2000

Role Stress and Career Satisfaction Among Registered Nurses by Work Shift Patterns

Amy Jude Hoffman
Grand Valley State University

ROLE STRESS AND CAREER SATISFACTION

AMONG REGISTERED NURSES BY WORK SHIFT PATTERNS

By

Amy Jude Hoffman

A THESIS

Submitted to
Grand Valley State University
in partial fulfillment of requirements for the
Degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

2000

Thesis Committee Members:

Linda Scott, Ph.D, R.N.

Catherine Earl, Dr.P.A., M.S.N., R.N.

Donna Vanlwaarden, Ph.D.

ABSTRACT

ROLE STRESS AND CAREER SATISFACTION AMONG REGISTERED NURSES BY WORK SHIFT PATTERNS

By

Amy Jude Hoffman

In today's health care climate, the need to understand the effects of work shift patterns on role stress and career satisfaction of registered nurses (RNs) has never been greater. Therefore, the purpose of this descriptive study was to examine differences in the level of role stress and career satisfaction among hospital-based RNs by shift length. Data were collected through the use of standardized questionnaires from a probability sample of 208 RNs.

The results indicated that RNs practicing in 12-hour work shift patterns experienced significantly higher stress levels that RNs working 8-hour shifts. Additionally, workload issues and dealing with death and dying were more stressful for 12-hour RNs. Although similar perceptions of career satisfaction were noted between the two groups, significant differences were found in the areas of control, salary, technical skill, and administrative interference. Pay, autonomy, and professional status were found to be the most important determinants of career satisfaction.

Acknowledgments

I would like to extend my deepest gratitude to Linda D. Scott, Ph.D., R.N., who was not only my thesis chairperson, but my treasured nursing mentor for the past two years. She is the best of people and of nurses! She is priceless!

Appreciation is also extended to my thesis committee, Catherine Earl, Dr.P.A., M.S.N., R.N., and Donna VanIwaarden, Ph.D., who committed their time, talent, and knowledge in the development of me as a researcher.

I want to thank my close nursing colleagues, Joyce Dougherty, M.S., R.N. and Dottie Moon, B.S.N., R.N., as well as my sister, Katy Jude Magers, B.S.N., R.N., my dear friend Teresa Mervenne, my grandma, Marge Lawton, and my mom, Maggie Fuss, for their side line cheers and support during this educational endeavor.

Lastly, I would like to recognize my wonderful husband, Dave, for his limitless encouragement and support in finishing this race. I love you!

Table of Contents

List of Tables vi

List of Appendicies vii

CHAPTER

1 INTRODUCTION 1

Problem 1
Significance to Nursing 2

2 CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW 4

Conceptual Framework 4
Bolman and Deal's Organizational Model 4
The Human Resource Framework 4
King's General Systems Framework 6
Integration of the Conceptual Frameworks 10
Literature Review 11
Stress and Career Satisfaction 11
Career Satisfaction 16
Strengths and Limitations 19
Summary 20
Research Question 20
Definition of Terms 20

3 METHODOLOGY 22
Research Design 22
Selection of Subjects and Setting 22
Characteristics of the Subjects 23
Instruments 25
Procedure 29
Threats to the Validity of the Design 30

Table of Contents

CHAPTER

4 RESULTS 32
Work Shift Patterns 32
Comparison of Demographic Characteristics 33
Examination of Role Stress 35
Total Scores for the NSS 35
Subscale Scores for the NSS 36
NSS Item Comparisons 38
Examination of Career Satisfaction 40
Part A of the IWS 40
Part B of the IWS 40
IWS Item Comparisons 43
IWS Score 44
Examination of Role Stress and Career Satisfaction 45

5 DISCUSSION AND IMPLICATIONS 46
Discussion of the Findings 46
Relationship of Findings to Conceptual Framework 49
Relationship of Findings to Previous Research 50
Strengths, Limitations, and Recommendations 52
Implications of the Study 54
Significance to Nursing Administration 54
Significance to Nursing Practice 56
Significance to Nursing Education 57
Significance to Nursing Research 58

APPENDICIES 61

REFERENCES 79

List of Tables

Table		
1	Practice Areas	24
2	Reliability Coefficients for the Nursing Stress Scale	27
3	Reliability Measures for the Current Study's Subscales of the IWS	29
4	Age and Nursing Experience by Work Shift Patterns	34
5	Practice Areas by Work Shift Patterns	35
6	Comparison of RN Role Stress by Work Shift Pattern	37
7	Item Comparison of Role Stress by Work Shift Pattern	39
8	Ranking of Components Leading to Career Satisfaction	41
9	Career Satisfaction by Work Shift Patterns	42
10	Item Comparison of Career Satisfaction by Work Shift Patterns	44

List of Appendices

Appendix

A The Nursing Stress Scale..... 61

B The Index of Work Satisfaction..... 65

C Demographics..... 72

D Permission to Use the Nursing Stress Scale..... 74

E Grand Valley State University's Human Subjects Approval..... 76

F Cover Letter..... 77

CHAPTER 1

INTRODUCTION

Problem

The healthcare system is being challenged economically, politically, and socially to curtail and manage the cost of providing services along the entire continuum of care. In the face of such fiscal constraints, hospitals have "reengineered," "restructured," and "redesigned" the organization of care delivered by registered nurses (RNs). Hence, these challenges have spun the hospital practice environment into a state of turbulence (Salyer, 1995, p. 12). One strategy initiated to address the turbulence experienced by RNs in the hospital practice environment was the implementation of 12-hour work shift patterns.

Historically, 12-hour work shift patterns were introduced primarily with the goal of alleviating turnover, and improving recruitment and career satisfaction (Palmer, 1991, p. 42). However, it is debatable whether or not these goals have been achieved. In fact, nursing literature reports ambivalence about the benefits of this work shift pattern (Todd, Robinson, & Reid, 1993, p. 215). For example, Fitzpatrick, While, and Roberts (1999), Gillespie and Curzio (1996), and Northcott and Facey (1995) found that there was limited empirical evidence available to examine the impact this change has had on a myriad of variables.

Variables such as patient satisfaction, quality and quantity of care, nurse well-being, patient satisfaction, healthcare costs, role stress, and career satisfaction all require further study.

Significance to Nursing

The need for empirical studies to understand what effect extending the length of shift from 8 to 12 hours has on role stress and career satisfaction is essential for nurse executives who are trying to improve the work environment. According to Lee and Estes (1994), RNs practicing in hospital environments are stressed and dissatisfied with their careers. While stress can be beneficial, higher levels of work-related stress have been identified as being detrimental to performance. Furthermore, stress has been identified as a major factor that is responsible for increased burnout and job turnover (Collins, 1996; Lobb & Reid, 1987; Salyer, 1995). Moreover, it has been reported that there is a relationship between job satisfaction, retention, and turnover (Blegan, 1993; Cavanaugh, 1989; Lucas, Atwood, & Hagaman, 1993). Therefore, it is imperative that nurse executives understand the relationship between differing lengths of work shifts and the corresponding effect on RN role stress and career satisfaction.

Todd et al. (1993) state that adjusting work shifts without having empirically based evidence to support the changes would be doing so without a scientific foundation. If this is done without critically examining the issue, a false panacea may be created. Thus, the findings must be based upon empirical evidence rather than on unfounded reports or opinions. Using empirically based data are key in being able to optimize the hospital practice environment.

The use of data derived through research would provide organizations with information to create work environments that are less stressful and more satisfying for RNs. They would have evidence to support their decision-making. This reduces the risk that the changes made would not provide the intended results. Hence, a satisfying work environment would retain RNs and attract highly qualified individuals to choose the nursing profession as a career.

This is important since the National Advisory Council on Nurse Education and Practice (1995) predicts that hospitals will remain the major employer of RNs. Furthermore, according to Johnston (1997), "ensuring adequate numbers of appropriate, professional nursing staff to direct and provide the caring continuum is the most crucial issue facing nurse administrators in the present decade" (p. 69-70). Thus, strategic initiatives by nurse executives in creating work environments that support nursing practice are required to decrease RN role stress and improve career satisfaction. Therefore, the purpose of this study was to examine the difference between the level of role stress and career satisfaction among hospital nurses by work shift patterns.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

Two frameworks were used to examine the phenomenon within this study. The first framework was based upon the human resource portion of the organizational model developed by Lee Bolman and Terrence Deal (1997). The later framework was derived from Imogene King's (1981) General Systems Framework.

Bolman and Deal's Organizational Model

In their book entitled Reframing Organizations: Artistry, Choice, and Leadership, Bolman and Deal (1997) outline a comprehensive model to assess and analyze situations within organizations. The framework is comprised of four frames which are based upon research and practice to make sense of the inner workings of organizations and the situations people find themselves in. The four frames of this organizational model are based upon structural, political, symbolic, and human resource perspectives. The latter, the Human Resource Framework (HRF), will be expounded upon as it is one of the cornerstones in understanding the phenomenon under investigation in this study.

The human resource framework. The HRF is primarily based upon the discipline of psychology. Bolman and Deal (1997) build their framework upon the models and theories of experts, such as Abraham Maslow, Douglas

McGregor, and Chris Argyris. Within the HRF, both people and organizations have needs and rely upon each other. An organization relies and invests heavily upon people's skills, attitudes, energy, talent, and commitment. Thus, people are viewed as the key to a successful, prospering business. On the other hand, people need organizations to fulfill various intrinsic and extrinsic needs.

The HRF challenges organizations characterized by layers of hierarchy, authority owned by management alone, and inundated with rules, policies, and procedures to change their leadership style. Thus, the HRF endorses a leadership style whereby there is renewing energy, continual engagement, and meriting rewards. Within this framework, organizations have a responsibility to understand people and thus bring meaning to their work. This is the primary challenge from a human resource perspective—to find a way for people to get the work done while feeling good about what they are doing.

However, the needs of people and organizations are not always congruent. According to Bolman and Deal (1997), "when the fit between people and organizations is poor, one or both suffer" (p. 119). Thereby, conflict between people and organizations exist. In this situation, people may withdraw, become apathetic, and feel neglected or oppressed. Thus, the organization suffers as the efforts of people are diminished or as they work against the organization's goals. Consequently, the HRF necessitates a "sensitive understanding of people and their symbiotic relationship with organizations," (p. 102).

To demonstrate this linkage, Bolman and Deal (1997) built the HRF upon the following core assumptions:

1. Organizations exist to serve human needs rather than the reverse.
2. People and organizations need each other: organizations need ideas, energy, and talent; people need careers, salaries, and opportunities.
3. When the fit between the individual and system is poor, one or both suffer: individuals will be exploited or will exploit the organization—or both will become victims.
4. A good fit benefits both: individuals find meaningful and satisfying work, and organizations get the talent and energy they need to succeed. (p. 102-103)

King's General Systems Framework

Imogene King (1981) developed the General Systems Framework (GSF) to provide nursing with a tool to understand and respond to the constant change and complexity occurring within healthcare and nursing. She used general systems theory as a foundation in the design of the GSF. Like general systems theory, the focus of the GSF is characterized by an element of wholism and openness.

These characteristics are evident in King's overall philosophical assumption about the GSF. King (1981) states that the "focus of nursing is human beings interacting with their environment leading to a state of health for individuals, which is an ability to function in social roles" (p. 143). Within this conceptual framework, human beings function and interact in three open and

dynamic systems—the personal, interpersonal, and social system. Additionally, concepts are identified which assist in describing the human experience within each system. Like the three systems, the concepts are viewed as "global characteristics of the system" that interrelate with each other (Fawcett, 1995, p. 116). The following describes each system.

King (1981) defines the personal system as a "unified, complex whole self who perceives, thinks, desires, imagines, decides, identifies goals and selects means to achieve them" (p. 27). The personal system is the individual who is a total system. The concepts derived from this system that aid in understanding the individual as a total system are perception, self, body image, growth and development, time and space. When two or more individuals interact, this comprises a new human experience--the interpersonal system.

It is within the interpersonal system that "individuals increase consciousness and are open to interpersonal perceptions in the communications and interactions with persons and things in the environment" (Fawcett, 1995, p. 122). The concepts that help to explain human interactions within this system are role, interaction, communication, transaction, and stress. Individuals forming both small and large groups are considered interpersonal systems. However, another human experience evolves when groups unite sharing mutual goals and interests. This experience is referred to as the social system.

King (1981) describes the social system as "an organized boundary system of social roles, behaviors, and practices developed to maintain values and the mechanisms to regulate the practices and rules" (p. 115). The concepts

that assist individuals in functioning within the social system are organization, power, authority, status, and decision making. While King's GSF contains 15 concepts, the central focus of this study encompassed the following four concepts: organization, stress, time, and growth and development.

The organization is a part of the social system. According to King (1981), "an organization is composed of human beings with prescribed roles and positions who use resources to accomplish personal and organizational goals" (p. 119). King states that goals are outcomes to be achieved (p. 118). Within the operational definition of the organization, a reciprocal relationship exists as it pertains to goals. People need organizations to fulfill personal and professional objectives. In the same context, organizations need people to achieve their objectives. Moreover, King emphasizes the importance for healthcare systems to recognize the need for professionals to meet their objectives (p. 118) . This is essential if the organization is to expect that the most desirable and effective service will be delivered.

One of the largest social systems where dynamic and rapid change is taking place is the healthcare system. Hospitals are a part of this social system. Hospitals are also organizations that serve as the largest employers of RNs. Nurses are continuously confronted by stressful situations within the hospital system (King, 1981, p. 99). Stress as a concept is defined as an "energy factor in open systems that is increased and decreased by stressors in man-environment interactions" (King, p. 98). One such stressor within the hospital system as identified by King is the working patterns of RNs.

King (1981) states that time controls the numerous activities within a hospital environment thereby establishing work shift patterns. Time is the "subjective perception of a succession of events from past to present to future" (p. 42). It is within the organization that most people spend a majority of their lives. Thus, time controls the RN's life. King identifies a caveat regarding the potential disturbances that may be inflicted upon the professional nurse due to work shift patterns. Yet, work shift patterns may not always be perceived by the RN as a negative stressor.

King (1981) states that stress is an important positive force necessary for growth and development of people (p. 96). The concept of growth and development is defined as "processes that take place in people's lives that help them move from potential capacity for achievement to self-actualization" (p. 31). Additionally, King states that the way a person grows and develops is related positively and negatively by other people and objects in the environment (p.31). Consequently, work shift patterns may enable the RN to perform functions of daily living that bring satisfaction to their lives. Satisfaction of the RN within an organization, such as a hospital is essential (King, p. 120). When career satisfaction is not present, negative consequences may result. For example, career dissatisfaction may lead to absenteeism, accidents, burnout, and job turnover. For hospitals, this translates to detrimental losses in human and capital resources.

Integration of the Conceptual Frameworks

The HRF and the GSF are congruent in providing the foundation to study the difference between the level of role stress and career satisfaction among hospital nurses by work shift patterns. The GSF supports the four assumptions of the HRF regarding the concept of the organization. However, King's (1981) GSF further delineates this phenomenon. This is accomplished through the use of the concepts of time, stress, and growth and development.

King's (1981) concepts from the GSF used in parallel with the HRF provides a solid base to describe the situation to be studied. It is within a hospital that the needs of human beings are met. To facilitate this, the hospital needs knowledgeable, talented, and committed RNs. Registered nurses also need the work provided by the hospital to meet their intrinsic and extrinsic needs. When the fit between the hospital and RN are in conflict, negative stress ensues. Certain work shift patterns may be perceived as a negative stressor by RNs (King, p. 46). Such work shift patterns may also interfere with the RN's ability to grow and develop. This in turn may lead to career dissatisfaction. The hospital then suffers as defined objectives may not be achieved.

Yet, when the fit between the hospital and the RN are congruent, both the RN and the organization benefit (King, 1981, p. 119-121). Work shift patterns in this instance may be perceived by the RN as a positive stressor. The RN is able to grow and develop and achieve career satisfaction. The hospital benefits as it retains talented and committed RNs to meet its needs and augments the potential for success in the marketplace.

LITERATURE REVIEW

The literature published about work shift patterns, specifically 12-hour shifts, is scarce and pertains to discussions of how nursing department(s) implemented such a change in staffing patterns. Thus, this study reviewed four empirical studies completed in three different countries. Two of the studies were completed in the United States, one in Northern Ireland, and the other in Canada. The purpose of this literature review was to examine the empirical literature concerned with the difference in the level of role stress and career satisfaction among hospital registered nurses by work shift patterns, specifically 12-hour shifts.

Stress and Career Satisfaction

Gowell and Boverie (1992) conducted a descriptive study in the United States to examine the relationship between stress and satisfaction across areas within a hospital. Additionally, the following variables were examined to see if they influenced the stress or satisfaction of nurses: experience, type of shift, and number of hours worked per shift. The sample size included 152 nurses from a 176-bed community hospital. Of the 152 subjects, 84 (55%) participated in the study. The nurses worked in various clinical areas, such as medical/oncology, surgery, orthopedics, critical care/progressive care, maternal child health, pediatrics, and post-anesthesia care.

Gowell and Boverie (1992) used the Nursing Stress Scale (NSS) to measure nursing situations that cause stress. The instrument contains potential stressful situations that had been identified by nurses and physicians through

previous research and interviews. Seven subscales included in the NSS are: workload; death and dying; inadequate preparation in dealing with the emotional needs of patients and families; lack of staff support; uncertainty concerning the treatment of patients; conflict with physicians; and conflict with other nurses and supervisors. It was reported by Gowell and Boverie that the test-retest reliabilty and internal consistency measures exceeded .70. In addition to using the NSS, Gowell and Boverie used the Index of Work Satisfaction (IWS) to measure job satisfaction.

Gowell and Boverie (1992) reported that the IWS was designed to measure the job satisfaction of nurses working in hospitals. The content of the IWS includes pay, professional status, interaction with others, task requirements, organizational policies, and autonomy. The IWS was first developed in 1972 and has been tested in seven settings between 1972 and 1980. According to the investigators, the results of the psychometric evaluation have been positive, with internal consistency and stability coefficients ranging from .82 to .92.

Review of the findings indicated significant differences in stress levels across hospital units ($p < .01$). The stress levels for nurses in post-anesthesia care were significantly less than those in all units except surgery and pediatrics ($p < .05$). Nurses in surgery were significantly less stressed than those practicing in medical/oncology ($p < .05$). Moreover, the nurses working in medical/oncology had the highest total stress score.

Gowell and Boverie (1992) stated that seven out of eight units reported three major sources of stress. Nurses in all units except post-anesthesia care believed workload to be the major source of stress. Nurses in all units except post-anesthesia care and surgery indicated that the second most frequent source of stress was dealing with death and dying. The third most frequently reported stressor was conflict with physicians.

The results regarding job satisfaction indicated that the nurses in post-anesthesia care were significantly more satisfied than nurses in all the other units ($p < .05$). Furthermore, the nurses in post-anesthesia care, surgery, and pediatrics had the lowest stress scores and highest satisfaction scores. However, it is important to note that these nurses did not work 12-hour shifts.

The relationship between stress and job satisfaction was derived using Pearson Product Moment Correlations. The results indicated a negative correlation between stress and job satisfaction for all units ($r = -.44$, $p < .001$). Additionally, a moderately strong negative correlation between stress and satisfaction was reported for the medical/oncology nurses ($r = -.59$, $p < .01$).

To determine whether stress and job satisfaction differed by years of nursing experience as well as shift length, one-way analyses of variance were performed. The results indicated that nurses with less than five years of experience were significantly more stressed than those with ten or more years of nursing experience ($p < .05$). These findings may be related to the types of clinical areas that novice and experienced nurses are employed. The average

length of nursing experience was 8 to 10 years for nurses in post-anesthesia and surgery.

In addition, the results indicated differences in stress and satisfaction levels ($p < .01$) based on shift length. Stress was found to be higher in nurses working 8- and 12-hour shifts than those working 10-hour shifts. Furthermore, satisfaction for those nurses working 8- and 10-hour shifts was higher than those working 12-hour shifts ($p < .01$).

Jennings and Rademaker (1987) conducted a descriptive, comparative study in a large, metropolitan teaching hospital in Canada. The major purpose of this investigation was to examine the effect of 8- and 12-hour shifts on the well-being of staff nurses, in which well-being was defined as the "antithesis of stress" (p. 33). A second objective of this study was to explore job satisfaction. The investigators did not tell the subjects that their perceived well-being and satisfaction would be compared by shift length.

Data for this study were collected in two phases from a convenience sample that was divided into three groups. Of the 273 subjects recruited for the initial data collection phase, 228 (84% response rate) participated. The subjects were either permanent part-time or full-time staff nurses from 16 clinical units. The second data collection occurred for all groups four and a half months after the initial data collection. This was two weeks after group three had requested a changeover to 12-hour work shift patterns and was denied. At that time, 202 of the original subjects were eligible to participate and 149 replied (77% response rate).

The first group consisted of staff nurses (n = 43) from five medical and surgical units who had been working 12-hour shifts for more than one year and had not requested to change back to 8-hour shifts. The second group consisted of staff nurses (n = 57) from seven medical and surgical units working 8-hour shifts and had not requested to change over to 12-hour shifts. The third group included staff nurses (n = 49) from four units working 8-hour shifts and had made the request to change over to 12-hour shifts. Two of these clinical units were medical, one was medical-surgical, and the other obstetrics and gynecology.

Well-being was measured by the Work Environment Survey (WES), consisting of two components: the Worker Opinion Survey (WOS) and the General Health Questionnaire (GHQ). Additionally, the investigators developed four questions that were not pretested or included in the total scores of the WES. Jennings and Rademaker (1987) reported from the literature that the internal reliability coefficients for the six subscales of the WOS ranged from .69 to .84 within the female population and that there was construct and concurrent validity established. In addition, the GHQ was reported to have a test-retest reliability of .77 on outpatients and .53 on doctors, with a split-half reliability of .92.

During the first data collection phase there were no differences between the established 8- and 12-hour shift groups regarding job satisfaction or well-being. However, the established 12-hour shift group's job satisfaction decreased significantly over time. Although there was no difference in job satisfaction, the established 8-hour shift group absenteeism increased

significantly related to illness. According to Jennings and Rademaker (1987), an 8-hour employee may be more apt to have increased absenteeism than a 12-hour employee since they have fewer days off than the 12-hour employee. Also, the investigators noted that the results might be reflective of "growing annoyance" with a lack of settlement in the nurses' contract negotiations at that time.

Similarly, the unestablished 8-hour shift group had a significant increase in absenteeism, however, their absenteeism was related to "just not feeling well." This group also "indicated that they had less opportunity for promotion, were less satisfied with their co-workers and their job, but that their quality of work life had improved over time" (Jennings & Rademaker, 1987, p. 40). The investigators also noted that the contract mediations and the denial of changing over to 12-hour shifts may be depicted in the study's findings (p. 41).

Career Satisfaction

Todd et al. (1993) conducted a descriptive study in Northern Ireland to investigate the effect of work shift patterns on nurses' job satisfaction. Specifically, the investigators evaluated an actual change in shift patterns, specifically from an 8- to a 12-hour work shift pattern. The sample size included 320 qualified student and auxiliary nurses between two hospitals consisting of 10 wards. The change in work shift patterns was measured during two phases. The first measurement was completed one month prior to the introduction of 12-hour shifts. The second measurement was done six months after the

introduction of the new work shift pattern. During the first phase of the study, the response rate was 73%, and the second phase was 64%.

Todd et al. (1993) developed a self-report questionnaire from previous research. Variables of interest pertaining to the attitudes of nursing staff included: the work itself; promotion; recognition; working conditions; benefits; self values and skills; relationships between supervision, co-workers, and customers; and overall job satisfaction. Moreover, shift specific questions were added, as well as demographic data. This self-report questionnaire used a five-point scale ranging from strongly agree to strongly disagree. The investigators did not report reliability for the revised questionnaire.

Review of the findings indicated significant differences between the two work shift patterns on six of the 12 job satisfaction items using a Mann-Whitney U. The results indicated that when nurses were working 12-hour shifts they were less satisfied and excited about their career; that they were more poorly paid; that the hours of work were bad; that the working conditions were poorer; and, that they would be more content in another occupation (Z values ranging from -9.74 to -3.47, p values ranging from $\leq$ .0001 to .0005).

Moreover, the seven shift-specific items designed for the study by the investigators indicated that nurses had greater levels of dissatisfaction under the 12-hour work shift pattern. The nurses indicated that they had less time with their families and had to put their personal lives second on a more frequent basis. They noted that house work and baby-sitting arrangements were more problematic and had increased mental and physical fatigue at the end of a

12-hour shift versus an 8-hour shift. Furthermore, they indicated that this shift system discouraged nurses from returning to their profession (Z values ranging from -9.59 to -4.4, $p \leq .0001$).

Upon completion of the second phase of the study, the majority of the nurses (82.7%) in the two hospitals were against continuing to work the 12-hour work shift pattern. According to the demographic data, the majority of subjects were women; had a modal age of 20 to 29 years; 70% were married; and about 50% were parents.

Another descriptive study was completed in the United States by Ugrovics and Wright (1990) to investigate whether 12-hour shifts had an impact on fatigue, performance and reasoning levels, and job satisfaction. The sample size consisted of 36 professional nurses who worked in a surgical respiratory intensive care unit within a community hospital and several other intensive care units at regional medical centers. Of the 36 nurses, 35 participated in the study. These nurses had been working 12-hour shifts over varying lengths of time.

The questionnaire used to measure job satisfaction was the Job Satisfaction Survey. This survey consisted of 25 questions about sleep patterns, driving time and distances, motivation for working 12-hour shifts, evaluation of self and peer performance, retention factors, and future preferences for flexible work schedules.

Review of the findings indicated that "on the whole" there was a positive correlation between retention and workability variables to support 12-hour shifts (Ugrovics & Wright, 1990, p. 66A). A significant portion of the nurses reported

that that the "shifts were workable and that clinical performance had increased for both themselves and their peers" (p. 65A). Ninety-seven percent of the nurses reported that they would advise other nurses to try working 12-hour shifts. The nurses also indicated that they were able to obtain sufficient sleep (89%) and had less difficulty driving home after working hours (28%). Yet on the negative side, 53% of the nurses indicated that communication decreased among the staff about departmental and hospital business.

Strengths and Limitations

The major strengths of the studies include the use of theory to explain the findings and to make recommendations for clinical practice and future research endeavors. The studies also used reliable instruments that had been previously tested. Furthermore, the investigators of the studies identified factors that may have hindered the generalizability of their own work to greater populations. Lastly, all the studies were descriptive in design, but one was a comparative study which generated more knowledge about this phenomenon over time.

The major limitation of the studies was the use of small samples. Additionally, the use of nonprobability convenience sampling does not lend itself to generalizability to larger populations. Another factor affecting generalizability of the studies was that they were conducted in three different countries, the United States, Canada, and the United Kingdom. This is significant since nursing care delivery systems are different in these countries. Another limitation noted was the inconsistent reporting of statistical values. The absence or lack of

statistical reporting makes it difficult to understand the magnitude of the relationships presented.

Summary

In summary, studies within this subject area are limited in number. In addition, the research pertaining to work shift patterns and its influence upon nurses' job satisfaction and stress levels has produced conflicting results. Moreover, the research has been conducted in different countries and with small sample sizes which further limits the generalizability of the findings. Thus, the purpose of this study was to further examine the influence of hospital work shift patterns on registered nurses' role stress and career satisfaction.

Research Question

What are the differences between the level of role stress and career satisfaction among registered nurses working in hospitals by work shift patterns?

Definition of Terms

role stress - A "dynamic state whereby a person interacts with the environment to maintain balance for growth, development, and performance, which involves an exchange of energy and information between the person and the environment for regulation and control of stressors" (King, 1981, p. 98).

career satisfaction - A work environment which facilitates meaningful and satisfying experiences for individuals which helps them move from a potential capacity for achievement to self-actualization (King, 1981).

registered nurses - a licensed, clinically practicing nurse educationally prepared at the diploma, associate, baccalaureate, or masters level.

hospital - An organization within a social system providing nursing services for patients.

work shift patterns - An established time frame no less than eight hours a day in which a registered nurse delivers care to patients. Also, work patterns whereby registered nurses work on a regular part or full-time basis.

CHAPTER 3

METHODOLOGY

Research Design

A descriptive cross-sectional research design was used for this study. This type of design allowed the researcher to examine the differences between the level of role stress and career satisfaction among hospital nurses by work shift patterns.

Selection of Subjects and Setting

A probability sample of RNs was recruited for this study. This sample was derived from a database owned by Michigan Nurses Association (MNA). This database consisted of approximately 150,000 names of RNs associated with MNA and licensed to practice within the state of Michigan. Michigan Nurses Association has the state of Michigan divided into eight geographical districts. The researcher randomly selected four of the eight geographical districts to be used in the study. Written permission was obtained from MNA for the mailing labels of RNs residing in these districts through their approval process.

Additionally, the researcher limited the mailing list to the names of RNs who only worked in acute care hospitals within those four districts. This resulted in a mailing list of 2,641 RNs. The researcher used a table of random numbers to select a total of 500 RNs to receive information about the study. However,

only RNs who provided professional clinical nursing services to patients within a hospital setting were included in the study. Other inclusion criteria included employment on a regular part-time or full-time basis and scheduled to work 8-, 10-, or 12-hour work shift patterns.

Characteristics of the Subjects

Of the 500 RNs randomly selected to participate in the study, 252 (50.4%) responded. However, of these 252 nurses, 208 (41.6%) were eligible to participate in the study. Forty individuals returned their survey noting that they no longer were employed as an RN or were currently working in a setting other than a hospital. Four others were ineligible to participate since they returned their surveys after the close of the data collection period.

The respondents were predominantly female (91.8%), with only 17 male RNs participating in the study. The age of the RNs ranged from 22 to 64 years, with a mean age of 43 years (SD = 9.25). The majority of RNs were (71.2%) married, with at least one child at home (56.7%). While 43.3% of the RNs did not have any children at home, 50.5% reported having 1 to 3 children, and 3.9% had from 4 to 6 children living with them.

Of the 208 respondents, 88 held a bachelor of science in nursing degree, while 95 of the nurses were prepared with either a diploma or associate nursing degree. Only 12% of the respondents (n = 25) held a master of science in nursing degree. All of the RNs had been in practice for at least one year except for two respondents. Length of experience as a RN ranged from .42 to 43 years (M = 16.31; SD = 9.61), with most practicing on a full-time basis (67.3%).

The RNs participating in this study practiced in a variety of clinical areas (n = 27). Due to this large number, the practice areas were collapsed. More than 75% of the respondents practiced in areas including critical-care, medical-surgical, maternal health, and pediatrics (Table 1). On average, the RNs had practiced in their clinical areas for nine years (M = 9.19; SD = 7.17). While 33.6% of the RNs (n = 70) had been in their units for less than five years, 21.1% of the RNs (n = 44) had been employed between 10 and 15 years. Additionally,. 22.1% of the RNs (n = 46) had been practicing for 10 to 15 years in their current unit, and only 9.6% (n = 20) had been employed greater than 20 years.

Table 1

Practice Areas

Department	Frequency	Percent
Critical-Care	52	25.0
Medical-Surgical	45	21.6
Maternal-Health and Pediatric	34	16.3
Surgery and Post-Anesthesia Care	31	14.9
Oncology	15	7.2
Rehab, Clinic, Ambulatory Care	14	6.7
Emergency	13	6.3
Miscellaneous	4	1.9

Instruments

The three instruments that were used in this study included (1) the Nursing Stress Scale (NSS) developed by Gray-Toft and Anderson (Appendix A); (2) the Index of Work Satisfaction (IWS) developed by Stamps and Piedmonte (Appendix B); and a demographic data tool (Appendix C). Permission to use the NSS was obtained from the authors (Appendix D). The IWS is a published instrument and available for use by the public domain.

The NSS was developed to measure the "frequency and the major sources of stress experienced by nurses on hospital units" (Gray-Toft & Anderson, 1981, p. 12). The four-point scale is composed of 34 questions that rate the frequency of potentially stressful nursing situations. These stressful situations were identified from the literature and interviews among nurses, physicians, and chaplains. The NSS is composed of seven subscales: workload (6 items); death and dying (7 items); inadequate preparation to deal with the emotional needs of patients and their families (3 items); lack of staff support (3 items); uncertainty concerning treatment (5 items); conflict with physicians (5 items); and, conflict with other nurses and supervisors (5 items). Total possible scores for the NSS range from 34 to 136, with higher scores indicating more frequent stress experienced by nurses.

Gray-Toft and Anderson (1981) conducted psychometric evaluation for the NSS. Criterion-related validity was established with correlation coefficients ranging from .35 to .39. Internal consistency and stability were used to test reliability. The test-retest coefficient for stability for the total scale was .81, with

a coefficient alpha of .89. Except for three of the subscales, (1) conflict with physicians (2) lack of staff support, and (3) conflict with other nurses and supervisors, internal consistency coefficients exceeded .70.

The psychometric evaluation performed for this study revealed a coefficient alpha of .92 for the entire NSS scale. The coefficient alphas for the seven subscales ranged from .68 to .80. According to Polit and Hungler (1995), reliability coefficients greater than .70 are sufficient to make group comparisons. However, it was noted that two subscales were slightly lower than this criterion. This may be reflective of the number of items within each subscale. In general, the reliability analysis was consistent with previous results obtained by Gray-Toft and Anderson (1981). This comparison is presented in Table 2.

The IWS was designed and revised over a span of ten years to provide a reliable and valid method to measure nursing job satisfaction. The IWS's distinguishing characteristic is its ability to measure current and expected levels of job satisfaction using two parts: Part A and Part B.

Table 2

Reliability Coefficients for the Nursing Stress Scale

Subscales	Number of Items	Gray-Toft and Anderson (1981)	Hoffman (2000)
Nursing Stress Scale	34	.89	.92
Conflict with Other Nurses and Supervisors	5	.68	.69
Conflict with Physicians	5	.68	.71
Death and Dying	7	.77	.77
Inadequate Preparation to Deal with Emotional Needs	3	.75	.68
Lack of Staff Support	3	.64	.78
Uncertainty Concerning Treatment	5	.80	.80
Workload	6	.77	.80

Part A is composed of 15 sets of paired comparisons from six work components. The work components include autonomy, organizational requirements, pay, task requirements, job status, and interaction. The rankings of Part A establishes the expected level of job satisfaction for each work component for all participants. Part B measures the current level of job satisfaction for each of the work components. This is done through the use of 44 questions on a seven-point scale. Thus, the rankings of current job satisfaction

can be compared with the rankings of relative importance. However, an additional design step was taken to allow for the calculation of both the expected level of importance and actual current level of job satisfaction. This is a total weighted score derived by taking the average component score from Part B and multiplying it by its appropriate weighting coefficient from Part A. This produces six weighted scores which are summed into one single score that reflects job satisfaction (Stamps & Piedmonte, 1986).

Psychometric evaluation has been conducted on the IWS. In earlier evaluations, through the use of Kendall's Tau coefficients, the investigators reported consistently high stability scores of .86 to .87. However, during the final validation study, Stamps and Piedmonte (1986) reported a correlation coefficient of .92. This statistic measured the strength of the correlation between the weighted score and the unweighted summed score of Part B of the IWS.

Internal consistency was measured through the use of Cronbach's alpha. The investigators reported that the values for all six components were slightly lower, ranging from .52 to .81, with an alpha of .82 for the entire scale. However, Stamps and Piedmonte (1986) did not specify the actual coefficient alphas for each of the subscales. This limited the researcher's ability to compare the scores from Stamps and Piedmonte's evaluation with the present study.

The psychometric evaluation for this study revealed a Cronbach's alpha of .92 for Part B of the IWS. Only one of the subscales had a Cronbach's alpha

below .70, with the values ranging from .49 (professional status) to .90 (Pay). These results are presented in Table 3.

Table 3

Reliability Measures for the Current Study's Subscales of the IWS

Subscales	Cronbach α
Autonomy	.80
Interaction with Other Nurses	.70
Interaction with Physicians	.85
Organizational Policies	.74
Pay	.90
Professional Status	.49
Task Requirements	.78

Procedure

Permission to conduct the study was obtained from the Institutional Review Board of Grand Valley State University (Appendix E). The study was introduced to the subjects in a cover letter. This letter outlined the purpose, procedure, and human subjects information of the study (Appendix F). Confidentiality and anonymity was maintained at all times. The researcher did not collect any identifying information from the subjects and restricted access to the completed questionnaires. The researcher explained on the cover letter that there were minimal risks in completing the questionnaire and that the benefit of

participating would be to increase knowledge for nurse executives to make better decisions regarding the work environment of the RN. Additionally, the letter stated that participation in the study was voluntary and that return of the questionnaire reflected consent for use of the data obtained for the completion of the study. A self-addressed stamped envelope was included to return the completed instruments to the researcher.

The envelopes were mailed to the study subject's home address. The deadline date for the subjects to return their questionnaires was 30 days from the original mailing. However, the researcher extended the deadline by two weeks after this time period to maximize the number of completed questionnaires.

Subjects were given the option of receiving the final results of the study by writing "copy of the results requested" on an additional piece of paper and printing their name and address below it and mailing it separately to the researcher. The subjects could also send their name and address electronically to the researcher for a copy of the results. This method ensured that the results and their request that included identifying information were separate.

Threats to Validity of the Design

A potential threat to the internal validity of the study design was the current state of the healthcare environment itself. Currently, professional journals and the media portray hospitals and the nursing profession in a state of chaos. This information publicized by the media could potentially bias the participant. The cover letter that was sent out with the questionnaires remained

objective to minimize this potential threat. Another threat to internal validity was the participant self-selection. This threat was minimized through a random sampling of the subjects. The use of both these strategies decreased the factors that could influence the results and increased the generalizability of the findings from the study.

CHAPTER 4

RESULTS

The purpose of this study was to assess the degree of role stress and career satisfaction among RNs practicing in hospitals. In particular, this study sought to examine the differences between the level of role stress and career satisfaction among hospital nurses by work shift patterns.

The Statistical Package for the Social Sciences (SPSS) was used for data analysis. Descriptive statistics were used to characterize the subjects. T-test procedures were used to explore differences between the role stress and career satisfaction of RNs by work shift patterns. The level of significance was set at $p < .05$ for all statistical procedures.

Work Shift Patterns

The RN participants were divided into two groups according to their designated work shift pattern. The first group consisted of 99 RNs (47.6%) who predominantly worked an 8-hour shift pattern. These RNs indicated that they consistently worked a minimum of 8 hours to a maximum of 10 hours during their work shift or a combination of hours ranging from 8 to 10 hours during a work shift. The second group was comprised of 105 RNs (50.5%) who worked 12-hour shifts or a combination of 8-, 10-, and 12-hour shifts, but always included a component of 12-hour shifts. Additionally, when analyzing the demographics,

another group was identified. This group consisted of four subjects (1.9%) whose work hours were unidentified since they were salaried employees. This group was not included in the data analysis due to the small number of participants and the inability to identify a specific work shift pattern.

Comparison of Demographic Characteristics

In order to evaluate differences between the RNs working 8-hour shifts from those working 12-hour shift patterns on their demographic characteristics, chi-square and t-test analyses were performed. There were no significant differences found between the two groups related to gender, marital status, or whether or not children were living at home. In addition, there was not a difference in the number of children living in their households between the two groups. However, the RNs who indicated that they worked 8-hour shift patterns were significantly older (M = 44.50 years; SD = 9.45) than their colleagues working 12-hour shift patterns (M = 41.40 years; SD = 8.51) ($t = 2.40$; d.f. = 198; $p = .02$).

The demographic comparison also indicated that there was not a statistical difference by work shift pattern and the length of time the RNs had been in their current practice environment. Although the two groups were similar in this aspect, there was a statistically significant difference in the number of years of nursing career longevity. The RNs practicing 8-hour work shift patterns had significantly more nursing experience (M = 18.95; SD = 10) than the RNs working 12-hour shift patterns (M = 13.41; SD = 7.91). A summary of these demographic differences is presented in Table 4.

Table 4

Age and Nursing Experience by Work Shift Patterns

Demographic Data:	t	df	p
Age	2.40	198.00	.017
Nursing Experience	4.37	186.49	.000

Since the majority of the RN participants were prepared at either an associate or baccalaureate level, the nurses were combined into two groups for comparison by work shift pattern. One group consisted of RNs who were prepared at the diploma or associate degree level in nursing, while the second group was comprised of RNs who possessed either a baccalaureate or a masters degree in nursing. A chi-square analysis indicated that there was no difference in the level of educational preparation by work shift pattern ($X^2 = 2.49$; $p = .114$).

Yet, the results did reveal a statistically significant difference in the areas where the RNs practiced to their corresponding work shift patterns ($X^2 = 47.65$; $p = .000$). The majority of the nurses practicing for 12-hours worked in critical care (39.8%), maternal-child (20.4%), and medical-surgical units (18.4%). In comparison, the RNs working 8-hours predominantly practiced in surgery or post-anesthesia care (26.8%) or medical-surgical areas (26.8%). While there was a significant difference between the two groups in their areas of practice, it

is important to note the unequal distribution and small number of participants employed in some of the practice areas (Table 5).

Table 5

Practice Areas by Work Shift Patterns

Department:	8-Hour RNs		12-Hour RNs	
	n	Percent	n	Percent
Critical-Care	11	11.3	41	39.8
Oncology	9	9.3	5	4.9
Emergency	2	2.1	10	9.7
Surgery and Post-Anesthesia Care	26	26.8	5	4.9
Medical-Surgical	26	26.8	19	18.4
Rehabilitation, Clinics, and Ambulatory Care	11	11.3	2	1.9
Maternal-Child and Pediatrics	12	12.4	21	20.4

Examination of Role Stress

Total scores for the NSS. The level of role stress experienced by the RNs was examined through the NSS. The total possible scores for the NSS ranged from 34 to 136, with higher scores indicating more frequently perceived stress experienced by nurses. The RNs practicing 8-hour work shift patterns reported stress scores ranging from 46 to 117 (M = 71.7; SD = 13.3). The RNs working

12-hour shifts had a similar range of scores (44 to 115), however their mean stress score was higher (M = 75.7; SD = 13.6). Using a t-test procedure, it was revealed that the RNs practicing predominantly 8-hour shifts experienced statistically significant lower levels of stress than the nurses working 12-hour shifts (t = -2.009; d.f. = 185; p = .046).

Subscale scores for the NSS. Perceptions of role stress were further examined using the dimensions of the NSS. Of the six subscales, statistically significant differences between the RNs practicing in 8- and 12-hour work shift environments were identified in two dimensions: workload and dealing with death and dying. According to the findings in the workload dimension (possible scores of 1 to 24), the RNs caring for patients in an 8-hour practice environment had a mean score of 15.1 (SD = 3.3) compared to the RNs working in a 12-hour practice atmosphere who had a mean score of 16.3 (SD = 3.4). T-test results indicate that the 8-hour shift RNs had statistically lower levels of stress when having to manage situations related to workload than their counterparts working 12-hour shift patterns (t = -2.554; d.f. = 197; p = .011).

Possible scores on the death and dying subscale ranged from 1 to 28. The RNs working 8-hour shifts had a mean score of 14.4 (SD = 3.5), while their colleagues practicing 12-hour shifts had a mean score of 15.7 (SD = 3.7). This revealed that the 8-hour shift nurses had statistically lower levels of stress resulting from the suffering and death of patients than the RNs caring for patients in a 12-hour work shift atmosphere (t = -2.009; d.f. = 196; p = .014).

The results of the analysis of role stress among the nurses are summarized in Table 6.

Table 6

Comparison of RN Role Stress by Work Shift Pattern

Role Stress Dimension	8-Hour RNs (n = 91)		12-Hour RNs (n = 96)				
	M	SD	M	SD	t	df	p
Total NSS	71.7	13.3	75.7	13.6	-2.009	185	.046*
Workload	15.1	3.3	16.3	3.4	-2.554	197	.011*
Death and Dying	14.4	3.5	15.7	3.7	-2.482	196	.014*
Conflict with Other Nurses and Supervisors	10.0	2.7	10.2	3.0	-.514	194	.608
Conflict with Physicians	10.9	2.2	11.3	2.4	-1.327	201	.186
Inadequate Preparation to Deal with Emotional Needs	6.1	1.6	6.3	1.4	-.961	201	.338
Lack of Staff Support	5.5	1.9	5.5	1.9	.204	201	.839
Uncertainty Concerning Treatment	10.0	2.8	10.8	2.9	-1.856	197	.065

Note. *p < .05

NSS item comparisons. In addition, a Mann-Whitney U Test was used to compare how the 8- and 12-hour shift RNs ranked each of the 34 items on the NSS. This was done to determine if there were differences in degrees of stress between the two groups of RNs occurring within their current practice environment by specific nursing situations. The lower the RNs ranked the mean score for each item indicated lower degrees of stress for that particular nursing circumstance.

As revealed in Table 7, eight of the thirty-four items were statistically significant ($p < .05$) in revealing that the 8-hour shift RNs (mean ranks ranged from 89.69 to 92.86) had lower levels of stress than the 12-hour RNs (mean ranks ranged from 107.67 to 111.63) during specific nursing situations. Also, while item 15 was not statistically significant, it was trending in the same direction as the other eight items, indicating that the 12-hour shift RNs (mean rank = 109.16) had a higher degree of stress during this circumstance than the RNs practicing 8-hour shifts (mean rank = 95.43).

Furthermore, the eight items that the 12-hour shift RNs indicated more frequency of stress than their colleagues encompasses all six subscales of the NSS: Death and Dying (items 12 and 21); Workload (items 25, 28, and 34); Conflict with Physicians (item 14); Conflict with Other Nurses (item 20); Inadequate Preparation to Deal with Emotional Needs (item 15); and, Uncertainty Concerning Treatment (item 26).

Table 7

Item Comparison of Role Stress by Work Shift Pattern

Item		8-Hour RNs (M Rank)	12-Hour RNs (M Rank)	Z	p
12.	The death of a patient with whom you developed a close relationship	92.86	108.74	-2.114	.035
14.	Disagreement concerning the treatment of a patient.	92.82	111.63	-2.642	.013
15.	Feeling inadequately prepared to help with the emotional needs of a patient's family.	95.43	109.16	-1.893	.058
20.	Floating to other units that are short-staffed.	89.69	107.67	-2.431	.015
21.	Watching a patient suffer.	92.53	111.01	-2.480	.013
25.	Unpredictable staffing and scheduling.	90.68	111.90	-2.737	.006
26.	A physician ordering what appears to be inappropriate treatment for a patient.	91.47	110.95	-2.740	.006
28.	Not enough time to provide emotional support to a patient.	92.47	108.95	-2.127	.033
34.	Not enough staff to adequately cover the unit.	91.95	110.50	-2.388	.017

Examination of Career Satisfaction

Part A of the IWS. Career satisfaction was measured through the IWS and its subcategories. In Part A of the IWS, the RNs in the study ranked six work components by level of perceived importance. More specifically, this subcategory of the IWS sought to identify which components were most esteemed by the nurses in providing career satisfaction. Thus, each component was weighted based upon its importance in determining career satisfaction. Possible scores range from .9 to 5.3 with increased scores indicating increased perceived level of importance.

The RNs in this study identified pay, autonomy, and professional status as the predominant components influencing career satisfaction (Table 8). In comparison, the least important determinants of career satisfaction were interaction with other nurses and physicians, the task requirements of the position, and organizational policies.

Part B of the IWS. The second subcategory of the IWS (Part B) was an attitude scale consisting of 44 items in which the RNs indicated how satisfied they were with each of the six career components within their current practice environment. The level of satisfaction with each of the six components was indicated through unweighted component scale scores. Additionally, an unweighted total scale score was calculated which reflected the RNs overall or global level of satisfaction with their careers in their current area of practice. This total scale score could range from 44 to 308 with higher scores indicating greater career satisfaction.

Table 8

Ranking of Components Leading to Career Satisfaction

Component	Component Weighting Coefficient
Pay	3.67
Autonomy	3.61
Professional Status	3.28
Interaction, including Nurse to Nurse Nurse to Physician	3.08
Task Requirements	2.80
Organizational Policies	2.15

The RNs employed in the 8-hour work shift patterns had a mean satisfaction score of 187.10 (range = 90 to 266; SD = 35.6) while the nurses working 12-hour shift patterns had a mean score of 184.1 (range = 116 to 263; SD = 30.8). These results indicate that while all the RNs were not dissatisfied with their current nursing position, they were not greatly satisfied either. Moreover, a t-test was performed to explore whether there were differences between the nurses working 8- and 12-hour shift patterns. Despite the higher level of satisfaction reported by the RNs working 8-hour shift patterns, there was not a statistically significant difference in the level of career satisfaction between the nurses practicing 8- and 12-hour shift patterns ($t = .627$; d.f. = 191; $p = .531$).

Additionally, there were no statistically significant differences between the six career components among the RNs practicing 8- and 12-hour shift patterns. However, the mean scores provided insight into the perceptions of career satisfaction between both groups (Table 9). Both groups of RNs were most satisfied in the area of professional status. The RNs also reported that they were more satisfied in their current practice environment when interacting with other nurses and physicians and being able to perform autonomously.

Table 9

Career Satisfaction by Work Shift Patterns

Career Satisfaction Component	Possible Range of Scores	8-Hour RNs M	8-Hour RNs sd	12-Hour RNs M	12-Hour RNs sd
Total Scale Score for Satisfaction:	44-308	187.1	3.7	184.1	3.1
Professional Status	7-49	37.7	5.1	38.4	5.2
Interaction	10-70	46.8	9.6	46.9	10.1
Nurse to Nurse	5-35	24.7	5.4	24.8	5.3
Nurse to Physician	5-35	22.1	6.2	22.1	6.5
Autonomy	8-56	37.4	8.9	37.5	7.6
Pay	6-42	22.3	9.4	20.1	8.4
Task Requirements	6-42	21.7	6.4	21.0	7.0
Organizational Policies	7-49	21.0	7.5	21.1	6.7

Despite the fact that in Part A of the IWS the RNs identified that their pay was the most important factor leading to career satisfaction, the nurses perceived that their current level of pay was not significantly satisfying. Similarly, the RNs indicated that they were not greatly dissatisfied or satisfied in the area of task requirements pertinent to defining their career. However, the RNs' mean component scales scores did represent a degree of dissatisfaction in the area of organizational policies.

IWS item comparisons. Like the NSS, a Mann-Whitney U procedure was used to compare how the 8- and 12-hour shift RNs ranked the 44 items on Part B of the IWS. This was done to determine if there were differences in agreement between the 8- and 12-hour RNs regarding how satisfied they were with specific aspects of their current career situation. As shown in Table 10, there were three items in which there were statistically significant differences ($p < .05$).

The RNs practicing 12-hour shifts were more satisfied with the control that they had over their work shift schedules and their current level of pay than their 8-hour shift colleagues. Another factor that was more satisfying for the 12-hour shift RNs when compared to the 8-hour shift nurses was their level of pay. However, unlike the 8-hour shift RNs, they trended towards perceiving that the administrators interfered too much in the decisions that impacted patient care. Additionally, the 12-hour shift RNs believed that their job required more skill and knowledge than the 8-hour shift RNs.

Table 10

Item Comparison of Career Satisfaction by Work Shift Patterns

Item	8-Hour RNs (M Rank)	12-Hour RNs (M Rank)	Z	p
5. The nursing staff has sufficient control over scheduling their own work shifts in my hospital.	89.9	113.3	-2.885	.004
8. Excluding myself, it is my impression that a lot of nursing personnel at this hospital are dissatisfied with their pay.	113.0	91.4	-2.617	.009
33. Administrative decisions at this hospital interfere too much with patient care.	110.4	95.0	-1.886	.059
41. My particular job really doesn't require much skill or "know-how."	95.5	109.1	-2.110	.035

Note: Negatively Stated Items are Reversed Scored

The IWS Score

The final part of the IWS was calculated using Part A and Part B to give a total weighted score reflecting the Index of Work Satisfaction. The IWS score represents a summary score based on the total level of current career satisfaction weighted by perceived importance to the RNs. According to Stamps (1997), the possible range of values for the IWS is 0.9 to 37.1, with typical results in most investigations "of around 12" (p. 25).

The IWS scores reported by the RNs working 8-hour shifts ranged from 6.3 to 18.7 (M = 13.17; SD = 2.5). The RNs employed for 12-hour work shift

patterns had similar scores of 8.2 to 18.5, with a mean IWS score of 12.96 (SD = 2.2). Although statistical analysis did not reveal any difference in the index of career satisfaction between the RNs practicing 8- and 12-hour shift patterns (t = .627; d.f. = 191; p = .531), perceptions of RN career satisfaction were consistent with typical indices stated by Stamps (1997).

Examination of Role Stress and Career Satisfaction

The final analysis of the study examined the magnitude of the relationship between role stress and career satisfaction. This relationship was identified using a Pearson's Product-Moment correlation test with the NSS and IWS scores. The results indicated statistically significant inverse relationship between the level of role stress and career satisfaction. The RNs perceived that as their amount of role stress increased, their degree of career satisfaction decreased (r = -.51; p = .000).

CHAPTER 5

DISCUSSION AND IMPLICATIONS

The central purpose of this study was to examine the difference between the level of role stress and career satisfaction among RNs working in hospitals by work shift patterns. The data analysis revealed that there were differences in various aspects examined among the RNs practicing 8- and 12-hour work shift patterns. King's General Systems Framework (1981) and Bolman and Deal's Human Resource Framework (1997) provided the conceptual foundation for the study and a means to interpret the results.

Discussion of the Findings

Although work shift patterns may contribute to role stress, the length of a work shift may not affect perceptions of career satisfaction. While significant differences in role stress were noted between RNs working 8- and 12-hour shifts, there was not an overall difference in perceived career satisfaction between the two groups. Instead, all the RNs identified the dimensions of pay, autonomy, and professional status as priority areas leading to fulfillment in their careers. However, the RNs reported that they were not currently experiencing high levels of overall satisfaction in these particular areas.

These findings may reflect the turbulence occurring in the hospital practice environment related to political and economic forces. In the face of

dwindling financial resources, hospitals have restructured and downsized to reduce expenses. Hospitals have reacted to the economic pressures by streamlining expenses through cost containment strategies and personnel cutbacks. Inasmuch as RNs comprise the largest sector of a personnel budget, they become an easy target for cutbacks, layoffs, or restructuring.

These changes can have a devastating effect on staff morale. Recently, RNs have seen how quickly and easily someone in a non-nursing related department can make a decision to reduce their salaries or eliminate their positions. Furthermore, when nursing positions are terminated, they have been re-filled with non-licensed personnel. Registered nurses may perceive downsizing and restructuring of nursing positions as others devaluating their professional role and status. However, this devaluative perspective of nursing expertise was not shared among the 12-hour RN participants within this study. According to the results, the RNs who worked a 12-hour shift pattern were more likely to disagree with the statement that their practice did not require much knowledge or skill. This reflects that the 12-hour shift RNs perceived that the complexity of the patient care requires educationally-prepared professionals rather than non-licensed personnel. Moreover, they perceived that administrators interfered too often in issues impacting patient care, such as who is the most appropriate practitioner to provide the necessary care at the bedside.

The turbulent conditions in this practice setting would be challenging for all RNs regardless of the length of their work shift. However, it is not surprising that the results of this study showed that working longer shifts under these

adverse conditions causes the RN greater levels of stress. The study also showed that the most negative stressors, such as dealing with patients who are dying or dealing with a patient's death are amplified for those nurses working 12-hour shifts versus their colleagues practicing 8-hour shifts.

Overall, fatigue of the RNs working 12-hour shifts under such adverse conditions is the likely explanation as to why the stressors appeared to be magnified for the 12-hour shift RNs. The longer a RN works, the more fatiguing the clinical environment may become, especially in complex practice areas such as critical care, medical-surgical, and maternal-child. This explanation is further supported by the responses of the 12-hour shift RNs indicating significantly more stress than their 8-hour shift colleagues in over 25 percent (9/34 items) of all the situations presented on the Nursing Stress Scale.

The increased length of work shift and complexity of the practice environment may not be the only reason why the RNs working 12-hour shift patterns experienced greater levels of stress. The results of the study revealed that the RNs practicing 8-hour shift patterns were older and had more nursing experience. The increase in age and more nursing experience may have given the 8-hour shift nurses more tools to use to respond and adapt to stressful situations than the 12-hour shift RNs. Additionally, full-time, 8-hour shift nurses may have more regular contact with the hospital, their colleagues, and patients since they practice more shifts per week than the 12-hour shift RNs. These RNs also care for patients over more days during the work week, thus allowing them

to feel more in control of knowing what the plan of care is for that patient and their family members.

Lastly, the RNs in the study indicated that when there was an increase in role stress, there was a corresponding decrease in current career satisfaction. This is important information for nurse executives to note since any change in the practice environment could cause negative stress which has been identified in previous studies to cause nursing burnout and job turnover (Collins, 1996; Lobb & Reid, 1987; Salyer, 1995). Additionally, nursing career satisfaction has also been linked to retention and turnover issues (Leveck & Jones, 1996). This has been evidenced in today's practice environment based upon the current nursing shortage which continues to expand and is projected to accrue a deficiency of 90,000 nurses by the year 2005 (Taunton, Boyle, Woods, Hansen, & Bott, 1997). Thus, paying attention to the positive dimensions that nurses perceive important to them, such as pay, autonomy, and professional status, create healthy work environments that will help decrease role stress and increase career satisfaction of RNs.

Relationship of Findings to Conceptual Framework

Using a comprehensive approach, this study incorporated two conceptual frameworks which integrated essential concepts from the domains of business and nursing. This conceptual framework illustrates two major points regarding the exploration of this phenomenon. Pay, autonomy, and professional status were identified as being important elements to RN career satisfaction. When RNs perceive these dimensions in jeopardy, role stress and career

dissatisfaction may ensue. Additional negative factors in the practice environment, such as nursing workload and caring for patients who are dying, may also result in negative consequences for both the RN and the hospital. For example, RNs may experience increased accidents, absenteeism, and burnout which may cause them to exit their profession. Hospitals may then experience more RN job turnover leading to increasing overall salary expense, and poorer quality of patient care.

However, when hospitals understand the needs of RNs and how to enhance their career satisfaction, both the RNs and hospital benefit. Registered nurses experience greater professional fulfillment when hospitals implement strategies such as an autonomous practice environments and provide incentives such as pay and recognition of their professional status. Hospitals also profit by being able to retain knowledgeable and talented RNs. Hospitals' awareness of the negative elements that increase role stress and the positive factors that improve satisfaction may improve the quality of patient care and decrease associated financial expenses related to providing the care. This presents a win-win circumstance for the RN, hospital, and receiver of professional nursing care.

Relationship of Findings to Previous Research

The results of this research supported and contrasted the findings from previous studies regarding the relationship between the role stress and career satisfaction of RNs by work shift patterns. In several ways, the study differed

from others and extended the scientific foundation related to understanding this phenomenon.

Several similarities were noted between this study and the one conducted by Gowell and Boverie (1992). According to their findings, RNs had increased stress levels in all nursing units that included a component of 12-hour work shift patterns, especially in the areas of workload and dealing with end-of-life issues. The researchers also found that when the RNs experienced increased levels of stress, perceptions of their career satisfaction decreased. Lastly, Gowell and Boverie identified that RNs with more nursing experience reported less stress. Likewise, RN participants in this study who worked 8-hour shifts were older, had more nursing experience, and experienced less stress than the RNs who practiced for 12-hours.

Additionally, like the current study, Todd et al. (1993) found when comparing 8- and 12-hour shift nurses, the 12-hour shift nurses were more dissatisfied with issues related to pay and professional status. Moreover, In the study conducted by Jennings and Rademaker (1987), it was found that over time the established 12-hour shift nurses' career satisfaction decreased. In this study, it was revealed that all the RN participants were not greatly satisfied with their careers, despite working different shift patterns.

However, Jennings and Rademaker (1987) did not discover any differences between the levels of stress between 8- and 12-hour shift RNs. In contrast, Todd et al. (1993) reported that after the nurses had practiced 12-hour shifts for six months, 82.7 percent of the participants indicated that they were

unwilling to continue working this work shift pattern. This finding was not supported by the current study. According to the results, RNs practicing 12-hour shifts did not report extreme dissatisfaction or satisfaction in relation to their work shift pattern.

Strengths, Limitations, and Recommendations

This study has several major strengths. First, the study explored issues that were relative, timely, and significant to the nursing profession. Registered nurses are a key part of the health care delivery system and they make a difference in the quality of patient care. Issues concerning nursing role stress and career satisfaction impact the conditions of the RNs' work environment, which in turn influence the quality of patient care. Thus, exploring this subject matter provided information to make improvements for both RNs and the patients whom they serve.

The second strength of the study related to the response rate, given the method selected. According Salant and Dillman (1994), typical response rates for mailed surveys that use personalized cover letters, attractive questionnaires, and follow-up contacts are approximately 60 percent. However, the methodology selected for this study focused on single mailing instead of multiple mailings to maximize the size of the sample in the most cost-effective manner. Using this method, the response rate for the study exceeded 50 percent. However, it is recommended for future investigations to implement the strategies identified by Salant and Dillman. To facilitate this process, the researcher would recommend that grant monies be secured.

The third strength of the study related to the sampling methods utilized. This study employed the use of probability sampling to increase the generalizability of the results. Additionally, this study represented one of the largest descriptive studies concerning this phenomenon in terms of probability sampling and it recruited RNs throughout the state of Michigan. However, the researcher would recommend that the sampling plan be extended to a regional or national level. This would further enhance the generalizability of the findings from the study to greater RN populations.

The researcher identified three limitations of the study. The first limitation of the study related to the IWS instrument itself. After initiation of the study, it was found that another version of the IWS was available for use. The researcher was advised by Stamps, one of the original authors of the IWS, that only slight modifications had been made and the differences should not interfere with the results attained from the survey. However, it was recommended that any future research should be performed using the later instrument (P. Stamps, personal communication, June 16, 2000).

Second, the study was limited to the collection of quantitative data. In several surveys, RNs wrote in comments concerning work shift patterns, role stress, and career satisfaction. While the comments were interesting, the research design did not include a qualitative component or a method for all the participants to provide an open-ended response. Because of the limited number of qualitative responses and the quantitative format of the study, these responses were not analyzed. Therefore, the researcher recommends that

future studies include the collection of qualitative data to expand and enlighten the body of knowledge pertaining to this phenomenon. Specific areas recommended for further exploration would be understanding whether or not the reported work shift pattern is the preferred shift of choice by the RN. Additionally, investigation into how RNs select their hours of work would increase the empirical knowledge base for nurse executives to better make decisions impacting role stress and career satisfaction.

The last limitation of the study relates to the unequal distribution and small number of RNs employed in specific areas of practice. Due to this situation, group comparisons by specific areas of practice was hindered. In order to examine the effects of the practice areas on role stress and career satisfaction, a larger, stratified sample is needed.

IMPLICATIONS OF THE STUDY

Significance to Nursing Administration

The study's results provide empirical information to improve the current conditions of the practice environment for RNs. Nurse executives have a responsibility to not only look at the short-term cost-cutting solutions to improve the budget, but to also adopt a long-term perspective which involves using the results of nursing research. This will assist in balancing the obvious cost savings of RN reductions with the not so obvious costs of decreased RN morale and increased nursing turnovers.

The implementation of 12-hour work shift patterns was in many cases an attempt at a short-term solution intended to reduce stress, burnout, turnover; and

overall salary expense, while improving recruitment, retention, and career satisfaction (Palmer, 1991). From a historical perspective, there has been limited scientific data to evaluate whether this change reduced levels of role stress and career satisfaction of RNs in hospital settings (Todd et al., 1993). However, the results of this study indicate that this work shift pattern may be responsible for increasing the overall role stress among RNs, especially in the areas of workload and caring for patients who are in the dying process. Other negative factors related to 12-hour shift patterns were identified as escalators for the level of stress for these RNs. Nurse executives need to consider the results of this study when considering changing their current 8-hour shift patterns to 12-hour shift patterns as a perceived positive dimension for their nursing staff.

Additionally, nurse executives can identify positive dimensions through the research process and add them in the creation of a healthy nursing practice environment. Positive factors, that are important to RNs, such as pay, autonomy, and professional status need to be included in the development of a model nursing practice setting. This will bring meaning to the professionals' career and promote their overall satisfaction levels.

Through the identification and implementation of negative and positive influences on the role stress and career satisfaction of RNs, nurse executives will have the tools to build and maintain a robust work environment. The final product would include such positive circumstances as improving the quality of patient care; attracting more students into the nursing profession; decreasing the

overall stress, burnout, and job turnover rate; and improving the retention of our most knowledgeable and gifted RNs.

Therefore, decisions regarding the caring environment need to be based upon scientific evidence rather than assuming what will be a positive initiative. Implementing changes in the nursing practice environment without the use of an empirical basis may provide short-term financial gains, however, these gains may prove to be very short-sighted when the long-term costs on nursing and patient care are realized. Decreased costs at the patient's expense may result in more suffering through increased morbidity and mortality rates (Blegan, Goode, & Reed, 1998). Hospitals may experience decreased financial returns due to increased patient hospital stays, complications, readmission rates, legal expenses, RN burnout, RN turnover, and RN shortages. Thus, nurse executives need to understand that RNs are the key in producing positive outcomes in hospital environments for the health and welfare of the patient and the hospital itself. Understanding the impact that factors such as work shift patterns have on the RNs is crucial in being proactive to create healthy nursing practice environments to decrease role stress and enhance career satisfaction.

Significance to Nursing Practice

Registered nurses practicing at the bedside today have enormous responsibilities to patients and their family members, as well as to themselves and their colleagues. The demands of the practice environment are highly complex and present many challenges when delivering patient care. Staff RNs have a responsibility to participate in processes that assist in identifying and

correcting negative factors that exist in their practice environment. Otherwise, negative factors such as physical and mental fatigue, staffing shortages, and extended work shift patterns will continue to contribute to negative consequences, such as increased nursing turnover, burnout, and poor quality of patient care.

Registered nurses also need to seize opportunities to assist in creating rewards that encourage personal career satisfaction and advance the nursing profession. Nurses need to become more involved in their organizations professional practice councils and state nursing organizations. When given the chance to provide feedback relative to their nursing experience and environment, nurses need to seize the opportunity and provide honest, thoughtful responses.

Significance to Nursing Education

The implications of the study to nurse educators are important in that they point to a need for systems that decrease the level of stress and enhance the satisfaction of future or currently practicing RNs. For example, nurse educators need to be aware that 12-hour shift patterns may negatively impact the teaching-learning process of students and current practicing nurses. Nurse educators may also incorporate the teaching of healthy stress management skills so that new practicing RNs are better equipped to handle stressful situations upon entering the profession. Additionally, they may use concepts from identified positive influences to promote growth and development of those they serve.

This may include introducing student nurses to other areas of nursing practice outside the acute care environment as potential career opportunities.

Significance to Nursing Research

The importance of this study in the area of nursing research is crucial. First, nationally-based studies regarding the positive and negative factors that affect the role stress and career satisfaction of RNs is imperative. In fact, as a direct result of the changes made in the current RN practice environment within hospital settings, the American Nurses Association (ANA) instituted a campaign to investigate the impact of health care restructuring on both nursing and the safety and quality of patient care. The information gained from this study will assist the nation in focusing attention on the critical issues facing the way health care is delivered today. The ANA is currently on the forefront lobbying for state and federal legislation requiring the collection, distribution, and publication of related data from hospitals.

The American Nurses Association's campaign originally consisted of seven Nursing Sensitive Outcomes in 1995 which examined the outcomes that are most affected by nursing care. Later, the campaign developed three more quality indicators, including the satisfaction of RNs who provided direct patient care or held middle nursing administrative roles. This is important since through previous studies, increased stress has been linked to a number of factors, such as decreased career satisfaction. One of the instruments recommended by the ANA in collecting data to examine career satisfaction of RNs was the IWS, the same instrument used in this study. However, the researcher recommends that

the ANA standardize which instrument they will actually use. Standardization of data collection is needed to be able to benchmark findings and develop outcome-based interventions for the identified problems.

As such, the quantitative data from this study supports the initiative set forth by ANA and may serve as a foundation for other studies in this crucial area. Further research builds upon the body of knowledge related to the current state of RN role stress and career satisfaction. However, further studies using qualitative research methods are necessary to fully understand the scope of the problem.

In light of the ANA's campaign to improve the quality of patient care, this study was very timely and essential in identifying factors that impact the quality of the RNs' practice environment. Registered nurses are an integral member of the health care delivery team who make a difference in the quality of patient care and economic outcomes of hospitals. The data attained in this study coupled with future studies similarly collected at a national level would allow for hospitals to examine their own processes that influence the nursing practice environment and the factors which influence RNs role stress and career satisfaction. The data collected both in this study and in future studies will help nurse executives to benchmark and make decisions in a proactive manner to avert the disillusionment of practicing RNs and avoid other negative consequences that impact the quality of care. Thus, strategies could be developed to decrease role stress, improve career satisfaction, and promote a hardy practice environment for RNs.

Nurse executives face many challenges now and in the future. Strategic initiatives must be created that will support the current practice environment for the RN. Empirical studies, such as this one, combined with cost analysis methods will arm them with information to determine if there are truly advantages associated with shift lengths. Once identified, these advantages will promote achievement towards a practice environment with lower levels of RN stress, burnout, and turnover, and lead to higher levels of career satisfaction.

APPENDICES

APPENDIX A

The Nursing Stress Scale

Appendix A

The Nursing Stress Scale

Directions:

This questionnaire contains a list of situations that commonly occur in a hospital unit. For each item, indicate by circling the appropriate answer *how often* in your present unit you have found the situation to be *stressful*. Your responses are strictly confidential.

Answer Key: 1 = Never = N
2 = Occasionally = O
3 = Frequently = F
4 = Very Frequently= VF

For example, if you "Frequently" experience stress when you are suctioning a patient, you would respond to that item as follows:

	Situations	**N**	**O**	**F**	**VF**
1.	Suctioning a Patient.	1	2	(3)	4

The Nursing Stress Scale Questionnaire:

	Situations	**N**	**O**	**F**	**VF**
1.	Breakdown of the computer.	1	2	3	4
2.	Criticism by a physician.	1	2	3	4
3.	Performing procedures that patients experience as painful.	1	2	3	4

The Nursing Stress Scale

	Situations	N	O	F	VF
4.	Feeling helpless in the case of a patient who fails to improve.	1	2	3	4
5.	Conflict with a supervisor.	1	2	3	4
6.	Listening or talking to a patient about his/her approaching death.	1	2	3	4
7.	Lack of an opportunity to talk openly with other unit personnel about problems on the unit.	1	2	3	4
8.	The death of a patient.	1	2	3	4
9.	Conflict with a physician.	1	2	3	4
10.	Fear of making a mistake in treating a patient.	1	2	3	4
11.	Lack of an opportunity to share experiences and feelings with other personnel on the unit.	1	2	3	4
12.	The death of a patient with whom you developed a close relationship.	1	2	3	4
13.	Physician not being present when a patient dies.	1	2	3	4
14.	Disagreement concerning the treatment of a patient.	1	2	3	4
15.	Feeling inadequately prepared to help with the emotional needs of a patient's family.	1	2	3	4
16.	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.	1	2	3	4

The Nursing Stress Scale

	Situations	N	O	F	VF
17.	Inadequate information from a physician regarding the medical condition of a patient.	1	2	3	4
18.	Being asked a question by a patient for which I do not have a satisfactory answer.	1	2	3	4
19.	Making a decision concerning a patient when the physician is unavailable.	1	2	3	4
20.	Floating to other units that are short-staffed.	1	2	3	4
21.	Watching a patient suffer.	1	2	3	4
22.	Difficulty in working with a particular nurse (or nurses) outside the unit.	1	2	3	4
23.	Feeling inadequately prepared to help with the emotional needs of a patient.	1	2	3	4
24.	Criticism by a supervisor.	1	2	3	4
25.	Unpredictable staffing and scheduling.	1	2	3	4
26.	A physician ordering what appears to be inappropriate treatment for a patient.	1	2	3	4
27.	Too many non-nursing tasks required, such as clerical work.	1	2	3	4
28.	Not enough time to provide emotional support to a patient.	1	2	3	4
29.	Difficulty in working with a particular nurse (or nurse) on the unit.	1	2	3	4
30.	Not enough time to complete all of my nursing tasks.	1	2	3	4

	Situations	N	O	F	VF
31.	A physician not being present in a medical emergency.	1	2	3	4
32.	Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment.	1	2	3	4
33.	Uncertainty regarding the operation and functioning of specialized equipment.	1	2	3	4
34.	Not enough staff to adequately cover the unit.	1	2	3	4

APPENDIX B

The Index of Work Satisfaction

Appendix B

The Index of Work Satisfaction

Directions for Part A of the Questionnaire:

Listed and briefly defined on this sheet of paper are six terms or factors that are involved in how people feel about their work situation. Each factor has something to do with "work satisfaction." We are interested in determining which of these is most important to you in relation to the others. Please carefully read the definitions for each factor as given below:

1.	Pay	Dollar remuneration and fringe benefits received for work done.
2.	Autonomy	Amount of job-related independence, initiative, and freedom, either permitted or required in daily work activities.
3.	Task Requirements	Tasks or activities that must be done as a regular part of the job.
4.	Organizational Policies	Management policies and procedures put forward by the hospital and nursing administration of this hospital.
5.	Interaction	Opportunities presented for both formal and informal social and professional contact during working hours.
6.	Professional Status	Overall importance or significance felt about your job, both in your view and in the view of others.

Continued Directions for Part A

These factors are presented in pairs on the questionnaire that you have been given. Only 15 pairs are presented: this is every set of combinations. No pair is repeated or reversed.

For each pair of terms, decide which one is *more* important for your job satisfaction or morale. Please indicate your choice by a check on the line in front of it. For example: If you felt that Pay (as defined above) is more important that Autonomy (as defined above), check the line before Pay.

✓ Pay or _____ Autonomy

The Index of Work Satisfaction

We realize it will be difficult to make choices in some cases. However, please do try to select the factor which is more important to you. Please make an effort to answer every item. Do not change any of your answers.

1.	_____Professional Status	or	_____Organizational Policies
2.	_____Pay	or	_____Task Requirements
3.	_____Organizational Policies	or	_____Interaction
4.	_____Task Requirements	or	_____Organizational Policies
5.	_____Professional Status	or	_____Task Requirements
6.	_____Pay	or	_____Autonomy
7.	_____Professional Status	or	_____Interaction
8.	_____Professional Status	or	_____Autonomy
9.	_____Interaction	or	_____Task Requirements
10.	_____Interaction	or	_____Pay
11.	_____Autonomy	or	_____Task Requirements
12.	_____Organizational Policies	or	_____Autonomy
13.	_____Pay	or	_____Professional Status
14.	_____Interaction	or	_____Autonomy
15.	_____Organizational Policies	or	_____Pay

The Index of Work Satisfaction

Directions for Part B of the Questionnaire:

The following items represent statements about satisfaction with your occupation. Please respond to each item. It may be very difficult to fit your responses into the seven categories; in that case, select the category that *comes closest* to your response to the statement. It is very important that you give your *honest* opinion. Please do not go back and change any of your answers.

Please circle the number that most closely indicates how you feel about each statement. The *left* set of numbers indicates degrees of *disagreement*. The *right* set of numbers indicates degrees of *agreement*. The *center* number means "undecided." Please use it as little as possible. For example, if you *strongly disagree* with the first item, circle 1; if you *moderately agree* with the first statement, you would circle 6.

The more strongly you feel about the statement, the further from the center you should circle, with disagreement to the left and agreement to the right.

		Disagree						**Agree**
1.	My present salary is satisfactory.	1	2	3	4	5	6	7
2.	Most people do not sufficiently appreciate the importance of nursing care to hospital patients.	1	2	3	4	5	6	7
3.	The nursing personnel on my service do not hesitate to pitch in and help one another out when things get in a rush.	1	2	3	4	5	6	7
4.	There is too much clerical and "paperwork" required of nursing personnel in this hospital.	1	2	3	4	5	6	7
5.	The nursing staff has sufficient control over scheduling their own work shifts in my hospital.	1	2	3	4	5	6	7
6.	Physicians in general cooperate with nursing staff on my unit.	1	2	3	4	5	6	7

The Index of Work Satisfaction

		Disagree						Agree
7.	I feel that I am supervised more closely than is necessary.	1	2	3	4	5	6	7
8.	Excluding myself, it is my impression that a lot of nursing personnel at this hospital are dissatisfied with their pay.	1	2	3	4	5	6	7
9.	Nursing is a long way from being recognized as a profession.	1	2	3	4	5	6	7
10.	New employees are not quickly made to "feel at home" on my unit.	1	2	3	4	5	6	7
11.	I think I could do a better job if I did not have so much to do all the time.	1	2	3	4	5	6	7
12.	There is a great gap between the administration of this hospital and the daily problems of the nursing service.	1	2	3	4	5	6	7
13.	I feel I have sufficient input into the program of care for each of my patients.	1	2	3	4	5	6	7
14.	Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable.	1	2	3	4	5	6	7
15.	There is no doubt whatever in my mind that what I do on my job is really important.	1	2	3	4	5	6	7
16.	There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.	1	2	3	4	5	6	7
17.	I have too much responsibility and not enough authority.	1	2	3	4	5	6	7
18.	There are not enough opportunities for advancement of nursing personnel at this hospital.	1	2	3	4	5	6	7

The Index of Work Satisfaction

		Disagree						Agree
19.	There is a lot of teamwork between nurses and doctors on my own unit.	1	2	3	4	5	6	7
20.	On my service, my supervisors make all the decisions. I have little direct control over my own work.	1	2	3	4	5	6	7
21.	The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory.	1	2	3	4	5	6	7
22.	I am satisfied with the types of activities that I do on my job.	1	2	3	4	5	6	7
23.	The nursing personnel on my service are not as friendly and outgoing as I would like.	1	2	3	4	5	6	7
24.	I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel.	1	2	3	4	5	6	7
25.	There is ample opportunity for nursing staff to participate in the administrative decision-making process.	1	2	3	4	5	6	7
26.	A great deal of independence is permitted, if not required, of me.	1	2	3	4	5	6	7
27.	What I do on my job does not add up to anything really significant.	1	2	3	4	5	6	7
28.	There is a lot of "rank consciousness" on my unit. Nursing personnel seldom mingle with others of lower ranks.	1	2	3	4	5	6	7
29.	I have sufficient time for direct patient care.	1	2	3	4	5	6	7

The Index of Work Satisfaction

		Disagree						Agree
30.	I am sometimes frustrated because all of my activities seem programmed for me.	1	2	3	4	5	6	7
31.	I am sometimes required to do things on my job that are against my better professional nursing judgment.	1	2	3	4	5	6	7
32.	From what I hear from and about nursing service personnel at other hospitals, we at this hospital are being fairly paid.	1	2	3	4	5	6	7
33.	Administrative decisions at this hospital interfere too much with patient care.	1	2	3	4	5	6	7
34.	It makes me proud to talk to other people about what I do on my job.	1	2	3	4	5	6	7
35.	I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.	1	2	3	4	5	6	7
36.	I could deliver much better care if I had more time with each patient.	1	2	3	4	5	6	7
37.	Physicians at this hospital generally understand and appreciate what the nursing staff does.	1	2	3	4	5	6	7
38	If I had the decision to make all over again, I would still go into nursing.	1	2	3	4	5	6	7
39.	The physicians at this hospital look down too much on the nursing staff.	1	2	3	4	5	6	7

The Index of Work Satisfaction

		Disagree						Agree
40.	I have all the voice in planning policies and procedures for this hospital and my unit that I want.	1	2	3	4	5	6	7
42.	The nursing administrators generally consult with the staff on daily problems and procedures.	1	2	3	4	5	6	7
43.	I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up.	1	2	3	4	5	6	7
44.	An upgrading of pay schedules for nursing personnel is needed at this hospital.	1	2	3	4	5	6	7

APPENDIX C

Demographics

Appendix C

Demographics

Please provide the following information:

1. Date of Questionnaire Completion _____

2. Your Age Years_____

3. Your Sex Female_____ Male_____

4. What is your marital status? Single_____ Married_____

5. Do you have any children at home? No_____ Yes_____ If yes, how many?_____

6. Your Employment Status Full-time_____ Part-time_____ PRN_____

7. What work shift pattern do you *typically* work?
   8-hour shifts_____ 10 hour shifts_____ 12-hour shifts_____

   Combination 8- and 12-hour shifts_____

   Other (please describe)_____

7. What type of unit do you work in?

   Critical Care_____ Oncology _____

   Endoscopy_____ Outpatient Surgery_____

   Emergency_____ Pediatrics_____

   Intermediate Care/Telemetry_____ Post-Anesthesia Care_____

   Medical-Surgical_____ Radiology_____

   Obstetrics/Gynecology___ Rehabilitation_____

   Oncology_____ Other (Specify)_____

Demographics

8. How long have you worked in your current unit? Years_____ Months_____

9. How long have you been an RN? Years_____ Months_____

10. What is your highest level of completed nursing education?
Diploma_____

Associate Degree_____

Baccalaureate Degree_____

Masters Degree_____

11. Do you hold a nursing certification in a specialty area?
No_____

Yes_____

If yes, please indicate the type of certification_____

Reminder: Please Mail in the Questionnaire. Thanks for Your Participation!!!! ☺☺☺

APPENDIX D

Permission to Use the Nursing Stress Scale

PURDUE UNIVERSITY

DEPARTMENT OF SOCIOLOGY
AND ANTHROPOLOGY

February 18, 2000

Amy J. Hoffman, RN, BSN
489 Lehigh Drive, SE
Ada, MI 49301

Dear Ms. Hoffman:

I have enclosed a copy of the Nursing Stress Scale. You have our permission to use the Nursing Stress Scale in your research. Please cite the original source in the Journal of Behavioral Assessment, Vol. 3, No. 1, 1981, pp. 11-23. Please note that six of the items were dropped on the basis of the factor analysis. I have checked the final 34 items that were included on the enclosed copy of the NSS.

Good luck with your research. I would be most interested in receiving a copy of any of your publications that result from the research. Please call me at (765) 494-4703 if you have any questions.

Sincerely yours,

[redacted]

James G. Anderson, Ph.D.
Professor of Medical Sociology
(765) 494-4703
FAX: (765) 496-1476
e-mail: andersonj@sri.soc.purdue.edu

1365 WINTHROP E. STONE HALL • WEST LAFAYETTE, IN 47907-1365

February 16, 2000

Mr. James G. Anderson
1365 Stone Hall
Department of Sociology and Anthropology
Purdue University
West Lafayette, IN 47907-1365

Amy J. Hoffman, RN, BSN
489 Lehigh Drive SE
Ada, Michigan 49301

I, Mr. James G. Anderson, give Amy J. Hoffman, permission to use my Nursing Stress Scale Questionnaire, and any modifications necessary for the completion of her graduate thesis studies.

Sincerely,

[redacted]

James G. Anderson, Ph.D.

APPENDIX E

Grand Valley State University's Human Subjects Approval

GRAND VALLEY
STATE UNIVERSITY
1 CAMPUS DRIVE • ALLENDALE, MICHIGAN 49401-9403 • 616/895-6611

April 14, 2000

Amy Hoffman
489 Leigh Drive SE
Ada, MI 49301

Dear Amy:

Your proposed project entitled ***What are the Levels of Stress and Satisfaction Experienced by Registered Nurses in the Hospital Setting*** has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

[redacted]

Paul A. Huizenga, Chair
Human Research Review Committee

APPENDIX F

Cover Letter

Appendix F

Cover Letter

April 24, 2000

Dear Registered Nurse:

My name is Amy Hoffman and I am a graduate nursing student at Grand Valley State University. I am conducting a study to examine the level of stress and satisfaction experienced by registered nurses working in hospitals. This is the basis for my thesis which is one of the requirements for graduating with the degree of Master of Science in Nursing.

As an RN, you were randomly selected to participate in the study. In order that the results truly represent what is happening in nursing, it is important that the entire set of questionnaires be completed and returned.

Please take approximately 15 minutes to complete the attached questionnaire. When you are finished, place the questionnaire in the self-addressed and stamped envelope and then place it into the mail.

Although there are no direct benefits from participating, the results may improve the professional practice environment. This information may assist nurse executives in making decisions regarding ways to improve the work setting.

Participation is voluntary. All responses will remain confidential and anonymous. No attempt has been made to name or code the questionnaire to identify the participant. Informed consent is implied upon your completion and return of the questionnaire. Your name will not appear on any of the results of the study.

You may receive a summary of the results of the study by writing "copy of the results requested" on a separate piece of paper and printing your name and address below it. Please mail this to the address listed at the beginning of the letter. Or, you may email me with this information for a copy of the results of the study.

Cover Letter

If you have any questions, please call or email me. If you have questions regarding your rights as a participant, you may also contact Professor Paul Huizenga, Chair of the Institutional Review Board at Grand Valley State University, at (616) 895-2472. To participate in the study, all questionnaires must be post-marked by May 22, 2000. I truly appreciate your time and participation in the study.

Sincerely,

Amy J. Hoffman, R.N., B.S.N.

LIST OF REFERENCES

List of References

Blegan, M. A. (1993). Nurses' job satisfaction: A meta-analysis of related variables. Nursing Research, 42(1), 36-41.

Blegan, M. A., Goode, C.J., & Reed, L. (1998). Nursing staffing and patient outcomes. Nursing Research, 47(1), 43-50.

Bolman, L. G., & Deal, T. E. (1997). Reframing organizations: Artistry, choice, and leadership (2nd ed.). San Francisco: Jossey-Bass Publishers.

Cavanagh, S. J. (1989). Nursing turnover: Literature review and methodological critique. Journal of Advanced Nursing, 14, 587-596.

Collins, M. A. (1996). The relation of work stress, hardiness, and burnout among full-time hospital staff nurses. Journal of Nursing Staff Development, 12 (2), 81-85.

Fawcett, J. (1995). Analysis and evaluation of conceptual models for nursing (3rd ed.). Philadelphia, PA: F. A. Davis Company.

Fitzpatrick, J., While, A. E., & Roberts, J. D. (1999). Shift work and its impact upon nurse performance: Current knowledge and research issues. Journal of Advanced Nursing, 29(1), 18-27.

Gillespie, A., & Curzio, J. (1996). A comparison of a twelve-hour and eight-hour shift system. Nursing Times, 25(96), 36-39.

Gowell, Y.M., & Boverie, P.E. (1992). Stress and satisfaction as a result of shift and number of hours worked. Nursing Administration Quarterly, 16(4), 14-19.

Gray-Toft, P., & Anderson, J. G. (1981). The nursing stress scale: Development of an instrument. Journal of Behavioral Assessment, 3(1) 11-23.

Jennings, E., & Rademaker, A (1987). Eight- and twelve-hour shifts and well-being among hospital nurses. Nursing Papers/Perspective on Nursing, 19 (1), 31-44.

Johnston, C. (1997). Changing care patterns and registered nurse job satisfaction. Holistic Nursing Practice, 11(3), 69-77.

King, I. M. (1981). A theory for nursing: Systems, concepts, process. Albany, NY: Delmar Publishers Inc.

Lee, P. R., & Estes, C. L. (1994). The nation's health (4th ed.). Boston: Jones and Bartlett Publishers.

Leveck, M. L., & Jones, C.B. (1996). The nursing practice environment, staff retention, and quality of care. Research in Nursing & Health, 19, 331-343.

Lobb, M., & Reid, M. (1987). Cost-effectiveness at what price? An investigation of staff stress and burnout. Nursing Administration Quarterly, 12 (1), 59-66.

Lucas, M., Atwood, J., & Hagaman, R. (1993). Replication and validation of anticipated turnover model for urban registered nurses. Nursing Research, 42 (1), 29-35.

National Advisory Council on Nurse Education and Practice. National League for Nursing, Nursing Research. (1995). Trends in contemporary nursing education 1 (Section 11 Policy Issues, Proposed Goals and Options). Division of Research, National League for Nursing: NPW York, NY.

Northcott, N., & Facey, S. (1995). Twelve-hour shifts: Helpful or hazardous to patients? Nursing Times, 91(7), 29-31.

Palmer, J. (1991). Eight-and 12-hour shifts: Comparing nurses' behavior patterns. Nursing Management, 22(9), 42-44.

Polit, D., & Hungler, B.P. (1995). Nursing research and principles and methods (5th ed.). Philadelphia, Pennsylvania: J.B. Lippincott Company.

Salant, P., & Dillman, D. A. (1994). How to conduct your own survey. New York: John Wiley & Sons Incorporated.

Salyer, J. (1995). Environmental turbulence: Impact on nurse performance. Journal of Nursing Administration, 25(4), 12-20.

Stamps, P. L. (1997). Scoring workbook for the index of work satisfaction. Northampton, Massachusetts: Market Street Research Incorporated.

Stamps, P. L., & Peidmonte, E. B. (1986). Nurses and work satisfaction: An index for measurement. Ann Arbor, MI: Health Administration Press Perspectives.

Taunton, R. L., Boyle, D. K., Woods, C. Q., Hansen, H. E., & Bott, M. J. (1997). Western Journal of Nursing Research, 19(2), 205-226.

Todd, C., Robinson, G., & Reid, N. (1993). 12-hour shifts: Job satisfaction of nurses. Journal of Nursing Management, 1, 215-220.

Ugrovics, A., & Wright, J. (1990). 12-hour shifts: Does fatigue undermine ICU nursing judgments? Nursing Management, 21(1), 64A-64G.