive Index (AJDI) measures job satisfaction using the same 5 facets: Work on Present Job, Present pay, Opportunities for Promotion, Supervision, and Coworkers. Balzar et al. (2000) reported alpha scores above .70 as recommended by Nunnally and Bernstein (1994), for all 5 facets of the AJDI.

Each facet contains 5 items, reducing the AJDI to 25 items as opposed to the original JDI (Smith, Kendell & Hulin, 1969), which contained 72 items. The AJIG is a measure of overall job satisfaction and contains only 8 items. According to Russell, Spitzmuller, Lin, Stanton, Smith and Ironson (2004) the abridged JIG scale yielded a Cronbach alpha of at least .85 after conducting scale reduction procedures including three validation studies. The AJDI and the AJIG are distributed together as a single 33 item survey tool. Both the AJDI and the AJIG have the 3-point response of "Yes", "No", or "?", which reportedly translates to more valid scoring and avoids the need for negative-positive balanced scoring (Balzar et al., 2000).

Scoring guidelines for the AJDI and AJIG included a formula for each of the subscales of AJDI and AJIG. For example, if Person A received a total score of 10 for the AJDI Pay subscale, the score would be equivalent to a score of 18 on the full JDI subscale: $10 \times 9 = 90$; 90/5 = 18.

To determine whether employees are satisfied using the AJDI and the AJIG, the manual suggested with a total possible score of 54, scores above the neutral point of 27

would indicate satisfaction and scores below 27 indicate dissatisfaction (Balzar, et al., 2000).

Intent to Stay

The dependent variable of intent to stay was measured by the modified form of the Intent to Stay Scale (Price & Mueller, 1981). Their scale used a single question, "Which of the following statements most clearly reflects your feelings about your future in the hospital? (a) Definitely will leave, (b) Probably will not leave, (c) Uncertain, (d) Probably will leave, (e) Definitely will leave, "to determine the intention to remain employed by an organization (Price & Mueller, 1981, p. 546).

The original scale has been modified through further use in research studies.

Kosmoski and Calkin (1986) expanded the inquiry to six questions to increase the reliability and added more aspects of intent, with a reported an internal reliability of .90.

Yoder (1995) expanded the questions to seven reporting a coefficient alpha of .89.

Garbee (2006), in a recent study of nurse faculty, used three questions to measure intent to stay, three questions on intent to leave in time frames of one, three and five years asking participants to rate their intentions on a scale from 0 to 10 with 0 signifying "will not" and 10 signifying "definitely will." The questions posed by Garbee were: "(1) Rate your intent to stay in your current job and present university for one year, (2) Rate your intent to stay in your current job and present university for three years, (3) Rate your intent to stay in your current job and present university for five years, (4) Rate your intent to leave your current university for a similar job at a school of nursing in one year, (5)

three years, (6) Rate your intent to leave your current university for a similar job at a school of nursing in five years" (p.170).

For this study, the researcher converted the questions posed by Garbee (2006) into statements using a 7 point Likert scale to accomplish similarity in formatting to the *Role Conflict/Role Ambiguity Questionnaire*. The questions were worded as follows:(1) I intend to stay in my current job and present university for one year, (2) I intend to stay in my current job and present university for three years, (3) I intend to stay in my current job and present university for five years. Statements related to intent to leave were not used in this study.

Responses were answered using a 7- point Likert Scale: 1) Very False; 2) False; 3) Somewhat False; 4) Neutral; 5) Somewhat True; 6) True; 7) Very True. Intent to stay was reported for 1, 2, 3, and 5 years on a 7-point Likert scale. The minimum score was 4, the maximum score was 28, and therefore a neutral score was 14 for overall intent to stay. *Role Conflict/Role Ambiguity Questionnaire*

The independent variables of role conflict and role ambiguity were measured by the Role Conflict and Role Ambiguity Questionnaire (Rizzo et al., 1970). The questionnaire used two subscales, which measured role ambiguity and role conflict. The questionnaire was a self-reporting measurement of an employee's perception of their jobs, work roles and organizational distinctions. The questionnaire has acceptable internal consistency and construct validity of the subscales of role conflict and role ambiguity. The Spearman-Brown internal reliability coefficients for Role Ambiguity were reported from two studies as .76 and .90 and .90 and .94 for Role Conflict (Rizzo et al., 1970).

The Role Ambiguity and Role Conflict Questionnaire consisted of a 14 item survey using a 7- point Likert scale: 1 = Very False, 2 = Somewhat False, 3 = False, 4 = Neutral, 5 = Somewhat True, 6 = True, 7 = Very True. The first subscale, Role Ambiguity consisted of the first 6 items were used to measure role ambiguity and the remaining 8 items were used to measure Role Conflict. The Role Ambiguity items were worded positively and were reverse scored. Thus, the higher the score the more role ambiguity or role conflict. The role conflict items were worded consistent with conflict, so no reverse scoring was employed. The scores on role ambiguity ranged from 5-42. The scores on Role Conflict ranged from 9-56.

The following items comprise the Role Questionnaire (Rizzo et al., 1970):

- 1. I feel certain about how much authority I have.
- 2. Clear, planned goals and objectives exist for my job.
- 3. I know that I have divided my time properly.
- 4. I know what my responsibilities are.
- 5. I know exactly what is expected of me.
- 6. Explanation is clear of what has to be done.
- 7. I have to do things that should be done differently.
- 8. I receive an assignment without the manpower to complete it.
- 9. I have to buck a rule or policy in order to carry out an assignment.
- 10. I work with two or more groups who operate quite differently.
- 11. I receive incompatible requests from two or more people.
- 12. I do things that are apt to be accepted by one person and not accepted by others.

- 13. I receive an assignment without adequate resources and materials to execute it.
- 14. I work on unnecessary things.

Work Role Balance

The Work Role Balance question developed by Gormley (2005) was modified by the researcher to measure the independent variable of work role balance. Gormley (2005) posed a single item question to determine the approximate percentage of time spent on teaching, research and service during an academic year. The percentages were divided into three categories: low (0-30%), moderate (31-60%) and high (61-100%). A similar measurement was used by the National Study of Post-secondary Faculty to survey faculty in institutions of higher education (Joint Commission on Accountability Reporting, 1997).

For this study, the researcher modified the question by adding an additional item to measure work role balance in number of hours per week. The items were worded as follows:

he

Data Hygiene

Zoomerang was used to tabulate responses from the instruments. Data was transferred from Zoomerang into Excel via the Zoomerang software. The data was then transported from Excel into SPSS 15.0. Data were audited at each step to ensure accuracy of data transfer.

Data Analysis

Demographic data was analyzed using descriptive statistics of mean, median and standard deviation. SPSS version 15.0 was used for all data analysis. Simultaneous multiple regression analysis was used to answer the first research question, Can perception of role conflict, role ambiguity and role balance statistically significantly predict nursing faculty's job satisfaction? as well as, the second research question, Can nurse faculty's perception of role conflict, role ambiguity, and work role balance statistically significantly predict nurse faculty's intent to stay? The third research question, Is there a statistically significant relationship between job satisfaction and intent to stay among nursing faculty? was analyzed using Pearson correlation. Factorial MANOVA was used the answer the fourth research question, Is there a statistically significant difference between job satisfaction and intent to stay based on length of contract, years of service and rank?

Only completed surveys were used in analysis. In the case of ambiguous answers, the data were treated as missing. Intent to stay required some coding decisions, as the question had several ambiguous answers. Answers for intent to stay were coded as follows: if Intent to stay 5 years was answered as a 7 on the Likert scale, for intent to stay

1, 2, and 3 years were coded as a 7. This was a logical coding decision since if the faculty intended to stay 5 years they would have to intend to stay for 1-3 years as well. This maintained the integrity of the scales, as a higher total score indicated a higher intent to stay.

Summary

This chapter provided a detailed description of the procedure for conducting the research study and for obtaining the research sample. A description of the research tools, their validity, reliability, and scoring was presented. Finally, data analysis and protection of human subjects was also presented. Chapter IV presents the data and the analysis used to answer the research questions.

CHAPTER IV

FINDINGS

The presentation of the data and the analyses used to answer each research questions are described in this chapter. The purpose of this study was to determine if role conflict, role ambiguity, and role balance predict job satisfaction and intent to stay in nursing faculty selected from a stratified random sample of nursing schools representing each of the four AACN regions in the United States. The relationship between the dependent variables of job satisfaction and intent to stay among nurse faculty was also examined. The information in this chapter describes the sample and the research findings related to each research question. The collected data were analyzed using descriptive statistics, simultaneous multiple regression, Pearson's correlation and multivariate analysis of variance (MANOVA). A significance level of .05 was chosen *a priori* to test statistical significance for all research questions.

Description of Sample

The population for this study was approximately 9,918 full-time nursing faculty from schools with at least 16 full-time faculty offering baccalaureate and higher degree programs and identified as having membership in AACN within the United States. The sample included 243 faculty who returned completed surveys.

The sample consisted of faculty who were employed in institutions identified through a stratified random sampling technique and who chose to participate in the study. The participating institutions for this study were selected using a stratified random sampling technique to select specific numbers of faculty from the four AACN regions to achieve geographic representation. Further, proportionality was achieved by multiplying

each percentage by 1,000 to reach faculty numbers needed from each region. The final sample consisted of 243 faculty representing 7 schools (35.8%) from the Southern Region; 5 (15.3%) schools from the North Atlantic Region; and 6 (30.7%) schools from the Midwest Region; and 4 (18.2%) schools from the Western Region for a total of 22 schools.

Demographic data were collected on: gender, age, faculty rank, highest degree held, tenure status, years at institution, and length of contract. The resulting sample was overwhelmingly female (93.4%). Table 2 describes the descriptive data related to gender of the participants.

Table 2

Frequency Distribution of Participants by Gender (N=243)

Gender	Total Sample		
	n	%	
Female	227	93.4	
Male	15	6.2	
No response	1	.4	
Total	243	100.0	4.

The majority of participants were older than 51 (56.8%, n= 138). Faculty reporting ages of 61 and older accounted for 14.4 % (n=35). Seventy-one (29.2%) of the faculty reported being between the ages of 41-50 years of age. Table 3 reflects the distribution of the age of the sample.

Table 3

Frequency Distribution of Participants by Age (N=243)

Age	Total Sample		
	n	%	
26-40	33	13.6	
41-50	71	29.2	
51-60	103	42.4	
61+	35	14.4	
No response	1	.4	
Total	243	100.0	

Data were collected concerning the rank of the faculty participants. Table 4 presents the distribution of faculty by rank. The majority (70.8%) of the faculty reported their rank as Instructor (41.2%) or Assistant Professor (29.6%). Forty-five (18.5%) of the faculty held the rank of Associate Professor and 24 (9.9%) reported the rank of Professor.

Table 4

Frequency Distribution of Participants by Faculty (N=243)

Rank	Total Sample		
	n	%	
	····		<u></u>
Instructor	100	41.2	
Assistant	72	29.6	
Associate	45	18.5	
Professor	24	9.9	
No response	2	.8	
Total	243	100.0	

Table 5 reflects the frequencies for participant's responses to the highest degree held. The number of faculty reporting a doctoral degree was 108 (45 %). Of those, 74 (30%) reported having a Ph.D., 5 (2.1%) had an Ed.D. 6 (2.5%) had a DSN, 10 (4.1%) had a DNS and 13 (5.3%) had a DNP degree. One hundred and eighteen (48.6%) of faculty reported having a master's degree (MN or MSN). Seventeen (6.9%) did not indicate the highest educational degree.

Table 5

Frequency Distribution of Participants by Highest Degree Held (N=243)

Degree	Total Sample		
	n	. %	
<u> </u>			
Ph.D.	74	30.5	
Ed.D.	5	2.1	
DSN	6	2.5	
DNS	10	4.1	
DNP	13	5.3	
MN	16	6.6	
MSN	102	42.0	
No response	17	6.9	
Total	243	100.0	

Table 6 presents the frequencies for participants according to tenure status. One hundred fifty-five (63.8%) of the respondents reported not being tenured. Eighty-six (35.4%) reported being on the tenure track and 47(19.3%) reported being tenured. Some participants answered yes to tenure track and tenured, thus compounding the data.

Table 6

Frequency Distribution of Participants by Tenure Status (N=243)

	Total Sample		
Tenure Track	n	%	
Tenure Track	86	35.4	
Tenured	47	19.3	
Non-tenured	155	63.8	

The majority 63 % (n=153) of nurse faculty reported being employed at the current institution for 10 years or less. Approximately 20 % (n=49) of the faculty reported being at the current institution for one year or less and 31% (n=75) reported being at the same institution for five years or less. Approximately 21% (n=50) reported being employed between 11-20 years and 9% (n=22) reported being employed at the current institution for 21 or more years. Participant's frequencies for the number of years at their institution are displayed in Table 7.

Table 7

Frequency Distribution of Participants by Years at Current Institution (N=243)

Years	Total Sample		
	n	%	
1 or less	49	20.2	
1-5	26	10.7	
6-10	78	32.1	
11-15	31	12.8	
16-20	19	7.8	
21 or more	22	9.1	
No response	18	7.4	
Total	243	100.0	

Data were collected on length of faculty contract. The data indicated an almost even split between the two types of contracts with the faculty having a 12 month contracts 51.4% n=125, while 47.4% n=115 had 9 or 10 month contracts. Table 8 reflects frequency distributions by length of contract.

Table 8

Frequency Distribution of Participants by Length of Faculty Contract (N=243)

Months of Contract	Total Sample		
	n	%	
			.,
9	102	42.0	
10	13	5.3	
12	125	51.4	
No response	3	1.2	
Total	243	100	

A profile of the 243 subjects based upon the demographic data revealed the majority of participants were over 51 years of age, female, with a master's degree as the highest degree obtained, held the rank of instructor, with 6-10 years at their current university.

Numerous variables were used to represent the major concepts of the study.

Variables used to address research questions are found in Table 9.

Variables Used to Address Research Questions

Table 9

Variable	Variable Description	RQ#
Rolecon	Role conflict	1 & 2
Roleamb	Role ambiguity	1& 2
Work role balance:	Encompassed the three subscales	1 & 2
	of research, teaching and service	
Resdiff	Difference between current and preferred	1 & 2
Teachdiff	Same as above	1 & 2
Servdiff	Same as above	1& 2
Jobsat	Job Satisfaction	1, 3, & 4
Intent	Intent to stay	2, 3 & 4

Descriptive statistics for Job Satisfaction, Role Ambiguity, Role Conflict, Intent to Stay and Work Role Balance are presented in Tables 10-11. The data are reported using minimum, maximum, mean and standard deviations.

To ascertain nurse faculty job satisfaction the respondents' scores on the Abridged Job Descriptive Index (AJDI) and the Abridged Job In General scale (AJIG) were combined to determine the mean score of job satisfaction. Table 10 represents scores for Job Satisfaction.

Table 10 also shows AJDI and the AJIG scores, as well as, the range, the mean and standard deviation for the subscales of the AJDI. The three highest mean scores were

satisfaction with work on present job, co-workers, and job in general. A mean of 40.96 for satisfaction in work on present job (W) out of a maximum score of 54.0 with a SD of 3.02 was reported. The mean for satisfaction in present pay (P) was 11.74 out of a maximum score of 54.0 with a SD of 5.06., while the mean for job in general (ADIG) was 45.46 out of a maximum score of 54.00 with a SD of 5.36. The two lowest mean scores were satisfaction with pay (M = 11.73, SD of 5.05) and satisfaction with promotion (M = 14.02, SD 5.26). A mean score of 40.95, SD of 4.31 was reported for satisfaction with supervisors.

Table 10

Descriptive Statistics: Job Satisfaction

Variable	n	Minimum	Maximum	Mean	Std. Deviation
<u>AJDI</u>					
W	240	.00	54.00	49.0885	3.01598
P	234	.00	54.00	11.7397	5.05928
PR	238	.00	54.00	14.0218	5.26566
S	238	.00	54.00	40.9565	4.31949
C	240	.00	54.00	49.3970	2.67855
AJIG	238	.00	54.00	45.4659	5.35652
Jobsat	240	5.00	99.00	74.1875	17.10398

Note. W = work on present job, P = pay, PR = promotion, S = supervisor, C = coworkers, AJIG = job in general, Jobsat = overall score.

The Cronbach's alpha reliability coefficients in the current study for the five facets of the AJDI were as follows: Work on present job, .824; present pay, .794; promotion, .851; supervision, .823; co-workers, .737. The Cronbach's alpha for AJIG was .873 and the total job satisfaction was .899.

Role ambiguity (questions 1-6) and role conflict (questions 7-14) were determined using the Role Questionnaire. Work role balance scores and its three subscales: research difference, teaching difference, and service difference are summarized in Table 11. Table 11 provides a summary of the measures of central tendency for role ambiguity, role conflict, and intent to stay and work role balance. The scores on role ambiguity ranged from 5-42 with mean score of 29.17 and *SD* of 9.96. The scores on Role Conflict ranged from 9-52 with a mean score of 32.06 and a *SD* of 6.89.

A revised Intent to Stay Scale collected data using a 7-point Likert scale. The minimum score was 4, the maximum score was 28, M = 22.07, SD 6.64. The scores for overall intent to stay are reported in Table 11.

Work role balance was calculated by subtracting the difference between actual and preferred hours for research (research difference), teaching (teaching difference) and service (service difference). The two variables of research difference and Service difference reported negative mean discrepancy scores. The mean discrepancy score for research difference was -5.79 and the mean for Service difference was -3.99. The mean discrepancy score for Teaching difference was 6.74. Table 11 presents the scores for Work Role Balance.

Table 11

Descriptive Statistics: Role Ambiguity (roleamb) and Role Conflict (rolecon), Overall

Intent to Stay (Intent) and Work Role Balance (research difference, Teaching difference, and Service difference)

Variable	n	Minimum	Maximum	Mean	Std. Deviation
Roleamb.	241	5.00	42.00	29.1702	9.96388
RoleCon	241	9.00	56.00	32.0567	6.89998
Intent	241	4.00	28.00	22.0664	6.64170
Work Role	e Balanc	ee			
Resdiff	240	-41.00	20.00	-5.7903	7.89828
Teachdiff	204	-40.00	45.00	6.7451	10.78147
Servdiff	193	-20.00	27.00	3990	5.99143

Cronbach's alpha in the current study for role ambiguity was .889 and for role conflict .858 indicating internal consistency reliabilities were similar to Rizzo's findings

of Spearman-Brown internal reliability coefficients for Role Ambiguity reported from two studies as .76 and .90 and .90 and .94 for Role Conflict (Rizzo et al., 1970).

Research Questions

Research Question 1

Can perception of role conflict, role ambiguity and role balance statistically significantly predict nursing faculty's job satisfaction?

A simultaneous multiple regression analysis was conducted to assess the prediction of nurse faculty's job satisfaction from role conflict, role ambiguity and work role balance (research, teaching and service differences). Evaluations of linearity, normality, homoscedasticity, and multicollinearity showed that the assumptions were met within acceptable limits. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted job satisfaction perceptions, $R^2 = .393$, F (5,160) = 20.74, p < .05. This model accounted for 39.3% of the variance in job satisfaction, based on information from the predictors (role conflict, role ambiguity and work role balance).

Table 12 presents a summary of the regression coefficients in the model. Based on the standardized regression coefficients, the role conflict variable is the most powerful predictor, while the teaching difference component of work role balance is the weakest predictor. All variables except for work role balance variable of research difference, had a negative impact on job satisfaction. Regression coefficients are shown in Table 12.

Table 12

Regression Coefficients for Independent Variables of Role Conflict, Role Ambiguity and

Work Role Balance (Research difference, Teaching difference, and Service difference)

a. Dependent variable: Job Satisfaction

		Unstandardized Coefficients	Std. Error	Standardized Coefficients		t	Sig.
		В	Beta				
					,		
Model	(Constan	t) 112.775	4.121				
	Role Con	677	.125	381	-5.398	.000	
	Role amb	855	.172	343	-4.974	.000	
	Resdiff	.166	.172	.076	1.139	.256	
	Teachdiff	012	.117	007	104	.918	
	Servdiff	026	.226	008	116	.907	

a. Dependent Variable: Job Satisfaction. *Note*. Role Con = Role Conflict, Role amb = Role Ambiguity, Resdiff = research difference, Teachdiff = teaching difference, Servdiff = Service difference.

Research Question 2

Can nurse faculty's perception of role conflict, role ambiguity, and role balance statistically significantly predict nurse faculty's intent to stay?

A simultaneous multiple regression analysis was conducted to assess the prediction of nurse faculty's intent to stay from role conflict, role ambiguity and work role balance (research, teaching and service differences). Evaluations of linearity, normality, homoscedasticity, and multicollinearity showed that the assumptions were met within acceptable limits. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted intent to stay perceptions, $R^2 = .083$, F(5,161) = 2.93, P<.05. This model accounted for almost 8.3% of the variance in Intent to Stay, based on information from the predictors (role conflict, role ambiguity and role balance). Table 13 presents a summary of the regression coefficients in the model.

Based on the standardized regression coefficients, the role conflict variable is most powerful of the predictors, while the teaching difference variable is the weakest predictor. All variables except the teaching difference had a negative impact on intent to stay. Regression coefficients are shown in Table 13.

Table 13

Regression Coefficients for Role Conflict, Role Ambiguity, and Work Role Balance

1	Unstandardized Coefficients	Std. Error Standardized Coefficients			Sig.					
	В									
Model (Constant) 28.6624.121										
Role Con	124	1.883	-2.166	-5.398	.032					
Role amb.	142	.057	153	-1.806	.073					
Resdiff	025	.067	031	372	.710					
Teachdiff	011	.054	.017	.200	.842					
Servdiff	046	.103	036	444	.658					
	Role Con Role amb. Resdiff	B ant) 28.6624.121 Role Con124 Role amb142 Resdiff025 Teachdiff011	Coefficients B ant) 28.6624.121 Role Con124 1.883 Role amb142 .057 Resdiff025 .067 Teachdiff011 .054	Coefficients Coefficients B Beta Beta Ant) 28.6624.121 Role Con124 1.883 -2.166 Role amb142 .057153 Resdiff025 .067031 Teachdiff011 .054 .017	Coefficients B Beta Ant) 28.6624.121 Role Con124 1.883 -2.166 -5.398 Role amb142 .057153 -1.806 Resdiff025 .067031372 Teachdiff011 .054 .017 .200					

a. Dependent Variable: Intent to Stay

Research Question 3

Is there a statistically significant relationship between job satisfaction and intent to stay among nursing faculty?

A Pearson correlation coefficient was calculated between Job Satisfaction and the Intent to Stay among nursing faculty. The analysis showed a significant relationship (r = .376, p < .05). This association is moderate in strength. As the Job Satisfaction increases, the intent to stay among nursing faculty tended to increase as well. The correlation matrix is shown in Table 14.

Table 14

Correlation Matrix for Job Satisfaction and Intent to Stay (N=240)								
	Intent	jobsat	w	p	pr	S	c	jig
Intent								
Jobsat	.376 *							
Work on present job		.303*	.650					
AJIG			.450*	.790	.621			

Variables: Job Satisfaction (jobsat): work on present job (w), abridged Job in General (AJIG) and Intent to Stay (Intent)

^{*}p<.05(Two-tailed significance)

Research Question 4

Is there a statistically significant difference between job satisfaction and intent to stay based on length of contract, years at current institution of and rank?

A factorial MANOVA was conducted to determine whether a significant difference exists between job satisfaction and intent to stay based on length of contract, years at current institution, and rank. The factorial MANOVA revealed no significant 3-way interaction (rank*contract*years)- Pillai's Trace = 0, p = 1, and no significant 2 way interactions: (years * rank)-Pillai's Trace = 0, p = 1; (contract*years)-Pillai's Trace = 0, p = 1; (contract* years) – Pillai's Trace = 0, p = 1. The multivariate test indicated the main effect, rank, was significant - Pillai's Trace = .07, F(6,396) = 2.55, p = .02. The other main effects were not significant: years-Pillai's Trace = 0, p = 1; contract-Pillai's Trace = 0, p = 1. With a large sample, as the number of degrees of freedom increases, the Hotelling-Lawley trace, Pillai's trace and Wilk's likelihood converge. Consequently, the choice among these three statistics is not an important issue when the n is large. According to literature, Pillai's trace guards against Type 1 error. Additionally, for maximum protection against finding a statistical significance when there is none, with small samples, Pillai's trace appears to be preferred (Hair, Anderson, Tatham, & Black, 1998, p. 351).

Next, the researcher examined whether the main effect, rank, was significant for the dependent variables. Job satisfaction was significant, F(3,198) = 3.61, p = .01, partial eta squared = .05, observed power = .79; and Intent to stay was not significant F(3,198) = .81, p = .49. Means for job satisfaction and rank are shown in Table 15.

Table 15

Means for Job Satisfaction and Rank

Dependent Variable	Rank	Mean
Job Satisfaction	Professor	49.46
	Associate Professor	49.91
	Assistant Professor	54.06
	Instructor	53.87

Tukey HSD Post hoc comparisons for rank and job satisfaction revealed that the

Professors responded significantly lower than the Assistant Professors. Professors
responded significantly lower than Instructors. The Associate Professors responded
significantly lower than the Assistant Professors. The Associate Professors responded
also significantly lower than the Instructors. All other ranks were not significantly
different from each other. Results of Post hoc tests are shown in Table 16.

Table 16

Tukey HSD Post hoc Comparisons

		Subset					
	Rank	n	1	2	3		
Tukey HSD ^{a, b} P	rofessor	24	49.458				
A	Associate Professor	41	49.911	49.911			
Ir	nstructor	91		53.866	53.866		
A	ssistant Professor	66			54.058		

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is MEAN Square (Error) = 43.203

- a. Uses Harmonic Mean Sample Size = 43.385.
- b. Alpha = .05

Summary

This chapter presented a description of participants and the results of this study. The demographic data of the 243 subjects in this study revealed the majority of participants were over 51 years age, female, MSN as the highest degree, held instructor rank, employed 6-10 years at their current university. These findings support the national data regarding the average age of faculty as well as the reported need for doctorally

prepared faculty in the university setting (Special survey of AACN membership on vacant faculty positions for academic year 2008-2009).

The first research question evaluated whether perception of role conflict, role ambiguity and role balance could statistically significantly predict nurse faculty's job satisfaction. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted job satisfaction, $R^2 = .393$, F(5, 160) = 20.74, p < .05.

The second research question evaluated nurse faculty's perception of role conflict, role ambiguity, and role balance scores as predictors for intent to stay. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted job satisfaction, $R^2 = .083$, F(5,161) = 2.93, p<.05.

The third research question evaluated the relationship between Job Satisfaction and Intent to Stay. The correlation between Job Satisfaction and Intent to Stay was significant, r = .376, p < .05.

The fourth question evaluated if a statistically significant differences existed between job satisfaction and intent to stay based on length of contract, years of service and rank. There was no significant 3-way interaction, nor any significant 2-way interactions. Only 1 main effect (rank) was significant within one dependent variable (job satisfaction) F(3, 198) = 3.61, p = .01, partial eta squared = .05, observed power = .79. The main effect found to be significant was Rank-Pillai's Trace = .07, F(6, 396) - 2.55, = .02. Tukey HSD Post hoc comparisons for rank and job satisfaction were then performed to determine among which academic ranks the significant differences existed.

Those holding the rank of Professor were the least satisfied, while the Assistant Professors indicated the highest level of job satisfaction.

Chapter V discusses research findings and compares the findings of this research to previous studies. Conclusions, limitations, implications and recommendations for future research is addressed.

CHAPTER V

DISCUSSION, CONCLUSIONS, LIMITATIONS, IMPLICATIONS AND FUTURE RESEARCH

Overview

Since the nursing faculty shortage negatively impacts the overall nursing shortage, exploration of factors that contribute to the attrition of nurse faculty was pertinent to both shortages. As a result of the nursing shortage, an increase in nurse faculty role stress has emerged as academic administrators struggle to meet the needs of the nursing shortage and public demands to increase enrollment (Hinshaw, 2001). The increase in enrollment, while socially and politically sensitive, further complicates the already delicate balance of teaching, research and service, as more emphasis is placed on teaching. Therefore, the impact of work role demand associated with the tripartite mission on faculty retention is of paramount importance.

Thus, the purpose of this study was to determine if role conflict, role ambiguity, and work role balance predicted job satisfaction and intent to stay in nursing faculty. A convenience sample of nurse faculty from nursing schools identified through a stratified random sampling technique participated in this study. The random stratified sampling technique was used to acquire institutional representation from each of the four AACN regions within the United States. The Role Questionnaire (Rizzo, House, & Lirtzman, 1970) was used to measure role conflict and role ambiguity and the Abridged Job Descriptive Index (Stanton, Sinar, Balzar, Julian, Thorenson, Aziz et al., 2001) and Abridged Job In General Scale (Stanton, Sinar, Balzar, & Smith, 2002) were used to measure job satisfaction. Researcher revised Work Role Balance (Gormley, 2005)

questions were used to determine the faculty's perception of role balance. A researcher revision of Price's Intent to Stay Scale was used to measure faculty intent to stay at their current job and present university (Garbee, 2006; Kosmoski & Calkin, 1986; Price & Mueller, 1981; Yoder, 1995). Demographic data were collected using a researcher developed survey. All instruments were combined into one online survey.

The four research questions were: 1) Can perception of role conflict, role ambiguity and role balance statistically significantly predict nursing faculty's job satisfaction?; 2) Can nurse faculty's perception of role conflict, role ambiguity, and work role balance statistically significantly predict nurse faculty's intent to stay? 3) Is there a statistically significant relationship between job satisfaction and intent to stay among nursing faculty?; and 4) Is there a statistically significant difference between job satisfaction and intent to stay based on length of contract, years of service and rank?

Data analysis revealed that job satisfaction and intent to stay were predicted by the linear combination of role conflict, role ambiguity and work role balance. Further analysis revealed a moderate positive relationship existed between job satisfaction and intent to stay in nursing education indicating satisfied faculty were more likely to stay in nursing education.

Finally, there was no statistical difference between job satisfaction and intent to stay based on length of contract, years of service; however, the multivariate test indicated the main effect, faculty rank for the dependent variable, job satisfaction, was significant. Discussion of the research findings and conclusions follow, along with limitations, implications and recommendations for further research.

Discussion of Findings and Conclusions

Theoretical Framework

The findings were consistent with those found in the literature and supported the theoretical framework of this study, *Theory of Role Dynamics* (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). The theory focused on the key concepts of role conflict and role ambiguity. Kahn et al. studied the effects of the environment on the physical and mental well-being of the individual. The theory defined environment as consisting of the groups to which the individual belongs within an organization in which the individual plays a variety of roles. The theory posited that specific characteristics of the organizations and expectations of the groups determine behaviors of the focal person, nurse faculty in this study. *Organization* was defined in this study as the school or college of nursing and *role* was defined as the various expectations of teaching, research and service. (Kahn et al., 1964).

According to the theory, role conflict occurs when the various role senders have different role expectations for the focal person. The *role sender* was considered as the supervisor or administrator. Role ambiguity occurs when information required to perform job duties or role requirements is lacking or not effectively communicated from the role sender to the focal person (Kahn et al., 1964).

The findings of this study added dimensions to the theoretical framework and are supported in the literature suggesting role ambiguity and role conflict along with job satisfaction may lead to resignations (Rizzo, House, & Lirtzman, 1970). Fain (1985) reported a relationship between job satisfaction and role conflict and role ambiguity.

Hinshaw (2001) supported the notion that role stress, particularly role conflict, role ambiguity and work role balance could potentially be blamed for the shortage of nurse faculty. Hinshaw's study suggests role conflict, role ambiguity, job satisfaction had a causal relationship to retention.

In the current study, faculty members belong to a group with expectations inherent within a school of nursing. Behaviors of nurse faculty are also guided by the expectation of the tripartite mission and the added expectation of clinical expertise. The findings in the current study suggest these multifaceted expectations have an interwoven relationship to job satisfaction and intent to stay in nursing education. While this study did not test specific organizational characteristics, results show pay, promotion, as well as perceived difference in the amount of time spent in research were sources of dissatisfaction which are indirectly associated with role ambiguity, role conflict and work role balance.

Demographic Data

The demographic data in the current study reflect the national norms. Data in the current study mirror the national trend of aging faculty, the need for doctorally prepared faculty who are willing to participate in teaching as well as research activities. The analysis of the demographic data of the 243 subjects in this study revealed the majority of participants were over 51 years age, female, MSN as the highest degree, held instructor rank, and were employed for 6-10 years in the current institutions. These findings reflect the national data regarding the average demographic characteristics of faculty (AACN, 2008a). The AACN'S report on 2007-2008 Salaries of Instructional and Administrative Nursing Faculty in Baccalaureate and Graduate Programs in Nursing indicated the ages

of nurse faculty are increasing which reduces the potential number of years left in the teaching role.

The demographics also revealed the majority of nurse faculty had the rank of instructor 41.2 % (n=100), followed by Assistant Professor 29.6 %(n = 72). The remainder of the respondents represented 28.4 %(n = 69) with associate professors 18.5 %(n= 45) and professors represented 9.9 %(n = 24). The findings indicated the majority (41.2%) of nurse faculty were at the rank of instructor and had a master's degree as their highest level of education. This finding supports the AACN August 2008 report on the faculty vacancy rate revealing most of the current vacant positions (88.1%) required a doctoral degree.

The primary role of an instructor tends to be teaching, leaving little time for the scholarship of research or service. Yet, in many universities there is the expectation for all faculty members to be engaged in scholarship. Additionally, promotion is normally limited to those holding a doctoral degree and pay is normally linked to promotion which may explain the findings of dissatisfaction regarding pay and promotion. These concerns are reflected by the AACN citing noncompetitive salaries and lack of individuals willing to teach and conduct research (AACN, 2008b). The perceived conflict of organizational expectations and expected outcomes for promotion and pay creates role ambiguity.

Conclusions

Research Question 1. Can perception of role conflict, role ambiguity and role balance statistically significantly predict nursing faculty's job satisfaction?

The majority of participants in the current study were satisfied overall with their job. To determine whether employees are satisfied using the AJDI and the AJIG, the

manual suggested total possible score of 54 and scores above the neutral point of 27 indicated satisfaction while scores below 27 indicated dissatisfaction (Balzar, et al., 2000). Since the AJIG indicates overall job satisfaction, the mean score of M=45.47, SD 5.36 suggests faculty were satisfied with their job overall.

In addition, scores would suggest that participants were satisfied with their work on present job (M = 49.09, SD 3.02), with their supervisors (M = 40.96, SD 4.32), and their co-workers (M = 49.47, SD 2.68). However, faculty participants were dissatisfied with their pay (M = 11.74, SD 5.06) and opportunities for promotion (M = 14.02, SD 5.27).

These findings indicate faculty enjoy their role as faculty, working with their coworkers and appreciate their supervisors, but are dissatisfied with their pay and opportunities for promotion. The lowest scores regarding pay and promotion are partially supported by the findings from Moody's (1996) national survey purporting pay as the strongest correlation to job satisfaction and support the AACN'S August 2008 report which revealed competition for jobs with more competitive salaries as a critical issue in recruitment and retention of nurse faculty.

The faculty reported a mean score for role ambiguity was M = 29.17, SD 9.96 while the mean score for role conflict was M = 32.06, SD 6.89. These findings suggest nurse faculty perceived high levels of both role conflict and role ambiguity. Role ambiguity scores ranged from 6-42 and for role conflict the scores ranged from 8-56. Scores for role ambiguity above 21 indicated high levels of role ambiguity and scores above 28 indicated high levels of role conflict.

Mean Scores for work role balance were as follows: Research difference M = -5.79, SD 7.89; Teaching difference M = 6.75, SD 10.78; Service difference

M = -.399, SD 5.99. The negative score in the research difference suggested nurse faculty would prefer to have more time to spend in the role of research, while the positive score in teaching suggested faculty would prefer to spend less time in the role of teaching.

The findings in the current study have shown that the combination of role conflict, role ambiguity and work role balance significantly predicted job satisfaction (p <.05). The predictor model explained 39.3% of the variance and indicates a strong significance. Since the individual variables of role conflict, role ambiguity and work role balance were treated as a set of predictor variables, the research question did not differentiate among predictors. However, the interwoven relationship of the predictor variables was found to be predictors of job satisfaction and each of the predictor variables contributed to the overall model.

These findings suggest that when nurse faculty experience more role conflict, role ambiguity and felt less balanced in their work roles that the result may be decreased job satisfaction. Time constraints, heavy teaching loads, and limited time to commit to research, contribute to role stress in the form of role conflict and work role imbalances which may explain these results. This role conflict and role ambiguity may be influenced by the presence of the nurse and nurse faculty shortage.

The findings in this study suggest that leaders must clearly communicate faculty expectations and provide assistance in prioritizing those expectations. These results are supported in the literature by Rizzo et al. (1970) citing a relationship existed between role ambiguity and role conflict and job tension thus, job satisfaction. Other role theorists

reported that role ambiguity and conflict negatively impact job satisfaction (Hardy & Conway, 1978; Kahn et al., 1964).

Similarly, Fain (1985), found role conflict and role ambiguity were negatively correlated to job satisfaction. Role conflict and role ambiguity were measured by the Role Questionnaire. Findings revealed role ambiguity ($r = -.282, p \le .05$) and role conflict ($r = -.374, p \le .05$) in correlation to job satisfaction scores. Fain's findings suggested a significant negative relationship existed between nurse faculty's perceptions of the five facets of job satisfaction and role conflict and ambiguity.

In contrast, the current study, employed simultaneous multiple regression to examine the linear combination of role conflict, role ambiguity and work role balance to job satisfaction which was measured by the Abridged Job in General Scale(AJIG).

Previous literature has linked role ambiguity and role conflict with work role balance (Dua, 1994; Fain, 1985; Gormley, 2005; Hinshaw, 2001).

Gormley (2005) examined the relationships of organizational climate, role ambiguity, role conflict and work role balance. Additionally, Gormley found the distribution of time spent in research, teaching, and service termed as work role balance negatively affected role ambiguity and role conflict. While Gormley found correlations between organizational climate and role ambiguity and role conflict, no correlation was found between work role balance and the same variables. However, since the primary role for most nurse faculty is teaching, yet since, the outcomes of research activities are often a basis for pay and promotion faculty may perceive role conflict regarding time constraints and role ambiguity as roles become unclear (Gormley, 2005).

Similarly, the findings of the current study reflected that faculty have role ambiguity, role conflict and work role imbalances, therefore, it would appear that faculty need guidance in achieving the expectations of the faculty role in order to achieve job satisfaction. Mentoring programs have been suggested as a means to socialize new or less experienced faculty into the roles of teaching and research in the university setting (Garbee, 2006; Garbee & Killacky, 2008; Gormley, 2005).

Research Question 2: Can nurse faculty's perception of role conflict, role ambiguity, and role balance statistically significantly predict nurse faculty's intent to stay?

The findings revealed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted intent to stay, $R^2 = .083$, F(5,161) = 2.93, p < .05. The mean scores for overall intent to stay were M = 22.07, SD = 6.64. The range of scores was from 4-28 with 28 indicating the strongest intent to stay, with intent to stay at 14 considered neutral and 4 the weakest intention to stay, thus intent to stay scores were overall good.

The linear combination of the three variables had a significant impact on the dependent variable of intent to stay; however it only explained 8.3 % of the variance. Although findings were significant, much of the variance remains unexplained, thus the overall contribution of role conflict, role ambiguity and work role balance on faculty intent to stay has to be considered in the context of possible explanations of the remaining variances. This may indicate variables not included in the current study have an impact on intent to stay such as leadership, or organizational climate. Another

plausible explanation for the small variance may be that the majority of participants were on the non-tenured track.

Findings from Cavenar's (1987) study examined the relationship between communication, role conflict, role ambiguity, job satisfaction and retention. Cavenar's findings revealed negative relationships existed between role conflict (r = -.370, p < .05,) and ambiguity (r = -.194, p < .05) and retention. In the current study, simultaneous multiple regression results with predictor variables of role conflict, role ambiguity and work role balance explained 8.3 % of the variance in overall intent to stay.

The current study expanded the setting to baccalaureate and higher degree programs in AACN institutions, while Cavenar (1987) limited her study to schools offering doctor of philosophy degree programs. In schools offering only a doctor of philosophy, role conflict may be less than in schools offering baccalaureate degrees since faculty members do not have the added expectation of teaching clinical. Additionally, in doctor of philosophy programs, all faculty are doctorally prepared, which may elicit more homogeneous results in faculty job satisfaction and intent to stay.

Although Gormley (2005) found role ambiguity to be a predictor of intent to leave and did not study intent to stay, support for the current findings was implied. While intent to leave and intent to stay are seemingly opposing variables, if role ambiguity predicted intent to leave it stands to reason intent to stay would be impacted by role ambiguity. In other words, a decrease in role ambiguity may lead to a decrease in intention to leave or intention to stay. Thus, findings suggest improved communication of expectations may improve faculty retention thereby enhancing the capacity for increased student enrollment.

Research Question 3: Is there a statistically significant relationship between job satisfaction and intent to stay among nursing faculty?

The analysis showed a significant relationship (r = .376, p < .05). This association is moderate in strength. As the job satisfaction increases, the intent to stay among nursing faculty tended to increase as well. Since intent to stay impacts retention, these findings have implications for administrators to consider the impact of the current study's findings suggesting the variables, role ambiguity, role conflict and work role balance were in combination predictor variables for job satisfaction.

Perceived heavy teaching loads, research requirements and community service responsibilities may overwhelm faculty causing role stress (Kingston-Mann & Sieber, 1996). These workplace stressors potentially have negative effects on job satisfaction (Sanderson, Phua, & Herda, 2000). Since the establishment of nursing programs as academic units in institutions of higher education and the expectations of the tripartite mission added to the already demanding expectations of clinical competency and practice, nursing literature reported nurse faculty are challenged to meet the increased expectations (Kalisch & Kalisch, 1986). The expectation of accomplishing all three domains of scholarship leaves faculty in a dilemma, as each domain has a mutual level of importance leading to role strain or conflict with respect to work role balance (Gormley, 2005; Hinshaw, 2001; Mobily, 1991).

Similarly, findings were supported by the literature citing job satisfaction as a predictor of intent to stay by previous researchers (Kosmoski & Calkin, 1986; Price & Mueller, 1981). Garbee (2006) found job satisfaction had a strong correlation to intent to stay one and five years. Findings in this study suggest that satisfaction with role

communications and balance may lead to better satisfaction and indicates intention to stay will also increase.

Kosmoski and Calkin (1986) reported satisfaction with work, management, opportunities for advancement, and colleagues contributed to an increased intention to stay in critical care nurses and satisfaction with work activities was found to be the strongest predictor of intent to stay. In general, while the roles of practicing nurses are somewhat different, they experience the same issues as nurse faculty with role stress and leader communication. Consequently, these findings lend support to the current study revealing job satisfaction was significantly correlated to nurse faculty intent to stay.

Based on a random cluster sample of 39 schools of nursing in states within the Southern Regional Education Board (SREB), Garbee (2006) reported moderate positive correlations between intent to stay for one (r = .401, p < .05) and five years (r = .358, p < .05,) and job satisfaction which supports the findings in the current study. However, in the current study, overall intent to stay was found to be significantly correlated to job satisfaction.

In a study of over a thousand registered nurses, it was suggested that intent to stay was related to job satisfaction and opportunities for promotion (Price & Mueller, 1981). While the study participants were hospital nursing staff, these findings contribute support to the findings of the current study since opportunities for promotion in the current study had low mean scores for job satisfaction.

Research Question 4: Is there a statistically significant difference between job satisfaction and intent to stay based on length of contract, years of service (years at current institution) and rank?

The findings revealed no significant 3-way or 2-way interactions. The multivariate test indicated the main effect, faculty rank, was significant - Pillai's Trace = .07, F(6,396) = 2.55, p = .02. A post hoc test was then performed to determine which academic rank had significant differences indicating those holding the rank of Professor were the least satisfied.

The findings in the current study did not support the findings from Moody's (1996) national survey of nursing faculty. The survey included demographic variables, role orientation, organizational characteristics and job satisfaction. The findings indicated faculty members with 9 or10-month contracts were more satisfied than those with 12-month contracts; however, the current study revealed there was no statistically significant difference between job satisfaction based on length of contract.

Poindexter's (1982) study findings indicated doctorally prepared faculty perceived lower levels of role conflict and higher satisfaction with pay and promotion and tenure than master's prepared faculty. Higher satisfaction scores were found in faculty teaching primarily in graduate programs as compared to faculty teaching in undergraduate programs.

The current study's findings partially disputed the assertion that faculty members teaching in graduate programs were more satisfied. Most of the faculty members teaching in graduate programs are ranked as Associate Professor and Professor. The current study showed that there was a statistically significant difference in job satisfaction based on rank and the rank of Professor was the least satisfied.

The findings in the current study may indicate that when nurse faculty reach the top of their field, they have less opportunity for increased pay and promotion. This

explanation may be a reflection of the findings that the two lowest means were related to satisfaction with pay and promotion.

Another plausible explanation may be nurse faculty holding the rank of professor may have increased their teaching workload due to the impact of the nurse faculty shortage. Professors may have a clinical teaching assignment or may be assigned to teach in the undergraduate program. In institutions with baccalaureate and higher programs, faculty member are often required to teach in graduate and undergraduate programs. An increased workload would have impacted job satisfaction due to work role imbalance. Faculty respondents indicated a desire to do less teaching and more research, therefore, this explanation was suggested in the findings regarding work role balance.

In summation, the data in this study were analyzed and revealed the following:

- 1. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted job satisfaction, $R^2 = .393$, F(5, 160) = 20.74, p < .05.
- 2. Regression results showed that the linear combination of role conflict, role ambiguity and work role balance significantly predicted intent o stay, $R^2 = .083$, F (5,161) = 2.93, p < .05.
- 3. Pearson correlations revealed a moderate positive relationship between job satisfaction (r = .376, p = .05,) and overall intent to stay.
- 4. MANOVA revealed a statistically significant difference existed in job satisfaction based on rank. The multivariate test indicated the main effect, faculty rank, was significant Pillai's Trace = .07, F(6,396) = 2.55, p = .02. Tukey HSD Post hoc test indicated that the rank of Professor was the least satisfied.

Limitations

First, the response rate was affected by data collection just prior to Thanksgiving break followed by the end of the fall semester. As a result the data collection had to be extended into the first few weeks of the spring semester.

Second, some valuable data may have been lost since the respondents were not given an opportunity to make comments. Adding a qualitative component to the study may offer further explanations for the responses to research questions.

Third, access to faculty was dependent upon the deans or directors appointing a gatekeeper. The stringent work schedule and excessive daily emails may have hindered the response from the deans or directors which reduced the response rate for the study.

Fourth, the online survey method may have prevented some faculty from responding if they were uncomfortable with taking surveys online. This may have contributed to the number of missing responses on various questions.

Fifth, a convenience sample was used to select faculty respondents which could limit the ability to generalize the findings. However, online survey collection method could only work well with a nonrandomized sample.

Sixth, the study was limited by the percent of variance explained. To increase the percent of variance explained, some demographic data may be added to the multiple regression analysis in research questions 1 and 2 such as rank, age or tenure status in predicting job satisfaction and intent to stay, since some factors other than study variables may further explain faculty intent to stay.

Last, the survey was limited to schools with at least 16 full-time faculties and the selection using a random table of numbers. This was unavoidable due to the random sampling technique employed in this study.

Implications

Role ambiguity was defined as "the degree to which information is lacking on expectations, methods, and consequences of role performance" (Latack, 1981, p. 89) and role conflict was defined as "the perceived incongruence between role requirements placed on a focal person and his/her orientations, interests, and values" (Miles, 1976, p. 174). Since the linear combination of role ambiguity and role conflict were found to be predictors of job satisfaction and intent to stay, nursing education administrators should consider these factors in striving to create work environments conducive to retention of faculty.

Improving communications with faculty making expectations clear and concise have implications for faculty retention. Faculty and administrators should engage in open discussions to align faculty goals with the mission and vision of their organizations. It is recommended that nursing education administrators consider the dimensions of role conflict and role ambiguity relative to job satisfaction and intent to stay when revising recruitment and retention plans.

Since the means associated with satisfaction with promotion and satisfaction with pay were the lowest in the five subscales, it would suggest that faculty are concerned about the policies that guide how one receives a pay increase, as well as, concern about the process of awarding promotions or the environment that supports a faculty's success in promotion. Further reflection on the reasons for this dissatisfaction should occur to

maximize the impact on job satisfaction and intent to stay. Thus, when the focal person, in this case, nurse faculty, have difficulty prioritizing the many role expectations and pressures and is referred to as *role overload* which was found to be the most common form of role conflict (Kahn et al., 1964). The source of role conflict may be from faculty struggling to excel in teaching with no time left for research. The recommendation to administrators is not to lower standards, but instead to consider teaching and service as scholarship or provide dedicated time for the scholarship of research.

According to Dua (1994), administrators and faculty are constantly challenged in assisting faculty to balance faculty work load related to the three domains of scholarship. This struggle to balance the multifaceted expectations in academe often leads to role stress. Researchers have focused on stress, workload, burnout, role strain and turnover among university faculty (Boardman & Bozeman, 2007; Daly & Dee, 2006; Fuhrman, 1994; Goodwall, 1970; Spaights, 1980).

Perceived heavy teaching loads, research requirements and community service responsibilities may overwhelm faculty causing role stress (Kingston-Mann & Sieber, 1996). These workplace stressors potentially have negative effects on job satisfaction (Sanderson, Phua, & Herda, 2000). In turn, dissatisfaction in the organization may lead to intentions to resign from the institution or leave academe for other job opportunities (Johnsrud & Rosser, 2002; Rosser, 2004).

According to Rosser (2004), higher education is suffering from the same role stress and challenges of retaining faculty as a result of increased public scrutiny regarding faculty members' productivity and workload. The consequence of the public demands has intensified the demand in performance in the three domains of scholarship which led

to job dissatisfaction and intent to leave (Rosser, 2004). Therefore, the recommendation is for administrators to create equitable workload formulas that account for time spent fulfilling the various role and responsibilities required in the nurse faculty position.

The development of recruitment and retention plan for nurse faculty should include improved communications of the mission and vision of the institution. A component of the plan should also include a mentorship program geared to indoctrinate new faculty into the academic culture and the management of the role expectations of the tripartite.

The current study provided academic nurse leaders and administrators with useful information in creating work environments to improve job satisfaction; thus, will assist administrators in making necessary changes to retain nurse faculty thereby enhancing the capacity for increased student enrollment. The increase in student enrollment will result in more registered nurses (RN's) to fill vacancies, thereby, enhancing healthcare access and improve safety for the public.

Recommendations for Further Study

Several recommendations for further study are plausible from this study. Future research studies should continue to explore factors influencing nurse faculty job satisfaction and intent to stay, in light of the current nurse faculty shortage. The following suggested research studies require closer examination for the potential to generate new questions for future study.

First, duplication of this study is recommended; however, adding a qualitative component to capture underlying reasons for job satisfaction and dissatisfaction, affecting

intent to stay. In the current study, some valuable data may have been lost since the respondents were not given an opportunity to make comments. Adding a qualitative component to the study may generate research questions for future studies.

Second, since leadership is directly involved in creating and influencing the academic work environment, future research should examine the influence of leadership on the study variables of role conflict, role ambiguity, work role balance, job satisfaction and intent to stay. Specifically, leader communication would be directly linked to these variables regarding motivating faculty members to increase research productivity and facilitating mentorship towards this effort.

Third, a study should be conducted to develop a tool to measure role ambiguity and role conflict geared specifically to the role expectations of the three domains of scholarship role expectations for nurse faculty. A qualitative study should be done to reveal the nurse faculty's specific examples of ambiguous and conflicting aspects of communications. Perhaps, focus groups could be conducted to reveal themes among nursing faculty. This will provide a more accurate measure of nurse faculty's perceptions of role conflict, role ambiguity and work role balance.

Last, in light of the study findings regarding Professors as the least satisfied academic rank, some more in depth analysis should be done to address the differences among rank. Since there were only 24 respondents holding the rank of Professor, further analysis may explain the factors influencing job dissatisfaction among the various ranks.

Summary

The findings of this study have several implications for administrators, researchers and faculty. Nurse education administrators should find this information valuable in formulating strategic plans for their organization. The results of this study reveal that many nurse faculty members are experiencing role ambiguity, role conflict and imbalances in work role that are predictive of job satisfaction and intent to stay.

With the worsening of the nursing shortage the nurse faculty shortage must be addressed immediately. The results of this study may be used to influence national and regional legislation supporting funding for doctoral education for nurse faculty.

Additionally, these findings will add to the body of nursing knowledge and be useful in formulating future research questions regarding nurse faculty satisfaction and intent to stay.

The findings of this study indicate a need for a better understanding of role conflict, role ambiguity and work role balance. The findings suggested that the complex nature of the demands of the tripartite mission have an impact on job satisfaction and retention of nurse faculty. Therefore, it is imperative for administrators to provide role development to enhance teaching and research roles.

APPENDIX A

IRB APPROVAL



THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

118 College Drive #5147 Hattiesburg, MS 39406-0001 Tel: 601.266.6820

Fax: 601.266.5509 www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects
 must be reported immediately, but not later than 10 days following the event. This should
 be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.

 Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 28092801

PROJECT TITLE: Factors Influencing Nurse Faculty's Job Satisfaction

and Intent to Stay

PROPOSED PROJECT DATES: 09/29/08 to 09/29/09

PROJECT TYPE: Dissertation or Thesis PRINCIPAL INVESTIGATORS: Sally P. Ruel COLLEGE/DIVISION: College of Health

DEPARTMENT: Nursing FUNDING AGENCY: N/A

HSPRC COMMITTEE ACTION: Exempt Approval PERIOD OF APPROVAL: 10/06/08 to 10/05/09

Lawrence A. Hosman, Ph.D.

Da

Date

HSPRC Chair

APPENDIX B

LETTER TO DEAN/DIRECTOR

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Dear	l)r	•
Dear	υ ι.	•

I am a doctoral candidate in the School of Nursing at the University of Southern Mississippi pursuing a PhD in Nursing with a focus on leadership. My dissertation topic is factors influencing nurse faculty job satisfaction and intent to stay in full-time nursing faculty from schools offering baccalaureate and higher degree programs and identified as having membership in AACN within the United States. Your school was selected as part of a stratified random sample representing each of the four regions of AACN nursing schools offering baccalaureate and higher degree programs.

I plan to conduct an anonymous, online survey in hopes of determining a set of predictor variables for job satisfaction and intent to stay in nursing education. The surveys will be distributed via email through the software program, Zoomerang.com. The collected data will be reported in aggregate form and will not identify faculty or your institution. Strict confidentiality will be maintained. The findings could be useful for academic administrators in formulating a strategic plan for retention and recruitment efforts.

I am writing you to ask you to specify a contact person to serve as a gatekeeper whom I can email an explanatory letter of consent with a link to the anonymous survey that they will in turn forward to all nursing faculty. The anticipated time of data collection is this fall 2008.

I understand how valuable your time is and greatly appreciate your assistance with this research. Thank you in advance for your time and consideration in this matter. If you have any further questions regarding this study, please contact Sally Ruel at 504-352-5349 or Sally.Ruel@usm.edu. My faculty advisor is Dr. Katherine Nugent at 601-266-6846 or Katherine.Nugent@usm.edu. I look forward to hearing from you.

Sincerely,

Sally Ruel
The University of Southern Mississippi
Doctoral student
P.O. Box 1364
Madisonville, LA 70447
Sally.Ruel@usm.edu

APPENDIX C

LETTER TO PARTICIPANT

Dear Nursing Faculty Member,

I am a doctoral candidate in the School of Nursing at the University of Southern Mississippi pursuing a PhD in Nursing with a focus on leadership. I am requesting your participation in a study entitled, "Influence of nurse faculty's perception of Role Conflict, Role Ambiguity, and Work Role Balance on Job Satisfaction and Intent to Stay". This study is surveying full-time nurse faculty members in American Association of Colleges of Nursing (AACN) schools offering baccalaureate and higher degree programs. Your school was selected using a stratified random sample for participation in a confidential, online survey in hopes of determining predictor variables for job satisfaction and intent to stay.

Your participation in this study is voluntary. You may choose not to respond to any part of the study. The survey should take approximately 15-20 minutes to complete and includes a demographic data sheet including two work role balance questions, role questionnaire, intent to stay questions and job satisfaction survey. You will be asked to complete the survey instruments online through Zoomerang Pro Online surveys. You will be asked to provide your personal zip code and the zip code of your institution as required by the Non-Commercial use of Bowling Green State University (BGSU) Test Measures agreement for approved use of the Abridged Job Descriptive Index (AJDI) and the adjoining Abridged Job In General (AJIG). The collected data will be reported in aggregate form and you will not be identified nor will your institution. Strict confidentiality will be maintained. The findings could be useful for academic

administrators in formulating a strategic plan for retention and recruitment efforts, with potential of improving the working environment for faculty members. I understand how valuable your time is and greatly appreciate your support with this research. Thank you in advance for your time and consideration in this matter. If you have any further questions regarding this study, please contact Sally Ruel at 504-352-5349 or Sally.Ruel@usm.edu or Dr. Katherine Nugent at 601-266-6846 or Katherine Nugent@usm.edu. I look forward to hearing from you. This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board at 601-266-6820. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Return of the completed survey will signify your consent. Upon completion of this survey you will be given the option to submit your email address to become eligible for a drawing for one of four iPod's and /or to request a copy of the survey findings. To start the survey, click on the link embedded in the text below and you will automatically start the questionnaire. Thank you again for your participation in this research.

Sincerely,

Sally Ruel
The University of Southern Mississippi
Doctoral Student
P.O. Box 1364
Madisonville, LA 70447
Sally.Ruel@usm.edu

If you agree to participate in this study, please click on the link to begin the survey. http://www.zoomerang.com

APPENDIX D

QUESTIONNAIRE

Questionnaire: Factors Influencing Nurse Faculty Job Satisfaction and Intent to Stay

Instructions:

Please complete the following within two weeks of receipt. Please fill in or check the line that applies to you for each variable. Upon completion, please click "return" to send this demographic data form and the surveys. Thank you for your participation in this study.

Nurse Faculty Demographic Survey

AGE
25 or under26-4041-5051-6061 or over
GenderMALEFemale
My Zip Code
My Institution's Zip code
Academic Degree: Ph.D Ed.D MNMSN
DSNDNSDNPOther
Academic rank: ProfessorAssociate ProfessorAssistant Professor
Instructor
Tenure Track: YesNo
Tenured: YesNo
Non-Tenured: Yes No

Number of years at this college/university1 year or less6-10 years
11-15 16-20 21 years or more
Number of years in nursing education1 year or less6-10 years
11-1516-2021 or more
Length of faculty contract9 month10 month12 month
Number of hours per week spent during the academic year in:
Researchhours
Teachinghours
Service hours
Number of hours per week you would <u>prefer</u> to allocate during the academic year in:
Researchhours
Teachinghours
Service hours

Questionnaire

<u>Directions:</u> Read the following items carefully and mark the responses that best describe your feelings.

SECTION I (1)

Please check the response that best describes your feelings about your role as a faculty member at your school/college of nursing.

	Items	Very False	False	Somewhat False	Neutral	Somewhat True	True	Very True
1.	I feel certain about how much authority I have.							
2.	Clear, planned goals and objectives exist for my job.						,	
	I know that I have divided my time properly.				-			
4.	I know what my responsibilities are.					1	-	
5.	I know exactly what is expected of me.							
6.	Explanation is clear of what has to be done.							
7.	I have to do things that should be done differently.							
8.	I receive an assignment without the manpower to complete it.							
9.	I have to buck a rule or policy in order to carry out an assignment.							

10. I work with two or				
more groups who				
operate quite				
differently.				
11. I receive		 		
incompatible				
requests from two				-
or more people.				
12. I do things that are				
apt to be accepted				
by one person and			:	
not accepted by			:	
others.				
13. I receive an				
assignment without			;	,
adequate resources				
and materials to				
execute it.				
14. I work on				
unnecessary things.				

SECTION II (2)

Please check the response that best describes your intent to stay as indicated in the statements below.

Items	Very False	False	Somewhat False	Neutral	Somewhat True	True	Very True
1. I intend to stay in my current job and present university for one year							
2. I intend to stay in my current job and present university for two years.			-				
3. I intend to stay in my current job and present university for three years.							

4. I intend to stay in my				
current job and				
present university		ļ		
for five years				

SECTION III (3)

Please select the response for each statement that best describes how you feel about your present job as a nursing faculty member. There are 33 required responses for this section on job satisfaction.

on job satisfaction.	responses re	or tills see	<i>t</i> 1011
WODY ON DECENT IOD			
WORK ON PRESENT JOB	C 11	1	
Think of the work you do at present. How well does each of the	e following v	voras or	
phrases describe your work? Select: 1 for "Yes" If it describes your work			
1 for " Yes " If it describes your work 2 for " No " If it does not describe your wor	1-		
3 for "?" If you cannot decide	K		
5 101 : 11 you carmot decide	YES	NO	?
1. Satisfying	ILS	NO	+ •
 Satisfying Gives sense of accomplishment 			-
3. Challenging			
4. Dull			-
5. Uninteresting			-
5. Offineresting			1
PRESENT PAY			
Think of the pay you get now. How well does each of the following	ving words o	or nhraces	
describe your present pay?	wing words c	n pinases	,
describe your present pay.	YES	NO	?
6. Income adequate for normal expenses	125	110	† • • • • • • • • • • • • • • • • • • •
7. Fair			
8. Insecure			
9. Well paid			
10. Underpaid			1
F			
OPPORTUNITIES FOR PROMOTION			-
Think of the opportunities for promotion that you have now. He	ow well does	each of t	he
following words or phrases describe your opportunities for proj			
	YES	NO	?
11. Good opportunities for promotion			
12. Promotion on ability			
13. Dead-end job			
14. Good chance for promotion			
15. Unfair promotion policy			

SUPERVISION			
Think of your supervisor and the kind of supe		ob. How v	vell
does each of the following words or phrases d	escribe your supervision?		,
	YES	NO	?
16. Praises good work			
17. Tactful			
18. Up-to -date			
19. Annoying			
20. Bad			
PEOPLE AT WORK			
Think of the majority of people that you work	with now or people you mee	t in conne	ction
with your work. How well does each of the fo			
people?	noving words of pinases <u>aes</u>	circo tires	_
	YES	NO	?
21. Boring			
22. Helpful			
23. Responsible			1
24. Intelligent			
25. Lazy			1
		1	
JOB IN GENERAL			-
Think of your job in general. All in all, what i	s it like most of the time? For	each of the	he
following words or phrases, select:			
1 for "Yes" If it describes	s your work		
2 for "No" If it does not o			
3 for "?" If you cannot o			
-	YES	NO	?
26. Good			
27. Undesirable			
28. Better than most			
29. Disagreeable			
30. Makes me content			1
31. Excellent			
32. Enjoyable			
33. Poor			
34. I would like to be entered in the drawi	ng for 1 of four iPods. My em	ail addre	ess is
entered in the space provided.			
I understand that my answers will i	remain anonymous and that	I am not	
obligated to enter my name into the	<u> </u>		
Name:			
e-mail address:			

APPENDIX E

PERMISSION FOR TOOL

From: William Balzer [wbalzer@bgsu.edu]

Sent: Thursday, July 24, 2008 9:23 PM

To: Ruel, Sally

Cc: JDI Research Assistance

Subject: RE: Permission to use the Abridged Job Descriptive Index and Abridged Job In

General scale

Dear Ms. Ruel:

Thank you for your interest in the AJDI and AJIG. Once the non-commercial agreement has been received and reviewed, our administrative assistant will be back in touch. It is a pretty straightforward process (at least we like to think so!).

Best of luck with your research!

Bill Balzer

William K. Balzer, Ph.D.
Professor of Industrial-Organizational Psychology
Department of Psychology
Bowling Green State University
Bowling Green OH 43403
419.372.2280 419.372-6013 (fax)
wbalzer@bgsu.edu

From: Ruel, Sally [sruel@lsuhsc.edu]

Sent: Thursday, July 24, 2008 5:12 PM

To: William Balzer Cc: Katherine Nugent

Subject: Permission to use the Abridged Job Descriptive Index and Abridged Job In

General scale

Dear Dr. Balzer,

I am a doctoral candidate in the School of Nursing at the University of Southern Mississippi pursuing a PhD IN Nursing Leadership. My dissertation topic is nursing faculty shortages in SREB nursing schools offering baccalaureate and higher degree programs. To be more specific, I will be researching the "Relationship between Nurse Faculty's Perception of Role Conflict, Role Ambiguity, Work Role Balance and Job Satisfaction and Intent to Stay.

I am requesting to employ the AJDI and the AJIG scale to measure job satisfaction and I particularly like your definition of job satisfaction.

I have been in contact with your office and will be faxing the Non-Commercial agreement today.

Thank you in advance for your time and consideration in this matter. If you have any further questions regarding this study, please contact Sally Ruel at 504-352-5349 or sruel@lsuhsc.edu or Dr. Katherine Nugent at 601-266-6846 or Katherine.Nugent@usm.edu. I look forward to hearing from you.

Sincerely,

Sally P. Ruel, PhD(c), R.N. Instructor of Nursing LSUHSC/SON New Orleans, LA 504-568-4117 sruel@lsuhsc.edu

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