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Acute Care Nursing: Are Perceived Work Stressors Different for Nurses Working in Critical Care and Non-Critical?

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ACUTE CARE NURSING: ARE PERCEIVED WORK STRESSORS DIFFERENT FOR NURSES WORKING IN CRITICAL CARE AND NON-CRITICAL?

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ABSTRACT

ACUTE CARE NURSING: ARE PERCEIVED WORK STRESSORS DIFFERENT FOR NURSES WORKING IN CRITICAL CARE AND NON-CRITICAL CARE?

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The purpose of this study was to examine, using King's Conceptual Framework, "stressful" nursing situations that might affect critical care (CC) and non-critical care (NCC) nurses in an acute health care setting. Similarities that existed between the two groups were evaluated using responses to Gray-Toft and Anderson's Nursing Stress Scale (NSS).

The sample of 131 included registered nurses and licensed practical nurses at a 300-bed acute care tertiary hospital in Northern Michigan representing two critical care areas and three non-critical care areas. The NSS, letter of explanation and waiver, and return envelope were sent to participants' homes. Data indicate that perceived work stress by CC and NCC nurses was significantly different ($p < .05$) for the total NSS and the subscales of death and dying, conflict with physicians, workload, and uncertainty concerning treatment. Educational and support programs can be developed to empower staff nurses working in critical care and non-critical care units to effectively cope with the identified work stressors.

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CHAPTER ONE

Introduction

Stress is with us every day of our lives. It is discussed in books, movies, and in support groups. Popular definitions of stress include Webster's Dictionary's, "mental or physical tension or strain" (1988, p. 1326). Synonyms used for stress by J. Rodale include pain, grief, suffering, frustration, conflict, and trauma (1978). In the book, The Nation's Health, Lee and Estes (1990) point out that nurses everywhere are under great stress. They discuss that salaries have not kept up with the increased skills and responsibilities that are required, and that staffing levels and inflexible schedules add additional stress to an already pressured group. Nurses deal with the stress of safely caring for patients on a daily basis, sometimes not realizing that they, themselves are stressed.

Much research has been done to identify and measure stressors and stress levels among nurses working in acute care. Specific investigations into differences between Intensive Care Unit (ICU) and non-ICU nurses have been done since the early 1970s in response to the opening of ICUs and Cardiac Care Units (CCU). Many studies (Cronin-Stubbs & Rooks, 1985; Keane, A., Ducette, J., & Adler, D.C., 1985; McCranie et al., 1987; Nichols et al., 1981; Wakefield et al., 1988) reveal that perceived stress by nurses is equal in both ICU and non-ICU patient care areas. Cronin-Stubbs and Rooks (1985)

found that nurses working in non-ICUs scored higher on stress related questions than ICU nurses despite the fact that the work in the critical care area was more intense and the patients were of higher acuity. They based their findings on the Nursing Stress Scale (NSS) (Gray-Toft & Anderson, 1981) which they used to measure frequency and intensity of work-related stressors.

Still others (Benner & Kramer, 1972; Byers et al. , 1983; Gentry et al. , 1972; Lewandowski & Kramer, 1980) showed that stress in ICU is greater than in non-ICU patient care areas. Byers et al. surveyed over 1200 hospitals nationwide with 733 subjects and found that Registered Nurse (RN) vacancies and RN turnover led to greater stress in ICU nurses than non-ICU nurses. Lewandowski and Kramer also reported greater stress in ICU nurses. Their study included only new graduate nurses, which could have influenced their results.

Studies by Maloney (1982) and Kelly and Cross (1985) were conducted specifically in army and government hospitals with the results leaning toward more stress in non-ICU than in ICU nurses. Whether or not the type of healthcare organization plays a part in determining stress levels is not clear from these studies. The causes of job stress may be related to personal or occupational experiences or both. Job stress may have an impact on job satisfaction. Methods of coping with stress may play an important part in managing stress. The perceived stress experienced by acute care nurses may be explained by looking at the physical, psychological, and social stressors encountered on the job.

The current study builds on the work by Gray-Toft and Anderson (1981) and uses

the Nursing Stress Scale (NSS). They developed the NSS to measure perceived nursing work stress. No other instrument at that time was specific to nursing. It is important to look at both the ICU and non-ICU nurse's views on perceived work stress in order to plan appropriate interventions to relieve the effects of that stress. Previous research (Lewandowski & Kramer, 1980; Cronin-Stubbs & Rooks, 1985; Gentry et al., 1972) indicate that stressful work situations may be interpreted differently by nurses working in ICUs and non-ICUs. The data from the NSS brought in to focus some of the major areas of stress encountered by nurses working in the acute care setting. The subscales of the NSS include death and dying, conflict with physicians, inadequate preparation to deal with the emotional needs of patients and their families, lack of staff support, uncertainty concerning treatment, conflict with other nurses and supervisors, and work load. For the purposes of this paper, the terms ICU and critical care (CC) will be used interchangeably. Also the terms non-ICU and non-critical care (NCC) will be used interchangeably.

Purpose

The purpose of this study was to examine certain "stressful" nursing situations affecting CC and NCC nurses in an acute health care setting, and differences between the two groups. This was done by evaluating the responses to the Nursing Stress Scale and its seven subscales previously identified as a measurement of stress by Gray-Toft and Anderson (1981).

CHAPTER TWO

Conceptual Framework and Review of Literature

Conceptual Framework

Imogene King's Conceptual Framework for Nursing (1981) was the basis for this study of perceived stress among critical care and non-critical care nurses. The three interacting systems of personal, interpersonal, and social, and the state of stress of nurses were examined in this paper. King's definition of stress comes from many sources. "Stress is a dynamic state whereby a human being 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, p. 98).

To understand fully how this project and the framework fit together, it is necessary to define the systems and key concepts that pertain to this study. The concepts to be used include: communication, interaction, decision making, organization, perception, power, role, stress, and time. Because the concepts are dependent on each other and interrelated, it is difficult to place them in only one of King's (1981) three systems; the personal, interpersonal, or social.

Definition of framework terms. King's definition of personal systems includes the nurse as a total system and the patient as a total system (1981). It is through personal systems that the nurse is able to understand her patient as a whole, which is necessary, before she is able to understand the interpersonal and social systems. The concepts related to personal systems considered for this study include perception and time. Perception is a very basic concept and everyone's perceptions of situations vary. Perception is part of the personal system and involves only the person's perception at a specific time and place. Perceptions are important in interactions and communication.

Time is a personal system concept that is perceived differently by each individual. It is situational and based on each person's interpretation. King (1981) points out that there are four divisions of time which include biological, psychological (subjective), physical (clocks), and relational (past, present, and future).

Interpersonal systems include dyads, triads, and small and large groups. Dyads are two individuals interacting while triads are three individuals interacting. The concepts related to interpersonal systems are communication, interaction, role, and stress. Communication can be both verbal and non-verbal. It can be written or spoken, a look or gesture, a noise or a feeling. Once a communication occurs, it cannot be taken back. King (1981) includes communication in the interpersonal systems.

Interaction is also included in the interpersonal systems. Interactions only move forward and are considered a continuous process. Communication is used in an interaction between two people. Once the interaction happens, it cannot be repeated. Nurses interact with patients, family members, and other members of the health care staff on a daily basis (King, 1981).

Social systems are "... moving forces in nursing that are imbedded in the dynamics of society in which the process of change alters the environment" (King, 1981, p. 11). King provides the following examples of nursing and patient relationships in her writing: "family systems, religious or belief systems, educational systems, and work systems" (p. 11-12). She also points out that hospitals and public health agencies are two of the main social systems in our society (King). The concepts included in this system are decision making, organization, and power.

Decision-making is important because it occurs as a continuous process with the final outcome of goal achievement. King (1981) includes decision making as part of the social system yet it is also a personal process. Everyone makes decisions differently depending on the circumstances. Decision-making is used by nurses in the nursing process and in the application of critical thinking skills.

Organization is part of the social system and includes the structure of how the system functions. Staffing patterns, organizational structure, quality of patient care, and employee satisfaction are part of the social system. It is important for the nurse to know the goals of the organization to understand how they relate to the goals of professional nursing (King, 1981).

Power is a concept of the social system but is important in that it affects the decision making process. To use power, the nurse must have established goals either for the patient, himself, or others. To accomplish the goals, the nurse then uses the power to make decisions that work toward meeting the goals (King, 1981).

Role is part of the interpersonal system but clearly overlaps into the social system. Role includes many other concepts. Communication and interaction are very

important to role. It is through communication that the nurse is able to interact with patients and families in order to achieve goals that are developed by functioning in the role of the care planner and professional nurse. If the organization has a different concept of the role of the nurse, then role conflict evolves and the resulting stress leads to ineffective patient care. Perception plays a part in the nurse's idea of what the professional nurse role encompasses which may conflict with the employer's perception (King, 1981).

The final concept and the center post of this study is stress. King places stress in the interpersonal system. She discussed studies that integrated levels of stress and the effects on the nursing staff, patient care, and interactions with patients, families, and other health care providers. Stress is "an energy factor in open systems that is increased and decreased by stressors in man-environment interactions" (King, 1981, p. 98). She viewed stress as "the energy response of an individual to persons, objects, and events called stressors" (King, p. 98). "Stress may be viewed as a factor that is related to a total person interacting with a total environment to perform the functions that bring some satisfaction to daily living" (King, p. 102).

Summary. The Nursing Stress Scale (Gray-Toft & Anderson, 1981) measures situations perceived as stressful by acute care nurses. The questions on the NSS exemplify King's (1981) definition of stress and support the concepts that make up the personal, interpersonal, and social systems. Perception of stressful situations is the basis for the questions on the NSS. On the NSS when a nurse responds to how stressful a specific situation might be, it is the nurse's perception from current or past experiences which drives the answer the nurse selects.

Each question may have several concepts represented, however, the nurse's perception of the question and the situation it implies may be very different. Communication plays a prominent role in the Nursing Stress Scale (Gray-Toft & Anderson, 1981) as over 50% of the questions are related in some way to communication. The NSS includes many questions that relate to nursing interactions. Several questions on the NSS are address the concept of organization. Decision making and power are incorporated into the NSS questions. Time was an important factor for the NSS. As the nurse selected stressful situations involving time, it was the nurse's perception of time, which led him to a particular response. The Nursing Stress Scale measures the nurse's perceptions of stressful situations and the frequency with which they occur. Because stress can be positive or negative, it should be understood that the scenarios described on the NSS relate negative stress situations.

Review of Literature

A review of the literature indicates that nursing stress has been a topic of concern over the past two decades. However, there have been a relatively small number of studies reported on the perceived stressors in the critical care units and the non-critical care units. Several studies look at the relationship of stress to burnout and job satisfaction in critical care nurses (Topf & Dillon, 1988; Norbeck, 1985; Stechmiller & Yarandi, 1993). In other studies, stress has been related to not only burnout and job satisfaction but also to absenteeism, turnover, coping skills, anxiety, and quality of care (Oehler, Davidson, Starr, & Lee, 1991; Leveck & Jones, 1996). This review of the literature concludes with the importance of measurement of stress experienced by acute care hospital nurses, the differences between the intensive care unit nurses and the non-

intensive care unit nurses, and the possible implications for nursing practice.

Job related stress experienced by nurses in critical care and non-critical care units. Boumans and Landeweerd (1994) selected 561 intensive care unit and non-intensive care unit nurses from 36 nursing units in 16 randomly selected general hospitals for their study. Using a descriptive, correlational design, they measured work-related variables such as work pressure, autonomy, job satisfaction, health complaints, absenteeism, and coping strategies. Participants in their study completed a questionnaire with questions taken from the Job Diagnostic Survey, the Leader Behavior Questionnaire, the Organizational Stress Questionnaire, and the Utrecht Coping Questionnaire. Scores for the intensive care unit nurses were higher than those of the non-intensive care unit nurses which indicated a higher level of stress. The conclusions drawn from this study were that nurses working in the intensive care unit may have a greater need for some type of work place intervention to decrease stress than the nurses working in the non-intensive care unit.

Oehler and Davidson (1992) used a sample of 121 registered nurses from the neonatal and pediatric intensive care units (acute care units) and the pediatric intermediate care units (non-acute care units) at Duke University Medical Center. They measured job stress, anxiety, experience, social support, and burnout and compared the scores of the critical and non-critical care pediatric nurses. Their instrument was the Maslach Burnout Inventory (MBI) (Maslach, 1981). The critical care nurses reported high burnout while the non-acute care nurses reported low burnout. Job stress was the strongest predictor of burnout. This was followed by other predictors of burnout: state anxiety, coworker support, trait anxiety, and experience on the unit. The conclusions

drawn from this study indicate that while burnout is highest in acute care nurses, it is still a problem for non-critical care nurses, especially those less experienced. According to this study, burnout could be reduced through workplace interventions.

Keane et al. (1985) focused on the degree of burnout experienced using a sample of 96 nurses from a large, urban, university hospital. The nurses worked in both ICU and non-ICU. The data from the Staff Burnout Scale for Health Professionals (Keane et al.) indicated that there was no difference between the ICU and non-ICU as to the level of burnout. In measuring hardiness, the results from the Alienation from Self and Alienation from Work of the Alienation Test Scales (Maddi, Kobasa, & Hoover, 1979) indicate that nurses who scored higher on the hardiness scale had lower levels of burnout and that those with lower scores on the hardiness scale were at a higher level of burnout. Keane et al. pointed out that in a different hospital, the statistics could be different, however, this should not devalue their study and should be replicated at other sites.

Most other studies comparing the stress of nurses working in ICU and non-ICU are from the 1970s and early 1980s. Hay and Oken (1972) using a descriptive study examined the coping strategies of ICU nurses. Their findings indicated that the ICU nurses used denial to cover feelings of anxiety and depression while always keeping a cheerful personality. Benner and Kramer (1972) investigated stress using role deprivation theory. Their sample of 220 nurses was from 37 medical centers throughout the country. Their task was to determine whether baccalaureate nurses from both ICU and non-ICUs experienced similar role deprivation. In this case, role deprivation was defined as the inability to effectively manage different role demands thus leading to dissatisfaction. The study indicated that ICU nurses had a higher turnover rate than the

non-ICU nurses. Much has changed since their study including technology and nursing education. In addition, the requirements and skills required for nurses in all areas are more advanced. The question arises as to whether the results of this 1970s study would be the same in the "hi-tech" more diversified 1990s.

Additional comparative studies that have found an equal measure of stress in ICU and non-ICU nurses include Chiriboga and Bailey (1986), Cronin-Stubbs and Rooks (1985), McCranie et al. (1987), Nichols et al. (1981), and Wakefield et al. (1988). Nichols et al. compared a sample of 119 medical and surgical nurses to ICU nurses in 9 hospitals. Using questionnaires to measure feelings described as confident, happy versus strained, inadequate, angry and/or distressed, they found no difference in the frequencies of either positive or negative feelings. McCranie et al. and Cronin-Stubbs and Rooks found no significant difference in stress levels or burnout between ICU and medical floor nurses using the Nursing Stress Scale (NSS) (Gray-Toft & Anderson, 1981). Chiriboga and Bailey with a sample of 544 nurses in 6 California hospitals found little or no difference between ICU and non-ICU nurses' responses to stressful life events, hassles, social support, and adaptation in work environment. Wakefield et al. studied stress from different aspects and found a slight decrease in job satisfaction of ICU nurses as opposed to non-ICU nurses but no difference in the areas of organizational commitment and turnover as direct outcomes of stress.

Kelly and Cross (1985) and Maloney (1982) found that stress was greater in the non-ICU nurses than in ICU nurses. Maloney investigated job satisfaction, interpersonal difficulties, and somatic complaints and found non-ICU nurses to score higher in all areas except job satisfaction, which was equal for both groups.

Job related stress experienced by nurses in critical care units. Several studies focus on predictors of burnout in critical care nurses (Topf & Dillon, 1988; Norbeck, 1985; Stechmiller & Yarandi, 1993; Oehler et al., 1991). Topf and Dillon investigated noise-induced stress as a predictor of burnout in critical care nurses. A sample of 100 volunteer critical care nurses from two large university-affiliated hospitals on the west coast was used for this study. Life events stress (e.g., marriage, divorce, or change of residence) was measured with the Life Experiences Survey to provide researchers with information about external stressors which may effect the nurses' responses.

The Nursing Stress Scale (NSS) (Gray-Toft & Anderson, 1981)) was used to measure occupational stress. The NSS scores, according to the researchers, were a predictor of burnout in critical care nurses. Sensitivity and noise-induced stress were also measured by the Weinstein Noise Sensitivity Scale (Weinstein, N. , 1978) and the Disturbance Due to Hospital Noise Scale (DDHNS) (Topf, 1985) respectively. These two scales measured how sensitive the nurses were to noise and how hospital noises specifically affected the staff. Burnout was measured using the Maslach Burnout Inventory (Maslach & Jackson , 1981) and the Jones's Staff Burnout Scale (SBS-HP) (Jones, 1980). The findings of this study conclude that noise-induced stress is very real and may be a problem for some critical care nurses. Topf and Dillon (1988) recommend further studies and interventions when possible.

Job stress, burnout, job satisfaction, and social support in critical care nurses were the variables in studies by Norbeck (1985), Stechmiller and Yarandi (1993), and Oehler et al. (1991). Norbeck concluded that there is a high level of stress in the critical care units that can be relieved if not buffered by social support, specifically family support.

The author noted a limitation of the study was that the sample was mostly female. Stechmiller and Yarandi (1993) used the Daily Hassles Instrument, the Psychological Hardiness Test, the Job Diagnostic Inventory, and the Maslach Burnout Inventory with a sample of 300 female critical care nurses in nine Florida hospitals. Their results indicated that health problems, job satisfaction, workload satisfaction, career commitment, job security, psychologic hardiness, and dealing with coworkers had a significant effect on emotional exhaustion. They concluded that high emotional exhaustion scores could predict burnout in critical care nurses and that nursing management and professional development could stop emotional exhaustion before burnout occurs.

Oehler et al. (1991) sampled 49 staff nurses working in an intensive care nursery. Using the MBI (Maslach & Jackson, 1981), the State-Trait Anxiety Inventory (Speilberger, 1983), and the NSS (Gray-Toft & Anderson, 1981), they reported that among neonatal nurses, job stress, less experience on the job, anxiety, perceived lack of supervisory support, and lack of personal accomplishment are associated with burnout among neonatal nurses. Shortcomings of the study were the small sample size and the specialization of the neonatal unit. From the results, they do suggest ongoing inservices for managers and head nurses in the areas of mentoring and nurturing so that adequate emotional support can be provided to the staff. It is noteworthy that at the time of this study the nursing shortage was a critical element and the concern was to retain qualified nurses in the intensive care unit and not lose them because of burnout.

Job related stress experienced by nurses in non-critical care units. In the study to test Hinshaw and Atwood's anticipated turnover model, Leveck and Jones (1996) used a

sample that included 673 registered nurses from 50 nursing units in four acute care hospitals. Their conclusion was that the data supported the concept that management style, group cohesion, job stress, and job satisfaction are factors in staff nurse retention and quality of patient care. It should be noted that although the data collection for this study was done in 1988 results were not published until 1996.

Matrunola (1996), using a sample of 50 nursing staff members including six non-professional staff (i.e., nurse's aides), evaluated the relationship between job satisfaction and absenteeism. Her findings indicated that there was no relationship between the two. She did report a negative correlation between hopelessness and the length of time a person had worked in his/her position. Those in the position less than four years scored higher on hopelessness. Recommendations from the study include stress prevention and helping the staff to develop coping strategies through counseling early in their employment before dissatisfaction and burnout occur.

Robinson et al. (1991) examined variables to predict burnout among 314 nurses on three shifts at a large metropolitan hospital. This study was conducted in the late 1980s and the issue of the nursing shortage was a major concern. The MBI (Maslach & Anderson, 1981) and Work Environment Scale (WES) (Moos, 1986) were used to assess burnout, cohesion with peers, supervisory support, commitment to work, self sufficiency, task orientation, work pressure, job clarity, managerial control through rules, innovation, and physically comfortable environment. The findings were categorized by shift where "no single variable proved to be a consistent predictor of any parameter of burnout across shifts" (Robinson et al., p. 227). Recommendations included reorganizing the unit to maximize task efficiency, encouraging staff participation, and inservice training of

supervisors in the areas of support and communication as well as leadership. These suggestions are consistent with Stechmiller and Yarandi (1993).

Summary. In summary, a review of the literature supports the concept that job related stress is a predictor of job satisfaction, burnout, job retention, and quality of patient care. There is not a concensus from the literature whether perceived work stress is greater or different in nurses working in ICU or non-ICU. Table 1 summarizes the conclusions of the major studies reviewed with regards to differences in perceived stress between nurses working in ICU and non-ICU.

Table 1

Major Studies of Differences Comparing Perceived Work Stress in Nurses Working in ICU and Non-ICU

No Difference Between ICU & Non-ICU Nurses in Perceived Stress	Greater Perceived Stress in ICU Nurses	Greater Perceived Stress in Non-ICU Nurses
Wakefield et al., 1988	Byers et al. , 1983	Maloney, 1982
Cronin-Stubbs & Rooks, 1985	Gentry et al. , 1972	Kelly & Cross, 1985
Keane, Ducette, & Adler, 1985	Lewandowski & Kramer, 1980	
McCrainie et al. , 1987	Boumans & Landeweerd, 1994	
Nichols et al., 1981	Oehler & Davidson, 1992	
Chiriboga & Bailey, 1986	Hay & Oken, 1972	
	Benner & Kramer, 1972	

Research Question

The following question was asked in this research study: Are sources of work related stress experienced by non-ICU nurses different from those of the ICU nurses?

Definition of Terms

Stress is defined as a response to physical, social, and psychological stimuli which affects an individual's ability to interact with his/her environment (King, 1981;

Gray-Toft & Anderson, 1981; Miller & Keane, 1988). Sources of work related stress include the following situations: the death or suffering of a patient, disagreements with coworkers, lack of physician or coworker support, equipment failures, and lack of knowledge. For the purposes of this study, personal stress is the stress which an individual experiences outside of the work place.

Intensive care units or critical care units include those whose patients are primarily acutely critically ill individuals who are post surgical, post trauma, acute myocardial infarction, or require close monitoring.

Non-critical care units in this study include the Cardiac Progressive Care Unit (CPCU) and the general Medical - Surgical Units. The patients are post surgical, post myocardial infarction, and general medical (i.e., pneumonia, deep vein thrombosis, and uncontrolled diabetics).

CHAPTER THREE

Methods

Research Design

A descriptive design was used for this study. Subjects were asked to complete the Nursing Stress Scale developed in 1981 by Gray-Toft and Anderson. This type of design allowed the researcher to determine the perceptions of stress held by nurses working in the acute health care setting.

Data for this study were obtained over a two-week period through the use of a demographic survey and stress questionnaire. Potential subjects for the study included all RN and LPN staff members on five units.

Setting and Sample

The setting was a 300-bed acute care tertiary hospital in Northern Michigan. This study followed a simple sequence. The sample population (n=131) came from 200 registered nurses (RN) and licensed practical nurses (LPN). It excluded any employees on a leave of absence for any reason. Participants were chosen from five nursing units. These included two nursing units from critical care areas: the intensive care unit (ICU) and the cardiac care Unit (CCU); and three nursing units from non-critical care areas: medical-surgical and cardiac step-down. The critical care areas were specialty units that managed the care of critically ill patients. The nurses had assignments of one to three

patients depending upon the severity of the patient's illness. The ICU included trauma patients (i.e., closed head injuries, auto accidents, gunshots) and post surgical patients such as abdominal aortic aneurysm repairs, carotid endarterectomies, and major abdominal surgeries. The CCU, a medical cardiology unit, cared for patients with new myocardial infarctions, survivors of cardiac arrest, and other heart patients that required close monitoring.

The non-critical care units included the Cardiac Progressive Care Unit (CPCU) and the general Medical-Surgical Units. The patients were post surgical, post myocardial infarction, and general medical (i.e., pneumonia, deep vein thrombosis, and uncontrolled diabetics). The average nurse to patient ratio was 1: 4 on the day shift and 1: 4, 1: 5, or 1: 6 on the afternoon and midnight shifts.

The units chosen for this study were selected with specific criteria. While the ICU and Medical Surgical Units, and the CCU and cardiac step-down units shared similar patient diagnoses respectively, there was enough diversity in the patient population and condition to warrant significant variation in the level of technical skill required for their care. The work environment is different in several ways. There are many "hi-tech" pieces of equipment in the critical care areas which are not used on the general floors. This equipment requires close monitoring and special classes are provided for the critical care nurses who use them. In most cases, the critical care nurses have an assignment of one or two patients while the non-critical care nurses care for 4 to 8 patients.

Instrument

In 1981, Gray-Toft and Anderson presented the Nursing Stress Scale. Their

premise was that hospital nurses experienced stress and that stress had been cited as having an effect on job satisfaction, job retention, burnout, and patient care, but there was no specific tool available to measure nursing stress. They used a sample of 122 nurses on five hospital units (medicine, surgery, cardiovascular surgery, oncology, and hospice) to measure the frequency and major sources of stress experienced. Correlation of the NSS with trait anxiety ($r = .39$), state anxiety ($r = .35$), and job satisfaction ($r = -.15$) were significant ($p <= .01$). The mean scores for combined hospital units on the NSS was directly proportional to the turnover rate for all registered nurses, licensed practical nurses, and nursing assistants within the hospital setting. The higher the NSS mean score, the higher the turnover rate. The mean scores for the NSS by hospital unit were compared to nursing turnover rates by hospital units as well. The data indicate support for the use of the Nursing Stress Scale (NSS) as a predictor of work stress as it relates to job turnover, job satisfaction, and state and trait anxiety. There are other measurement tools available but the two most commonly used for nursing stress and burnout are the MBI (Maslach, 1980) and the NSS.

The Nursing Stress Scale. The surveys for the current study included the Nursing Stress Scale (Appendix B) and a demographic data sheet (Appendix A). The demographic data sheet was developed to collect information about the following: nursing unit, age, marital status, gender, number of years in nursing practice, number of years at the hospital, formal education, certification, and level of personal stress perceived by the participant at the time the survey was completed. The level of personal stress at the time of the survey was important to rule out external factors that might influence the participants' responses on the NSS. This was measured using a line 100

centimeters in length on which the participant marked an "x" to indicate his/her level of personal stress.

As previously discussed, the Nursing Stress Scale (NSS) was developed by Gray-Toft and Anderson (1981) to measure frequency and specific sources of nursing stress experienced by nurses on hospital units. It is for this reason the NSS was chosen over other work stress instruments. The Likert-type scale was comprised of 34 questions that rated the frequency of potentially stressful nursing situations. The four responses provided were: never (0), occasionally (1), frequently (2), and very frequently (3). The total score ranged from 0 to 102. Higher scores inferred more frequent stress. The NSS had seven subscales: work load, death and dying, inadequate preparation to deal with emotional needs of patients and their families, lack of staff support, uncertainty concerning treatment, conflict with physicians, and conflict with other nurses and supervisors.

Gray-Toft and Anderson (1981) tested reliability and validity of the NSS. Test-retest and internal consistency were used to examine reliability. The coefficient alpha for internal consistency was .89. This indicates a satisfactory level of consistency among items (Gray-Toft & Anderson, 1981). Test-retest coefficient for the total scale was .81 indicating stability. Cronbach's alpha for internal consistency was computed, using data collected from the current study, As can be seen from Table 2, all subscales had alphas >= .70 except conflict with other nurses and uncertainty concerning treatment, which were .61 and .66 respectively. The coefficient alpha for the total scale was .90. This result was similar to that of Gray-Toft & Anderson at .89 indicating a satisfactory level of consistency among all the items.

According to the authors, validity was determined by looking at the relationship of staff turnover by level of education (Registered Nurse (RN), Licensed Practical Nurse (LPN), nursing assistant (NA)) and the level of work stress determined by the test instruments (Gray-Toft & Anderson, 1981). Validity was determined by measuring other criteria theoretically related to stress.

Table 2

Reliability Measures for Nursing Stress Scale (Gray-Toft & Anderson, 1981); Comparison of Current and Original Studies

Scale	N of Items	Coefficient Alpha	
		Original Study	Current Study
Total NSS	34	.89	.90
Subscale			
Death and dying	7	.83	.73
Conflict with physicians	5	.72	.70
Inadequate preparation	3	.42	.80
Lack of support	3	.65	.74
Conflict with other nurses	5	.86	.66
Work load	6	.74	.75
Uncertainty concerning treatment	5	.68	.61

Using the Institute for Personality and Ability Testing Anxiety Scale Questionnaire (IPAT) (Krug, Scheier, & Cattell, 1976) and the Affect Rating Scale (ARS) (Sipprelle, Gilberg, & Ascough, 1976) Gray-Toft & Anderson measured trait and state anxiety respectively. Correlation of the NSS with the IPAT ($r = .39$) and the ARS ($r = .35$), indicated a significant relationship ($p < .01$) and supported concurrent validity. The Work Subscale of the Job Descriptions Index (JDI) (Smith, Kendall, and Hulin, 1969) was used to test the hypothesis that the higher the levels of stress, the lower the job satisfaction as measured by work subscale of the JDI. The JDI did not show a significant correlation with the NSS at -.15. The final validity test included the hypothesis that registered nurses (RN) would score high on the NSS and nursing assistants (NA) would score low. The result from a two-way ANOVA controlling for race showed that RNs did score higher and had a higher turnover rate than did the NAs (Gray-Toft & Anderson, 1981). Construct validity of the NSS was evaluated by factor analysis.

Data Collection Procedure

Prior to data collection, permission to conduct the study was obtained from the Institutional Review Board of Grand Valley State University (Appendix C) and Munson Medical Center (Appendix D). Permission was also received from Pamela Toft, RN for the use of the NSS (Appendix F). The study was introduced to the participants in letter form (Appendix E). An explanation of why the study was conducted and whom it would affect was provided. Confidentiality and anonymity were stressed. There were no potential hazards in completing the survey and this was clearly explained. It was also stated that participation in the study was voluntary and by returning the survey, consent was granted for use of the data obtained in the completion of this project.

The Nursing Stress Scale (NSS) with the letter of explanation and release of responsibility (Appendix E) was sent to each participant at his or her home by way of U.S. Postal mailing. Participants were given ten days in which to respond. A reminder card was sent on the fifth day after the original mailing. Responses were returned in the self-addressed stamped envelope that was enclosed. Participants were given the option of receiving the final results of the surveys by calling an answering machine and leaving their name and address. In this way, their results and their request were separate. Eight participants called and requested results, which were sent.

CHAPTER FOUR

Results

The purpose of this study was to examine certain "stressful" nursing situations affecting critical care and non-critical care nurses in an acute health care setting and note any similarities or differences that existed in the two settings. This was done by evaluating the responses to the seven subscales identified as the measurement of work stress by Gray-Toft and Anderson (1981) when they developed the Nursing Stress Scale.

The Statistical Package for the Social Sciences, SPSS, was used for data analysis. The alpha level was set at .05. The independent variable, type of acute care nursing unit (critical care or non-critical care), was measured at the nominal level on the demographic survey. The dependent variable, work stress, was measured using a summed score of the total NSS (Gray-Toft & Anderson, 1981) thus the data were considered at the interval level.

Demographics for the sample were measured at the nominal and interval levels. Gender, marital status, educational level, highest degrees, and nursing specialty certification were measured at the nominal level. Personal stress was measured at the interval level to determine personal stress outside of the workplace. Participants were asked the type of unit worked and the length of time on that unit. Longevity for length of

time in nursing, at the hospital, and on the unit was measured at the interval level. Each item on the NSS was measured at the ordinal level, however, the data were considered at the interval level for each subscale because each was measured with several questions. The NSS measured seven subscales; death and dying, conflict with physicians, inadequate preparation, lack of staff support, conflict with other nurses, work load, and uncertainty concerning treatment.

The sample group of nurses (n = 131) were from five nursing units and included RNs and LPNs. The ages of the critical care nurses ranged from 24 to 55 years with a mean age of 39.49. Non-critical care nurses' ages ranged from 24 to 59 with a mean of 40.58. Of those in critical care, there were 2 LPNs, 4 diploma RNs, 35 Associate Degree in Nursing (ADN) RNs, and 20 Bachelor of Science in Nursing (BSN) RNs. Fifty-five of the 61 stated that their highest degree was in nursing. The non-critical care nurses statistics were slightly different with 19 LPNs, 2 diploma RNs, 41 ADNs, and 8 BSNs. There were 66 of the 70 respondents who had their highest degree in nursing. There were 66 females and 4 males in the non-critical care group. Of the 61 critical care participants, 57 were female and 4 were male.

Using t-tests for independent samples, critical care and non-critical care nurses were compared on the demographic information: years at the hospital, years on the primary unit, years in nursing, age, and personal stress. As can be seen from Table 3, there were no significant differences between the groups on these variables. The results in all categories indicate no difference in the nurses in the two types of units on the variables measured. Critical care nurses had less hospital and unit longevity than did the

non-critical care nurses, however, the difference was not significant.

Table 3.

Demographic Comparison for Critical Care and Non-critical Care Nurses

	Critical Care n = 61		Non-Critical Care n = 70				
Demographic	M	SD	M	SD	t	df	p
Years at Hospital	9.15	5.71	11.38	7.45	-1.92	124	.06
Years on the Primary Unit	7.30	4.28	8.69	5.61	-1.59	124	.12
Years in Nursing	14.29	8.30	13.79	9.14	.32	126	.75
Age	39.49	7.02	40.58	8.23	-.81	129	.42
Personal Stress	48.84	23.63	43.84	25.95	1.15	129	.25

To evaluate differences between the critical care nurses and the non-critical care nurses on categorical variables, chi-square analysis was performed on the demographic data related to gender, marital status, certification, and educational level of participants. There were eight males and 123 females in the total group. Of these, four males were in critical care and four in non-critical care. Females were similarly divided with 57 from critical care and 66 from non-critical care units. Fisher's Exact Test for significance was $p = 1.00$ indicating no significant differences in gender between units. Marital status for

the group included 30 not married and 101 married participants. The selections offered on the demographic survey included single, married, widowed, separated, divorced, and other. Because of the small numbers of each, the categories were collapsed into not married and married. Of those not married, 15 were from critical care and 15 from non-critical care. The married group included 46 from critical care and 55 from non-critical care. There was no significant difference on marital status based on chi-square analysis.

There were five categories for educational background on the demographic survey, which were collapsed into two groups for analysis. LPN, diploma RN, and ADN were grouped as non-BSN. The other group included BSN participants. To clarify further, LPNs were grouped into the non-BSN category, as their function is very similar to that of the RN in direct patient care. The non-BSN group had 82 subjects with 39 in critical care and 43 in non-critical care. The BSN group had 28 participants with 20 in critical care and 8 in non-critical care. Chi-square was 3.87 with Yate's Continuity Correction of $p = .049$ indicating a significant difference in distribution of the BSN group. Whether or not the participants were certified was found to be significantly different between critical care and non-critical care units. There were 5 nurses in non-critical care who were certified and 17 nurses working in critical care. Chi-square was 8.59 with the Yate's Continuity Correction of $p = .003$.

The individual NSS questions were scored on a scale of 0 to 3. The total possible Nursing Stress Scale score range was 0 to 102. Subscales with greater than 50% of the total possible points indicated higher levels of perceived stressful work situations. Table 4 lists the mean, standard deviation, t value, degrees of freedom, and p value of the total NSS. Each subscale is listed in a comparison of critical care and non-critical care

Table 4

Comparisons for Critical Care and Non-critical Care Nurses on the Nursing Stress Scale

	Critical Care n = 61		Non-Critical Care n = 70				
	M	SD	M	SD	t	df	p
Total Nursing Stress Scale	49.25	11.75	42.51	12.27	3.12	122	.002**
Subscale							
Death and dying	10.44	2.96	8.99	3.00	2.78	128	.006**
Conflict with physicians	7.71	2.49	6.10	2.26	3.82	119	.000***
Inadequate preparation	4.20	2.05	3.77	1.48	1.35	108	.179
Lack of support	2.79	1.93	2.97	1.70	-.58	129	.562
Conflict with other nurses	6.58	2.71	5.74	2.72	1.76	127	.081
Work load	10.06	3.20	8.84	3.23	2.17	128	.032*
Uncertainty concerning treatment	7.38	2.39	5.84	1.83	4.07	110	.000***

*p < .05 **p < .01 ***p < .001

nurses' perceptions of the subscales. A significant relationship would be determined by a $p < .05$. Critical care nurses had a higher mean score (M=49.25) than those in non-critical care (M=42.51). The mean difference was 6.74. According to the data, critical care nurses have higher perceptions of stressful situations than do non-critical care nurses. The subscale with the greatest difference is work load with the critical care mean greater than 50% of the total possible points. All other mean scores including the total NSS were less than 50% of the top of the range. In order to test the research question: are sources of work stress experienced by non-ICU nurses different from those of ICU nurses, the t-test for independent samples was computed to evaluate differences in stress between critical care and non-critical care nurses'.

Of the subscales, four were significantly different between the critical care nurses and non-critical care nurses: conflict with physicians, uncertainty concerning treatment, death and dying, and work load. The death and dying subscale had a range of 0 to 21 on 7 questions. The critical care nurses scored a mean of 10.44 while non-critical care nurses had a mean of 8.98. This would indicate that the critical care nurses were more stressed by the death and suffering of a patient than those in the non-critical care areas. The conflict with a physician subscale had five questions with a range of 0 to 15. Conflict with physicians and uncertainty concerning treatment was significantly different at the $p < .001$ level. The mean for the critical care nurses was 7.71 and for non-critical care was 6.10. Again it is noted that the critical care nurses are closer to the high end of the range than the non-critical care nurses. The work load subscale contained 6 questions. The range was from 0 to 18. On this subscale, critical care nurses had a higher mean score (M=10.06) than the non-critical care nurses (M=8.84). The $p < .05$ showed a significant

difference between the two groups. The final subscale showing significance, uncertainty of treatment, indicated that the critical care nurses had a higher mean score than the non-critical care nurses. The range was 0 to 15 with a mean of 7.38 for critical care nurses and 5.84 for non-critical care nurses.

The other subscales (inadequate preparation, lack of staff support, and conflict with other nurses) indicated no significant differences between the critical care and non-critical care nurses' perceptions of stress in those areas.

It was the purpose of this study to determine if there were similarities or differences between critical care and non-critical care nurse's perceptions of stressful situations. The data support that there were differences between the nurse's perception of stress on the two types of units. Significant differences included the total NSS and the subscales of death and dying, conflict with physicians, work load, and uncertainty concerning treatment.

CHAPTER FIVE

Discussion and Implications

Discussion

The major purpose of this study was to determine the sources of nursing stressors for ICU and non-ICU nurses and to compare the two. Data analysis demonstrated that there were statistically significant differences in the two groups related to the total NSS scores as well as the subscales of death and dying, conflict with physicians, work load, and uncertainty concerning treatment.

Gray-Toft & Anderson (1981) did not compare specific nursing units when they did their study, as they were in the process of developing and refining the NSS tool. Their initial evaluation of the NSS included nursing assistants with RNs and LPNs, which this study did not. They were concerned because there was no tool available to measure nursing stress. Their extensive work provided researchers with the Nursing Stress Scale. Later studies did, however, provide meaningful data in evaluating the perceived stressors in critical care and non-critical care for nurses.

The data presented in this study were consistent with that of Oehler and Davidson (1992). Higher burnout scores were reported from nurses working in the ICU than in the non-ICU (1992). Their recommendations included improved support by coworkers and an

increase in programs to reduce anxiety and job stress (1992, p. 81). This is consistent with the recommendations of the current study. The data presented in this study were not in agreement with that of Boumans and Landeweerd (1994). They found that critical care and non-critical care nurses had different perceptions of stress, however, ICU nurses participating in their study were more positive in their reaction to stress than the nurses working in the non-ICU. They also concluded that the non-ICU nurses had more need for work place interventions than did the nurses working in the ICU (1992). Kelly and Cross (1985), and Maloney (1982) also provided data indicating significant differences in perceived stress between critical care and non-critical care nurses. Kelly and Cross (1985) found that ICU nurses were less affected by environmental and managerial stress than their non-ICU counterparts. Maloney's (1982) findings were similar with ICU nurses having less anxiety, fewer somatic complaints, and fewer interpersonal difficulties than the non-ICU nurses.

Keane et al. (1985) indicated no difference in perceived stress levels between the nurses in intensive and non-intensive care units. Specific areas of stress included burnout, challenges, control, and hardiness (1985). Other studies (Chiriboga & Bailey, 1986; Cronin-Stubbs & Rooks, 1985; McCranie et al.,1987; Nichols et al., 1981; and Wakefield et al., 1988) also found an equal measure of stress in nurses in both intensive care and non-intensive care units. Chiriboga and Bailey (1986) and Cronin-Stubbs and Rooks (1985) evaluated social support, life events, work environment adaptation, and hassles. McCranie et al. (1987) measured burnout, job stress, and hardiness. Wakefield et al. (1988) indicated no difference in turnover or organizational commitment between ICU and non-ICU nurses. Finally, Nichols et al. (1981) measured positive and negative

feelings and job satisfaction and found no difference between the scores of the nurses working in the non-ICU and ICU. The current study did not support the findings of these reports.

King's Conceptual Framework

On the total NSS there was a significant difference between the perceived stressors of critical care and non-critical care nurses. This will also be evaluated by looking at each of the subscales where data indicated that there was a significant difference. These subscales were: death and dying, conflict with physicians, work load, and uncertainty concerning treatment. Death and dying subscale includes questions 3, 4, 6, 8, 12, 13, and 21 on the NSS (Appendix B). These include performing procedures that patients experience as painful, death of a patient, physician not present at the time of a patient's death, and having to watch a patient suffer. These relate to King's concepts of perception, communication, role, transaction, stress, power, decision making, and interaction. Perception is from the personal system. Communication, role, transaction, stress, and interaction are from the interpersonal system. Power and decision making are from the social system. As previously stated, the systems overlap. In this subscale, the nurse perceives stressful situations related to suffering and death of patients.

The subscale of conflict with physicians includes criticism by and conflict with a physician. It also includes fears by the nurse of making an error in patient treatment. Questions on the NSS are 2, 9, 10, 14, and 19 (Appendix B). Again interaction, stress, role, perception, power, decision making, and communication from King's concepts are prominent.

The work load subscale included 6 questions: 1, 25, 27, 28, 30, and 34 (Appendix

B). This section relates to King's concepts of communication, organization, perception, role, time, and stress. The results of this section were of interest to this researcher. The initial reason for this study was to find areas in which critical care and non-critical care nurses differed significantly and to provide education and support where necessary. The current trend in hospital redesign is to move toward a paperless system. The first question in the work load subscale on the NSS is "breakdown of the computer" (Appendix B). The other questions relate to staffing issues, non-nursing tasks, and lack of time for patients and to complete tasks. This subscale alone relates to all of King's concepts previously listed. Covering all three systems, this subscale brings to light possible areas of interventions to relieve the stress perceived by the nurses responding to this survey. At this writing, the staff nurses are being involved in the process of creating a computer system. Role and time are being evaluated by the Nursing Shared Governance Councils looking specifically at professional practice and continuity of care (M. J. Rolf, personal communication, November 12, 1998).

The final subscale, which showed significant differences between critical care and non-critical care nurses, was that of uncertainty concerning treatment. This section also relates to the nurse's relationship with the physician. Questions 17, 26, 31, 32, and 33 on the NSS are grouped into this subscale (Appendix B). Lack of information about the patient from the physician, inappropriate orders from the physician, absence of the physician in an emergency, and operation of specialty equipment are included in this subscale. Perception, communication, interaction, power, decision making, and role are the key concepts of King's interpersonal systems. Lack of communication on the part of the physician regarding patient care, diagnosis, and outcomes can lead to a breakdown of

interaction on the part of the nurse. When inappropriate orders are provided, the nurse is left to question his own role in the care of the patient and may feel powerless in the decision making process. The nurse is to be a patient advocate but when communication breaks down, he is left with the stress of how to adequately care for the patient.

In summary, King's Conceptual Framework for Nursing (1981) and the interacting systems have been the basis of this study of perceived stress in critical care and non-critical care nurses. The overlapping of the systems: personal, interpersonal, and social, explains how nurses function. When one component is missing or inappropriately used, nurses perceive stressful situations.

Limitations of the Study

Limitations of this study included threats to internal and external validity and small sample size. One possible threat to internal validity that was considered was the level of personal stress the staff experienced outside of the work place (i.e., divorce, death in the family). This was measured on the demographic survey using a scale of 0 to 100. Participants marked the point on the line that best described their level of personal stress, outside the workplace, at the time they were completing the questionnaire. Data indicate no significant difference between critical care and non-critical care nurses and their levels of personal stress.

The threats of selection, maturation, and mortality did not affect this study as it was conducted for a two-week period only and every registered nurse and licensed practical nurse working in the selected units received the survey. History was considered as a possible but unlikely threat. This was monitored during the two-week period and no sentinel events were noted.

The location the participant chose to complete the questionnaire could also have been a threat to the internal validity. A person completing it at home may have felt less pressured and been more accurate than if s/he had completed it at work. To encourage completion of the questionnaire at home rather than at work, the survey was mailed to the participant's home with a self addressed stamped envelope for return. Only ten were returned via interdepartmental hospital mail rather than using the envelope provided. Reminder notices were also sent to the participant's home.

With regards to external validity, the results of this study may not be applicable to acute care hospital nurses in other areas of the country or state. Because of regional differences and location, additional studies would be beneficial to validate or refute the results. The hospital used for this study is in the heart of a "resort" area and patient populations vary with the seasons. Other acute care settings might provide an insight into different areas of perceived stress.

Implications

This study provided valuable information about the comfort level of staff nurses and the situations they perceive as stressful. The purpose of the study was to measure perceived stressful situations with the plan of providing interventions and education in the areas indicating high stress. The means of the subscales will be used to pinpoint current areas of perceived stress and interventions (i.e., education or support groups) will be provided.

The demographic data provided a wealth of knowledge about the staff working in the participating units. Nursing education in and out of the hospital setting can utilize this information to provide interventions when indicated, evaluate stressors, and improve or

maintain staff satisfaction. It could therefore be summized that if the staff are satisfied and comfortable in their work, then patient satisfaction may follow suit.

Recommendations for Future Research

This study provides an excellent database for researchers. The only limitation would be the impossibility to go back and resurvey the same individuals on each unit, as all responses were confidential and anonymous. One could, however, survey the same unit after interventions are implemented and monitor changes in responses of stressful situation. It would also be interesting to conduct this survey after the implementation of the previously mentioned computer system being developed.

Future research might also include a coping or job satisfaction scale to be presented with the NSS to get a more concise picture of how stress affects job satisfaction and coping skills. This type of study could build on those done by Kelly and Cross (1985) and Maloney (1982) and yet incorporate the frequency and type of perceived stressors found by Gray-Toft & Anderson (1981).

Summary

This researcher has learned from this present study, that perceived work stress is significantly different between critical care and non-critical care nurses. The level of stress, age, experience, and type of primary unit do not appear to be related to perceived stress. Future research will need to look at other areas of nursing, both clinical and non-clinical. With the continued increase in technology, integrated computer systems, and downsizing of nursing staff, different stressors may begin to appear, affecting the nurse at work, at home, and in the classroom. By monitoring frequently for increases in stress or changes in stressors, healthcare organizations can, through educational programs and

other supportive interventions, deal with potential problems. As we move into the next millennium with patient satisfaction driving the healthcare dollar, nurses will be the front line representatives in healthcare and patient education. How we monitor nursing stress and intervene on behalf of the nurses will have a serious effect on nursing performance and patient satisfaction.

APPENDICES

APPENDIX A

DEMOGRAPHIC NURSING STRESS DATA FORM

Date:_____

I. How old are you? _____(in years)

II. Gender? 1. Male
2. Female

III. What is your marital status?
1. Single
2. Married
3. Widowed
4. Separated
5. Divorced
6. Other (please specify)

IV. What is your educational background?
1. LPN
2. Diploma RN
3. ADN
4._____BSN
5._____MSN

V. Your highest degree is:
1. in nursing
2. outside of nursing

VI. How long have you been in nursing? Year(s)_____ Month(s)_____

VII. How long have you been at Munson Medical Center? Year(s)_____
Month(s)_____

VII. What type of unit do you work on most often?
1. Critical care
2. Non-Critical care

IX. How long have you worked in this unit? Year(s)_____ Month(s)_____

X. Are you certified in a nursing specialty?
1. Yes
2. No
If yes, please specify area(s):_____

XI. On a scale of 0 - 100, how stressed do you feel right now?
Place an "X" on the line that best describes your stress level.

0_____100

APPENDIX B

APPENDIX C

GRAND VALLEY STATE UNIVERSITY

1 CAMPUS DRIVE • ALLENDALE MICHIGAN 49401-9403 • 616/895-6611

March 11, 1998

Mary Jane Rolf
738 Webster
Traverse City, MI 49686

Dear Mary Jane:

Your proposed project entitled "***Adult Care Nursing: Are Perceived Stressors Different for Critical Care and Non-critical Care Nurses?***" 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 Huizenga, Chair
Human Research Review Committee

APPENDIX D

MUNSON
MEDICAL
CENTER
A MUNSON HEALTHCARE FACILITY

February 18, 1998

Jane Rolf, R.N., Resource Clinician
East Two & Southwest Two

Dear Jane:

Your research proposal has been received. The FDA requirements for review of proposals by the Institutional Review Board are specific. The hospital legal counsel's interpretation of those requirements is that so long as the study is of a survey nature, the information is kept confidential, and that no invasive procedures occur, the IRB may waive its approval requirement.

The IRB has asked me to represent it in determining if the above guidelines are met in proposals submitted by nurses in order to fulfill the requirements of an academic nursing program. I have reviewed your research proposal, *Acute Care Nursing: Are Perceived Stressors Different For Critical Care & Non-Critial Care Nurses?*, and find that it does meet the above guidelines. You are, therefore, authorized to proceed with your thesis proposal.

Please feel free to contact me should you have questions about this letter, or your conduct of your research in this institution.

Sincerely,

[redacted]

Janet Y. Jackson, R.N., M.S.N.
Vice President
Patient Care Services

ctc\irb

cc: Ralph Cerny, Chair
Institutional Review Board

1105 Sixth Street
Traverse City, Michigan 49684-2386
(616) 935-5000

APPENDIX E

Are You Stressed? Not sure?

I knew that title would attract your attention. We, as nurses, manage stressful situations every day. From dealing with an acutely ill patient to an irate physician, nurses are often confronted with many stressors at once. When I was told that I had to write a thesis, I knew what my topic would be; What Are The Stressors Affecting Nurses Today? My name is Jane Rolf, Resource Clinician on East 2 and Southwest 2, and I am conducting this research as part of the requirements for the Master of Nursing program at Grand Valley State University.

The purpose of this study is to find out what on the job factors are seen as stressors to Acute Care Nurses. The attached questionnaire was developed to evaluate job stress and has been used with other groups of nurses throughout the country. There are 34 very short questions which should take approximately 10 to 15 minutes to complete. There are no right or wrong answers. *Your* input is very important to this project's success.

All results are strictly confidential and no names or numbers will be used to distinguish one person from another. The *responses* will remain anonymous. Individual *responses* will not be shared with anyone, and only the compiled data will be released.

Participation is strictly voluntary and by returning the completed packet, you are giving permission for the use of *your responses* in this study and in subsequent scientific literature. There is no risk involved in your participation in this study. Benefits attained as a result of the study may or may not effect you directly. The results will provide information about the type of stressors perceived by Acute Care Nurses. Return of the completed questionnaire indicates your consent to participate in this study. A self addressed stamped envelope has been included so that you may complete the survey in the privacy of your home. Again, all results are anonymous and confidential.

If you have any questions regarding this project, please contact Jane Rolf, RN at either extension 56691 or 922-7761 or the Chairperson of the Grand Valley State University Human Research Review Committee at 616-895-2472.

Please return the completed questionnaire to Jane Rolf, in the enclosed SAS envelope by 4/6/98.

Thank you for your participation.

If you would like to have a copy of the results of the survey, please call 922-0247 and leave your name and address. When the final results are tallied (approx. 4-6 weeks) you will receive the information in the mail.

APPENDIX F

LETTER OF PERMISSION

Mary Jane Rolf, RN, a Masters in Nursing student at Grand Valley State University in Grand Rapids, MI has been given permission by Pamela Toft, RN to use the instrument called the NURSING STRESS SCALE(NSS) to conduct research in the area of STRESS AND BURNOUT IN CRITICAL CARE in preparation of a thesis paper which is a graduation requirement. The NSS may be duplicated for use during the study but all rights remain with Pamela Toft.

[redacted]

Pamela Toft Date

Copy to be included in Appendix of thesis.

LIST OF REFERENCES

LIST OF REFERENCES

Boumans, N. P. G. , & Landeweerd, J. A. (1994). Working in an intensive or non-intensive care unit: Does it make a difference? Heart & Lung, 23, 71-79.

Byers, M. , Mullner, R. , Byre, C. (1983). Results of the nursing personnel survey: RN vacancies and turnover. Journal of Nursing Administration, 1, 26-31.

Chiriboga, D. A. , & Bailey, J. (1986). Stress and burnout among critical care and medical surgical nurses: A comparative study. Critical Care Quarterly, 9(3), 84-92.

Cronin-Stubbs, D. & Rooks, C. A. (1985). The stress, social support and burnout of critical care nurses: the results of research. Heart & Lung, 14, 31-39.

Duquette, A. , Kerovac, S. , Sandhu, B. K. , & Beaudet, L. (1994). Factors related to nursing burnout: A review of empirical knowledge. Issues in Mental Health Nursing, 15, 337-358.

Evans, C. L. S. (1991). Imogene King : A conceptual framework for nursing. Newbury Park, CA: Sage.

Gentry, W. , Foster, S. , & Froehling, S. (1972). Psychologic response to situational stress in intensive and nonintensive nursing. Heart & Lung, 3,(1), 793-796.

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

Harris, R. B. (1989). Reviewing nursing stress according to a proposed coping adaptation framework. Advances in Nursing Science, 11(2), 12-28.

Irvine, D. M., & Evans, M. G. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. Nursing Research, 44, 246-253.

Jones, J. (1980, May). The staff burnout scale: A validity study. Presented at the Fifty-second Annual Conference of the Midwestern Psychological Association, St. Louis, MO.

Keane, A. , Ducette, J. , & Adler, D. C. (1985). Stress in icu and non-icu nurses. Nursing Research, 34, 231-236.

Kelly, J., & Cross, D. (1985). Stress, coping behavior and recommendations for intensive care and medical surgical ward registered nurses. Research Nursing and Health, 8, 321-328.

King, I. M. (1981). A theory for nursing. Albany, NY: Delmar.

Lee, P. R. , & Estes, C. L. (1990). The nation's health (3rd ed.). Boston: Jones and Bartlett.

Lewandowski, L. , & Kramer, M. (1980). Role transformation of special care unit nurses. Nursing Research, 29,(3), 170-179.

Maddi, S. R. , Kobasa, S. C. , & Hoover, M. (1979). An alienation test. Journal of Humanistic Psychology, 19, 73-76.

Maloney, J. (1982). Job stress and its consequences on a group of intensive care and non-intensive care nurses. Advances in Nursing Science, 4 (2), 31-42.

Maslach, C. ,& Jackson, S. (1981). Maslach Burnout Inventory: Research Edition, Manual. Palo Alto, CA: Consulting Psychologists Press.

Matrunola, P. (1996). Is there a relationship between job satisfaction and absenteeism? Journal of Advanced Nursing, 23, 827-834.

McCrainie, E. W. , Lambert, V. A. , & Lambert, C. E. (1987). Work stress, hardiness, and burnout among staff nurses. Nursing Research, 36, 374-378.

Miller, B. F. , & Keane, C. B. (1987). Encyclopedia and dictionary of medicine, nursing, and allied health (4th ed.). Philadelphia: W. B. Saunders.

Moos, R. , & Schaefer, J. (1987). Evaluating health care work settings: A holistic conceptual framework. Psychology and Health, 1, 97-122.

Nichols, K. ,Springford, V. , & Searle, J. (1981). An investigation of distress and discontent in various types of nursing. Journal of Advanced Nursing, 6, 311-318.

Norbeck, J. S. (1985). Types and sources of social support for managing job stress in critical care nursing. Nursing Research, 34, 225-230.

Oehler, J. M. , Davidson, M. G. , Starr, L. E. , & Lee, D. A. (1991). Burnout, job stress, anxiety, and perceived social support in neonatal nurses. Heart & Lung, 20, 500-505.

Oehler, J. M. , & Davidson, M. G. (1992). Job stress and burnout in acute and non-acute pediatric nurses. American Journal of Critical Care, 1 (2), 81-90.

Speilberger, C. D. (1983). Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.

Stechmiller, J. K. , & Yarandi, H. N. (1993). Predictors of burnout in critical care nurses. Heart & Lung, 22, 534-541.

Topf, M. (1985). Personal and environmental predictors of patient disturbance due to hospital noise. Journal of Applied Psychology, 70, 22-28.

Topf, M. , & Dillon, E. (1988). Noise-induced stress as a predictor of burnout in critical care nurses. Heart & Lung, 17, 567-574.

Wakefield, D. , Curry, J. , & Price, J. (1988). Differences in work unit outcomes. Western Journal of Nursing Research, 10 (1), 98-105.

Weinstein, N. (1978). Individual differences in reactions to noise: A longitudinal study in a college dormitory. Journal of Applied Psychology, 63, 458-466.