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What is the Relationship Between Perceived Job Stress, Job Satisfaction, and Psychological Symptoms of Critical Care Nurses?

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WHAT IS THE RELATIONSHIP BETWEEN PERCEIVED
JOB STRESS, JOB SATISFACTION, AND PSYCHOLOGICAL
SYMPTOMS OF CRITICAL CARE NURSES?

By

Barbara L. Hooper

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ABSTRACT

WHAT IS THE RELATIONSHIP BETWEEN PERCEIVED JOB STRESS, JOB SATISFACTION, AND PSYCHOLOGICAL SYMPTOMS OF CRITICAL CARE NURSES?

By

Barbara L. Hooper

House's Stress Paradigm provided the theoretical framework for this study which examined the relationship between job satisfaction and job stress, and the correlation of job stress with the experience of psychological symptoms in a sample of 32 critical care nurses from an urban midwestern hospital. The Brief Symptom Inventory and Atwood and Hinshaw's Nursing Job Satisfaction and Job Stress Scales were used to measure the variables. A moderately strong correlation ($r = -.63$, $p = .001$) was found between job satisfaction and perceived job stress. No significant relationship was found between perceived job stress and psychological symptoms. These findings suggest that job satisfaction may reduce the likelihood of people perceiving their job as stressful. Further study of the relationships between perceived job stress, job satisfaction, and psychological symptoms in critical care nurses is needed.

Dedication

**To my husband, Bill, and to my mom for their belief
in me and my abiltiy to complete this scholarly effort.**

Acknowledgments

A sincere thank you to the chairperson of my committee, Patricia Underwood, RN, PhD, for all the time, energy, knowledge, and special guidance she provided me throughout my thesis. I would also like to extend my thanks to Mary Horan, RN, PhD and Wayne Kinzie, PhD. As members of my committee, they shared their knowledge and expertise to help me grow in the research process. A special thank you to Cynthia Coviak, RN, MSN for all her assistance and flexibility she provided me as I analyzed my data. Finally, I would like to thank all the nurses who participated in my study, your input does make a difference.

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CHAPTER ONE

INTRODUCTION

High levels of work-related stress have been documented for nurses employed in critical care environments. This stress is thought to affect employee health, job turnover, absenteeism, and patient welfare. Dugan (1987-1988) found that as a result of heavy case loads and insufficient staffing patterns, the nursing profession has one of the highest incidences of stress-related disorders. Motowidlo and Packard (1987) and Huckabay and Jagla (1979) found that stress has been linked not only to physical and mental health problems, but that stress decreases efficiency, morale, and work performance, which ultimately affects patient care. Job dissatisfaction has been linked to nurse turnover and burnout (McCloskey & Mueller, 1990). Critical care nurses have been characterized as having distinct behavioral signs of stress to a greater extent than other nurses (Maloney, 1982).

In order to facilitate coping, additional information is needed about the stressors involved in critical care nursing, including how these stressors are related to the functioning and/or well-being of the

critical care nurse. Patient acuity has increased as a result of advances in technology. As a result, stress levels among nurses can only be expected to increase. It is, therefore, important to determine what stressors are present in the critical care setting and how they affect the nurses employed in these units. This study partially replicated a study completed by Norbeck (1985).

In Norbeck's study, three self-administered questionnaires were sent to a sample of 180 critical care nurses from eight different hospitals. Results supported the hypotheses that higher levels of perceived job stress were related to lower levels of job satisfaction and to higher levels of psychological symptoms. Norbeck's findings supported the theoretical framework on work stress developed by LaRocco, House, and French (1980) and revealed that job stress was related to the psychological well-being of nurses employed in critical care settings. This study builds on previous studies by Packard and Motowidlo (1987), Bartz and Maloney (1986) and Cronin-Stubbs and Rooks (1985). Packard and Motowidlo studied subjective stress, job satisfaction, and job performance in hospital nurses. Their findings revealed that stress and job satisfaction were not directly related. They found stress was associated with lower levels of job

performance. Job satisfaction was also found to be unrelated to job performance. They found, however, that job satisfaction was directly related to depression and hostility which are affected by stress and personal characteristics. Bartz and Maloney (1986) examined the relationships between critical care nurse burnout and demographic variables. They found younger female nurses who had a baccalaureate degree were at a higher risk for experiencing burnout, an outcome of prolonged stress.

Cronin-Stubbs and Rooks' (1985) research findings revealed that critical care nurses experienced greater amounts of occupational stress, which is a significant predictor of burnout, than non-critical care nurses. Variables studied included life stress, social support, and specialty work area. They suggested that additional factors such as coping behaviors and personality predispositions of critical care nurses may contribute to the greater amounts of occupational stress.

This study built on Packard and Motowidlo's findings by examining further the relationship between job satisfaction and perceived job stress. The purpose of this research was to study the relationship between job satisfaction and perceived job stress, and how job stress relates to physical and mental health outcomes in critical care nurses. Specifically, this study sought

to answer the question: What is the relationship between
perceived job stress, job satisfaction, and
psychological symptoms of critical care nurses?

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

A review of the literature revealed that high levels of work-related stress have been documented for nurses working in critical care settings. The linkages between stress and burnout, job satisfaction, and job performance have been studied by a variety of researchers. Studies of stress, job satisfaction, burnout, and job performance have compared critical care, medical, surgical, and psychiatric nurses.

The theoretical framework on work stress developed by House (1981) was used for this study. Evidence suggests that the stress process may contribute to the development of a wide range of physical and mental disorders. In addition, social and psychological factors are being recognized more frequently as important in the etiology of a wide range of physical disorders. House's theoretical framework is based on two concepts: person and work environment. If an individual perceives that environmental demands exceed his or her abilities to adapt or if environmental supplies or opportunities are insufficient to meet major needs or motives, the individual will perceive the job

as stressful. This perceived job stress results in job-related strain or negative feelings about work. Both perceived job stress and job-related strain may affect physical and mental health. House's framework also includes conditioning variables, such as social support, which may modify the relationships between the environment, perceived job stress, and job-related strain.

Conceptual Framework

"Social and psychological factors have been increasingly recognized as among the important factors in the etiology of a wide range of physical disorders" (House, 1981, p. 5). A major goal in life and work is to achieve, maintain, and enhance physical and mental health and the quality of life itself. According to House, evidence indicates that the stress process may contribute to the development of a wide range of physical and mental disorders, including infectious diseases, chronic respiratory afflictions, cardiovascular diseases, gastrointestinal disorders, depression, and possibly cancer. A primary preventive strategy for improving physical and mental well-being is to intervene in the stress process that contributes to the disorders.

House has proposed a model which explains the process of stress, including how situations are

perceived and the responses to those perceived as stressful. If the individual perceives an objective condition (situation) as threatening or challenging, that condition may be designated as a "stressor" for that individual. Objective conditions are not inherently stressors but receive that designation based on the individual's perception. How an individual perceives the objective condition will, in turn, affect the immediate response to the objective condition, which eventually affects long range health outcomes.

House's model depicts the relationships among five classes of variables: objective conditions, conditioning variables, perception, immediate response, and long-range outcomes (see Figure 1). In the figure, the solid arrows represent presumed causal relationships among the variables. The dotted arrows from the box labeled "conditioning variables" intersect with the solid arrows, indicating an interaction between the conditioning variables in the box at the beginning of the solid arrow in predicting variables in the box at the head of the solid arrow. Again, it is important to emphasize that certain social and/or environmental situations do not necessarily lead to particular outcomes, but rather their impact depends on how these situations are perceived and responded to on a short-term basis. In addition, the outcomes also depend on

how responses are mediated by individual and situational variables.

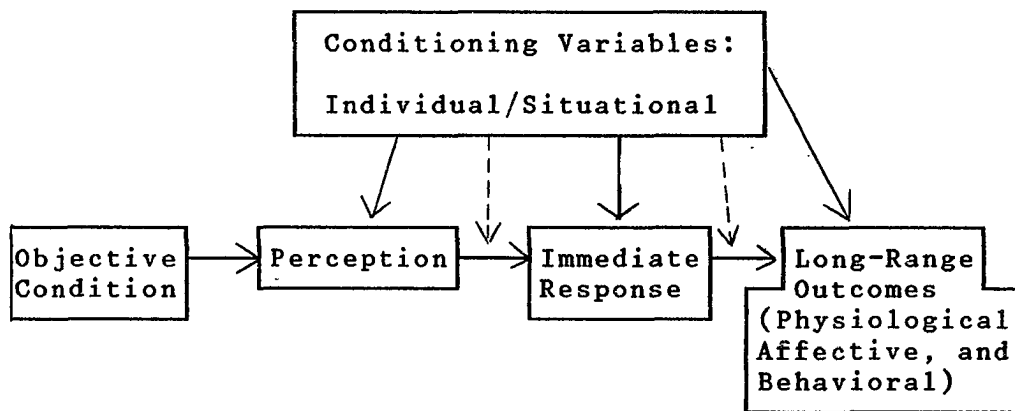


Figure 1: A Paradigm of Stress Research. (House, 1981)

"Perceived job stress, such as perceptions of excessive work load or role conflict, may adversely affect general feelings about work, such as job satisfaction, which are termed, job-related strain" (French, House, & LaRocco, 1980, p. 203). Perceived job stress and subsequent job strain may affect physical and mental health. Nonetheless, whether perceived stress affects job strain and whether both of these affect health may depend on a conditioning variable, such as social support. A conditioning variable is a characteristic of an individual or situation that moderates the relationship between the variables (French, House, & LaRocco, 1980). The conditioning variables may also have a direct influence on

perceptions as well as outcomes.

Once a situation is perceived as stressful a variety of responses are possible. Some responses may serve to modify the objective social conditions and/or the perception of it so as to reduce or eliminate the perception of stress, and as a result alleviate its impact on health. The general health status of an individual is a function of a blend of both detrimental and healthful forces, and any increase in detrimental forces may be compensated for by an increase in healthy forces. Compensating factors have beneficial effects on health regardless of exposure to stressors, whereas buffering factors have beneficial effects on health only among people exposed to stressors.

The negative impact of perceived job stress and job strain on health may be reduced in one of three ways. First, the level of stresses (number of conditions perceived as stressful or intensity of perceived stress) which are having a deleterious health consequence can be lowered. Secondly, inputs that promote health can be provided and as a result compensate for deleterious impacts of stresses. Thirdly, the impact of stresses on health can be moderated or buffered (House, 1981).

Even when employees remain in the same job for a period of time, the nature of those jobs may drastically change as a result of technological and organizational

changes. The altered condition of the job thus may become a potential source of occupational stress. This is particularly true with nursing. Nurses may remain on the same unit, but technology changes constantly, frequently requiring learning new procedures and equipment operation. In addition, nursing shortages in various regions of the country can change how an organization chooses to manage particular units. A goal of organizations should be directed toward reducing wherever possible, levels of work stress that harmfully affect health. The purpose of this research was to study the relationship between job satisfaction and perceived job stress and to examine job stress related to physical and mental health outcomes (see Figure 2).

Individual variables included in this study were age and education. These variables do not change from day to day. However, job satisfaction, the situational variable, does not always remain the same. Job stress may also be influenced by conditioning variables, both individual and situational. How nurses respond to working in critical care depends on their perception of the situation and the influence of the conditioning variables. Nurses will respond differently depending on their perceptions and on conditioning variables. It is hypothesized that there is a direct relationship between perceived job stress perceived by critical care nurses

and their health outcomes. Again, this relationship is influenced by individual and situational variables.

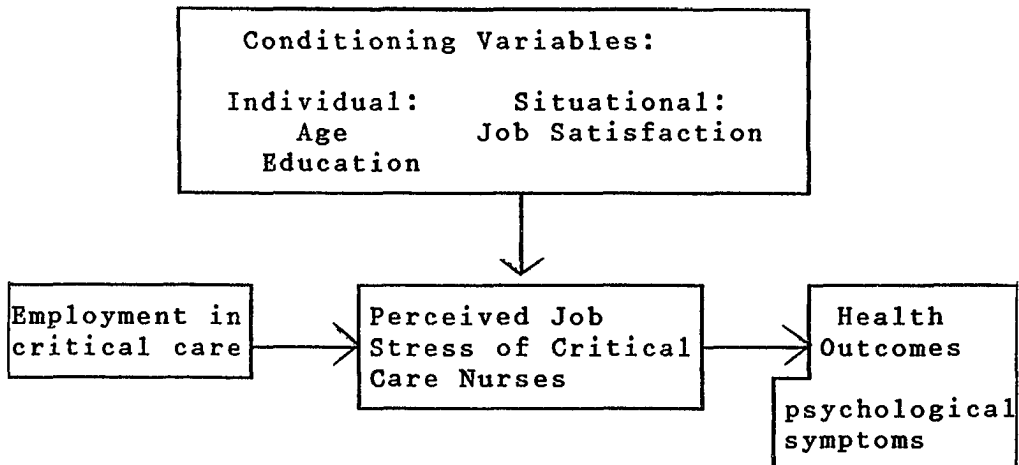


Figure 2: Placement of study variables within the Stress Paradigm.

Review of the Literature

The critical care unit is a highly charged, specialized area designed for the treatment of seriously ill patients who require sophisticated machinery, constant medical observation, and life-saving measures. The critical care nurse is responsible for the constant monitoring of the patient's condition. Medications, interpretation of machine recordings and changes in the patient's behavior all influence the nurse's actions to keep the patient's condition stable (Maloney, 1982). Another characteristic feature of critical care nursing is that the nurse's focus is very intensive and narrow (Strauss, 1968). As a result of these conditions,

working in a critical care setting might be perceived as stressful. The literature was examined for studies which identified potential stressors of the ICU environment, possible health outcomes of nurses working in critical care settings, job satisfaction of nurses working in critical care settings, and major factors which might reduce the perception of stress.

Stress Several researchers have studied the physical and psychological elements of the ICU environment which are potential sources of stress. According to Hay and Oken (1972), staff nurses working in intensive care units are faced with crisis and tragedy on a daily basis and are prime candidates for burnout and job dissatisfaction. The large quantity of work involved in caring for critically ill patients compounded by the variety, complexity, and urgency of the work tasks, intensifies the likelihood that nurses will become exhausted, discouraged, burned-out, and dissatisfied with their jobs. Huckabay and Jagla (1979) found an inverse relationship between length of intensive care experience and stress. They believe new graduates or nurses without intensive care experience feel high levels of stress in this particular setting because they lack the knowledge base and the clinical experience necessary for the position.

Ellis and Vreeland (1969) found nurses most frequently identified the patient's altered physiological state, the psychological impact of the illness, and the treatment being performed as stressful. Nurses also identified working with a wide range of technical equipment as stressful. Kornfeld, Maxwell and Momrow (1968) found nurses felt it was more stressful working with physicians who had less experience than working with the specialized equipment found in critical care units. In addition, maintaining smooth working relationships and effective communication with many different members of the health care team and visitors, while confined to a relatively small physical space can create other tensions.

According to Strauss (1968), the presence of complicated machinery was one of the chief sources of stress for new recruits to the intensive care unit. Conflict with administration, the large amount of responsibility, and the crisis atmosphere were also found to be stressful. Bailey, Grout, and Steffen (1980 & 1981) found that conflict with other health care providers, inadequate staffing patterns, lack of support in dealing with death and dying, inadequate work space and other inefficient factors in the physical work environment, and unresponsive nursing leadership all contributed to the feelings of stress for nurses working

in critical care units. Their results support Strauss's findings.

Several researchers have studied the psychological stressors found in critical care nursing. Reichle (1975) found three causes of psychological stress: the loss of something of value, injury or threat of injury to the body, and frustration of drives. Hay and Oken (1972) found that the critical care nurse chronically lives under a cloud of latent anxiety. When this anxiety exceeds even minimal levels, it reduces efficiency and decision-making capacity often resulting in mistakes. Nurses were also found to use gross denial as a defense mechanism against the stressful situations of the critical care unit. Reichle suggests, an additional stress for nurses working in an intensive care unit emerges as a consequence of nurses being human. When working with so many patients, a nurse may be reminded of similar personal situations of his/her own. "To be surrounded by catastrophe and suffering is not the environment most people prefer" (Reichle, 1975, p. 15). The ultimate goal of the health profession is to save lives, but frequently ICU patients die, which makes ICU nurses feel like failures.

Research findings published by Kornfeld, Maxwell, and Momrow (1986) and Cassem and Hackett (1975) are consistent with Reichle's findings. They found that

nurses who constantly and exclusively work with the seriously ill are faced with a psychological hazard because they face death more frequently than nurses working on general medical-surgical units. As a result of frequent patient deaths, these nurses experience all of the accompanying emotional turmoil. Studies completed by Hay and Oken (1972); Huckabay and Jagla (1979); and Bailey, Grout, and Steffen (1980) also found death of a patient to be a stressful situation. Cassem and Hackett's (1975) findings were consistent with Hay and Oken (1975); Huckabay and Jagla (1979); and Bailey, Grout, and Steffen (1980). However in Cassem and Hackett's study of nurses working in intensive care units and critical care units they found that nurses reported their greatest source of difficulty and their greatest source of satisfaction were the same, caring for desperately ill patients.

Adler, Ducette, and Keane (1985) completed a study on stress in ICU and non-ICU nurses. The findings of this study are at variance with the previous studies. This study revealed ICU nurses did not differ in average burnout scores from nurses in the other units sampled, which supports the results found by Maloney (1982). There was no indication in the responses to open-ended questions that ICU nurses were more negative about their jobs, felt more stress on their jobs, or felt that

success or failure on the job was caused by factors outside their control. Overall, there was no indication in the data collected that ICU nurses could be differentiated from non-ICU nurses on the variables assessed.

Health Outcomes Stress can have either positive or negative effects on nurses. Effects are largely determined by the perception and appraisal of the individual nurse. Nurses cope with their frustrations in a variety of ways according to how they have coped with stress in the past. According to Bilodeau (1973), some of the methods utilized to cope with job stress may be less than appropriate in that they do not enhance patient care or foster job satisfaction.

Gentry, Foster, and Froehling (1972) and Maloney (1982) studied how nurses respond to situational stress in intensive and non-intensive care nursing. Gentry, Foster, and Froehling's study revealed that nurses working in intensive care units were more depressed, more hostile, more anxious, verbalized more dislikes concerning their work conditions, and demonstrated more interstaff tension than nurses working in non-intensive care settings. No differences in terms of guilt, self-esteem, and general personality pattern were found between the ICU and non-ICU nurses. Maloney's study, on the other hand, revealed that the non-intensive care

nurse was under more stress than the intensive care nurse and demonstrated an increase in somatic complaints, personal and family problems, and workload dissatisfaction.

Quality care is delivered by nurses who are physically and psychologically equipped to give optimal patient care. "Nurses who are exhausted, unmotivated, and apathetic are more likely to make on-the-job mistakes and neglect patients" (Cronin-Stubbs & Rooks, 1985, p. 31). Burnout can affect a nurse's mental and physical health and job performance. Psychological reactions include emotional exhaustion, negative job attitudes, loss of concern for patients, and depression. Behavioral indicators of burnout include tardiness, absenteeism, leaving one hospital to find employment elsewhere, treating patients in dehumanizing ways, being neglectful to patients, and making mistakes.

Bartz and Maloney (1986) studied burnout among ICU nurses, specifically how stress affects job performance and precedes the development of burnout. An inadequate response to the stress of work may result in emotional exhaustion, depersonalization, and decreased personal accomplishment. Studies have revealed that the longer an ICU nurse has been in nursing the less likely he/she is to demonstrate burnout. Bartz and Maloney (1986) found older age, less than a baccalaureate degree,

female, and civilian status also describe the intensive care nurse who is less likely to demonstrate the elements of burnout.

Manning, Motowidlo and Packard (1986) researched occupational stress, its causes and consequences on job performance. They found that subjective stress leads to affective states such as anxiety, hostility, depression and to a decline in job performance. The stress is caused by specific events that occur at work. The more frequent and the more stressful the events are for an individual, the greater the level of subjective stress. Stressors create conditions of information overload because they force people to pay special attention, resulting in cognitive fatigue and depletion of energy needed for task performance. Events that involve work overload, uncooperative patients, criticism, negligent co-workers, lack of support from supervisors, and difficulties with physicians are associated with feelings of stress for nurses. These feelings of job-related stress lead to feelings of depression that cause nurses to perform less effectively in the interpersonal and cognitive-motivational aspects of their job (Manning, Motowidlo, & Packard, 1986).

Motowidlo and Packard (1987) studied subjective stress, job satisfaction, and job performance of hospital nurses. They found that stress and job

satisfaction are not directly related. Stress, primarily acting through depression is associated with lower levels of job performance. Job satisfaction is unrelated to job performance and is based on depression and hostility which are affected by stress and personal characteristics. However, in this study only a small percentage of the nurses in the sample worked in intensive care units.

Job Satisfaction and Job Performance Feelings of satisfaction are associated with patterns of behavior at work that reflect interpersonal sensitivity and kindness (Motowidlo, 1984). The satisfied employee is a productive employee. Increasing job satisfaction should increase retention and improve performance (Brown, Larson, Lee, & Shore, 1984).

Job autonomy and ability to participate in decision-making are important for maximizing satisfaction (Brown, Larson, Lee, and Shorr, 1984). Feelings of satisfaction are associated with patterns of behavior at work which reflect interpersonal sensitivity and kindness. People who are satisfied with their jobs express their good feelings by behaving considerately and sensitively with others (Motowidlo, 1984). Satisfaction occurs when an individual's needs and job characteristics are compatible and discrepancy between expectations and reality is minimized. It is important

to identify expectations on entering a job in order to avoid unrealistic expectations and the resultant dissatisfaction (Brown, Larson, Lee, & Shore, 1984).

Bailey, Grout, and Steffen (1980) listed three categories of greatest satisfaction for nurses. The first was patient care including patient improvement, close patient contact, quality of nursing care, feeling needed, a belief of having helped, decision-making, autonomy, patient/family teaching and thanks. The second was knowledge and skills including opportunities for learning, intellectual challenge, use of knowledge and skills, optimum performance/accomplishment, and handling emergencies. The last category was interpersonal relationships focusing on teamwork, recognition, respect, staff development, and responsive nursing leadership.

Bilodeau (1973) identified sources of frustration of nursing personnel working in critical-care areas. They were grouped into five broad categories: (a) the patient and his care, including repetitive routines, attention to minute tasks, fast patient turnover and death; (b) personnel including rotating shifts, personality conflicts, disagreements with doctors over various issues, e.g. the degree of resuscitation to be carried out on a particular patient; (c) environment which focused on noisy equipment, equipment failures,

small rooms, inadequate lighting and storage facilities, and no employee lounge or lavatory available on the unit; (d) family which included families interfering in some way with patient care or well-being, in addition nurses also felt there was a lack of time or inability to meet families' needs; and (e) other personnel who add to the general confusion and noise, make demands on the nurses' time, and seem to interfere with patient care.

Bilodeau also identified sources of satisfaction, which were again grouped into the same five broad categories: (a) the patient and his care, nurses feeling challenged by their work, feeling they give excellent physical care and emotional support, hearing patients appreciation, and seeing patients get better; (b) personnel which identified nurses are dedicated, well trained, and highly motivated, they function well during crises, doctors respect nurses as colleagues and they trust their judgement and acknowledge them for the good job they do; (c) environment which identified a critical care unit to be stimulating and exciting; (d) family which noted family members are interested in the well-being of the patient and support nursing goals; and (e) nurses felt there was a certain status connected with working in a critical care unit.

Every and Falcione (1976) studied 144 female registered nurses to measure the importance of the

dimensions of job satisfaction. They found, through factor analysis, four meaningful and statistically independent factors which related to registered nurses' job satisfaction. The factor of greatest importance was relationship orientation which revealed nurses' interpersonal relationships with their co-workers, immediate supervisor, and general supervisory personnel. The second factor was internal work rewards which included inherent satisfactions gained from the work itself through the development and use of new skills and abilities. Included in this factor was the environment, which included good working conditions. The third most important factor for determining job satisfaction was external work rewards, which included tangibles given by the organization to its employees as a reward for the work effort, e.g. promotions, salary, and benefits. The last factor, administrative policies, dealt with recognition for past service and hospital policies. This contributed the least to job satisfaction.

Abdel-Halem (1980) in a study of 123 non-supervisory employees in a large retail drug organization, evaluated the moderating effects of employee higher order need strengths (HONS) on the relationship between job performance and job satisfaction. HONS is defined as "the extent to which the individual values the importance of higher level

work outcomes" (Abdel-Haleem, 1980, p. 338), e.g. personal growth and development. Results of this study indicated that employee's higher order needs do moderate the performance-satisfaction relationship. Performance was positively related to both intrinsic and extrinsic sources of job satisfaction for employees with strong HONS while the relationship approached zero or became negative for those with weak HONS.

Armstrong, Drew, Duxbury, and Henly (1984) found that individuals are motivated to achieve goals because goal achievement is satisfying. Increased productivity and increased satisfaction occur simultaneously when productivity or high quality performance is viewed as a means of achieving important goals. The purpose of their study was to quantify the relationship between head nurse leadership style and staff nurse burnout to job satisfaction in nurses working in neonatal intensive care units. Results revealed that leader structure and consideration do interact to affect the behavior and attitude of staff nurses.

Dolan (1987) completed a study to assess the relationship between burnout and job satisfaction in two groups of nurses, general medical-surgical and psychiatric nurses. A group of hospital administrators, who did not have direct patient contact were used as a control group. The results of this study confirmed that

job satisfaction is a reliable indicator of burnout. Both the general and psychiatric nurses had lower levels of job satisfaction and exhibited higher levels of perceived burnout than the administrative group.

Conditioning Variables Conditioning variables, individual and/or situational can have an impact on how a person perceives a given situation. They may also affect how a person responds to a situation on a short-term basis.

Drake, Parasuraman, and Zammuto (1982) carried out a study designed to assess the influence of different nursing care modalities and shift assignments on different stressors and on nurses' job attitudes and behavioral intentions. The investigator examined six situational and role stressors: work overload, interunit conflict, role frustration, resource inadequacy, intershift problems, and role conflict. Five job attitudes were also examined: felt stress or the psychological response state of disturbed affect, job satisfaction, organizational commitment, withdrawal cognitions or thoughts about quitting the job, intention to resign. Results revealed that only one stressor, intershift problems, varied according to type of care, either primary or team. This stressor, intershift problems, was perceived as lower in the primary care units than in the team care units. However, felt stress

was higher among nurses in primary care units than those in team care units. Results did not support previous findings of greater job satisfaction among nurses in primary care units. Another important finding of this study revealed that shift assignments accounted for significant differences in the perceived importance of five of the six stressors and in individual's job attitudes. Second shift accounted for most of the variation in the stressors of intershift problems, resource inadequacy, and work overload. Overall, this study revealed that work stressors are not randomly distributed within the nursing work environment. They vary systematically among the work shifts and to a lesser extent according to the type of care, either primary or team, employed in the different units.

In a similar study, Reed (1988) compared the effect of team and primary nursing modes of organization of nursing on three related variables: nurse-related behavior and quality of care, philosophy of care, and job satisfaction. Results revealed that when compared to the team nursing mode of organization of care, the primary nursing mode affords increased quality of care. The primary nurses ranked all aspects of psychological care as the priority instead of direct physical care. The team nurses ranked aspects of direct physical care as more important than psychological care. A similar

philosophy towards delivery of individualized patient care was found among the primary nurses. The team nurses demonstrated varying philosophies towards priorities of care and had differing attitudes towards delivery of individualized patient care. Primary nurses rated job satisfaction higher than team nurses.

Cronin-Stubbs and Rooks (1985) did a study of stress, social support, and burnout in critical care, psychiatric, operating room, and medical nurses. Burnout is considered "a syndrome of maladaptive, psychophysiologic, psychological, and behavioral reactions to occupational stressors" (Cronin-Stubbs & Rooks, 1985, p. 31). Their study supports the findings of Maloney (1982), and Adler, Ducette, and Keane (1985). This study revealed that the intensity or perceived impact rather than the frequency of job stressors contributed to burnout. Undesirable personal changes were also found to be directly related to burnout. Recognition was found to promote job satisfaction, but being cared about was found to be more important in counteracting burnout. This study also revealed no significant differences in personal stress levels between intensive care and medical nurses. The study did reveal that critical care nurses experience greater amounts of occupational stress, which is an important predictor of burnout, compared to the other groups of

nurses. However, working in critical care did not contribute to burnout, additional factors such as coping behaviors and personality predispositions of critical care nurses may be relevant to experiencing burnout.

Topf (1989) completed a study on the relationship between personality hardiness, occupational stress, and burnout utilizing 100 critical care nurses. Topf hypothesized that greater hardiness would be predictive of less occupational stress and burnout and that greater occupational stress would be predictive of greater burnout. The study did not find support for the hypothesis that greater stress would be linked with greater burnout in nurses. However, the findings of the study did provide partial support for the hypotheses that greater hardiness in nurses would be associated with less stress and less burnout. These results are consistent with those of Adler, Ducette, and Keane (1985). They found nurses who had higher levels of hardiness, more committed to their jobs, felt more in control of their jobs, and who felt challenged by their jobs manifested fewer signs of burnout.

Boyle, Grap, Thornby, and Younger (1991) studied hardiness, ways of coping, social support and burnout in critical care nurses. They found use of emotion-focused coping was positively correlated with burnout while hardiness was negatively related to the use of emotion-

focused coping and positively related to both types of social support, work-related and nonwork-related.

It is apparent that individual and/or situational variables do affect how a person responds to stress. Key variables that appear to affect this response include personal resources such as personality and previous coping mechanisms.

Strengths and Weaknesses Research has consistently shown that working in an ICU environment is stressful. As a result of these findings, nurses should examine recurring stressors and work toward prevention and reduction of such stressors. However, many of the studies in the literature are over ten years old. Nursing is constantly changing and these studies may not be consistent with the current situation . In addition, most of the studies had few, if any male nurses. Today, many men are choosing nursing as a profession. Research must be focused not only on women, but also on men to determine if they believe the same stressors are present in the critical care environment.

Research Question: What is the relationship between perceived job stress, job satisfaction, and psychological symptoms of critical care nurses?

The hypotheses and concept definitions are drawn from the literature review on job stress, job satisfaction, burnout, health status of nurses, and critical care nursing.

Hypotheses:

1. Higher levels of job satisfaction in critical care nursing are related to lower levels of perceived job stress.
2. Higher levels of perceived job stress in critical care nursing are related to higher levels of psychological symptoms.

Concepts and Terms:

1. **Job Stress** - a perception that environmental demands exceed the abilities of the individual or that environmental supplies and opportunities will leave major needs or motives of the person unmet.
2. **Job Satisfaction** - the extent to which an individual is happy with a given position.
3. **Psychological Symptoms** - the experience of anxiety, depression, hostility, decreased self-esteem, grief, guilt, rage, sense of failure, irritation, or an increase in somatic

complaints as a result of job stress.

4. **Critical Care Nursing/Intensive Care Nursing** - registered professional nurses who have had special preparation for and have worked for more than one year in caring for the critically ill whose physical conditions are unstable and require constant observation and intervention.

Chapter Three

METHODOLOGY

Design

An Ex post facto: Descriptive Correlational design was used to study the relationships among age, education, job satisfaction, employment in critical care, perceived job stress and health outcomes measured at one point in time. The study was conducted in a natural setting with no manipulation or modification of the environment.

Sample

Subjects for the research study were from the intensive care unit and the cardiac care unit at an urban 330-bed acute care hospital located in Western Michigan.

The criteria used to select/eliminate subjects included the following:

1. Subjects needed to meet the following four criteria:
 - A. Work in a critical care/intensive care unit.
 - B. Work at least 40 hours (part-time) in a two-week period.
 - C. Provide direct hands-on care to patients.
 - D. Currently employed for at least six months in

the critical care department, practicing as a registered nurse.

2. Individuals were eliminated if:

- A. The candidate was a nurse manager or participated as charge nurse more than five days in a two-week period. These individuals were not included in the study due to variations in job descriptions.

Subjects were selected by a sample of convenience. The sample included nurses representing the various shifts worked, i.e. days, evenings, nights, rotating shifts, and twelve-hour shifts. Sixty-five questionnaires were distributed with an overall response rate of sixty percent.

Thirty-two of the individuals met the predetermined criteria and were included in the data analysis. Seven individuals did not meet the predetermined criteria for the following reasons: (a) frequently served as charge nurse (3 individuals), (b) worked only as resource, as needed (2 individuals), (c) worked every weekend (1 individual), and (d) worked every other weekend (1 individual).

The basic nursing educational preparation varied among the nurses. Almost 22% of the nurses in the sample indicated that they had a diploma; 34% were graduates of associate degree programs; 41% were

graduated from a baccalaureate nursing program; and 3% had a master of science degree in nursing.

Professional experience in critical care ranged from one year to more than ten years. Thirty-eight percent of the sample had at least ten years of experience working in critical care. Seventy-five percent of the respondents reported working fulltime.

Of those sampled 50% worked days, 34% nights and 16% rotated between shifts. The nurses when given an option of what shift they preferred to work, responded as follows: 65.6% days, 6.3% evenings, 21.9% nights, and 6.3% preferred rotating between shifts. Sixteen percent stated they worked eight-hour shifts, while the majority, 84%, worked twelve-hour shifts.

Nurses were asked if they ever assumed charge nurse responsibilities on the unit. Thirty-eight percent indicated no, while 62% stated yes, but not on a consistent basis.

Instruments

Job Stress Scale (See Appendix A) The Job Stress Scale was used to measure perceived job stress of nurses working in critical care. The instrument is a 49-item questionnaire. It measures eight dimensions: (a) competence, 6 items; (b) emotional support, 5 items; (c) feeling of competence, 5 items; (d) patient outcome, 6

items; (e) physical work environment, 5 items; (f) staffing, 8 items; (g) team respect, 6 items; and (h) time priorities, 8 items. Each item on the Job Stress Scale uses a four-point forced choice scale. Degrees of response include: rarely, occasionally, frequently, and almost always. The instrument was originally developed by Bailey and Claus (1977-78) for ICU nurses. Atwood and Hinshaw (1983) adopted the tool for use with general inpatient and outpatient nursing staff.

The instrument has two-week test-retest stability ranging from $r = .52$ to $.68$. It has discriminant validity consistent with predictions, and acceptable construct validity as estimated by predictive modeling ($p < .05$) and factor analysis with average loadings of $.691$ (Atwood & Hinshaw, 1983).

Moderate internal consistency was estimated for four of the subscales: team respect, competence, feelings of competence, and time priorities. Coefficient alphas ranged from $.69$ to $.75$. The remaining four subscales: stress of staffing, patient outcomes, physical work environment, and emotional support had lower alphas ranging from $.47$ to $.61$ (Atwood & Hinshaw, 1983).

Each item on the scale is given a score based on whether the item is keyed as positive or negative. For

the positive items, on a five-point scale, strongly agree is scored five and strongly disagree is scored one. Conversely, for a negative item on that same five-point scale, an item response of strongly agree is scored one and strongly disagree is scored five. To obtain a total score for the scale, the scores for each item response are summed. A higher score reflects a lower level of stress. The maximum score that can be obtained is 196 which would reveal the individual is under no job stress. For this study, the scores were reversed to make the amount of stress more directly interpretable. That is, high scores reflected high stress.

Nursing Job Satisfaction Scale (See Appendix B) The Nursing Job Satisfaction Scale (NJS) is a 23-item questionnaire, taken from the Industrial Brayfield and Rothe Job Satisfaction Scale by Atwood and Hinshaw (1980). It was developed for use with registered nurses, licensed practical nurses, nursing assistants, and technicians to measure job satisfaction. The dimensions measured include: (a) quality of care, 7 items; (b) enjoyment, 11 items; and (c) time to do one's job, 5 items. Each item is rated on a five-point Likert scale: strongly agree, agree, undecided, disagree, strongly disagree.

Factor analysis yielded average subscale factor loadings of .63. The total nurse job satisfaction scale factored in four dimensions with a cumulative explained variance of 53.47 (Atwood & Hinshaw, 1983). Convergent and discriminant validity estimates met all predictions for both rank and direction and predictive modeling which supported the predicted directions and magnitudes of relationships (Atwood, Hinshaw, & Scofield, 1981).

Cronbach's Alpha ranged from .76 for "Time To Do One's Job" to .86 for "Enjoyment". Cronbach's Alpha for the total scale was .88. based on 1,468 case studies (Atwood & Hinshaw, 1983).

Scoring the questionnaire involves giving each item a score based on whether the item is keyed positive or negative. For the positive items, on a five-point scale, strongly agree is scored five, and strongly disagree is scored one. Conversely, for a negative item on that same five-point scale, an item responses of strongly agree is scored one and strongly disagree is scored five. To obtain a total score for the scale, the scores for each item response are summed. Job satisfaction increases the higher the score is. The maximum score that can be obtained is 115.

Brief Symptom Inventory (BSI) (See Appendix C) The BSI was used to assess the psychological symptom status of nurses working in critical care. The BSI (Derogatis

& Spencer, 1982) was developed from its parent instrument, the SCL-90-R (Derogatis, 1975). It is a self-report symptom inventory designed to assess the psychological symptom status of psychiatric, nonpsychiatric, and medical patients. The instrument is a 53-item questionnaire, measuring nine primary symptom dimensions: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. In addition to the nine primary symptom dimensions, there are three global categories of distress associated with the BSI: the General Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST). Each item on the BSI is rated on a five-point scale of distress: Not at All, A Little Bit, Moderately, Quite a Bit, and Extremely. The BSI can be used with individuals who have reached a reading knowledge equivalent to that of a sixth grade education.

Alpha coefficients for all nine dimensions of the BSI ranged from a low of .71 on the Psychoticism dimension to a high of .85 on Depression (Derogatis & Spencer, 1982).

Test-retest coefficients were based on a sample of sixty non-patient individuals who were tested across a two-week interval. Coefficients ranged from a low of

.68 for Somatization to a high of .91 for Phobia Anxiety. The GSI had a stability coefficient of .90, which provides strong evidence that the BSI is a consistent measure across time (Derogatis & Spencer, 1982).

A study completed by Derogatis, Rickels, and Rock in 1976 showed significant convergent validity for the BSI with the Minnesota Multiphasic Personality Inventory (MMPI). The SCL-90-R had earlier been compared with the MMPI. The general finding of high convergence for the dimensions of the BSI with MMPI scales represents an important disclosure of the fact that reduction in the length of the SCL-90-R dimensions has not had a significant effect upon its validity. Construct validity was established through factor analysis of the nine dimensions (Derogatis & Spencer, 1982). Predictive validity was demonstrated in clinical studies conducted by Marshal and Bougsty (1980), Amenson and Lewinsohn (1981), Kremer and Atkinson (1981), and Peterson and colleagues (1981).

Scoring the BSI involves five steps. The first step in scoring the BSI involves summing the items comprising each of the nine symptom dimensions (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism) plus

summing the four additional items which do not form a unified symptom construct, but are included in the test as configural items, and are totaled to facilitate calculating global scores.

The second step in scoring involves dividing each of the nine dimensional sums by its respective number of items. For example, in the case of somatization, the summed item total is divided by seven, in the cases of depression and anxiety, division is by six.

The third step in scoring the BSI involves calculating the three global indices; the nine dimensional sums plus the sum of the additional items are added together to form the Grand Total. All 53-items are normally involved in calculating the Grand Total. Dividing the Grand Total by 53 results in the General Severity Index (GSI).

The fourth step involves counting all the "positive" or non-zero symptom responses. This number is the Positive Symptom Total (PST). The last step, the Positive Symptom Distress Index (PSDI) is calculated by dividing the previous calculated Grand Total by the PST. The higher the score, the more psychological symptoms displayed. the lowest score possible is zero and the highest score possible is four.

Procedure

Approval was obtained from the Human Research Review Committee of Grand Valley State University prior to conducting the study. The proposed project was approved as a study that is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981 (See Appendix D).

The Vice-President of nursing at an urban 330-bed acute care hospital was contacted to obtain approval to conduct the research study at the facility. After permission to conduct the study was granted by the Vice-President of nursing, a meeting with the nurse manager from the intensive care unit/cardiac care unit was held to explain the study and answer any questions. After meeting with the nurse manager, the researcher obtained the number of nurses employed in the two areas from the nurse manager. Individual names were not gathered to maintain confidentiality. The number of nurses employed was gathered to determine approximately how many possible participants would be included in the study.

The researcher distributed the information packets which included a description of the study, consent form (See Appendix E), demographic data sheet (See Appendix F), and the questionnaires to all the nurses in both units via their personal mail boxes.

Nurses were given a deadline of approximately two weeks to complete the questionnaires. A phone number was also included in case questions concerning the study or questionnaires arose. Nurses who did not meet the predetermined criteria were not included in the data analysis. Pre-addressed, postage-paid envelopes were provided for return of the completed questionnaires. As a result of a low response rate, the researcher extended the deadline two weeks after contacting the nurse manager. The nurse manager reminded all staff nurses of the study and encouraged them to participate.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

The independent variable in this study was the total score obtained from the Job Stress Scale. These data were interval in nature. The dependent variable in this study was the total score obtained from the Brief Symptom Inventory (BSI). A conditioning variable present in this study was the score obtained from the Nursing Job Satisfaction Scale. These data were also treated as interval in nature.

Statistical analysis involved using Pearson's R to consider the over-all scores of the three instruments utilized for this study and to test the hypotheses. Reliability analysis was completed on the Nursing Job Satisfaction Scale and the Job Stress Scale. The Nursing Job Satisfaction Scale (23-items) had a coefficient alpha of .90 for the total scale. The Job Stress Scale (49-items) had a coefficient alpha of .74 for the total scale. Statistical analysis was used to evaluate what relationships, if any, were found between job satisfaction and perceived job stress, and job stress and psychological symptoms of critical care nurses.

The mean score on the Nursing Job Satisfaction Scale was 83.0, with a range from 59.0 to 104.0. The maximum score an individual could obtain on the scale was 115. Table 1 shows the major sources of job satisfaction found among the sample.

Table 1

Major Sources of Job Satisfaction

Situation	Agree or Strongly Agree
I feel satisfied with the technical care I give.	100%
I am able to keep my patients comfortable.	97%
Most days I have time to provide hygiene measures for my patients.	94%
Most of the time I am satisfied with patient care that I give.	91%
I feel fairly well satisfied with my present job.	75%

Note. Figures represent percent of sample responding (N=32)

The mean score on the Job Stress Scale was 56.62, with a range from 35 to 77. The maximum score an individual could obtain on the scale was 196. The scores of the Job Stress scale were reversed for easier interpretation, a lower score reflected less job stress. This indicates that subjects in this sample had

relatively low job stress. Table 2 shows sources of job stress experienced by the sample.

Table 2

Sources of Job Stress

Situations	Occasionally or Rarely	Frequently or Always
The unnecessary prolongation of life distresses me.		75%
Staff need support from others to cope with the job.		69%
Group/individual counseling is available to staff at work	94%	
Opportunities for job advancement are available to people in my job category.	88%	
Physicians consider my judgment during emergencies.	59%	
Adequate relief is regularly provided for lunch, coffee break.	56%	

Note. Figures represent percentage of sample responding (N=32)

The mean score of the Positive Symptom Distress Index (PSDI), the last step in scoring the BSI, was 1.37, with a range from 1.0 to 3.0. The maximum score an individual could obtain on the BSI was 4. Similarly, subjects had relatively few symptoms. Table 3 reveals the percent of the sample which had at least a little trouble with the symptoms described.

Table 3

Percent of sample which had at least a little trouble with the symptom

Behavior	Percent	Mean Score
Feeling blocked in getting things done	75	1.28
Feeling tense and keyed up	72	1.13
Feeling easily annoyed or irritated	69	.97
Trouble remembering things	66	1.09
Feeling inferior to others	59	.81
Your feelings being easily hurt	56	.63
Others not giving you proper credit for your achievements	50	.88

Note. Figures represent percent of sample responding (N=32)

The total scores obtained from the Nursing Job Satisfaction Scale and the Job Stress Scale were analyzed to test the hypothesis that higher levels of job satisfaction in critical care nursing is related to lower levels of perceived job stress. Analysis revealed a moderately strong correlation ($r = -.63$, $df = 30$, $p = .001$) did exist between job satisfaction and job stress. The research hypothesis was supported. Individuals who were more satisfied with their jobs scored lower on the job stress scale.

The total score obtained from The Job Stress Scale and the PSDI score were analyzed to test the hypothesis higher levels of perceived job stress in critical care nursing are related to higher levels of psychological symptoms. Analysis revealed there was no significant relationship ($r = -.26$, $df = 30$, $p = .175$) between job stress and psychological symptoms. The null hypothesis was accepted.

CHAPTER FIVE

DISCUSSION AND IMPLICATIONS

A moderately strong correlation was found for the variables job satisfaction and job stress leading to the acceptance of the hypothesis that higher levels of job satisfaction in critical care nursing are related to lower levels of perceived job stress. This finding supports the theoretical model and shows that job satisfaction in critical care is related to perceived job stress. Job satisfaction may work to keep individuals from perceiving situations as stressful until the difference between what is required and the person's ability to meet it is significantly large.

The correlational statistics selected showed job satisfaction influenced perceived job stress. According to the theoretical model it's expected that job satisfaction will influence job stress, however, job stress may influence job satisfaction. Data analysis with advanced statistical analysis would reveal the actual direction of this relationship.

Data failed to support the hypothesis that higher levels of perceived job stress in critical care nursing are related to higher levels of psychological symptoms. This finding did not support the theoretical model and

reveals that job stress did not contribute significantly to the development of physical and/or psychological symptoms. A possible reason for this finding was the low job stress scores.

This study partially replicated a study completed by Norbeck (1985). Norbeck's study supported the hypotheses that higher levels of perceived job stress are related to lower levels of job satisfaction ($r = -.24$, $p = .001$) and to higher levels of psychological symptoms ($r = .33$, $p = .000$).

The nurses reported the greatest sources of job satisfaction centered around the care of the patient. Feelings of satisfaction were associated with patterns of behavior at work which reflected interpersonal sensitivity and kindness. People who are satisfied with their jobs express their good feelings by behaving considerately and sensitively with others (Motowidlo, 1984). Bailey, Grout, and Steffen (1981) found the quality of nursing care ranked as one of the top three sources of satisfaction for the critical care nurse. Bilodeau (1973) found nurses were satisfied with the patient care they gave. Nurses felt they had the time to give excellent physical care and emotional support.

Analyzing the items of job satisfaction revealed the majority of the sample did not feel dissatisfied with any particular item. However, all the nurses

agreed that there were some conditions concerning the job that could be improved. Fifty-six percent of the sample reported they occasionally did not have the necessary equipment available. Bilodeau (1973) found that many physical aspects of the environment and concerns with the equipment were sources of dissatisfaction for nurses.

Bilodeau (1973) found nurses felt pressured by other demands including doing secretarial work, running errands, and carrying out other non-nursing tasks. Many demands are placed on the critical care nurse; while recognizing the patient's need for support and/or teaching, the nurse may feel inadequate, uncomfortable, or too pressured by other demands to meet them adequately.

The greatest source of stress for the critical care nurse was the unnecessary prolongation of life. Huckabay and Jagla (1979) found that the death of a patient was the second most stressful factor in the intensive care unit. Bailey, Grout and Steffen (1980) found the second greatest source of stress related to patient care and the unnecessary prolongation of life. Adequate relief for breaks and paper work were also found to be sources of stress for the nurses. Bailey, Grout and Steffen (1980) found nurses also reported these same situations as stressful.

The lack of opportunities for job advancement for people in staff nurse positions was identified as a source of stress for the critical care nurse. Many factors including educational preparation, experience, and the availability of job promotions affect the possibility of job advancement. Other areas of concern identified by the sample included group/individual counseling services were not available to the staff at work and staffing levels did not allow for attendance at continuing education events.

Norbeck (1985) found through item analysis that the ranking of perceived stressfulness of various situations or conditions in critical care did not consistently relate to lower job satisfaction or psychological symptoms. Norbeck (1985) found only workload, physical setup of the unit, and communication problems with unit nurses were related to low job satisfaction. Everly and Falciones (1976) through factor analysis found interpersonal relationships with co-workers, immediate supervisor, and general supervisory personnel were of the utmost importance in increasing job satisfaction.

Although Gentry, Foster and Froehling (1972) and Manning, Motowidlo and Packard (1986) found significantly greater levels of psychological symptoms in critical care nurses, the levels of the present study, as did those of Maloney's (1982) revealed no

significant difference in the level of psychological symptoms experienced by critical care nurses. The top three symptoms nurses had at least a little trouble with included feeling blocked into getting things done, feeling tense and keyed up, and feeling easily annoyed or irritated. The intensive care unit is seen as a highly charged, specialized area for the treatment of seriously ill patients. As a result of the large quantity of work involved, caring for critically ill persons can be difficult. Compounded by the variety, complexity, and urgency of the work tasks, the critical care nurse feels pressured into getting his/her work completed as efficiently and timely as possible. As a result, the critical care nurse is characterized as being anxious over the possibility of making mistakes in matters of life and death (Foster, Froehling, & Gentry, 1972). Norbeck (1985) found six factors were related to psychological symptoms; physical setup of the unit, noise level on the unit, numerous pieces of equipment and its failure, physical injury to the nurse, meeting the psychological needs of the patient, and communication problems with unit nurses.

No statistically significant correlation existed between job stress and psychological symptoms as a result of a rather low mean score (57) on the Job Stress Scale. If job stress had been measured following

House's model, positive and negative situations would have been tested. The sample would have been asked how stressed they felt by the situation described in the last six months. How a stressor is interpreted, whether positive or negative may affect how the nurse responds. How an individual perceives a situation may or many not be perceived as stressful, regardless of the resources available.

The critical care nurse may view the positive stressors as challenging rather than threatening as a result of adequate preparation for working in the critical care environment. Whereas, negative stressors may potentially affect a nurse's perception of job satisfaction if there were many negative stressors present.

Norbeck's (1985) study utilized the Questionnaire of Stressful Factors in the Intensive Care Unit by Huckabay and Jagla (1979) to measure perceived job stress of the critical care nurses. The current study utilized the Job Stress Scale adopted for use with general inpatient and outpatient nursing staff. The items selected were developed based on items that were identified as stressful by general inpatient and outpatient nurses. Although these items might be perceived as stressful for these nurses, they might not be perceived as stressful for the critical care nurse

who has received specialized training to work in the critical care environment. The Job Stress Scale did not provide a direct measure of job stress and this may have contributed to the low scores obtained on the instrument. Some of the items on the questionnaire simply indicated that a situation existed, while others captured the individual's concern which may also have contributed to the low score on the instrument.

A more complete model of stress and coping with the demands of critical care nursing might include variables that co-exist with the work situation, as well as types of management that might influence the perceived stressfulness of the work environment.

Implications

The findings from this study could be useful to nursing administrators and nurse managers in several ways. First, perceived job satisfaction in critical care nursing is related to perceived job stress. Research has shown that job stress has been linked to adverse effects on the nurse's biophysiological and psychological systems, however, this study did not support those results. Research does support the fact that stress decreases efficiency, morale, and work performance, ultimately affecting patient care (Huckabay & Jagla, 1979). Increasing job satisfaction in critical care nurses should be a priority to decrease job stress

and its adverse effects.

A regular forum could be provided for all interested personnel where issues involving strong feelings such as the unnecessary prolongation of life could be discussed. Keeping the lines of communication open is very important. Regular opportunities should be made available to the staff to ventilate feelings, share problems, experience mutual support, and demonstrate positive morale to each other.

In order to decrease stress in the environment, nursing administrators and nurse managers should be better trained in management methods, including interpersonal relationships and dealing with the motions and conflicts of personnel. The factors that were identified as stressful are conducive to change by nursing administration. The findings show that continued efforts to advocate for necessary equipment, availability of group and individual counseling for nurses, providing adequate staffing to promote continuing education and to review ethical guidelines to reduce the unnecessary prolongation of life are necessary to help decrease those factors the nurses found stressful.

Although the nurses in this study did not have high levels of perceived job stress, it would still be beneficial to have nursing educators teach stress

reduction techniques to all nurses. Assertiveness skills need to be taught to all nurses so they may learn to deal effectively with difficult situations. In addition, effective communication and conflict resolution skills need to be taught to nurses so they can deal effectively with people and complex situations.

Limitations

In evaluating the present study it must be remembered that the data was derived from a small urban hospital that may not be representative of other hospitals. The sample size was small and may not have been representative of the entire population. The nurses may not have answered the questionnaires honestly if they thought it would result in some form of disciplinary action from their employer. However, nurses were assured of anonymity prior to participating in the study. Nurses who were experiencing personal problems outside of the work environment may have let their personal problems affect their response to some of the questions contained in the questionnaires.

This study did not evaluate the effects of work experience and shift assignment on job stress which may affect perceived job satisfaction and the presence of psychological symptoms. Other conditioning variables, such as marital status, social support, age, and educational preparation were not studied, but may in

fact have a significant outcome of the level of job stress experienced by nurses.

Recommendations

The Job Stress Scale did not provide the best measure of perceived job stress in critical care nurses. Further research is needed with more refined instruments to measure perceived stress to validate this study's findings and to discover additional stressors which may decrease the quality of the work life. Instruments are needed that can measure job stress more directly. Replication of this study using an instrument specifically designed to measure perceived job stress of critical care nurses would help determine if using a different tool affects the relationship between job satisfaction and perceived job stress, and perceived job stress and psychological symptoms.

Utilizing advanced statistics would allow an individual to test the direction of the influence between job satisfaction and perceived job stress. Correlational statistics can only determine if a relationship exists between the variables, it does not provide information on the direction of that relationship.

The effect of job stress on additional outcome measures, such as other health outcomes, absenteeism, job turnover, and job performance in relation to patient

welfare also need to be studied. The role that conditioning variables, such as, personality, locus of control, ego strength, social support, age, educational preparation, anxiety proneness, work experience, and shift assignment need to be studied to determine how these variables affect job stress, job satisfaction, and psychological symptoms.

Generalizations made from this study's findings are limited to staff nurses who met the selection criteria. To promote external validity, further research with larger, more geographically representative samples, including men and women is warranted. Research involving critical care nurses and medical-surgical nurses is also needed to determine if previous findings are valid or if results of studies are changing.

APPENDICES

APPENDIX A

PLEASE NOTE

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

58-60 Job Stress Scale
61-62 Nursing Job Satisfaction Scale

University Microfilms International

APPENDIX B

APPENDIX C

APPENDIX C

Brief Symptom Inventory

Note: Dr. Derogatis does not give permission for any of his testing instruments to be included in the appendix section of dissertations/theses. He does allow the reproduction of nine items from any test, but no more than two items from each dimension.

Examples of items included on the Brief Symptom Inventory

1. Trouble remembering things
2. Feeling blocked in getting things done
3. Your feelings being easily hurt
4. Feeling inferior to others
5. Feelings of worthlessness
6. Feeling tense and keyed up
7. Feeling easily annoyed or irritated
8. Others not giving you proper credit for your achievements
9. Trouble falling asleep

APPENDIX D



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

May 20, 1992

Barbara L. Hooper
37615 Arbor Woods Drive
Livonia, MI 48150

Dear Barbara:

The Human Research Review Committee of Grand Valley State University is charged to examine proposals with respect to protection of human subjects.

Your proposed project entitled "*Perceived Job Stress, Job Satisfaction and Psychological Symptoms in Critical Care Nursing*" 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.

Specifically, your proposed project qualifies as exempt by satisfying the criteria listed in section 46.101 sub part (b) of the Federal Register 46 (16):8336, January 26, 1981).

Since your proposed surveys pose no perceived risk to the subjects, are voluntary and confidentiality is assured, I am satisfied that you have complied with the intent of the regulations published in the Federal Register 46(16):8386-8392, January 26, 1981.

Sincerely,


Paul Huizenga, Chair
Human Research Review Committee

APPENDIX E

APPENDIX E

Consent Form

June 6, 1992

Dear Health Professional,

Critical care nursing is a highly charged and exciting area of nursing. As the number of beds in critical care units increases as a result of improved and new technology, it's important to understand how critical care nurses view this area of practice. Such an understanding is essential to being able to provide resource to support critical care nurses.

You, because you are employed in a critical care setting, have been selected to participate in a study to determine how you feel about working in critical care. Your response will help researchers determine how critical care nurses view their role in critical care and determine if changes need to be made to increase the well-being of the critical care nurse.

You may be assured of complete confidentiality. It is not anticipated that you will be harmed in any way by participating in this study. Please do not place your name on any of the questionnaires. Reports and papers will never discuss individual findings, and will include only group data. The questionnaires take approximately 30 to 45 minutes to complete. After you have completed and responded to all the questions, please return your completed questionnaires in the envelope provided. Please return questionnaires by June 24, 1992.

By returning the questionnaires, consent is applied to have the data included in the study. If you are interested in a summary of the results, please indicate this on a separate piece of paper by stating: "results requested" and printing your name and address. Do not put this information on the questionnaires.

Thank you in advance for your prompt response and participation in this study. If you have any questions or concerns, please feel free to contact me at the

address or phone number listed below. Again, thank you
for your cooperation.

Sincerely,

Barbara Hooper RN, BSN
37615 Arbor Woods Drive
Livonia, MI 48150
(313) 953-5853

APPENDIX F

APPENDIX F

Demographics Form

Directions: Please check the appropriate spaces below.
The information will be used to determine
the sample population.

54. What is the highest education completed?

- 1. ☐ Diploma
- 2. ☐ ADN
- 3. ☐ BSN
- 4. ☐ MSN
- 5. ☐ Other, please specify _____.

55. Are you currently a GN waiting to take boards?

- 1. ☐ Yes
- 2. ☐ No

56. Do you work?

- 1. ☐ Part Time (less than 72 hours in two weeks)
- 2. ☐ Full Time (at least 72 hours in two weeks)
- 3. ☐ Resource (as needed)
- 4. ☐ Weekend Alternative (every other weekend)
- 5. ☐ Primetime Weekend (every weekend)

57. What shift do you work?

1. _____ Days
2. _____ Evenings
3. _____ Nights
4. _____ Rotate between shifts

58. What shift do you prefer to work?

1. _____ Days
2. _____ Evenings
3. _____ Nights
4. _____ Rotate between shifts

58. Do you work?

1. _____ 8-hour shifts
2. _____ 10-hour shifts
3. _____ 12-hour shifts
4. _____ Other, please specify _____

59. How long have you worked in critical care?

1. _____ Less than 6 months
2. _____ 1 to 2 years
3. _____ 3 to 4 years
4. _____ 5 to 7 years
5. _____ 8 to 10 years
6. _____ greater than 10 years

60. Are you ever the charge nurse on your unit?

1. _____ No

2. _____ Yes, how frequently ? _____

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