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PREDICTORS OF STRESS
IN NEONATAL INTENSIVE CARE NURSES

A Thesis

Presented for the

Master of Science in Nursing

Degree

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Elizabeth Ann Belcher

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ABSTRACT

Working in neonatal intensive care units (NICU's) can be very stressful to nurses. Increasing attrition rates among nurses have contributed to the growing interest in investigating stressors affecting nurses. The purpose of this descriptive study was to examine factors related to stress in NICU nurses. The Neuman Systems model was used as the framework for this study.

This study identified factors that are potential stressors and satisfiers in the NICU as reported by nurses in a 600 bed metropolitan hospital in the southeast. The majority of nurses (92.5%) felt that nurse staffing was only rarely or occasionally adequate. The majority of nurses felt that their job was stressful.

Most frequent hassles and uplifts among NICU nurses were reported. "Concerns about weight" was the most frequently selected hassle. "Getting love" was the most frequently selected uplift.

A positive correlation was found between tenure of nurses and the amount of social support they have. Coping strategies utilized by NICU nurses were identified.

Interventions with staff nurses based on the results of this study are discussed. Recommendations for further research are specified.

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CHAPTER I

INTRODUCTION

Working in an Neonatal Intensive Care Unit (NICU) can be both very rewarding and very stressful. The nature of an NICU forces neonatal nurses to deal with life and death situations that evoke moral and ethical dilemmas. Nurses are bombarded with constant sensory stimuli on a daily basis. Problems common to all nurses such as inadequate staffing and poor relationships with physicians and other health care team members likewise affect the neonatal nurse. High attrition rates in nursing are creating a growing interest in examination of stress associated with the nursing profession. Investigation of stress has been identified as one of the top research priorities facing nursing (Kelly & Cross, 1985).

Dealing with death and dying can be emotionally draining for nurses. A large portion of terminally ill infants, such as those born with severe birth defects, are cared for only by neonatal nurses. The birth of a premature infant can shatter the expectations of a

family. The neonatal nurse must provide emotional support to families in addition to providing intense physical care for their children.

Moral and ethical issues arise frequently in NICU's. Treatment regimes for the very premature infant, the infant with birth defects, and other infants with questionable viability can cause conflicting feelings for both parents and caregivers. The future quality of life of an infant must be considered on an ongoing basis.

The NICU is filled with equipment representing the latest technological advances. Various monitoring devices help to provide quality care for neonates. The neonatal nurse must be able to operate this equipment efficiently. The nurse is confronted with an array of machinary noises and alarms, as well as other problems inherent in using sophisticated equipment.

NICU's are often housed in small, enclosed areas. Much of the space in an NICU is taken over by the equipment necessary to care for critical infants. Nurses must adapt to functioning in areas with limited work space.

Sick neonates are very susceptible to infections. Precautions to prevent transmission of disease to these infants such as strict handwashing procedures and wearing

scrub clothes before entering the unit limit the ability of the neonatal nurse to easily leave the unit for a quick break from the intense work experience. These precautions further isolate the NICU from the rest of the institution.

Many NICU's allow family members to visit their children around the clock. The neonatal nurse must repeatedly interact with family members and must become comfortable performing nursing procedures under the scrutiny of a patient's family. This added pressure is not as common in other types of intensive care units.

Inadequate nurse staffing is a problem faced in most settings. High patient census and increased acuity of patients cause an increased need for nurses. Nurses rarely have control over the admission of new patients to the unit and are sometimes required to provide care with insufficient numbers of nursing staff present.

Every nurse needs to be able to work effectively with other members of the health care team. Neonatal nurses particularly must work cooperatively with a variety of caregivers in a very confined physical space. Poor relationships with physicians, respiratory therapists, social workers, nutritionists, and other

members of the health care team can be quite stressful to the nurse. Open communication is essential for optimal functioning of the unit.

Variations between individual nurses exist. Not all nurses in the same environment experience the same degree of stress. Individual perceptions can vary significantly and can be influenced by many life factors. Nurses employ different coping methods to help alleviate the stress they experience.

Purpose

The purpose of this study was to examine factors related to stress in NICU nurses.

Question

1. What factors are identified as stressors and satisfiers by NICU nurses?

Subsidiary Questions

1. What factors are identified as daily hassles by NICU nurses?
2. What factors are identified as daily uplifts by NICU nurses?
3. Is tenure of nurses related to social support?

4. What methods of coping are used by NICU nurses?

Conceptual Definition of Terms

The following terms are defined to clarify their meaning in the context of this study:

Stress is defined using Lazarus' (1981) cognitive appraisal theory. The transaction between the person and environment is appraised as being irrelevant, positive, or stressful. If stressful, the event is further appraised as being challenging, threatening, or involving harm or loss.

Coping is defined as "behaviors directed at modifying the stressors, redefining the situation, or reducing stress" (Chiriboga, Jenkins & Bailey, 1983, P. 295).

Social support is defined using Kahn's (1979, p.85) definition as "interpersonal transactions that include one or more of the following: the expression of positive affect of one person toward another; the affirmation or endorsement of another person's behaviors, perceptions, or expressed views; the giving of symbolic or material aid to another".

Hassles may be defined as "the irritating,

frustrating, distressing demands that to some degree characterize everyday transactions with the environment" (Kanner, Coyne, Schaefer, & Lazarus, 1981, p.3).

Uplifts are defined as positive experiences or the opposite of hassles (Kanner et al., 1981).

Theoretical Basis

The Neuman Systems Model was used as a framework for this study. The primary concepts in this model are the individual's interactions with the environment and stressors that arise from the environment. This model can be applied to individuals, groups, and even communities (Neuman, 1982).

Neuman views the individual as a system comprised of physiological, psychological, sociocultural, and developmental variables. The individual is seen as having a central structure that is unique to the person, but which has similar characteristics to the central structures of other people. This inner core is surrounded by lines of resistance that protect the individual from stressors. These lines of resistance are surrounded by the normal line of defense of the individual which can be viewed as the person's general state of health or adaptation and consists of a range of

normal responses. A flexible line of defense surrounds the normal line of defense. The flexible line is dynamic, and can vary situationally in the resistance to stressors it provides (Neuman, 1982).

Many variables determine an individual's reaction to stressors. Variations in the individual's central structure and past experience in coping with stressors can influence the strength of the lines of defense. The nature, intensity, and perceptions of stressors can all impact on resistance (Neuman, 1982).

Neuman (1982) conceptually defined environment as "all factors affecting and affected by the system". She viewed stressors as part of the environment and considered them intrapersonal, interpersonal, and extrapersonal.

Using this model, health can be viewed as stability or a state in which the lines of defense prevent the intrusion of stressors. Nursing is concerned with the total person and maintenance of the stability of the individual system.

Prevention of problems involves three levels of intervention. Primary prevention is aimed at eliminating contact with potential stressors and with strengthening the lines of defense. Secondary prevention is aimed at

early recognition of problems and dealing with them. Tertiary prevention has as its goal the maintenance of stability, education to prevent future problems, and adaptation to the present circumstances.

This model provided a basis for data collection in this study. Factors that could be potential stressors for the individual were examined. This justifies the collection of information related to possible stressors in both the home and work environments. Positive experiences and social support can possibly strengthen the lines of defense and thus, were investigated.

This model provided a framework for examining the inner core of an individual, the lines of defense, and the effect of stressors. The model also provided a basis for examining a group of individuals with common potential stressors.

Prevention of problems for nurses can occur on all three levels of Neuman's model using information gained from this study. Identified stressors can be eliminated or reduced. Stressors can be identified earlier and hopefully, effective interventions can be initiated. Finally, educational programs can be structured to include discussion of potential stressors and positive ways of dealing with them.

Objectives of the Study

This study attempted to identify the major stressors and satisfiers affecting nurses in a neonatal intensive care unit. This information may assist nurse managers to closely examine environments and provide a basis for initiating change. Problems specific to NICU's may also become evident.

Groups of nurses experiencing greater levels of stress may be recognized. Early identification of risk groups is essential to prevention and/or alleviation of stress.

Finally, this study attempted to identify positive coping strategies used by nurses. Hopefully, these strategies can be taught to other nurses to help decrease their levels of stress.

CHAPTER II

REVIEW OF LITERATURE

This chapter provides a review of literature related to this study. Major topics discussed are stress, coping, and social support.

Stress

Many variables have been identified as being particularly stressful for nurses. Factors other than those in the immediate work environment affecting nurses are increasingly being investigated as mediators of stress levels. The extent of a nurses' social support is a factor under inquiry. Understanding the ways that nurses cope with stressors is crucial to understanding the impact of these stressors.

This review will include an examination of theoretical views of stress. Stressors affecting nurses will be discussed. An examination of other factors affecting stress levels both theoretically and operationally will follow.

Nurses have a vast interest in the concept of stress as evidenced by large numbers of articles published in nursing journals. Lyon and Werner (1987) reported 976 such articles between 1956 and 1987. Stress has been theoretically and operationally defined in various ways. In the reported studies, stress has generally been viewed as a stimulus, a response, or a transaction. In some studies, however, no theoretical base was identified.

When viewed as a stimulus, stress is seen as causing a disrupted response. Nurses working from this viewpoint have based their studies primarily on the work of Holmes and Rahe (1967). They incorporated concepts from medicine and psychology into the theory that stressful life events trigger psychological and physiological reactions that have a causative role in many diseases. A resultant coping or adaptive response of the involved person was common to all events classified as stressful. Holmes and Rahe suggested universal agreement on the significance of the life events regardless of social, cultural, or individual differences.

Several problems are inherent in using this approach to stress measurement. The instruments

developed by Holmes and Rahe (1967) are easy to administer, but assume that all individuals react to life events in the same manner. The predictive value of these instruments is questionable. Finally, a discrepancy exists in viewing human experiences. The stimulus model sees all persons as having similar reactions to events, whereas nursing generally views responses as individualized with the potential for many different reactions (Lyon & Werner, 1987).

The major proponent of stress as a response is Selye (1976). Stress is defined in his work as "the nonspecific response of the body to any demand". Selye described a general adaptation syndrome (GAS) initiated by any stressor. Physiologically stressed tissues send a chemical alarm to the nervous system which signals the endocrine glands. Glucocorticoid hormones and mineralocorticoid hormones are released and work together to combat the stressor. The response to stress consists of the direct effect of the stressor, the attempts of the body to defend against or destroy the invader, and tissue surrender. The stages of the GAS, then, are the alarm reaction, the stage of resistance, and the stage of exhaustion. Only the most severe stressors will lead to the third stage. Most

physical and mental stressors will produce responses characteristic of the first two stages.

In commenting on nursing stress, Selye (1976, p.375) stated that "conscientious nursing of difficult patients is also highly distressful, particularly for the nurses of intensive care units". In this model the response to stressors, however, is always the same regardless of the cause and includes a large physiological component. The problem again, is that no allowance is made for individual differences.

Approaching stress from a transactional perspective leads to a view of stress as an interaction between the individual and the stressor. The cognitive appraisal approach of Lazarus (Lazarus & Folkman, 1984) is the usual conceptual underpinning for studies using a transactional focus. Lazarus' definition of stress is "any event which environmental or internal demands (or both) tax or exceed the adaptive resources of an individual, social system or tissue system". Nursing's view of individuals is congruent with a transactional view of stress. This approach also helps identify variables that may be amenable to change (Lyon & Werner, 1987).

Studies on nursing stress in intensive care units began appearing in the literature shortly after these units opened in the 1950's (Stehle, 1981). The early work was primarily observational and described types of stressors affecting nurses. Many of these studies were based on subjective impressions of staff and anecdotes (Gentry & Parkes, 1982). More recent efforts tend to use instruments to measure stressors and their particular effects on nurses.

The suggestion has been made that different types of units may be more stressful than others (Cross & Kelly, 1983; Gentry & Parkes,1982; MacNeil & Weisz, 1987; and Maloney, 1982). Several studies have compared stress levels of ICU nurses with non-ICU nurses. Differing results have been found as to which areas are more stressful.

There is a trend in the literature toward identification and inclusion of closely linked constructs in stress studies, including measures of coping, social support, and other influences outside the work environment which have facilitated the study of work stress (Jacobson, 1983; MacNeil & Weisz, 1987; Spoth & Konewko, 1987; Stone, Jebsen, Walk, & Belsham, 1984).

Based on a review of the literature, Harris (1989) compared stress of nurses in ICU and non-ICU environments. The same trends emerged regardless of the type of nursing unit in which nurses worked. Increased daily hassles led to increased stress, and somatic complaints stemmed from the increased stress. Nurses who were single, younger, less experienced, less prepared educationally, and unable to anticipate problems at work experienced greater environmental stress and anxiety. The increased stress and anxiety led to alienation, burnout, job dissatisfaction, and eventually increased turnover.

Work stress can negatively affect nurses leading to decreased efficiency, job dissatisfaction and staff turnover (Gray-Toft & Anderson, 1981). An analysis of what mediates work stress is essential to help combat a problem which seems inherent in neonatal nursing. MacNeil and Weisz (1987) utilized the General Health Questionnaire to measure psychological distress in nurses. They found that the nurses had a high percentage of scores at the level where intervention such as counseling is recommended. They felt that due to the nature of nursing, scores in high ranges were intolerable.

Spoth and Konewko (1987) replicated the findings of earlier studies that reported work overload and dealing with death and dying as significant stressors. Working with dying patients is inevitable in an NICU or ICU of any type. Sudden deterioration in an infant's condition was found to be considerably stressful by Astbury and Yu (1982).

Sources of work stress and satisfaction among ICU nurses were identified by Grout, Steffen, and Bailey, (1981). The factors cited as most stressful related to management of the unit and included "inadequate staffing" and "apathetic, incompetent staff". Conflict with other members of the health care team, particularly physicians, was also ranked as stressful. The most satisfying aspects reported were "patient improvement, close patient contact, and opportunities for learning and a challenging environment". They also cited lack of support in dealing with death and dying, unresponsive nursing leadership and problems with the physical environment as stressors reported by ICU nurses in a stress audit.

Spoth and Konewko (1987) also found that common environmental stressors such as frequent interruptions and delays from ancillary personnel (the pharmacy, the

laboratory, etc.) contributed significantly to overall stress levels. The work of Chiriboga and Bailey (1986) suggests that day to day distractions and annoyances are major contributors to increased stress levels of nurses.

Inadequate staffing is most frequently cited as the major stressor affecting nurses. Astbury and Yu (1982) reported this variable as the chief stressor facing NICU nurses. Gentry and Parkes (1982) reported that the primary source of stress for ICU nurses was work overload as a result of inadequate staffing. Unfortunately, due to nursing shortages, inadequate staffing may become a self perpetuating stressor.

According to Spoth and Konewko (1987), feeling responsible for a dying patient, perceiving that the patient is needlessly suffering, and worrying about potential errors which may affect patient outcomes added to the overall stress of working with critically ill patients.

Nurses often must avoid expression of their own feelings in order to adequately care for critical patients and their families. Possession of an innate ability to immediately cope is assumed. This can add to the stress of nursing (Holland, 1987).

No relationship between age or nursing experience and stress levels was found by Spoth and Konewko (1987). Conversely, findings that younger, less experienced nurses have higher stress levels have been reported by Chiriboga and Bailey (1986). Gentry and Parkes (1982) also found that less experienced nurses had more difficulty with work overload than experienced nurses. Due to these discrepancies, further investigation in this area is indicated.

Wilson (1987) stated several reasons for why nurses leave the field of nursing. Often few opportunities for advancement are available and all a nurse's "hard work gets is more hard work". The "day-in, day-out drudgery" nurses face in a job with relatively few rewards are the major reasons why nurses leave the profession.

ICU nurses likewise, rarely receive additional compensation or increased opportunities for advancement even though they generally have advanced training or preparation to work in these areas and usually face increased numbers of stressors (Wilson, 1987).

Perceptions of nursing by other members of the health care team and the public has an impact on the stress of nurses. The public views the goal of a

nursing career as exclusively altruistic. The fact that a nurse may wish to advance professionally and economically is rarely considered. Nurses are educated to be accountable and independent, but employers and physicians often feel that nurses are there just to follow orders and carry out treatments (Wilson, 1987).

A discrepancy between the responsibility of nurses and the actual authority of nurses adds to the frustration level. In NICU's the nurse remains at the patient's bedside taking on the responsibility for accurate observations and provision of care. The actual treatment decisions are usually made by physicians, who are generally only at the patient's bedside for brief moments due to a wide range of other duties. Stress is inherent in this situation as nurses have a wealth of relevant information regarding patient status and heavy responsibility regarding patient care but a very limited role in planning treatment (Marshall & Kasman, 1980).

Spoth and Konewko (1987) found that some stressors generally related to patient care are ranked highly by all nurses working in ICU's. Variations in scores in some categories of stressors between types of units suggest a need to examine specific stressors in each

type of ICU.

Characteristics specific to a particular unit such as the clarity of roles and staff interactions may be part of the reason for variations in stress levels between units (Gray-Toft & Anderson, 1981). While most studies report similar findings, stressors particular to each unit should be identified to gain insight into individual needs or problem areas.

The Stress Management Project conducted by Bailey, Steffen and Grout (1980) reported that identification of stressors depends on the individual appraisal of the nurse. There are many demands in the ICU environment that are potential stressors, becoming real stressors only when the nurse is unable to cope with them.

Kanner, Coyne, Schaefer and Lazarus (1981) found that stress measurement by assessment of daily hassles rather than major life events was a more accurate predictor of psychological symptoms. Hassles include everyday problems and annoyances in the physical and social environment such as the weather, traffic, financial problems, arguments, and disappointments. No person can totally avoid hassles, but some people may be faced with more hassles than others.

An assessment of daily uplifts was also included in the study by Kanner et al (1981). Uplifts can be considered positive experiences that serve as buffers against negative experiences. Examples of potential uplifts are getting enough rest, spending time with family and friends, and a fulfilling love relationship.

Frequency scores of hassles and uplifts were consistent from month to month in the study by Kanner, et al (1981). Content themes of the most frequently cited hassles emerged from sample to sample, consistent with the age and characteristics of the group.

Measuring stress levels by the cumulative effect of minor stressors both at work and away from work is well supported. Due to the multidimensionality of stress and the interaction between stressors at work and outside work, measures of hassles in both environments help to give a more complete picture of stressors affecting nurses.

Chiriboga and Bailey (1986) in a study of nurses found that as the Hassles score increased, the burnout score of nurses increased, demonstrating the importance of examining everyday frustrations and problems.

Kanner, Coyne, Schaefer and Lazarus (1981) found that for women, uplifts are positively related to life

events, psychological symptoms and negative affect. Kanner, Kafry and Pines (1978) found that absense of positive conditions as well as presence of negative conditions were independent of each other and were both sources of stress. Inclusion of a measure of positive events or uplifts in a sample of nurses who are predominantly female seems to be a vital component of stress measurement.

Social Support

Schaefer, Coyne, and Lazarus (1982) delineated three types of social support: emotional support, tangible support, and informational support. Emotional support contributes to the feeling of being loved or cared about. Tangible support refers to direct aid and services. Informational support consists of advice, feedback and information giving.

Social support refers to the "nature of the interaction occurring in social relationships, especially how these are evaluated by persons as to their supportiveness" (Sarason, Levine, Basham, and Sarason, 1983). Kahn (1979) defined social support as "interpersonal transactions that include one or more of the following: the expression of positive affect of one

person toward another; the affirmation or endorsement of another person's behaviors, perceptions, or expressed views; the giving of symbolic or material aid to another".

Attachment, social integration, opportunity for nurturance, reassurance of one's worth, a sense of reliable alliance, and obtaining guidance are listed as essential functions for well being by Weiss (1974). Granovetter (1973) maintained that emotional support is received from strong ties and only transmission of information comes from weak ties. He stated that strong ties are characterized by the reciprocal nature of the relationship, its longevity, the intensity of emotions and overall intimacy.

Cobb (1976) defined social support as information that makes a person feel that he or she is loved, esteemed, or part of a mutually obligatory relationship. He maintained that unlike other kinds of support, social support promotes independence and decision making.

Social support is described as necessary "throughout the lifespan, involving interpersonal interactions that produce a sense of belonging, and communication of positive affect (Muhlencamp and

Sayles, 1986). Weinart (1987) defined social support based on the following dimensions: provision for attachment/intimacy, social integration, opportunity for nurturant behavior, reassurance of worth as an individual, availability of informational, emotional and material help. Weidenbach (1964) defines support as anything which strengthens the individual's ability to function capably and to function to his or her satisfaction.

Dimond and Jones (1982) conceptualize social support as being comprised of four categories. These are relational provisions, information, structure and interaction. Relational provisions include attachment, social integration, nurturance, reassurance of worth, alliance, and guidance. Information is defined as that which makes a person feel cared for, esteemed, and a member of a mutual relationship. Structure refers to the size, density, proximity and characteristics of the members of a person's social support system. Interaction encompasses the content, reciprocity, and intensity of the relationship.

Spoth and Konewko (1987) identified social support as an important variable in making work stress more tolerable for nurses. An individual's reactions to

potentially stressful events can be influenced by availability of people to discuss problems (MacNeil & Weisz, 1987). Bruhn and Phillips (1984) have linked level of social support to accidents, suicide and heart disease.

MacNeil and Weisz (1987) found that ICU nurses tended to show greater alienation from confidants than other nurses. Decreased intimacy and closeness with friends were trends identified in this group of nurses.

As well as social support away from the job, support from physicians and nurse managers has an impact on stress levels of ICU nurses (Gentry & Parkes, 1982). The nurse manager's responsibility to recognize stressors affecting staff nurses and to support these nurses has been proposed by many researchers (Bailey, Steffen, & Grout, 1980; Friedman, 1982; McCranie, Lambert, & Lambert, 1987).

Jennings (1987) found that support at work helps to deter work stress. Even though married workers had families and social support to draw from at home, support at work had a greater impact on work stress. The interrelationship between social support and coping styles may have more of an impact on work stress than either of these factors individually.

Coping

Coping is defined by Lazarus and Folkman (1984, p. 141) as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person". This definition classifies coping as behaviors aimed at dealing with stress and disregards automatic behaviors of the individual that do not require thought or effort. All efforts can be included and examined regardless of how well they work.

Forms of coping can be divided into two categories, emotion-focused and problem-focused (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). Emotion-focused forms of coping are generally behaviors that are aimed at decreasing emotional distress and include defensive actions, such as reappraisal, avoidance, and selective attention. An element of self deception is usually present in emotion-focused coping. These strategies are usually viewed as less effective than other strategies. Emotion-focused coping is used more frequently in situations where change is viewed as impossible or unlikely.

Problem-focused coping is generally directed toward problem solving and includes both actions and

cognitive processes. Problem-focused strategies are used more frequently in situations appraised as amenable to change (Lazarus & Folkman, 1984).

Folkman, Lazarus, Dunkel-Schetter, Delongis, and Gruen (1986) found that more than one coping strategy may be employed in a situation. A person may have an impulse to use confrontive strategies and at the same time may feel the need to use more restrained behavior in dealing with the situation.

Coping stategies can be further classified as confrontive coping, accepting responsibility, and escape-avoidance. These subscales of coping behavior have been identified in several studies using the Ways of Coping Scale (Aldwin & Revenson, 1987; Folkman & Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, DeLongis, 1986; Lazarus & Folkman, 1984).

The subscales developed from each study are very similar regardless of sample characteristics. Samples in the various studies included undergraduate students, married couples, and a diverse sample of adults ranging in age from 18-84. The coping strategies used by the subjects varied in relation to how the subject viewed the encounter. If the subject felt that the situation

was amenable to change, strategies such as confrontive coping, accepting responsibility, planful problem solving, and positive reappraisal were used. Situations viewed as nonamenable to change provoked responses such as distancing and escape-avoidance.

No particular strategies are universally considered better than others, although in particular situations some specific ones are better than others. Coping is not mastery over the environment, but is that quality which aids a person in dealing with problems that cannot be controlled or mastered (Folkman and Lazarus, 1984).

In work with air traffic controllers, Jenkins (1979) found that for those subjects with decreased coping resources, there was a strong association between work stress and psychological problems.

Parkes (as cited by Gentry and Parkes, 1987) states that individual nurse's personalities, stressful events and a nurse's perception of events determine coping strategies used. Particular coping strategies can enhance positive aspects of situations as well as lessen bad or harmful aspects of situations.

Chiriboga, Jenkins and Bailey (1983) found that they could predict adaptive status of nurses with the

coping strategies they identified. Adaptive status was a measurement that encompassed work satisfaction and work effectiveness. Nurses using rational actions as coping strategies had higher scores on adaptive status measures which is an indication of more favorable outcomes. Rational actions included accepting limitations and doing what was necessary in the particular situation. Identification of positive coping means is essential in beginning to alleviate the stress of nursing.

Summary

Various theoretical bases have been employed in investigating stress of nurses. The transactional approach appears to be the most congruent with a holistic perspective and most useful in identifying factors that can be controlled.

Although the concepts are difficult to quantify, trends in nursing stress research have moved from descriptive studies to empirical studies. Many factors have been identified as stressors affecting nurses. Work overload, inadequate staffing and dealing with death and dying are frequently cited. Role conflicts and interpersonal problems can be stressful.

Variations in reported stressors between types of nursing units necessitate further investigation of each particular unit.

Factors outside the work environment can have an impact on nurses' stress. Everyday hassles and uplifts are important factors in stress measurement. The individual's social support can be a mediator in stress.

Coping strategies have been categorized as problem-focused or emotion-focused. While no particular strategy is universally appropriate, problem-focused approaches tend to be more effective in dealing with stress.

There has been difficulty in quantification of the concepts of stress, coping and social support due to their abstract nature. Several instruments have been developed to measure these variables. Although many factors have been identified as stressors for nurses, each individual and nursing unit may experience different problems.

The present study was undertaken to investigate stressors particular to a nursing unit in order to identify areas that were problematic for staff to help launch successful interventions to allay stress or in

certain situations, prevent stress entirely.

A holistic view of individuals requires assessing factors outside the work environment and identifying their influence on the individual. Inclusion of measures of social support, hassles, uplifts, and coping strategies help provide a more complete picture of stress.

Discrepancies exist in the literature regarding the effect of work experience on work stress. Therefore, this study also included work experience as a variable. Identification of stress factors in a neonatal intensive care unit could eventually result in change and assist in the reduction of stress experienced by neonatal intensive care nurses.

CHAPTER III

METHODS

A description of the design and methodology utilized in this investigation is presented in the following sections of this chapter: research design, operational definitions, sample, instrumentation, and procedures.

Research Design

A descriptive correlational design was used to examine the factors related to stress and coping in NICU nurses. Factors that were examined in the study were tenure, social support, hassles, uplifts, potential work stressors and satisfiers, and coping strategies. Demographic data such as age, marital status, and educational level were also included.

Operational Definitions

Operational definitions that were used in this study are as follows:

Tenure was defined as the total number of months of nursing experience in this unit. This information was collected by use of a demographic data sheet (see Appendix A). Information such as age, total years of experience as an RN, and shifts worked were also included in this data sheet.

Social support was operationalized as the nurse's score on two dimensions of social support (functional and network) as measured by the Norbeck Social Support Scale (see Appendix B). This scale was developed in 1981 by Norbeck, Lindsey, and Carrieri.

Hassles were operationalized as scores on the Hassles Scale (see Appendix C) developed by Kanner et al.(1981).

Uplifts were operationalized as scores on the Uplifts Scale (see Appendix D) which was developed by Kanner et al. (1981).

ICU stressors and satisfiers were operationalized by using the ICU Stressors and Satisfiers Survey developed by Grout, Steffen, and Bailey (1981).

Coping of NICU nurses was operationalized as scores on the Ways of Coping Scale (see Appendix F) developed by Lazarus and Folkman (1984).

Sample

The sample was of a convenience sample of 40 nurses (55% of total nurses) employed in an NICU at a university affiliated medical center in the southeastern United States. Staff nurses in this setting are generally divided into four teams; two day shift teams and two night shift teams. Thus, the same group of nurses consistently work together. Individuals from all four teams were included in the sample.

Nurses included in the sample always work in this unit. Nurse are infrequently pulled to work in other nursing units within the pediatric department such as the newborn nursery or the pediatric intensive care unit.

Nurses hired to work in this unit had varying educational backgrounds. Nurses with associate degree, diploma, and baccalaureate preparation work in this unit. All new nurses completed an extensive orientation to the intensive care nursery comprised of both classroom and clinical training.

Experience levels of nurses varied in the unit. For some nurses, working in this unit was their first work experience while other nurses had previous experience in other nursing areas or in other NICUs.

Marital status of the sample varied. Some nurses

had children while others did not. A range of ages of employees was present.

No formal group or individual counseling was provided for these nurses by the employer. However, two social workers were employed in the unit to assist families and were willing to assist nurses with problems as well.

Instrumentation

The instruments used for data collection in this study were as follows:

The Norbeck Social Support Questionnaire

The instrument asks subjects to list up to 20 significant people in their lives and then answer 9 questions about them using a Likert scale. Construct validity for this scale has been established through significant correlations with two similar interpersonal constructs (Norbeck, Lindsey, & Carrieri, 1983).

The Norbeck Social Support Questionnaire was scored using the system developed by the authors. Total scores were added together on each of the first eight questions to obtain a score for that question. The scores from the first six questions were added together to obtain a total

functional score from the combination of questions related to affect, affirmation, and aid. The total number of people listed on the network were added to the scores from questions seven and eight to obtain a total network score. In the original testing by the authors, total functional scores ranged from 66-557, with a mean of 263.26 and a standard deviation of 135.47. Total network scores ranged from 25-206, with a mean of 107.68 and a standard deviation of 57.63 (Norbeck, Lindsey, & Carrieri, 1983).

A high degree of retest reliability was established when the instrument was administered to students and retested one week later. Intercorrelations between all the variables measured by the instrument helped test internal consistency of the instrument (Norbeck, Lindsey, & Carrieri, 1983).

The Hassles Scale

This scale asks subjects to use a three point scale to rate frequency and severity of 117 hassles. The scale has been used extensively in research. The researchers developed the scale by generating a list of hassles and incorporating items that the pilot subjects suggested. The scale was then tested with a group of 216 people from

a sampling frame that had been used in previous health research by the Almeda County Human Population Laboratory. The people ranged in age from 45-64 years of age.

Two scores can be generated from the Hassles Scale. A frequency is obtained by simply adding the total number of items checked. The range of scores could be 0-117. An intensity score is computed by adding the 3-point severity ratings, with a possible range from 0 to 351 (3 x 117), and dividing this score by the frequency score. This score indicates how intensely the hassles were experienced (Kanner, et al, 1981, p. 9). The initial scores by the authors of the Hassles Scale yielded a mean frequency of 22.4 with a standard deviation of 18.7. The hassles intensity had a mean score of 1.56 and a standard deviation of 0.43.

The Uplifts Scale

The Uplifts Scale was developed by Kanner et al. (1981) at the same time and in the same manner as the Hassles Scale. This scale lists 135 items that might make a person feel good and is scored in the same manner as the Hassles Scale. Initial scores reported by the authors of the Uplifts Scale showed a mean frequency

score of 69.5 with a standard deviation of 29.1, and a mean intensity score of 2.14 with a standard deviation of 0.53 (Kanner et al., 1981, p.11). In retest correlations, people tended to experience the same number of hassles and uplifts each month. Intensity scores tended to vary more monthly, showing more variation in the amount of pleasure or distress associated with the event (Kanner et al., 1981, p. 13).

The ICU Stressors and Satisfiers Survey

This survey consists of 43 items assessing potential environmental and interpersonal stress factors with a Likert type response format. The questionnaire was piloted with a group of ICU nurses followed by a regional survey of ICU nurses in the San Francisco Bay area. A national survey of members of the American Association of Critical Care Nurses has been done using the scale.

The ICU Stressors and Satisfiers Survey was scored by summing the frequency of responses in each of the four response categories of rarely, occasionally, frequently, and almost always. Percentages of the total group scores were then calculated in each response category from the sum score. The number in the original sample was 1238.

The frequency of responses in any category reported by the authors of the survey ranged from 5 or 0.4% to 840 or 67.9% (Grout, Steffen, & Bailey, 1981).

The Ways of Coping Scale

This scale consists of 67 items that represent ways to cope with situations. Respondents rate each of the items as not used, used somewhat, used quite a bit, or used a great deal. The scale was developed and revised through research by the authors and suggestions by subjects in the research. Scores are obtained by summing the ratings on each of eight subscales. Subjects used by the authors during scale development were married couples with women between the ages of 35 and 45, and men between the ages of 26 and 54 (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Each subscale consists of 4-8 items. Types of coping identified are confrontive coping, distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, planful problem-solving, and positive reappraisal (Folkman & Lazarus, 1988). These subscales are similar to subscales of a data set with 45-65 year olds as subjects (Aldwin et al.,

1980) and a data set with undergraduate students as subjects (Folkman & Lazarus, 1985).

Procedures

After human subject approval was granted by the college of nursing, the university, and the hospital review committees data collection was begun. Subjects were informed that the investigator was collecting information about NICU nurses and that it would take approximately thirty minutes to complete the questionnaires. Blocks of time when questionnaires could be completed were arranged during work shifts on all four teams. Times selected were the usual slower hours of each shift and weekends. The subjects were asked to complete the questionnaires at a time of convenience during the designated block of time on their work shifts. The participants were asked to use the time to complete the questionnaires as their allotted break time and refreshments were served to the participants.

Each subject was asked to read a cover letter (Appendix G) which included the purpose and significance of the study. A statement that completion of the questionnaires constituted informed consent for their use in research was included in the letter. The instruments

were numbered with a three digit number. Each subject's instruments had the same three digit number appearing on all questionnaires in order to identify all responses by the same individual. Individual scores on the questionnaires were not reported.

The questionnaires were completed by the subjects in a conference room near the nursery. The investigator was present in the room to answer any questions regarding the questionnaires.

Analysis of Data

All instruments used in the study were scored using the scoring systems developed by the respective scale authors. All descriptive data was reported by frequency of response and percentage of the sample responding in every category. The mean, range, and standard deviation for tenure and social support were reported. Pearson's product moment correlation was used to analyze correlations bewteen tenure and social support. Coping strategies were reported by the mean, range, and standard deviation of scores on each subscale. Results of these analyses are described and discussed in Chapter IV.

CHAPTER IV

RESULTS

This chapter provides information on testing of the questions associated with this study. Each question is stated and is followed by the analysis utilized to obtain the results. Included are tables that illustrate the findings.

Demographic Data of the Sample

The range, mean, and standard deviation of age and work experience of the sample are reported in Table 1. The mean age of the sample was 30.47 years old. Mean total experience as an RN was 94.30 months (7.85 years). Mean experience in the NICU was 51.1 months (4.25 years).

Educational level, marital status, and work shift of the sample are reported in Table 2. BSN, Diploma, and ADN graduates were all represented in the sample in relatively equal numbers. A majority of the sample were married (57.5%). Single and divorced nurses were also included. Nurses working both day and night shifts were included in the sample with the majority being day shift nurses (55%).

TABLE 1

Range, Mean, and Standard Deviation
of Age and Experience of 40 NICU Nurses

	range	$\bar{x}$	SD
Age (years)	22- 42	30.47	4.54
Total experience as an RN (months)	12-252	94.30	59.10
Experience in this unit (months)	1-108	51.1	27.52

TABLE 2

Educational Level, Marital Status, and Work Shift
of a Sample of 40 NICU Nurses
Reported by Frequency and Percentages

	f	%
Educational level		
BSN	14	35
Diploma	13	32.5
ADN	12	30
Not reported	1	2.5
Marital status		
Single	12	30
Married	23	57.5
Divorced	5	12.5
Work Shift		
Day 7am- 7pm	22	55
Nights 7pm- 7am	17	42.5
Rotating	1	2.5

Research Question

The research question asked: "what factors are identified as stressors and satisfiers by NICU nurses?". Analyzing the data from the ICU Stressors and Satisfiers Survey, factors selected as potential stressors and satisfiers by NICU nurses are reported in Table 3. Numbers in the not reported column represent unanswered questions or those marked not applicable by subjects.

In the area of patient care, most nurses felt comfortable in meeting the patient's physical needs and making patient care decisions. The majority of nurses felt that they frequently or almost always could provide quality nursing care under pressure. However, the majority of nurses felt that their job was stressful.

Many NICU nurses were distressed when neonatal patients had major setbacks or died. Caring for dying patients was upsetting frequently for 35% of the sample and occasionally for 40% of the sample.

A slight majority of nurses (55%) were only occasionally or rarely distressed by a fluctuating work pace. Forty five percent of nurses were frequently or almost always distressed by a fluctuating work pace.

In the area of interpersonal relationships, most nurses felt their knowledge and judgements were respected

TABLE 3

Results of ICU Stressors and Satisfiers Survey*
in a Sample of 40 NICU Nurses Reported
by Frequency and Percentage

Question	Response									
	not reported		rarely		occasionally		frequently		almost always	
	f	%	f	%	f	%	f	%	f	%
I. Patient Care										
1. I feel comfortable in meeting patients' physical needs.	0	0	0	0	3	7.5	6	15	31	77.5
2. I feel comfortable in making patient care decisions	0	0	1	2.5	3	7.5	15	37.5	21	52.5
3. I feel I can provide quality nursing care under pressure.	0	0	0	0	4	10	16	40	20	50
4. The unnecessary prolongation of life distresses me.	0	0	2	5	10	25	16	40	12	30
5. I am comfortable in my ability to meet patients' emotional needs.	0	0	0	0	6	15	23	57.5	11	27.5
6. My job is stressful.	1	2.5	0	0	3	7.5	15	37.5	21	52.5
7. I am distressed when patients have major setbacks or die.	1	2.5	0	0	7	17.5	14	35	18	45
8. Caring for dying patients is extremely upsetting for me.	0	0	2	5	17	42.5	15	37.5	6	15
9. I am distressed by a fluctuating work pace.	0	0	6	15	16	40	14	35	4	10
II. Interpersonal relationships										
1. A feeling of team spirit exists on my shift.	1	2.5	2	5	6	15	21	52.5	10	25
2. The immediate supervisor respects my judgement.	0	0	3	7.5	6	15	16	40	15	37.5
3. My expertise is respected by patients.	4	10	2	5	3	7.5	24	60	7	17.5
4. My knowledge is respected by my immediate supervisor.	1	2.5	2	5	7	17.5	22	55	8	20
5. I am able to cope with job stress.	1	2.5	1	2.5	5	12.5	20	50	13	32.5
6. My clinical knowledge is respected by co-workers.	0	0	2	5	8	20	22	55	8	20
7. My judgements are respected by physicians.	1	2.5	7	17.5	11	27.5	17	42.5	4	10

TABLE 3 (Cont.)

Question		Response									
		not reported		rarely		occasionally		frequently		almost always	
		f	%	f	%	f	%	f	%	f	%
8.	My family provides emotional support for me in my job.	1	2.5	4	10	8	20	18	45	9	22.5
9.	Physicians respect my knowledge.	1	2.5	6	15	15	37.5	17	42.5	1	2.5
10.	A feeling of team spirit exists between shifts.	2	5	8	20	22	55	8	20	0	0
11.	Physicians consider my judgements during emergencies.	2	5	11	27.5	10	25	13	32.5	4	10
12.	I have time to give emotional support to peers.	1	2.5	6	15	19	47.5	13	32.5	1	2.5
13.	I consider leaving ICU nursing because of stress.	0	0	13	32.5	15	37.5	7	17.5	5	12.5
14.	My clinical judgements are questioned by co-workers.	1	2.5	28	70	11	27.5	0	0	0	0
III.	Knowledge and skills										
1.	I feel confident in my abilities.	0	0	0	0	4	10	14	35	22	55
2.	I have sufficient preparation to operate specialized equipment.	1	2.5	0	0	3	7.5	17	42.5	19	47.5
3.	I am able to keep up with technological advances in the ICU.	0	0	0	0	3	7.5	19	47.5	18	45
4.	I feel that my knowledge is current.	0	0	0	0	5	12.5	20	50	15	37.5
5.	Working with specialized equipment distresses me.	1	2.5	22	55	16	40	1	2.5	0	0
IV.	Management of the unit										
1.	Physicians are available when I need them.	0	0	1	2.5	10	25	21	52.5	8	20
2.	I have time to give quality patient care.	1	2.5	2	5	17	42.5	19	47.5	1	2.5
3.	Staffing permits me to work a satisfying schedule.	2	5	6	15	23	57.5	8	20	1	2.5
4.	Adequate relief is regularly provided for lunch, coffee breaks.	0	0	7	17.5	19	47.5	14	35	0	0
5.	There is adequate staffing in the unit.	0	0	21	52.5	16	40	3	7.5	0	0
6.	Staffing allows me to attend continuing education events.	0	0	28	70	12	30	0	0	0	0

TABLE 3 (Cont.)

Question	Response									
	not reported		rarely		occasionally		frequently		almost always	
	f	%	f	%	f	%	f	%	f	%
7. Group of individual counseling is available to me at work.	0	0	29	72.5	11	27.5	0	0	0	0
8. Time prevents me from giving emotional support to the families of patients.	1	2.5	3	7.5	27	67.5	9	22.5	0	0
9. Patients are in the unit who do not need ICU care.	2	5	6	15	21	52.5	8	20	3	7.5
10. Opportunities for job advancement are available to me.	3	7.5	16	40	18	45	3	7.5	0	0
11. Time prevents me from giving emotional support to patients.	0	0	5	12.5	20	50	15	37.5	0	0
12. The pace in the unit is too rapid.	0	0	1	2.5	20	50	11	27.5	8	20
13. I participate in group or individual counseling at work.	1	2.5	33	82.5	6	15	0	0	0	0
V. Work environment										
1. A lack of work space distresses me.	2	5	0	0	21	52.5	13	32.5	4	10
2. High noise levels distress me.	1	2.5	1	2.5	17	42.5	13	32.5	8	20

*ICU Stressors and Satisfiers Survey is from Grout, Steffen, and Bailey (1981).

by coworkers and supervisors. To a lesser extent, they reported that their knowledge and judgements were respected by physicians. Only 45% of nurses felt that their knowledge was frequently or almost always respected by physicians. Only 42.5% of nurses felt that physicians frequently or almost always consider their judgements during emergencies.

Most nurses felt that they were able to cope with job stress. Only 30% of nurses frequently or almost always consider leaving nursing because of stress.

The majority (62.5 %) of nurses in the sample reported only rarely or occasionally having time to give emotional support to peers. Family members provided job related emotional support for the majority of nurses.

Most nurses felt that a feeling of team spirit existed on their shifts. Seventy five percent of nurses, however, felt that team spirit existed between shifts only occasionally or rarely.

The majority of nurses felt confident in their nursing expertise and abilities and felt comfortable operating specialized equipment. They also felt that their knowledge was current and they were able to keep up with advancing technology. Nurses were infrequently

distressed by working with technologically sophisticated equipment.

Management of the unit was the area where the greatest number of scores were at extreme ends of the survey scale. Problems with staffing accounted for the majority of these scores. The majority (92.5 %) of nurses in the sample reported only rarely or occasionally having adequate staffing in the unit. The majority (57.5%) also reported only occasionally having adequate staffing to permit working a satisfying schedule. Adequate relief for breaks and lunch was only occasionally or rarely available for 65% of the sample. Seventy percent of the sample stated that staffing rarely allowed for attendance at continuing education events.

The entire sample reported rare or occasional availability of individual or group counseling at work. Infrequent opportunities for job advancement were also stated.

The work environment itself was not extensively problematic for the sample with only 10% of nurses stating that they were almost always distressed by the lack of work space, and only 20% stating that they were almost always distressed by high noise levels.

Subsidiary Question 1

Subsidiary question 1 stated: "what factors are identified as daily hassles by NICU nurses?". The most frequently reported hassles by NICU nurse surveyed are presented in Table 4. "Concerns about weight" was the most frequently selected hassle with 67.5% of the sample selecting this item. Other hassles frequently selected dealt with amount of time spent resting, such as "not getting enough sleep", and "not enough personal energy". "Troubling thoughts about the future" was selected by 55% of the sample. Job dissatisfaction and worries about decisions to change jobs were selected by 50% of the sample.

The range, mean and standard deviation of scores on the Hassles Scale of this sample by work shifts is reported in Table 5. Day shift nurses had a higher mean score on the Hassles Scale than night shift nurses.

The range, mean and standard deviation of scores on the Hassles Scale are also reported by the marital status of this sample in Table 6. Married nurses had the lowest mean score on the Hassles Scale. Divorced nurses had a slightly higher mean Hassles score than the married nurses. Single nurses had the highest mean score on the Hassles Scale.

TABLE 4

Frequency and Percentage of Most Frequently Selected Hassles in a Sample of 40 NICU Nurses

Hassle		f	%
1.	Concerns about weight	27	67.5
2.	Not getting enough sleep	26	65
3.	Misplacing or losing things	24	60
4.	Not enough personal energy	23	57.5
5.	Troubling thoughts about your future	22	55
6.	Concerns about owing money	21	52.5
7.	Home maintenance (inside)	21	52.5
8.	Too many things to do	21	52.5
9.	Job dissatisfaction	20	50
10.	Worries about decision to change jobs	20	50
11.	Not getting enough rest	20	50

TABLE 5

Range, Mean, and Standard Deviation of Scores on the Hassles Scale and the Uplifts Scale reported by Work Shift in a Sample of NICU nurses*

	range	$\bar{x}$	SD
Hassles			
Total sample (n= 38)	7-78	25.73	14.82
Day shift (n= 21)	8-78	30.10	17.56
Night shift (n=17)	7-43	21.87	10.78
Uplifts			
Total sample (n= 38)	5-83	37.65	20.03
Day shift (n= 21)	5-83	38.43	23.93
Night shift (n=17)	9-59	36.00	14.73

*Data unavailable on two subjects

TABLE 6

Range, Mean, and Standard Deviation
of Scores on the Hassles Scale and the Uplifts Scale
Reported by Marital Status
in a Sample of NICU nurses

	range	$\bar{x}$	SD
Hassles			
Married (n= 21)	7-54	23.76	12.38
Divorced (n= 5)	16-48	27.80	12.93
Single (n= 12)	8-78	28.33	19.56
Uplifts			
Married (n= 21)	5-82	37.00	20.65
Divorced (n= 5)	23-83	50.60	27.00
Single (n= 12)	15-58	33.41	14.56

Subsidiary Question 2

Subsidiary question 2 asked: "what factors are identified as daily uplifts by NICU nurses?". Descriptive analysis related to this question utilizing the Uplifts Scale showed that "getting love" was the most frequently selected uplift with 72.5% of the sample selecting this item. Spending time with family, relating well with your spouse and lover, and having someone to listen to you were frequently selected. "Liking fellow coworkers" was selected as an uplift by 60% of the sample. The most frequently selected uplifts of this sample are reported in Table 7.

Range, mean and standard deviation of scores on the Uplifts Scale are reported by work shifts in Table 5. Day shift nurses had a slightly higher mean score on the Uplifts Scale than the night shift nurses.

Range, mean, and standard deviation of scores on the Uplifts Scale reported by marital status are presented in Table 6. Divorced nurses had the highest score on the Uplifts Scale. Single nurses had the lowest scores on the Uplifts Scale.

TABLE 7

Frequency and Percentage of Most Frequently Selected Uplifts
In a Sample of 40 NICU Nurses

Uplift	f	%
1. Getting love	29	72.5
2. Spending time with family	27	67.5
3. Giving love	25	62.5
4. Hugging and/or kissing	25	62.5
5. Liking fellow workers	24	60
6. Sex	24	60
7. Relating well with your spouse or lover	24	60
8. Praying	22	55
9. Meeting your responsibilities	21	52.5
10. Eating out	21	52.5
11. Having someone listen to you	21	52.5

Subsidiary Question 3

Subsidiary question 3 asked: "Is tenure of nurses related to social support?". This question was answered by correlating total functional scores and total network scores from the Norbeck Social Support Questionnaire with the total months of experience of the nurse in this unit. Total functional scores measure three functional properties of social support which are affect, affirmation and aid. Total network scores reflect the number of people providing support, the duration of the relationships with these people, and the frequency of contact with these people.

A statistically significant correlation was found between these variables. The correlation coefficient between tenure and total functional support was 0.33 and the correlation coefficient between tenure and total network support was 0.35. Both of these coefficients are significant at an alpha= 0.05. The range, mean, and standard deviation of tenure and scores on the Norbeck Social Support Questionnaire are reported in Table 8.

Subsidiary Question 4

Subsidiary question 4 asked: "What methods of coping are used by NICU nurses?". This question was answered by

Table 8

Range, Mean, and Standard Deviation
of Scores on the
Norbeck Social Support Questionnaire
In a Sample of 40 NICU Nurses

		range	$\bar{x}$	SD
1.	total functional score	75-288	146.97	58.48
2.	total network score	29-115	58.47	22.59

analysis of results from the Ways of Coping Scale as presented in Table 9 and Table 10.

Every subject used a combination of coping strategies in dealing with work stress, however, some strategies were used more frequently than others. Self-controlling strategies were selected most by this sample. Self-controlling coping is efforts aimed at controlling one's emotions and actions. This subscale included behaviors such as "I tried to keep my feelings to myself, I went over in my mind what I would say or do, and I tried not to act too hastily or follow my first hunch".

Items from the subscales of seeking social support and planful problem solving were also frequently selected. Seeking social support includes efforts aimed at seeking informational, tangible and emotional support (Folkman & Lazarus, 1988). Planful problem solving includes behaviors such as "I made a plan of action and followed it, changed something so things would turn out all right, and came up with a couple of differnet solutions to the problem".

When scores were adjusted for the number of items on each subscale and relative scores were used that allowed for comparisons of use between scales, seeking social support and planful problem solving strategies comprised

Table 9

Results of the Ways of Coping Scale presented by Range, Mean, and Standard Deviation of Scores on Coping Strategy Subscales from a Sample of 40 NICU Nurses

Subscale Strategy	possible range	range	$\bar{x}$	SD
1. Confrontive coping	0-18	2-13	6.85	2.55
2. Distancing	0-18	3-12	6.32	2.17
3. Self-controlling	0-21	4-17	10.17	3.28
4. Seeking social support	0-18	2-17	9.67	3.13
5. Accepting responsibility	0-12	1-10	5.22	1.95
6. Escape-avoidance	0-24	1-15	8.62	3.41
7. Planful problem-solving	0-18	2-16	9.30	2.73
8. Positive reappraisal	0-21	3-17	9.00	3.76

Table 10

Results of the Ways of Coping Scale
Presented by Relative Scores on Coping Strategies
from a Sample of 40 NICU Nurses

Strategy	Relative score
1. Confrontive coping	0.10
2. Distancing	0.10
3. Self-controlling	0.14
4. Seeking social support	0.15
5. Accepting responsibility	0.12
6. Escape-avoidance	0.10
7. Planful problem-solving	0.15
8. Positive reappraisal	0.12

more of the total coping used than other strategies. Self-contolling strategies were used to a slightly lesser extent and comprised the third most used strategies.

Strategies used the least relative to other subscales were confrontive coping, distancing, and escape-avoidance. Confrontive coping involves aggressive actions and may involve hostility and risk taking. Distancing suggests actions that minimize the significance of the situation and tend to detach the person from the event. Escape- avoidance strategies are those that attempt to use wishful thinking and efforts to escape from or avoid a problem (Lazarus & Folkman, 1988).

Summary

Descriptive analysis of the ICU Stressors and Satisfiers Survey provided information about potential stressors and satisfiers experienced by NICU nurses. The most problematic area was staffing of the unit which most nurses surveyed felt was inadequate. Nurses felt comfortable in their patient care abilities and were not distressed by technologically advanced equipment used in the NICU. Lack of availability of group counseling and minimal time to provide emotional support to peers were frequently reported.

Most frequently selected hassles included weight problems and concerns about getting enough rest. Job dissatisfaction was also a frequently selected hassles. Day shift nurses had the highest mean number of hassles. Single nurses had higher mean hassles scores than divorced or married nurses.

Most frequently selected uplifts included items related to receiving love and positive interactions with other people. "Liking fellow workers" was a frequently selected uplift. Divorced nurses had the highest mean score on the Uplifts Scale and single nurses had the lowest mean scores on the Uplifts Scale.

Statistically significant correlations between tenure and social support were found. Scores of both total functional support and total network support were positively correlated with tenure of nurses.

A variety of coping strategies were utilized by neonatal nurses. Greater numbers of behaviors from the subscale of self-controlling behavior were selected by nurses. These behaviors are aimed at control of one's feelings and actions.

A discussion of the results, limitations, conclusions, and recommendations from this study are delineated in Chapter V.

CHAPTER V

DISCUSSION

Research Question

The research question addressed factors identified as potential stressors and satisfiers among NICU nurses. Results from the ICU Stressors and Satisfiers Survey indicated that the most problematic area faced by NICU nurses was inadequate staffing. Grout, Steffen and Bailey (1981) also found that inadequate staffing was the single most reported stressor in their sample of ICU nurses. Likewise, Mertin and Watson (1984) reported inadequate numbers of staff as particularly stressful for NICU nurses. Many other studies report inadequate staffing as a primary stressor affecting nurses (Astbury & Yu, 1982; Friedman, 1982; Gentry & Parkes, 1982; Spoth & Konewko, 1987).

The problem of inadequate staffing is not simple to solve. Due to the recent nursing shortage, insufficient numbers of nurses may be a growing problem. A way to deal with the shortage could be initiation of more flexible staffing patterns.

Results of this study support the results of Grout,

Steffen, and Bailey (1981) regarding patient care. In both studies, nurses felt confident in their patient care abilities. Both groups of nurses were upset when patients had setbacks or died. In both studies nurses were occasionally distressed by a fluctuating work pace.

These nurses apparently were not threatened by the abilities required to work in the NICU environment. They were very confident in the quality of patient care that they delivered. More support and/or counseling in coping with the deterioration of a neonatal patient's condition or death could be offered to assist nurses to deal more effectively with a problem which is inherent in neonatal nursing.

In the area of interpersonal relationships, nurses in the study by Grout, Steffen, and Bailey (1981) had more time to give emotional support to peers than nurses in the present study. Both groups of nurses felt that their judgements and knowledge were respected by coworkers and supervisors.

Interactions between nurses outside the work environment may help establish more effective support between peers. Group counseling sessions related to dealing with grief could be very beneficial to nurses. Joint efforts on patient care committees and in

professional organizations could help establish support between nurses.

The findings of this study differ from the results of the study by Grout, Steffen and Bailey (1981) regarding features of the work environment. Nurses in the present study were somewhat distressed by a lack of work space but were more distressed by high noise levels, whereas the opposite was found by Grout, Steffen and Bailey (1981). Efforts to decrease noise levels would be beneficial to both nurses and neonatal patients. Such efforts could include designated "quiet time" hours in which noise in the unit is minimal and any unnecessary verbalizations are eliminated.

Subsidiary Question 1

Subsidiary question 1 addresssed hassles experienced by NICU nurses. Results from this study are similar to results on the Hassles Scale reported by Kanner et al.(1981). The sample used in the study by Kanner et al. (1981) was comprised of 52 women and 48 men age 45-64. These people were selected from a population surveyed by the Almeda County Human Population Laboratory. "Concerns about weight" was the most frequently selected hassle in both samples. Other hassles such as "misplacing or

losing things" and "too many things to do" were among the ten most frequently reported hassles in both groups.

Results from the present study support the findings of a study done by Aamodt (1987) with a sample of 74 women whose mean age was 39.7. In the sample used by Aamodt, 24 women were employed full time, 25 were employed part time and 25 were not employed. Most of the employed women worked in "white-collar" jobs. Six of the ten most frequently reported hassles were similar in both samples. The mean hassles score was lower in the study by Aamodt, with a total sample mean hassles score of 21.52 and a standard deviation of 13.20. The present study had a total group mean hassles score of 25.73 with a standard deviation of 14.82. The mean hassles score for women in the study by Kanner et al. (1981) was 18.9 which is also lower than the hassles score in the current study.

A study by Chiriboga and Bailey (1986) used a modified version of the Hassles Scale with a sample of critical care and medical-surgical nurses. Interruptions in the nurse's work by other nurses, visitors, and physicians were ranked as high stressors to nurses in their sample. "Job dissatisfaction" and "worries about decisions to change jobs" as hassles were not reported by

Chiriboga and Bailey (1986), which is in contrast to the present study.

It may be speculated that the sample from the current study could be experiencing more hassles than other groups. Comparisons of this sample with other NICU nurses are indicated. Differences in scores could be accounted for by variations in demographic characteristics such as age and marital status.

Variations in hassles scores between day and night shifts are interesting. Day shift nurses generally have to deal with more ancillary personnel in the unit than night shift nurses. Often, visitors are more prevlent in the unit during day shift hours. Most routine tests and procedures are performed during day shift. Patient rounds and changes in treatment plans occur during the day shift and the nurse's plan of care and daily activities must be adjusted accordingly.

Differences in hassles and uplifts scores according to marital status were also interesting. Single nurses had the highest mean hassles score and the lowest mean uplifts score. While social support may still be adequate, the single nurse may not have as much day to day assistance with minor problems that occur. Financial worries may plague a single nurse who is solely

responsible for meeting financial obligations. Finally, the single nurse may not receive the emotional support that may come from an intense relationship with a spouse or significant other.

Subsidiary Question 2

Results of the Uplifts Scale do not support the results of the study by Aamodt (1987) as closely as do the hassles results. Two uplifts were common among the ten most frequently selected uplifts in both studies. Four uplifts were common among the ten most frequently selected uplifts in this study and the study by Kanner et al. (1981).

Mean frequency of uplifts in this study was 37.65 for the total sample. This number was lower than the mean found in the study by Kanner et al. (1981) which was 49.8 for women in the sample. It was also lower than the mean frequency of uplifts for the total sample in the study by Aamodt (1987) which was 52.95.

Clearly the sample in this study do not experience as many uplifts as other groups. This may be accounted for by variations in demographic characteristics such as age and marital status between the groups. Lack of team spirit may impact on uplifts. Feelings that nursing

staff members are not being treated as colleagues by physicians and nurse practitioners may affect uplifts experienced. Other possible factors could include lack of nursing leadership and absence of positive feedback for nurses.

Subsidiary Question 3

Subsidiary question 3 addressed social support and tenure. A positive correlation between the two suggests that the longer a nurse is employed in the NICU, the more socially supportive relationships develop between coworkers. Also, nurses with more social support outside the work environment may deal more effectively with working in the NICU, promoting their job longevity.

Mean total functional scores and total network scores on the Norbeck Social Support Questionnaire in this study were lower than the findings of Norbeck et al (1982). The sample used by Norbeck et al consisted of 89 females and 47 males who were employed at a large university medical center with a mean age of 35.8 years. Differences in sample characteristics could account for this difference in scores.

Subsidiary Question 4

Subsidiary question 4 addressed coping strategies used by NICU nurses. A variety of coping strategies were used by nurses although some forms predominated.

Self-controlling coping was the subscale with the highest mean score. This subscale represents behaviors that attempt to control one's feelings and actions but still leave things somewhat amenable to change. In a study by Folkman, Lazarus, Dunkel-Schetter, Delongis, and Gruen (1986) subjects used more self-controlling coping when there was a threat to self esteem and also in situations which involved a goal at work.

Planful problem-solving was used frequently by nurses in the current study. This finding is congruent with studies by Folkman and Lazarus (1980) and Folkman, Lazarus, Dunkel-Schetter, Delongis, and Gruen (1986) which found that planful problem-solving was used more often to deal with work related stress. Folkman et al. (1986) felt that self-controlling coping might facilitate problem solving in work situations.

Seeking social support was also used to a large extent by the current sample. This result is also similar to findings by Lazarus and Folkman (1988). This type of coping is aimed at efforts to seek information

and tangible support.

The coping strategy used least by the sample was accepting responsibility, supporting the findings of Folkman and Lazarus (1988) whose sample also had the lowest mean score on this subscale of any subscale. This subscale consisted of items aimed at acknowledging a role in the problem and trying to "make things right" (Folkman & Lazarus, 1988). These behaviors include an element of self blame and if used more extensively in the NICU could affect morale and longevity of nurses.

This sample predominantly used forms of coping that are generally used in encounters that are viewed as changeable. Coping strategies used most frequently by NICU nurses were those that have been associated with satisfactory outcomes of problems (Folkman, et al., 1986).

Theoretical Framework

The theoretical basis for this study was the Neuman Systems Model. Application of primary, secondary and tertiary prevention of stressors is necessary to reduce the impact of stressors on nurses and to promote retention of nurses.

The goal of primary prevention is detection of potential problemas and elimination of them so that individuals will avoid contact with them. The goal of secondary prevention is early recognition of stressors and interventions aimed at reducing their impact. Tertiary prevention has as it's goal the reeducation and adaptation of the individual affected by stressors.

Interventions on all three levels can begin with many of the factors identified in this study. Some of the stressors identified can be eliminated. The stressors that cannot be eliminated and those that are further identified can be dealt with by approriate ongoing interventions. An awareness of a potential stressor can aid in early identification of other stressors. Stressors in the NICU environment that cannot be elimianted and that will likely affect the nursing staff can be dealt with through educational programs that reeducate the nurse regarding ways to cope with these stressors.

Limitations

The conclusions and interpretations of the study should be considered with caution. Findings of the study were generally consistent with findings of similar

studies; however, there were some inherent weaknesses in the methodology of the study.

The sample size was a limitation. Results of this study are restricted in their generalizability due to the small sample size. Also differences in demographic characteristics affect the generalizability of the results.

Results of this study cannot be generalized to other types of intensive care units and nursing units in general. Variations in experiences of nurses working in different types of nursing units may exist and are not accounted for in this study.

Patient census and acuity level of patients at the time of data collection could have influenced the results of the study. Nurses' responses could vary according to the particular patient assignment they had on the day they completed the questionnaires.

Another limitation to the study was the time required to complete the questionnaires. Subjects completed the questionnaires during their work shift and they generally needed thirty minutes to complete them. Subjects may have felt rushed in completing the questionnaires and this may have affected their responses.

Instruments utilized in this study had been previously used with ICU nurses but not specifically with NICU nurses. Differences in units can significanlty limit this study. Patients in NICUs may have a much longer length of hospital stay in the unit. Nurses will therefore deal with patients for longer periosds of time. Also, many ethical issues are present in the NICU that are not found elsewhere. The questionnaires used may not have extrapolated all of the problems particular to the NICU.

Recommendations for Future Research

Variations between types of nursing units necessitates the identification of stressors and satisfiers in each unit. Changes cannot be made until validation of what significant stressors occur in different environments are identified. Larger samples may also help to identify broad problem areas.

Identification of specific personality characteristics of nurses and their impact on stress perception may also be useful in examining stress. Retention of nurses may be enhanced by selecting nurses according to personality characteristics in order to ascertain the most suitable match of nurses with

particular types of nursing unit.

More research related to the impact of social support on nurses is necessary. Studies that differentiate the types of support provided in the work environment and the effects of these types of support would be very useful. Replication of the results of this study which showed an association between tenure and social support should be done.

Further studies identifying coping strategies that are most useful in dealing with specific work situations should be investigated. Information of this nature could provide a basis for reeducating nurses on how to cope with stressors at work.

Quantification of factors that are perceived as stressful may also provide useful information. Further studies with larger samples may provide much needed information regarding the stressors experienced by nurses. Plans to retain and recruit nurses may depend on identification and reduction of stressors affecting nurses.

Recommendations for Nurse Managers

Nurse managers need to be aware of the nurses' perceptions of stressors in the work environment in order

to eliminate or reduce the impact of these stressors. Results from the ICU Stressors and Satisfiers Survey provide much information that could be useful to a nurse manager. The majority of nurses felt that their job was frequently or almost always stressful. Further investigation into particularly stressful aspects is indicated.

The majority of nurses were distressed when patients had major setbacks or died. In an NICU , patients frequently will have setbacks and some will inevitably die. Working with this type of patient problem cannot be prevented. The nurse manager can try to provide opportunities for nurses to share their feelings and analyze their grief reactions related to neonatal morbidity and mortality. Inservice programs related to dealing with death and dying of neonates are essential in an NICU's continuing education services.

Individual and group counseling was a service that was not available to nurses as reported on the ICU Stressors and Satisfiers Survey. Offering counseling on an individual basis as needed by nurses would potentially help nurses to deal with difficult situations and could enhance job performance. Support groups for nurses could help in dealing with difficult issues in the NICU on an

ongoing basis.

Most nurses felt that their judgements and knowledge were respected by coworkers and supervisors. A smaller percentage felt that their judgements and knowledge were respected by physicians. Increased collaborative efforts between nurses and physicians would hopefully lead to development of trust and enhanced mutual respect. Nurse managers need to encourage joint involvement of staff nurses and physicians in activities such as patient care committees, unit planning committees, and collaborative research projects. Physicians may then gain a better understanding of all that nurses have to offer in regard to patient care matters and may more fully appreciate the knowledge base from which nurses work.

Lack of team spirit between shifts is an ongoing problem in most units. The nurse manager could encourage cooperation between shifts in the same manner as with physicians, through joint committees. Improvements in relationships of nurses between shifts must be made.

Staffing of the unit was the most problematic area identified. Due to the recent nursing shortage, nurse managers may not be totally able to rectify this problem. Alternate staffing patterns must be investigated. Nurse managers must make an effort to retain present staff and

utilize recruitment measures that will bring new nurses to the unit.

While nurse managers may not be able to control daily hassles experienced by nurses, an awareness of frequent hassles can be helpful. Alternate staffing patterns may help in this area as well, especially in coping with hassles such as not getting enough rest and sleep. Other hassles such as concerns about weight and home maintenance that were selected by high percentages of the staff may be diminished by having information available at work regarding services and resources in the community that relate to these areas.

It is encouraging that liking fellow workers was cited so frequently as an uplift. Nurse managers must encourage nurses to experience other uplifts as well.

The positive correlation between tenure and social support has implications for the nurse manager. Providing support to nurses is essential for retention. Nurse managers need to be available and supportive to staff nurses. Support groups related to special needs should be established. Community resources that may be particularly useful to certain nurses should be suggested.

Finally, nurse managers need to be aware of coping

strategies that are used by nurses. Teaching nurses to utilize strategies that are more successful in dealing with work stress may be helpful to decrease the impact of stressors. Encouraging nurses to use strategies that involve problem-solving may be useful. These strategies would include behaviors that involve analyzing the problem and using deliberate actions to rectify the problem.

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APPENDICES

APPENDIX A

DEMOGRAPHIC DATA SHEET

DATA SHEET

1. Age _____
2. Sex: female ___ male ___
3. Years experience as an RN ____
4. Years of neonatal experience _____
5. Years or months experience in present unit: years____ months ____
6. Are you single ___ married___ divorced ___?
7. Do you have children? yes ___ no ___
8. If you have children, what are their ages? _____
9. How many hours do you work weekly? _____
10. How long are the shifts you work (8, 10 or 12 hours) ? _____
11. Which shift do you work(days, evenings or nights) ? _____
12. What was the basic nursing program that you completed?

    ADN ____ Diploma ____ BSN ____
13. What is the highest nursing degree that you hold? _____

APPENDIX B

THE NORBECK SOCIAL SUPPORT QUESTIONNAIRE

THE MOBBECK SOCIAL SUPPORT QUESTIONNAIRE

DIRECTIONS: List each significant person in your life on the left. Consider all the persons who provide personal support for you or who are important to you now. Please use only first names or initials in listing these people. Next, specify the category of relationship for each person listed. The categories are:

1. spouse or partner
2. family or relatives
3. friends
4. work or school associates
5. neighbors
6. health care providers
7. counselor or therapist
8. minister/priest/rabbi
9. other

Rate each of your network members on the following scale or the scale provided with the question.

1 = not at all
2 = a little
3 = moderately
4 = quite a bit
5 = a great deal

PERSONAL NETWORK

First name or initials	Relationship	How much does this person make you feel liked or loved?	How much does this person make you feel respected or admired?	How much does this person agree with or support your actions or thoughts?	How much can you confide in this person?	If you were confined to bed for several weeks, how much could this person help you?
1.	1.					
2.	2.					
3.	3.					
4.	4.					
5.	5.					
6.	6.					
7.	7.					
8.	8.					
9.	9.					
10.	10.					
11.	11.					
12.	12.					
13.	13.					
14.	14.					
15.	15.					
16.	16.					
17.	17.					
18.	18.					
19.	19.					
20.	20.					

	If you needed to borrow $10, a ride to the doctor, or some other immediate help, how much could this person usually help?	How long have you known this person? 1 = < 6 months 2 = 6 months- 1 year 3 = 1 - 3 years 4 = 3 - 5 years 5 = > 5 years	How frequently do you usually have contact with this person (phone calls, visits, or letters)? 1 = once a year or less 2 = once a month 3 = once a week 4 = 2-3 times a week 5 = daily	During the past year, have you lost any important relationship due to moving, a job change, divorce or separation, death, or some other reason? a. If YES, check the category of persons who are no longer available to you. b. How much support did this person provide for you during the past six months?
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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14.				
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18.				
19.				
20.				

APPENDIX C

THE HASSLES SCALE

THE HASSLES SCALE

Directions: Hassles are irritants that can range from minor annoyances to fairly major pressures, problems, or difficulties. They can occur few or many times. Listed on the following pages are a number of ways in which a person can feel hassled. First, circle the hassles that have happened to you in the past month. Then look at the numbers to the right of the items you circled. Indicate by circling a 1, 2, or 3 how SEVERE each of the circled hassles has been for you in the past month. If a hassle did not occur in the last month do NOT circle it.

Hassles	Severity 1. Somewhat severe 2. Moderately severe 3. Extremely severe
1. Misplacing or losing things.....	1 2 3
2. Troublesome neighbors.....	1 2 3
3. Social obligations.....	1 2 3
4. Inconsiderate smokers.....	1 2 3
5. Troubling thoughts about your future.....	1 2 3
6. Thoughts about death.....	1 2 3
7. Health of a family member.....	1 2 3
8. Not enough money for clothing.....	1 2 3
9. Not enough money for housing.....	1 2 3
10. Concerns about owing money.....	1 2 3
11. Concerns about getting credit.....	1 2 3
12. Concerns about money for emergencies.....	1 2 3
13. Someone owes you money.....	1 2 3
14. Financial responsibilities for someone who doesn't live with you...	1 2 3
15. Cutting down on electricity, water..	1 2 3
16. Smoking too much.....	1 2 3
17. Use of alcohol.....	1 2 3
18. Personal use of drugs.....	1 2 3
19. Too many responsibilities.....	1 2 3
20. Decisions about having children.....	1 2 3
21. Non-family members living in your house.....	1 2 3
22. Care for pet.....	1 2 3
23. Planning meals.....	1 2 3
24. Concern about the meaning of life...	1 2 3
25. Trouble relaxing.....	1 2 3
26. Trouble making decisions.....	1 2 3
27. Problems getting along with fellow workers.....	1 2 3

THE HASSLES SCALE

Hassles		Severity 1. Somewhat severe 2. Moderately severe 3. Extremely severe		
28.	Customers or clients give you a hard time	1	2	3
29.	Home maintenance(inside)	1	2	3
30.	Concerns about job security	1	2	3
31.	Laid-off or out of work	1	2	3
32.	Concerns about retirement	1	2	3
33.	Don't like current work duties	1	2	3
34.	Don't like fellow workers	1	2	3
35.	Not enough money for basic necessities	1	2	3
36.	Not enough money for food	1	2	3
37.	Too many interruptions	1	2	3
38.	Unexpected company	1	2	3
39.	Too much time on hands	1	2	3
40.	Having to wait	1	2	3
41.	Concerns about accidents	1	2	3
42.	Being lonely	1	2	3
43.	Not enough money for health care	1	2	3
44.	Fear of confrontation	1	2	3
45.	Financial security	1	2	3
46.	Silly practical mistakes	1	2	3
47.	Inability to express yourself	1	2	3
48.	Physical illness	1	2	3
49.	Side effects of medication	1	2	3
50.	Concerns about medical treatment	1	2	3
51.	Physical appearance	1	2	3
52.	Fear of rejection	1	2	3
53.	Difficulties getting pregnant	1	2	3
54.	Sexual problems that result from physical problems	1	2	3
55.	Sexual problems other than those resulting from physical problems	1	2	3
56.	Concerns about health in general	1	2	3
57.	Not seeing enough people	1	2	3
58.	Friends or relatives too far away	1	2	3
59.	Preparing meals	1	2	3
60.	Wasting time	1	2	3
61.	Auto maintenance	1	2	3
62.	Filling out forms	1	2	3
63.	Neighborhood deterioration	1	2	3
64.	Financing children's education	1	2	3

THE HASSLES SCALE

Hassles	Severity: 1. somewhat severe 2. moderately severe 3. extremely severe
65. Problems with employees	1 2 3
66. Problems on job due to being a woman or man	1 2 3
67. Declining physical abilities	1 2 3
68. Being exploited	1 2 3
69. Concerns about bodily functions	1 2 3
70. Rising prices of common goods	1 2 3
71. Not getting enough rest	1 2 3
72. Not getting enough sleep	1 2 3
73. Problems with aging parents	1 2 3
74. Problems with your children	1 2 3
75. Problems with persons younger than yourself	1 2 3
76. Problems with your lover	1 2 3
77. Difficulties seeing or hearing	1 2 3
78. Overloaded with family responsibilities	1 2 3
79. Too many things to do	1 2 3
80. Unchallenging work	1 2 3
81. Concerns about meeting high standards	1 2 3
82. Financial dealings with friends or acquaintances	1 2 3
83. Job dissatisfaction	1 2 3
84. Worries about decisions to change jobs	1 2 3
85. Trouble with reading, writing, or spelling abilities	1 2 3
86. Too many meetings	1 2 3
87. Problems with divorce or separation	1 2 3
88. Trouble with arithmetic skills	1 2 3
89. Gossip	1 2 3
90. Legal problems	1 2 3
91. Concerns about weight	1 2 3
92. Not enough time to do the things that you need to do	1 2 3
93. Television	1 2 3
94. Not enough personal energy	1 2 3
95. Concerns about inner conflicts	1 2 3
96. Feel conflicted over what to do	1 2 3
97. Regrets over past decisions	1 2 3
98. Menstrual problems	1 2 3
99. The weather	1 2 3

THE HASSLES SCALE

Hassles		Severity 1. somewhat severe 2. moderately severe 3. extremely severe
100.	Nightmares.....1	2 3
101.	Concerns about getting ahead.....1	2 3
102.	Hassles from boss or supervisor....1	2 3
103.	Difficulties with friends.....1	2 3
104.	Not enough time for family.....1	2 3
105.	Transportation problems.....1	2 3
106.	Not enough money for transportation1	2 3
107.	Not enough money for entertainment and recreation.....1	2 3
108.	Shopping.....1	2 3
109.	Prejudice and discrimination from others.....1	2 3
110.	Property, investments or taxes.....1	2 3
111.	Not enough time for entertainment and recreation.....1	2 3
112.	Yardwork or outside home maintenance.....1	2 3
113.	Concerns about news events.....1	2 3
114.	Noise.....1	2 3
115.	Crime.....1	2 3
116.	Traffic.....1	2 3
117.	Pollution.....1	2 3

Have we missed any of your hassles? If so, write them in below:

_____

One more thing: Has there been a change in your life that affected how you answered this scale? If so, tell us what it was:

_____

APPENDIX D

THE UPLIFTS SCALE

THE UPLIFTS SCALE

Directions: Uplifts are events that make you feel good. They can be sources of peace, satisfaction, or joy. Some occur often, others are relatively rare.

On the following pages, circle the events that have made you feel good in the past month. Then look at the numbers on the right of the items you circled. Indicate by circling a 1, 2, or 3, how OFTEN each of the circled uplifts has occurred in the last month. If an uplift did not occur in the last month, do not circle it.

UPLIFTS	How often 1. somewhat often 2. moderately often 3. extremely often
1. Getting enough sleep	1 2 3
2. Practicing your hobby	1 2 3
3. Being lucky	1 2 3
4. Saving money	1 2 3
5. Nature	1 2 3
6. Liking fellow workers	1 2 3
7. Not working (on vacation, Laid-off)	1 2 3
8. Gossiping; "shooting the bull"	1 2 3
9. Successful financial dealings	1 2 3
10. Being rested	1 2 3
11. Feeling healthy	1 2 3
12. Finding something presumed lost	1 2 3
13. Recovering from illness	1 2 3
14. Staying or getting in good shape	1 2 3
15. Being with children	1 2 3
16. "Pulling something off"; getting away with something	1 2 3
17. Visiting, phoning or writing someone	1 2 3
18. Relating well with your spouse or lover	1 2 3
19. Completing a task	1 2 3
20. Giving a compliment	1 2 3
21. Meeting family responsibilities	1 2 3
22. Relating well with friends	1 2 3
23. Being efficient	1 2 3
24. Meeting your responsibilities	1 2 3
25. Quitting or cutting down on alcohol	1 2 3
26. Quitting or cutting down on smoking	1 2 3
27. Solving as ongoing practical problem	1 2 3
28. Daydreaming	1 2 3
29. Weight	1 2 3

THE UPLIFTS SCALE

UPLIFTS	How often 1. somewhat often 2. moderately often 3. extremely often
30. Financially supporting someone who doesn't live with you	1 2 3
31. Sex	1 2 3
32. Friendly neighbors	1 2 3
33. Having enough time to do what you want	1 2 3
34. Divorce or separation	1 2 3
35. Eating out	1 2 3
36. Having enough (personal) energy	1 2 3
37. Resolving inner conflicts	1 2 3
38. Being with older people	1 2 3
39. Finding no prejudice or discrimination when you expect it	1 2 3
40. Cooking	1 2 3
41. Capitalizing on an unexpected opportunity	1 2 3
42. Using drugs or alcohol	1 2 3
43. Life being meaningful	1 2 3
44. Being well-prepared	1 2 3
45. Eating	1 2 3
46. Relaxing	1 2 3
47. Having the "right" amount of things to do	1 2 3
48. Being visited, phoned, or sent a letter	1 2 3
49. The weather	1 2 3
50. Thinking about the future	1 2 3
51. Spending time with family	1 2 3
52. Home (inside) pleasing to you	1 2 3
53. Being with younger people	1 2 3
54. Buying things for the house	1 2 3
55. Reading	1 2 3
56. Shopping	1 2 3
57. Smoking	1 2 3
58. Buying clothes	1 2 3
59. Giving a present	1 2 3
60. Getting a present	1 2 3
61. Becoming pregnant or contributing thereto	1 2 3
62. Having enough time for health care	1 2 3
63. Traveling or commuting	1 2 3
64. Doing yardwork or outside work	1 2 3
65. Having enough money for transportation	1 2 3

THE UPLIFTS SCALE

UPLIFTS		How often 1. Somewhat often 2. moderately often 3. extremely often		
66.	Health of a family member improving..	1	2	3
67.	Resolving conflicts over what to do..	1	2	3
68.	Thinking about health.....	1	2	3
69.	Being a "good" listener.....	1	2	3
70.	Socializing(parties, being with friends, etc.).....	1	2	3
71.	Making a friend.....	1	2	3
72.	Sharing something.....	1	2	3
73.	Having someone listen to you.....	1	2	3
74.	Your yard or outside of home is pleasing.....	1	2	3
75.	Looking forward to retirement.....	1	2	3
76.	Having enough money for entertainment and recreation.....	1	2	3
77.	Entertainment (movies, concerts, TV).	1	2	3
78.	Good news on local or world level....	1	2	3
79.	Getting good advice.....	1	2	3
80.	Recreation (sports, games, hiking)...	1	2	3
81.	Paying off debts.....	1	2	3
82.	Using skills well at work.....	1	2	3
83.	Past decisions "panning out".....	1	2	3
84.	Growing as a person.....	1	2	3
85.	Being complimented.....	1	2	3
86.	Having good ideas at work.....	1	2	3
87.	Improving or gaining new skills.....	1	2	3
88.	Job satisfying despite discrimination due to your sex.....	1	2	3
89.	Free time.....	1	2	3
90.	Expressing yourself well.....	1	2	3
91.	Laughing.....	1	2	3
92.	Vacationing without spouse or children.....	1	2	3
93.	Liking work duties.....	1	2	3
94.	Having good credit.....	1	2	3
95.	Music.....	1	2	3
96.	Getting unexpected money.....	1	2	3
97.	Changing jobs.....	1	2	3
98.	Dreaming.....	1	2	3
99.	Having fun.....	1	2	3
100.	Going someplace that's different.....	1	2	3

THE UPLIFTS SCALE

UPLIFTS	How often 1. Somewhat often 2. moderately often 3. extremely often
101. Deciding to have children	1 2 3
102. Enjoying non-family members living in your house	1 2 3
103. Pets	1 2 3
104. Car working/running well	1 2 3
105. Neighborhood improving	1 2 3
106. Children's accomplishments	1 2 3
107. Things going well with employee(s)	1 2 3
108. Pleasant smells	1 2 3
109. Getting love	1 2 3
110. Successfully avoiding or dealing with bureaucracy or institution	1 2 3
111. Making decisions	1 2 3
112. Thinking about the past	1 2 3
113. Giving good advice	1 2 3
114. Praying	1 2 3
115. Meditating	1 2 3
116. Fresh air	1 2 3
117. Confronting someone or something	1 2 3
118. Being accepted	1 2 3
119. Giving love	1 2 3
120. Boss pleased with your work	1 2 3
121. Being alone	1 2 3
122. Feeling safe	1 2 3
123. Working well with fellow workers	1 2 3
124. Knowing your job is secure	1 2 3
125. Feeling safe in your neighborhood	1 2 3
126. Doing volunteer work	1 2 3
127. Contributing to a charity	1 2 3
128. Learning something	1 2 3
129. Being "one" with the world	1 2 3
130. Fixing/repairing something (besides at your job)	1 2 3
131. Making something (besides at work)	1 2 3
132. Exercising	1 2 3
133. Meeting a challenge	1 2 3
134. Hugging and/or kissing	1 2 3
135. Flirting	1 2 3

Have we missed any of your uplifts? If so, write them in below:

136. _____

One more thing: has there been a change in your life that affected how you answered this scale? If so, tell us what it was: _____

APPENDIX E

THE ICU STRESSORS AND SATISFIERS SURVEY

ICU STRESSES AND SATISFIENS SURVEY

Questions	rarely	occasionally	frequently	almost always
I. Patient care				
I feel confident in meeting patients' physical needs.				
I feel comfortable making patient care decisions.				
I feel I can provide quality nursing care under pressure.				
The unnecessary prolongation of life distresses me.				
I am comfortable in my ability to meet patients' emotional needs.				
My job is stressful.				
I am distressed when patients have major setbacks or die.				
Caring for dying patients is extremely upsetting for me.				
I am distressed by a fluctuating work pace.				
II. Interpersonal relationships				
A feeling of team spirit exists on my shift.				
The immediate supervisor respects my judgements.				
My expertise is respected by patients.				
My knowledge is respected by my immediate supervisor.				
I am able to cope with job stress.				
My clinical knowledge is respected by co-workers.				
My judgements are respected by physicians.				
My family provides emotional support for me in my job.				
Physicians respect my knowledge.				
A feeling of team spirit exists between shifts.				
Physicians consider my judgement during emergencies.				
I have time to give emotional support to peers.				
I consider leaving ICU nursing because of stress.				
My clinical judgements are questioned by co-workers.				
III. Knowledge and skill				
I feel confident in my abilities.				
I have sufficient preparation to operate specialized equipment.				
I am able to keep up with technological advances in the ICU.				
I feel that my knowledge is current.				
Working with specialized equipment distresses me.				
IV. Management of the unit				
Physicians are available when I need them.				
I have time to give quality patient care.				
Staffing permits me to work a satisfying schedule.				
Adequate relief is regularly provided for lunch, coffee breaks.				
There is adequate staffing in the unit.				
Staffing allows me to attend continuing education events.				
Group or individual counseling is available to me at work.				
Time prevents me from giving emotional support to the families of patients				
Patients are in the unit who do not need ICU care.				
Opportunities for job advancement are available to me.				
Time prevents me from giving emotional support to patients.				
The pace in the unit is too rapid.				
I participate in group or individual counseling at work.				
V. Work environment				
A lack of work space distresses me.				
High noise levels distress me.				

APPENDIX F

WAYS OF COPING

WAYS OF COPING

Please read each item below and indicate, by circling the appropriate category, to what extent you used it in the situation you have just described.

SCALE

not used= 0

used somewhat=1

used quite a bit= 2

used a great deal= 3

1.	Just concentrated on what I had to do next- the nest step.	0 1 2 3
2.	I tried to analyze the problem in order to understand it better.	0 1 2 3
3.	Turned to work or substitute activity to take my mind off things.	0 1 2 3
4.	I felt that time would make a difference- the only thing to do was wait.	0 1 2 3
5.	Bargained or compromised to get something positive from the situation.	0 1 2 3
6.	I did something which I didn't think would work, but at least I was doing something.	0 1 2 3
7.	Tried to get the person responsible to change his or her mind.	0 1 2 3
8.	Talked to someone to find out more about the situation.	0 1 2 3
9.	Criticized or lectured myself.	0 1 2 3
10.	Tried not to burn my bridges, but leave things open somewhat.	0 1 2 3
11.	Hoped a miracle would happen.	0 1 2 3
12.	Went along with fate; sometimes I just have bad luck.	0 1 2 3
13.	Went on as if nothing had happened.	0 1 2 3
14.	I tried to keep my feelings to myself.	0 1 2 3
15.	Looked for the silver lining, so to speak; tried to look on the bright	0 1 2 3

side of things.

16. Slept more than usual. 0 1 2 3

17. I expressed anger to the person(s) who caused the problem 0 1 2 3

18. Accepted sympathy and understanding from someone. 0 1 2 3

19. I told myself things that helped me to feel better. 0 1 2 3

20. I was inspired to do something creative. 0 1 2 3

21. Tried to forget the whole thing. 0 1 2 3

22. I got professional help. 0 1 2 3

23. Changed or grew as a person in a good way. 0 1 2 3

24. I waited to see what would happen before doing anything. 0 1 2 3

25. I apologized or did something to make up. 0 1 2 3

26. I made aplan of action and followed it. 0 1 2 3

27. I accepted the next best thing to what I wanted. 0 1 2 3

28. I let my feelings out somehow. 0 1 2 3

29. Realized I brought the problem on myself. 0 1 2 3

30. I came out of the experience better than when I went in. 0 1 2 3

31. Talked to someone who could do something concrete about the problem. 0 1 2 3

32. Got away from it for a while; tried to rest or take a vacation. 0 1 2 3

33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medications, etc. 0 1 2 3

34. Took a big chance or did something very risky. 0 1 2 3

35. I tried not to act too hastily or follow my first hunch. 0 1 2 3

36. Found new faith. 0 1 2 3

37. Maintained my pride and kept a stiff upper lip. 0 1 2 3

38. Rediscovered what is important in life. 0 1 2 3

39.	Changed something so things would turn out all right.	0 1 2 3
40.	Avoided being with people in general.	0 1 2 3
41.	Didn't let it get to me; refused to think too much about it.	0 1 2 3
42.	I asked a relative or friend I respected for advice.	0 1 2 3
43.	Kept others from knowing how bad things were.	0 1 2 3
44.	Made light of the situation; refused to get too serious about it.	0 1 2 3
45.	Talked to someone about how I was feeling.	0 1 2 3
46.	Stood my ground and fought for what I wanted.	0 1 2 3
47.	Took it out on other people.	0 1 2 3
48.	Drew on my past experiences; I was in a similar situation before.	0 1 2 3
49.	I knew what had to be done, so I doubled my efforts to make things work.	0 1 2 3
50.	Refused to believe that it had happened.	0 1 2 3
51.	I made a promise to myself that things would be different next time.	0 1 2 3
52.	Came up with a couple of different solutions to the problem.	0 1 2 3
53.	Accepted it, since nothing could be done.	0 1 2 3
54.	I tried to keep my feelings from interfering with other things too much.	0 1 2 3
55.	Wished that I could change what had happened or how I felt.	0 1 2 3
56.	I changed something about myself.	0 1 2 3
57.	I daydreamed or imagined a better time or place than the one I was in.	0 1 2 3
58.	Wished that the situation would go away or somehow be over with.	0 1 2 3
59.	Had fantasies or wishes about how things might turn out.	0 1 2 3
60.	I prayed.	0 1 2 3
61.	I prepared myself for the worst.	0 1 2 3
62.	I went over in my mind what I would say or do.	0 1 2 3
63.	I thought about how a person I admire would handle this situation and	0 1 2 3

used that as a model.

64. I tried to see things from the other person's point of view. 0 1 2 3

65. I reminded myself how much worse things could be. 0 1 2 3

66. I jogged or exercised. 0 1 2 3

67. I tried something entirely different from any of the above. (please describe)

APPENDIX G

COVER LETTER

The following questionnaires are being used in a research study to investigate work stress, social support, hassles, uplifts, and coping strategies of nurses. Information gained from this study will be useful in helping to reduce some of the stress experienced by NICU nurses and in understanding the characteristics of stress.

All information in the questionnaires will be kept confidential. Names of participants will not be recorded to insure anonymity. Completion of the questionnaires will constitute consent to participate in the study.

Completed questionnaires will be stored in a locked box at the investigator's home with access allowed only to the investigator and faculty advisor. Information about the meaning of the scores will be given to the participants upon request. For further information about the study contact:

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VITA

Elizabeth Ann Belcher was born in Bluefield, West Virginia. She received her primary and secondary education in public schools in Princeton, West Virginia. She received the Bachelor of Science in Nursing degree from West Virginia University in 1979. After graduation, she worked as a staff nurse in the Intensive Care Nursery at the University of Tennessee Medical Center in Knoxville, Tennessee. She also worked as a staff nurse in NICU's in Florida, Louisianna, and Texas through Traveling Nurse Corps. She accepted a position as Regional Neonatal Educator with the East Tennessee Regional Perinatal Program in 1989.

She entered the University of Tennessee in January, 1988 and received the Master of Science in Nursing degree in August, 1989. Miss Belcher is a member of the National Association of Neonatal Nurses, NAACOG, and Sigma Theta Tau.