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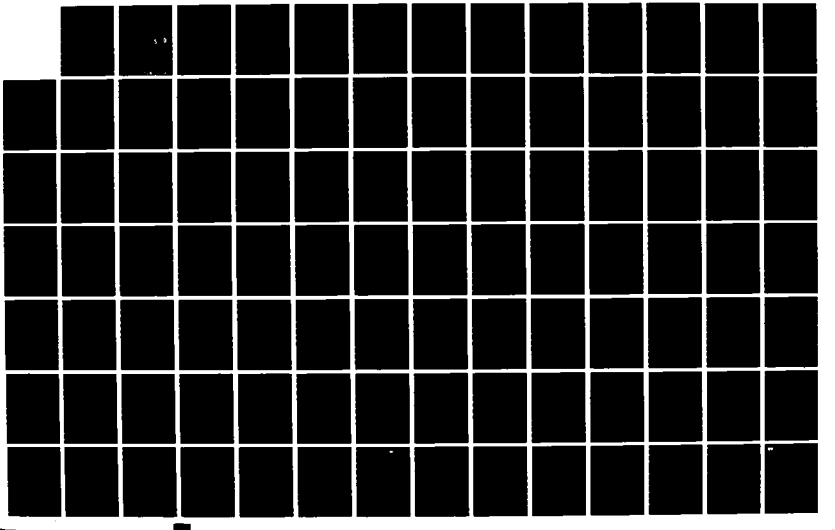

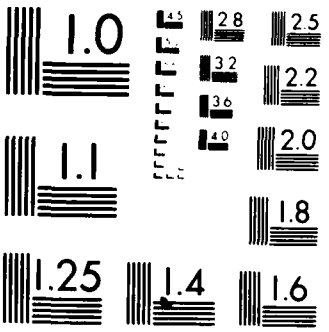

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FACTORS RELATED TO BURNOUT IN THE NEONATAL INTENSIVE CARE NURSE

By
Nancy Elaine Camp

Submitted in partial fulfillment of the requirements
for the Master of Nursing Degree
in the Nell Hodgson Woodruff
School of Nursing
Emory University
April, 1986

The proposal for this study was approved by the Institutional Review Board, Nell Hodgson Woodruff School of Nursing, of Emory University, on November 12, 1985.

Accepted by the faculty of the Nell Hodgson Woodruff School of Nursing, Emory University, in partial fulfillment of the requirements for the Master of Nursing Degree.

Johanna E. Flynn

Director of Thesis

Thesis Committee: Carol I Busch

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ABSTRACT

A descriptive-correlational study was conducted to determine the relationship between burnout in neonatal intensive care nurses and variables in three categories: (1) personal resource, (2) role-related, and (3) personal perception. The subjects consisted of 125 nurses selected from a random sample of members of the Nurses Association of the American College of Obstetricians and Gynecologists who had identified themselves as neonatal intensive care nurses. The dependent variable of burnout was measured by the Staff Burnout Scale for Health Professionals. Information pertaining to the independent variables was obtained by use of a demographic data sheet completed by the subjects. Analysis of variance was used to analyze the data. The level of significance was set at .05.

The majority of significant findings occurred in the personal perception category. One variable, age, was tested in the personal resource category. It was not found to be significant. Two of five variables in the role-related category were found to be significant, whereas, 6 of 10 variables in the personal perception category were found to be significant. According to the findings of the study, burnout appears to be correlated with the following variables: (1) 40 or fewer hours worked per week, (2) lack of continuing education or conference attendance, (3) overcrowded

units, (4) lack of time to do an adequate job, (5) lack of appreciation for one's efforts, (6) flexible visiting hours, (7) low unit morale, and (8) an autocratic leadership style by one's immediate supervisor. There was also a tendency for younger nurses and those nurses who rotated shifts to experience increased burnout.

CHAPTER I

INTRODUCTION

Burnout of a health professional is a very serious problem which affects the quality of care patients receive. It can be costly to the individual nurse, patients, health care organizations, and to the nursing profession (McConnell, 1982). It is difficult for the nurse to provide quality care while lacking concern and positive feelings towards oneself and one's patients (McConnell, 1982).

Background of the Problem

The concept of stress in relation to the nursing profession has been discussed at great length in the literature over the past 15 years (Bilodeau, 1973; Gentry, Foster, & Froehling, 1972; Gribbins & Marshall, 1982; Hay & Oken, 1972; Huckabay & Jagla, 1979; Hutchinson, 1984; Jacobson, 1978, 1983; Schmidt, 1977; Vreeland & Ellis, 1969). Yee (1981) and McConnell (1982) suggested that stress is a major factor responsible for burnout. The chronic unrelieved emotional stress and inadequacy in identifying and managing stressors will result in burnout (McConnell, 1982).

Factors which may cause stress among nurses have been identified by several authors. These factors include problems

relating to scheduling such as understaffing and unreasonable workloads (Consolvo, 1979; Hay & Oken, 1972; Marshall & Kasman, 1980; Trotter, 1982; Walker, 1982), ethical and moral issues (Hay & Oken 1972; Marshall & Kasman, 1980), dealing with relatives, (Marshall & Kasman, 1980; Simone, 1984), insufficient knowledge and training (Walker, 1982), and environmental conditions (Lavandero, 1981; Hay & Oken, 1972; Tyson, Lasky, Wiener, Caldwell & Sumner, 1984) just to name a few.

Much of the literature until recently dealt primarily with adult critical care nurses. Little had been written concerning stress and burnout in the neonatal intensive care nurse prior to 1980. Of the 15 articles reviewed dealing specifically with neonatal intensive care nurses only five were written prior to 1980. This deficit may be due to the relative newness of the neonatal intensive care unit. The question then arises whether the same stressors affecting the adult critical care nurse affect the neonatal intensive care nurse.

Walker (1982) stated that "stressful situations are common to all kinds of intensive care but probably the most difficult and stressful of all, one in which practical, moral and ethical problems abound, is that of the newborn" (p. 85). The patient's age, death, and prognosis, the need to support parents, the workload in relation to staffing, and inadequate technical knowledge have all been found to produce stress in the neonatal

intensive care nurse (Walker, 1982). Astbury and Yu (1982) identified the sudden death of an infant or relapse as especially stressful to the staff.

Warner and Lopez (1984) studied the factors related to burnout in critical care nurses. In their study of 300 nurses selected randomly from the American Association of Critical Care Nurses only three neonatal intensive care nurses were included in the sample. These three neonatal intensive care nurses had a mean burnout score on the Staff Burnout Scale for Health Professionals (Jones, 1981b) of 67.23 which was 10.94 points higher than the next category of critical care nurses (Coronary Care Nurses). Because of the small sample size and a mean that differed greatly from the means of other critical care nurses, a recommendation was made by Warner and Lopez (1984) to replicate the study with a population of neonatal intensive care nurses. Do neonatal intensive care nurses have a higher rate of burnout and if so, what factors contribute to burnout in neonatal intensive care nurses?

The effects of burnout on nurses in the neonatal intensive care unit include a high turnover rate which "may have deleterious effects on the care of high risk newborns and their families. The constantly changing staff in various stages of learning may not be able to provide optimal care for these highly vulnerable infants" (Duxbury & Thiessen, 1979, p. 591).

The cost of burnout to the health care organization is also high. A high turnover of professional nurses due to burnout results in increased costs for recruitment and training of additional staff (McConnell, 1982, p. 219).

The nursing profession also loses when burnout occurs. Highly trained, educated nurses who burnout may leave the nursing profession and go into other fields.

The effects of burnout are now known. Published research is needed on the prevalence of the phenomenon among nurses, identifying the factors that might affect the degree of burnout and the appearance of new cases (Lavandero, 1981). By identifying and subsequently addressing factors which lead to burnout in neonatal intensive care nurses quality of care may improve, costs to hospitals may be reduced which will help keep costs down for patients, and the nursing profession may be able to keep well educated nurses.

Problem Statement

The problem studied in this research study was factors related to burnout in neonatal intensive care nurses. What are the variables in a neonatal intensive care environment which influence burnout?

Theoretical Framework

The theoretical framework utilized for this study was Harrison's (1983) Social Competence Model combined with Erikson's (1963) epigenetic principles. Harrison's (1983) Social Competence Model is presented in Figure 1. Permission to utilize the model was obtained from David Harrison, PhD. (Appendix A)

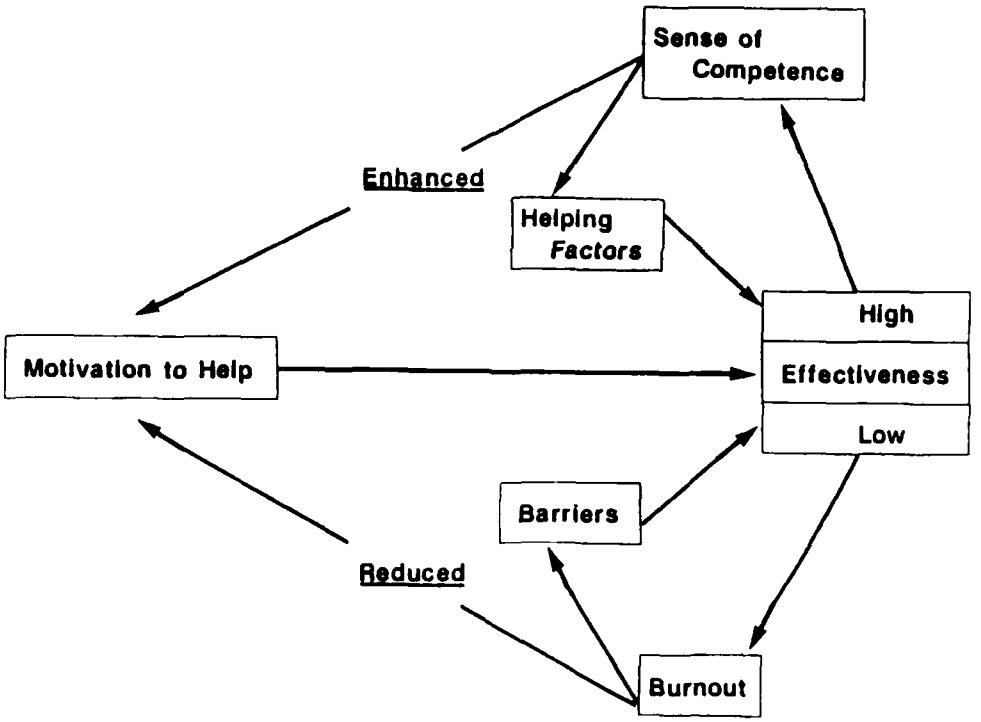

Figure 1

Harrison's Social Competence Model

Of Erikson's eight stages of psychosocial development, intimacy versus isolation, generativity versus stagnation, and integrity versus despair are the most relevant in relation to burnout. Harrison (1983) suggested that "many developmental struggles occur on the job in our industrial society" (p. 30). "Burnout can be seen as an amalgam of the untoward components of adult developmental crises and labeled the 'isolation-stagnation-despair and disgust syndrome'" (Harrison, 1983, p. 30). These adult developmental struggles on the job to which Harrison (1983) eluded can be related to one's attempt to master the psychosocial stages of development utilizing Erikson's psychosocial stages of development.

According to Harrison's (1983) model, burnout is dependent upon one's perception of his or her competence or effectiveness. A sense of competence is developed if one believes that one is "able to affect the environment and meet its challenges" (Harrison, 1983, p. 42). If one believes that what one does has a positive effect, is valuable, and makes a difference, a sense of competence is developed. On the other hand, if one does not believe that one's efforts are valuable or make a difference, a sense of competence will fail to develop and burnout may occur. Harrison (1983) described those factors that help achieve effectiveness as "helping factors" and those factors that are detrimental to effectiveness as "barriers to helping" (p. 32). During early adulthood one must work through Erikson's stage of

intimacy versus isolation. It is during this stage that one develops "the capacity to commit himself to concrete affiliations and partnerships and to develop the ethical strength to abide by such commitment, even though they may call for significant sacrifice and compromise" (Erikson, 1963, p. 263).

Harrison (1983) described the individual who enters the helping profession as highly motivated and commited to helping others. It is during this intimacy stage that one may make the decision to enter the helping profession for it is at this time that one is developing strong commitments to others.

The last two of Erikson's stages, generativity versus stagnation and integrity versus despair overlap a good deal. Erikson (1963) described generativity as "the concern in establishing and guiding the next generation" (p. 267). Integrity occurs when "one begins to look at what he has done and assesses it as worthwhile or as deficient" (Evans, 1971, p. 21). Social competence occurs when one perceives effectiveness. If one is unable to perceive effectiveness one will enter into the crisis of these stages which is stagnation and despair. When perceived effectiveness is lost or the "sense of having valued effects is absent, or when hope of achieving it is lost, burnout is likely to result" (Harrison, 1983, p. 33).

This study identified the helping factors which may reduce

burnout and, the barriers to effectiveness which can help cause burnout. The independent variables of this study were factors which relate to burnout. Barriers to effectiveness were those variables which related directly to burnout while helping factors were those variables which are inversely related to burnout.

Hypotheses

The hypotheses tested in this study were divided into three categories, those with variables related to personal resources, those with role-related variables, and those with variables related to the individual's personal perception of the circumstance (Yasko, 1983, p. 111).

The following hypothesis related to personal resources was tested.

1. Younger neonatal intensive care nurses will show a higher degree of burnout than older neonatal intensive care nurses (Warner & Lopez, 1984, p. 9).

Five hypotheses with role-related variables were tested. They were:

1. Neonatal intensive care nurses who work more than 40 hours per week will show a higher degree of burnout than neonatal intensive care nurses who work 40 hours per week or less (Warner & Lopez, 1984, p. 10).

2. Neonatal intensive care nurses who rotate shifts will show a higher degree of burnout than neonatal intensive care nurses who do not rotate shifts (Warner & Lopez, 1984, p. 10).

3. There is a relationship between the length of breaks the neonatal intensive care nurse takes and his or her burnout score.

4. Neonatal intensive care nurses who have greater than 1:2 nurse/patient ratio will show a higher degree of burnout than neonatal intensive care nurses who have a 1:2 nurse/patient ratio (Warner & Lopez, 1984, p. 10).

5. Neonatal intensive care nurses who do not participate in a full day nursing conference outside of the hospital at least once a year will show a higher burnout score than those neonatal intensive care nurses who do participate in a full day nursing conference outside of the hospital at least once a year.

Ten hypotheses tested those variables related to the individual's personal perception. The 10 hypotheses were as follows:

1. Neonatal intensive care nurses who perceive that they work in an overly crowded unit will show a higher degree of burnout than neonatal intensive care nurses who perceive that they work in a unit that is not overly crowded.

2. Neonatal intensive care nurses who perceive that there is not enough time to do an adequate job will show a higher degree of burnout than neonatal intensive care nurses who perceive that there is enough time to do an adequate job (Warner & Lopez, 1984, p. 9).

3. Neonatal intensive care nurses with less than two years neonatal intensive care experience and who perceive they received inadequate technical training for their job will show a higher degree of burnout than neonatal intensive care nurses with less than two years neonatal intensive care experience who perceive that they received adequate technical training for their job.

4. Neonatal intensive care nurses who perceive that they are unable to meet their own professional goals will have a higher degree of burnout than will neonatal intensive care nurses who perceive they are able to fulfill their own professional goals.

5. Neonatal intensive care nurses who perceive that they are not appreciated for their efforts will have a higher degree of burnout than neonatal intensive care nurses who perceive that they are appreciated for their efforts (Warner & Lopez, 1984, p. 12).

6. Neonatal intensive care nurses who perceive parental visiting hours as too flexible will have a higher degree of

burnout than neonatal intensive care nurses who do not perceive parental visiting hours as too flexible.

7. Neonatal intensive care nurses who perceive that they did not receive adequate psychological preparation to deal with the moral and ethical decisions of neonatal intensive care will show a higher degree of burnout than those neonatal intensive care nurses who perceive that they did receive adequate psychological preparation to deal with the moral and ethical decisions of neonatal intensive care.

8. Neonatal intensive care nurses who perceive a low morale on their unit will show a higher degree of burnout than neonatal intensive care nurses who perceive a high degree of morale on their unit (Warner & Lopez, 1984, p. 11).

9. Neonatal intensive care nurs who perceive their job as being routine will show a higher degree of burnout than neonatal intensive care nurses who perceive their job as being one that involves a moderate to large variation in routine (Warner & Lopez, 1984, p. 12).

10. Neonatal intensive care nurses who perceive the leadership style of their immediate supervisor to be autocratic will show a higher degree of burnout than neonatal intensive care

nurses who perceive the leadership style of their immediate supervisor to be democratic (Warner & Lopez, 1984, p. 12).

Definition of Terms

The following terms are defined according to their meaning in this study.

Burnout- A state of physical, emotional, and mental exhaustion that includes a loss of energy, idealism, motivation, and purpose which results from the stress of working in an emotionally demanding position (Maslach & Pines, 1978).

Neonatal Intensive Care Unit- (NICU) A unit designed to care for premature and term infants who are seriously ill and require close monitoring and special procedures.

Premature Infant- An infant born prior to 37 weeks gestation.

Neonatal Intensive Care Nurse- A professional nurse with at least one year experience in the neonatal intensive care unit and who is currently employed in a neonatal intensive care unit.

CHAPTER II

REVIEW OF THE LITERATURE

The concept of burnout was first applied in the business world when "executives who manifested chronic fatigue, drastic attitude change, decrements in job performance or 'office paranoia' were labeled as flameouts or burnouts" (Patrick, 1984, p. 25). The term was introduced to the professional literature in the mid 1970s when Herbert J. Freudenberger began publishing articles on burnout as seen in social service workers (Edelwich & Brodsky, 1980). During the 1970s other researchers such as Pines, Maslach, Kanner, and Kafry began conducting research on burnout in the helping and social service professions.

Pines and Maslach (1978) studied characteristics of staff burnout in 76 mental health workers by conducting structured interviews. The subjects of the study included psychiatrists, psychologists, nurses, social workers, attendants, and volunteers employed by various mental health institutions in the San Francisco area. A specially designed questionnaire which included open-ended and scale items provided the basis for the interviews. The questionnaire included four major areas of information: (1) background information which encompassed age, sex, marital status, formal education, and training for mental health work; (2)

characteristics of the job which described "patient population, staff-patient ratio, working hours and schedule, breaks and time outs, vacations and working relationships with other staff members" (Pines & Maslach, 1978, p. 234); (3) staff's attitudes and feelings about working in the mental health field and (4) the staff's perceptions about themselves. The statistically significant ($p < .05$) findings of this study were: (1) the larger the patient/staff ratio, the less the staff liked their job; (2) when patients were less seriously ill and staff worked fewer hours, work relationships with other staff members improved; (3) the ability to take temporary time-outs favorably improved attitudes towards patients; (4) staff stress and negative feelings were correlated with longer work hours; (5) "The more hours a day staff members worked, the less they liked their jobs" (Pines & Maslach, 1978, p. 235); and (6) those staff members who believed they had a say about policies and who felt free to express themselves had a more positive view of themselves and of their patients.

Maslach and Pines (1977) looked at staff-client ratio in relation to burnout in child care workers. Eighty-three child care workers including directors, teachers, and volunteers from four child care centers participated in the study. The subjects completed a four part questionnaire to obtain data for the study. The first part obtained information relating to the subject's

background including "age, sex, marital status, children, formal education, training for child care work, and other professional experiences" (Maslach & Pines, 1977, p. 106). Part II dealt with characteristics of the job as a child care worker including ages of the children cared for, "working hours, staff-child ratio, breaks and time-outs, vacations, working relationships with other staff, relationships with parents, staff meetings, and after-hours involvement with the center" (Maslach & Pines, 1977, p. 106). Questions in Part III of the questionnaire dealt with information regarding the "staff member's attitudes and feelings about child care work" (Maslach & Pines, 1977, p. 106), and Part IV obtained information relating to the subject's perception of his or her mood. Analysis of the data revealed that: (1) those staff members who had a higher child-staff ratio evaluated the center lower and liked their jobs less; (2) staff stress and negative attitudes were associated with longer working hours; (3) as direct, continuous contact between staff members and children increased, the likelihood of burnout increased and (4) in centers where time-outs (the ability of the staff member to do a less stressful job for a short period of time) were available staff members rated work relationships and staff-parent relationships higher. The ability to take time-outs was also associated with a feeling of more input into the policies of the agency. No statistical data were presented for these findings; however, the authors did state

that all results were highly significant according to standard statistical tests.

Pines and Kafry (1978) studied internal, external and organizational characteristics of stress as they relate to tedium in 129 social workers. The authors defined tedium as "the general experience of physical, emotional, and attitudinal exhaustion" (Pines & Kafry, 1978, p. 500). The dependent variable of tedium "was measured on a 5 item questionnaire that included the following feelings as variables: 'depressed,' 'burned out,' 'run down,' 'tired,' and 'having good days'" (Pines & Kafry, 1978, p. 502). The authors defined internal characteristics as "the intrinsic properties of work conditions," (Pines & Kafry, 1978, p. 506). These authors defined external characteristics as "the properties of one's work environment that serve as support systems" and organizational characteristics were defined as those characteristics "that emphasize the quality requirements built into the employing organization's structure" (Pines & Kafry, 1978, p. 506). The internal characteristics of variety, autonomy, significance, success, and feedback were measured by the Job Diagnostic Survey of Hackman and Oldham. The external variables of work sharing, work relations, support from co-workers, time-outs, and feedback from supervisors and co-workers were measured on a specially designed 7-point scale. Organizational variables analyzed, included the worker's satisfaction derived from pay, caseload,

job level, and work schedule. "Overall job satisfaction was measured by Kunin's Faces Scale. Pay satisfaction was measured on the pay scale from the Job Description Index of Smith, Kendall, and Hulin" (Pines & Kafry, 1978, p. 502). Information regarding the remaining variables was obtained from the subject's reports.

Analysis of the data revealed that the only internal variable to be significantly correlated to tedium was feedback. A significant negative correlation between feedback and tedium was found. The remaining internal variables of variety, autonomy, significance and success were also found to have a negative correlation to tedium, but not at the significant level of .05. The external variables of work sharing, support, work relations, feedback from one's supervisors and co-workers, and time-outs were found to have a significant negative correlation to tedium and a positive correlation to job satisfaction. The organizational variables of caseload, job level, and work schedule were found to have a significant correlation with tedium.

In summary, the researchers found that the internal characteristics "proved to be less correlated with tedium and more with various indices of job satisfaction" (Pines & Kafry, 1978, p. 506). The external characteristics and organizational characteristics were all significantly correlated with tedium.

Pines and Kanner (1982) studied the lack of positive conditions and the presence of negative conditions as they related to three components of burnout, physical exhaustion, emotional exhaustion and mental exhaustion in 205 professionals and 84 students. The three components of exhaustion were measured with a 21-item questionnaire. Subjects indicated how often they experienced the above feelings on a seven point scale with one equalling "never" and seven equalling "always." Burnout was scored by averaging the responses of each item. Analysis of the findings indicated that both the presence of negative conditions and the absence of positive conditions were related to burnout, but independently of one another. Positive conditions which correlated negatively with burnout included success ($r = -.49$, $p < .01$), tangible rewards ($r = -.32$, $p < .05$); personal relations ($r = -.44$, $p < .01$); and a comfortable environment ($r = -.37$, $p < .01$). Negative conditions which correlated positively with burnout included guilt ($r = .32$, $p < .05$); pressure ($r = .53$, $p < .01$); responsibility for other people ($r = .48$, $p < .01$); and conflict in one's personal and work life ($r = .43$, $p < .01$).

Shubin (1978) was the first to introduce the term burnout in the nursing literature (McConnell, 1982). Although the term burnout was relatively new in the nursing literature in 1978 "articles published in both nursing and medical journals in the 1960s and 1970s expressed concern about the stressors involved in

professional nursing and alluded to a concept such as burnout" (McConnell, 1982, p. 236).

The concern regarding stresses affecting nurses that was evident in the nursing literature in the 1960s and 1970s has now turned to a concern regarding the effects of extreme job-related distress, or burnout, as it affects nurses in different areas of practice (McConnell, 1982). One now is able to find information in the literature regarding the effects of stress and burnout on the oncology nurse, emergency room nurse, critical care nurse and the neonatal intensive care nurse. The following studies include some of the research that has been done relating to stress and burnout in the different nursing specialties.

Huckabay and Jagla (1979) conducted a descriptive survey to determine the origins of stress as perceived by nurses in the intensive care unit (ICU). The purpose of the study was to "identify, verify, measure and rank order factors in the ICU that the nurse herself perceives as stressful" (Huckabay & Jagla, 1979, p. 21). The stressors studied were divided into four major categories: (1) stressors due to interpersonal communication problems; (2) stressors resulting from the nurses' need for knowledge; (3) stressors due to the environment; and (4) stressors due to patient care. The study participants included 46 full time staff nurses (with at least six months ICU experience) from six hospitals in the Los Angeles and Orange County area. Each subject

completed two questionnaires, the first to identify stress factors in the ICU and the second to provide demographic data such as age, educational background, years of general nursing experience and years of ICU experience. The subjects were asked to rank order the 32 stressors listed according to degree of perceived stress on a scale of one to five with one equalling "not stressful" and five equalling "always stressful."

The four categories of stressors were ranked from most stressful to least stressful. The stressors resulting from patient care were ranked number one followed by interpersonal communication, environment, and knowledge base. The stresses ranked as highly stressful in the patient care category were the work load and the amount of physical work followed by the death of a patient. Meeting the psychological needs of family members was also rated relatively high. Stresses from the interpersonal communication category that were ranked as highly stressful were the communication problems between nursing staff and the nursing office, and communication problems between the staff and physicians. Environmental stressors such as physical setup of the unit, and noise and equipment failures were rated as moderately stressful. The nurses need for knowledge was not considered very stressful as these stressors were ranked last. "The extraneous variables of age, level of nursing education, experience in general nursing were not significantly related to the stress

factor score, except that a significant inverse correlation was observed between years of experience in ICU and the stress factor score (r = .35, p = .05)" (Huckabay & Jagla, 1979, p. 25).

Anderson and Basteyns (1981) studied 182 full time critical care nurses from 17 hospitals to determine factors nurses perceived as stressful. The researchers utilized an 84-item questionnaire (based on a literature review) which included background information and stressors identified in a critical care environment. Each item was rated as to the amount of stress it elicted- extreme, moderate, minimal, or no stress. The findings of this study were similiar to Huckabay and Jagla's (1979). The nurses in this study indicated the most stressful situation to be the death of a patient ($\bar{x}$ = 3.46 out of possible 4.0), staffing and workload problems ($\bar{x}$ = 3.39) and communications with physicians ($\bar{x}$ = 3.29).

Jacobson (1978) collected data from 87 staff nurses in seven different NICUs across three states in order to develop a tool to "quantify the stressfullness of a variety of incidents which occur in the neonatal intensive care unit" (Jacobson, 1978, p. 144). The 220 stressful accounts received were reduced to 52 stressful situations by a panel of neonatal nurse judges. By using content analysis 10 categories of stress were identified, they were Philosophical-Emotional stress, Nurse-Doctor conflicts, Understaffing and Overwork, Nurse-Nurse conflicts, Sudden Death or

Relapse of an infant, Inexperience and Anxiety about one's knowledge and competence, Impact of Sights and Smells, Transport, Family-Work conflict, and Political-Bureauocratic problems. The category ranked most stressful by the nurses was that of sudden death or relapse of an infant with three of the four items in the category falling in the top quarter of the stressfulness continuum. Understaffing and overwork ranked second with five of its eight stressful incidents ranked in the top quarter. These findings were concurrent with those of Huckabay and Jagla (1979) and Anderson and Basteyns (1981).

Gribbins and Marshall (1982) studied stresses experienced and the coping methods utilized by staff nurses in an academic NICU. The researchers developed the Neonatal Nurse-Stress Coping Assessment Inventory (NNSCAI) by conducting unstructured interviews with the NICU head nurses, 3 charge nurses and 3 staff nurses in order to obtain information on stresses and coping methods utilized in the NICU. Based on the initial interviews, stresses experienced and coping methods used seemed to change with the experience level of the nurses; therefore, "the NNSCAI was administered to a random sample of 24 full-time staff nurses (population = 47) stratified by experience in an NICU, the four categories were (1) orientation period-initial employment to two

months, (n = 5); (2) two months to one year, (n = 5); (3) one to three years (n = 6); and (4) more than three years (n = 7).

The findings of the study indicated that the stresses experienced by NICU nurses differed depending upon the level of experience. During the orientation period nurses were primarily concerned with their own competence. These nurses were primarily concerned with their own ability to give quality care (n = 5) to the infants and to master the equipment (n = 2). Other concerns during the initial period centered around the death of a patient and the ability to deal with families (n = 2). From two months to one year nursing conditions such as understaffing (n = 4), issues concerning patients such as quality of life for the infants (n = 4), and relations with physicians (n = 5) were the major stressors for the nurses. At the third level of experience nurses were also stressed by issues relating to patients (n = 3), nursing conditions (n = 6), and relations with physicians (n = 6); however, a new stress noted at this time was the frustration due to lack of positive rewards (n = 2). By the time nurses had reached the final level of experience (more than three years) only two areas of stress were identified, understaffing (n = 3) and working with interns (n = 4). Findings presented in this study are limited due to the small sample size.

Astbury and Yu (1982) studied stress factors for nurses and physicians working in a neonatal intensive care unit. Their sample

included 22 pediatricians and 29 nurses in Australia. The physicians represented 17 NICUs while the nurses represented one NICU. Ten situations which had been reported as stressful in the literature were "adapted for use in a questionnaire which respondents rated on a 4-point scale, from least to most stressful, after reading expanded verbatum quotes related to each of these areas of stress" (Astbury & Yu, 1982, p. 109). The following items were rated for the intensity of stress each created and the frequency with which the stress occurred: ambivalence to parents, priorities of care, doctor/nurse conflict (nurse/doctor conflict), understaffing/overwork, doctor/doctor (nurse/nurse) problems, sudden death/relapse of an infant, insecurity regarding competence and knowledge, impact/shock of sights and smells, personal life versus work, and condition of newborn infants brought in. Each subject was also asked to list three accounts of stress he or she had recently experienced in the NICU.

The study findings indicated that the most stressful problems encountered were understaffing/overwork and the sudden death/relapse of an infant. More than 70% of the total sample rated these problems as highly stressful. Nurse/doctor conflict, priorities of care and the condition of the outborn infant were also considered stressful. Ambivalence to parents and insecurity regarding competence/knowledge were rated as moderately stressful.

The authors concluded that since stress related to contact with parents was not rated as highly stressful by the majority of respondents that "parent/staff contact made possible by open visiting policies is not a major contribution to stress in the NICU" (Astbury & Yu, 1982, p. 110). The author's conclusion is opposite of Marshall and Kasman's (1980) contention that flexible visiting hours may cause increased stress leading to burnout. The least stressful of all the situations rated was the impact of sight/smells which only 17% of nurses and 22% of the physcians rated as highly stressful. When the items were ranked for frequency of occurrence the nurses ranked nurse/nurse problems and personal life versus work stressors as the most frequently occurring stresses. Nurse/doctor conflict was ranked second and understaffing third. Ambivalence to parents and the impact of sights and smells were rated as the stresses occurring the least often with only 3.4% of the nurses rating these stressors occurring often or almost continuously.

The preceding studies identified stress factors for both critical care and NICU nurses. The following studies will begin to relate the identified stress factors and other variables to burnout.

Jones (1981a) studied a sample of 31 emergency room nurses to determine the relationship between dishonesty and burnout to unauthorized extensions of work breaks. The Staff Burnout Scale

for Health Professionals (SBS-HP) was utilized to measure burnout and the Personnel Selection Inventory subscales measured the subject's "attitudes, values, and perceptions toward theft" (Jones, 1981a, p. 407). The subjects also completed a checklist to determine how many minutes per week they extended their non-food and food breaks without authorization. The study found that on the average nurses "extended their work breaks by 26.8 minutes (SD = 48.9) and their food breaks by 32.1 minutes weekly" (Jones, 1981a, p. 407). Burnout was correlated positively with extension of work breaks $r(29) = .47$, $p < .005$, but not food breaks $r(29) = .16$, $p > .10$. The primary finding of this study indicated that nurses who spent more unauthorized time on breaks were more burned out than those nurses who did not extend their break time.

Yasko (1983) used a convenience sample to conduct a descriptive-correlational study of the relationship between various variables and burnout in 185 masters prepared oncology nurse specialists from 35 states and the District of Columbia. The variables studied were divided into three categories, personal resource, personal perception and role-related variables. Personal resource variables included age, marital status, number of children, annual salary, and master's level curriculum. Variables in the personal perception category included, the amount of psychological support the nurse received at work, stress level at work, satisfaction with the role of a Clinical Nurse Specialist

(CNS) (would they chose the role of CNS again if given a choice). The role-related variables included the type of setting worked in, type of appointment, presence of a written job description, presence of a role model, number of hours worked per week in role-related duties, and number of hours spent in direct contact with patients. The SBS-HP was used to measure burnout and a Self-Report Questionnaire was used to obtain information relating to the variables in the three categories. The researchers found that (1) burnout was negatively correlated with level of satisfaction with one's job ($\underline{r} = -.60$, $\underline{p}<.01$); (2) there was a significant, but low negative correlation between age and burnout ($\underline{r} = -.21$, $\underline{p}<.01$); (3) there was also a low, but significant negative correlation between the number of children one had and burnout ($\underline{r} = -.20$, $\underline{p}<.01$); (4) burnout was positively correlated with the level of stress one perceived in the work environment ($\underline{r} = .43$, $\underline{p}<.01$), and the lack of psychological support received in the work environment ($\underline{r} = .37$, $\underline{p}<.01$). Role-related variables of the number of years in the role, the environmental setting, type of appointment, role model in the work environment, average number of hours spent each week in role-related activities, and average number of hours spent each week in direct contact with clients with cancer were also negatively correlated with burnout, but were not significant.

Warner and Lopez (1984) conducted a descriptive-correlational study of 284 critical care nurses to determine the relationship between burnout and three categories of variables, personal resource, role-related, and personal perception variables. Personal resource variables included sex, age, marital status, and the presence or absence of children in the home. Role-related variables included educational level, the number of hours worked per week, the amount of time spent in direct contact with patients, the type of intensive care unit in which the nurse worked, whether or not the nurse rotated shifts and whether the shifts were rotated in blocks of time, and the amount of time the nurse spent on breaks. Variables included in the personal perception category were the nurses' perception as to whether there was enough time to do an adequate job, the perception of a source of support available, perception of competition in the unit, perception of unit morale, perception of adequate or inadequate technical training, perception of psychological training to do the job, whether the nurse perceived the work as challenging or routine, perception of job stress, perception of recognition of a job well-done and perception of leadership style of both the head nurse and nursing administration.

The SBS-HP was used to measure burnout, and a self-report questionnaire was used to obtain information regarding the independent variables in the three categories. All findings

presented were found to be significant at the .05 level. Most of the significant findings of the study were found in the personal perception category. The following variables were found to be related to burnout: "inadequate psychological support, increased competitiveness among nurses, low unit morale, inadequate psychological support, insufficient job challenge, consistent job routine, increased job stress, job dissatisfaction, lack of recognition, an autocratic leadership style being utilized by the immediate supervisor, and autocratic or laissez-faire leadership style being utilized by nursing administration" (Warner & Lopez, 1984, p. 1). Younger nurses were found to have a greater degree of burnout than older nurses and those nurses with a higher degree of education were found to have higher burnout scores.

Marshall and Kasman (1980) presented an antecdotal account of burnout in a neonatal intensive care unit. The study was based on the authors' personal clinical experiences while working in the neonatal intensive care unit. The purpose of the study was to present factors which they observed as being related to burnout in the neonatal intensive care unit. Factors which the researchers identified as being related to burnout included complex emotional issues such as the death or relapse of an infant, ethical issues which must be dealt with daily in the NICU, working with families of NICU patients including the stress that flexible visiting hours may cause by leaving staff vulnerable to families needs and

demands at all hours, changing technology, understaffing, interdisciplinary conflicts between physicians and nurses and intradisciplinary conflicts among the NICU staff, environmental stimuli, and the stress of caring for the chronic long term infant who may be doing well one day and die the next. Although this study was a descriptive account based on personal observations, the authors expressed the hope that their observations would stimulate empirical research in the area of burnout in the neonatal intensive care unit.

Duxbury, Armstrong, Drew, and Henly (1984) studied the relationship of head nurse leadership style and job satisfaction with staff burnout in 283 registered nurses from 14 Level III neonatal intensive care units. The sample size of 283 represented 57.3% of all "potential subjects from the 14 NICUs" (Duxbury, et al., 1984, p. 99). The Minnesota Satisfaction Questionnaire was utilized to measure job satisfaction. The Tedium Scale developed by Pines, Aronson, and Kafry measured burnout and a modified version of the Leadership Opinion Questionnaire (LOQ) was used to measure the head nurse leadership dimensions of consideration and structure. The authors defined consideration as "a relationship with subordinates characterized by mutual trust, respect for ideas, consideration of feelings, and two-way communication" (Duxbury et al., 1984, p. 99). Structure was defined as "the degree to which the leader takes an active role in directing activities

of the work unit by planning, scheduling, criticizing, and monitoring" (Duxbury et al., 1984, p. 99). In order to measure staff nurse perceptions of head nurse leadership style the head nurses were separated into four groups- high consideration-high structure, high consideration-low structure, low consideration-high structure, and low consideration-low structure. "Satisfaction and burnout of staff nurses in each of the leadership-style groups were then compared" (Duxbury et al., 1984, p. 97).

The findings of this study indicated that staff nurse satisfaction was negatively correlated to burnout (r = -.41, $p \leq .001$) and that head nurse consideration was related to staff nurse satisfaction (r = .55, $p < .001$) and negatively correlated to burnout (r = -.29, $p \leq .001$). Structure was neither related to burnout nor satisfaction. For both satisfaction and burnout, low consideration-high structure were the "most deviant."

In summary, the concern about stress and its effects on nurses was recognized as early as the 1960s. In the 1970s the term burnout was applied to job-related stress that affected the helping professions and in 1978 burnout was introduced into the nursing literature. This review of the literature has shown the progression of research done on burnout in helping professionals in general to the work that has been done to identify stressors

and burnout in nurses, specifically neonatal intensive care nurses.

CHAPTER III

METHODOLOGY

A descriptive-correlational design was chosen for this study for three reasons. First, the purpose of the study was to examine the relationship of burnout and specified variables which have been said to be stressful to NICU nurses. Wilson (1985) defines a correlational study as one "designed to discover the direction and magnitude of relationships among variables in a particular population of subjects" (p. 142). The study was not designed to determine if burnout is caused by the presence or absence of the independent variables, but to describe a relationship between the dependent variable of burnout and the independent variables.

The second reason for choosing a descriptive-correlational design was that to date much of the published research relating to burnout of the NICU nurse has dealt mainly with descriptive studies of nurses' perceptions of stressful factors, but little has been done to determine the relationship between burnout and the stressors identified by the nurse. The final reason for selecting this design was that the study was a replication of a descriptive-correlational study done by Warner and Lopez (1984) who described factors related to burnout in the critical care nurse. Many of the same variables were tested in this study using

a different population, the neonatal intensive care nurse.

The population for this study consisted of the 1500 members of the Nurses Association of the American College of Obstetricians and Gynecologists (NAACOG) who had identified themselves as neonatal intensive care nurses. The population was selected from NAACOG because the organization is a national one and has members from all 50 states and Canada.

Ms. Beth Burnett of NAACOG was contacted by phone regarding permission to use NAACOG's membership list for this study. Permission was granted on June 28, 1985. The membership list was then purchased from NAACOG. Receipt of the membership labels from NAACOG constituted permission to use the list as the population.

The study sample of 275 was selected from the 1500 names provided on the NAACOG membership list by means of simple random selection using a table of random numbers. A table of random numbers was used to select the sample because it provided a relatively fast and simple way to obtain a non-biased sample for the study.

Packets containing the Staff Burnout Scale for Health Professionals (SBS-HP), the data sheet (Appendix B), a self-addressed stamped envelope and an introductory cover letter (Appendix C) explaining the purpose of the study and explaining voluntary participation in the study were assembled. After the sample was selected the packets were taken to the post office by

the investigator and mailed on November 20, 1985. No follow up contact was made with any of the subjects. Once the packets were mailed the investigator had no way of identifying or contacting any subject.

The dependent variable of burnout was measured by the Staff Burnout Scale for Health Professionals. Permission to utilize the SBS-HP was obtained from London House Inc. (Appendix D). The independent variables were divided into three categories: (1) personal resource variables, (2) role-related variables, and (3) personal perception variables. The subject's age was the only personal resource variable tested in this study. Role-related variables included the number of hours a NICU nurse worked per week, whether or not the NICU nurse rotated shifts, the amount of time the NICU nurse spent on breaks, and nurse-patient ratio, and opportunities for education outside of the hospital setting. Variables in the personal perception category included the nurses' perception of adequate or inadequate working space, perception of adequate training, perception of being able to meet one's professional goals, perception of whether or not the nurse is appreciated for his or her efforts, perception of adequate time to do one's job, flexibility of parental visiting hours, the NICU nurses' perception of adequate psychological preparation to deal with the moral and ethical decisions of neonatal intensive care, perception of morale, perception of one's job as being routine,

and leadership styles of one's immediate supervisor.

The perception variables were not operationally defined by the researcher since they dealt with the subject's feelings about the variable, not the researchers definition of the variable.

Intervening variables which could not be controlled included unit census and acuity of the patients in the units at the time the study was conducted.

The instruments used to gather data relating to the variables were the SBS-HP and a demographic data sheet developed by the researcher.

The SBS-HP is a 30 item Likert type scale which is designed to measure burnout in the health professional.

> Twenty items measure the burnout syndrome as defined by Maslach and Pines (Maslach, 1976; Maslach & Pines, 1977; Pines & Maslach, 1978). This scale was specifically designed to measure burnout in health professionals (e.g. nurses, physicians, clinical counselors, psychologists, etc.). Ten items form a distortion scale to detect tendencies to "fake good" (Jones, 1981b, p. 1).

The SBS-HP is designed to yield one total burnout score. The scale measures one's degree of burnout at the time the scale is administered. "Scores on this scale can range from 20, indicating no burnout, to 140 suggesting severe burnout. The Spearman-Brown split-half reliability for the scale is .93" (Jones, 1980, p. 2.

> To determine internal consistency, an item analysis that correlated each item with the total scale score was performed. The Pearson product-moment correlation coefficient was used. All items significantly correlated with the total score at the .001 level of confidence or less. The average item-with-total score correlation coefficient equaled .71. Correlation coefficients ranged from .59 to .82 (Jones, 1980, p. 3).

The data sheet was a 20 item questionnaire designed to obtain information pertaining to the independent variables. The data sheet consisted of 10 multiple choice questions, seven Likert type scale questions, and three questions which require a yes or no answer.

This study was based on two assumptions. First that "Burnout is primarily a function of perceived competence" (Harrison, 1983, p. 31), and secondly that neonatal intensive care nurses do experience burnout.

The primary limitation of the study was that the subjects were all members of the same professional organization. Qualified subjects were not included in the sample because they were not members of the organization. Because the subjects were members of the same professional organization they may possess traits which might influence their burnout score. For example, because they are members of the organization they may be more highly motivated

which may increase their susceptibility to burnout; thereby creating a bias in the study.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

This study investigated the relationship of personal resource, role-related, and personal perception variables to burnout in the neonatal intensive care nurse. A nationwide sample was obtained from NAACOG's list of neonatal intensive care nurses. This study was modeled after a study done by Warner and Lopez (1984), who studied burnout in critical care nurses.

The Sample

Two hundred seventy-five packets were mailed to a randomly selected sample of NAACOG members. Of the 275 questionnaires mailed, 162 were returned for a response rate of 58%. Thirty-eight responses were eliminated for the following reasons: four because the subjects were educators, and not directly involved in giving care, one subject was working in research, seven were not currently employed in an NICU, five had not worked in an NICU for the required length of time to qualify for the study, five were working in the field of maternal/child health, three were out of nursing altogether, eight failed to complete the questionnaires properly by omitting two or more questions on the SBS-HP, two were

received after the data had been tabulated and one questionnaire was not from within the United States.

Fifty percent of the subjects were between 30 to 39 years of age, 26% were 20 to 29 years old, 18% were from 40 to 49 years of age and 6% were 50 or older. The subject's positions ranged from staff nurse in a neonatal intensive care unit to neonatal clinical nurse specialist. The distribution of the subject's positions is provided in Table 1.

Table 1

Positions Held by Respondents

N = 125

Positions	Number	Percentage
Staff Nurse NICU	93	74.4
Transport Nurse	5	4.0
Neonatal Nurse Clinician/Practitioner	13	10.4
Head Nurse/Charge Nurse NICU	14	1.2

The scores for measuring burnout utilizing the SBS-HP can range from 20 indicating no burnout to 140 which suggests severe burnout. The burnout scores in this study ranged from 23 to 99. Of the 125 respondents, 26% had scores ranging from 23 to 40, 38%

scored from 41 to 59, 26% scored between 60 and 79 and 10% of the subjects scored between 80 and 99.

The Data

The mean burnout scores were compared between groups defined by categorical independent variables using a one-way analysis of variance (Neter & Wasserman, 1974). As the assumptions of a one-way analysis of variance were met, specifically normally distributed data with equal variability among the groups, it was not necessary to compare the results among groups with nonparametric methods. If the overall F statistic was significant at the $\alpha = .05$ level, pairwise multiple comparisons were made with the Bonferroni multiple comparison procedure (Neter & Wasserman, 1974) with the Type I error rate, α, set at .05.

Summary statistics, including sample size, mean and standard deviation by group, are provided in tables. If the overall F statistic was not significant, minimum and maximum values are also given. However, if the overall F statistic was significant, the distribution of the data is given in percents to provide more detailed information.

The 16 hypotheses tested in this study were divided into three categories, those with variables related to personal resources, those with role-related variables and those with variables related to the individual's personal perception of the circumstance.

Personal Resource Variables

It was suspected that burnout scores would differ by age. The hypothesis tested was: Younger neonatal intensive care nurses will show a higher degree of burnout than older neonatal intensive care nurses. Data concerning burnout scores of subjects by age are presented in Table 2.

Table 2

Burnout Scores by Age

N = 125

Age	N	Burnout Score Mean (SD)	% With Burnout Scores of 20-49	50-79	80-100
20 to 29	33	59.2 (18.7)	27.3	51.5	21.2
30 to 39	62	53.1 (17.0)	50.0	40.3	9.7
40 to 49	23	47.9 (15.2)	52.2	47.8	-
50 to 59	7	47.9 (24.9)	57.1	42.9	-

There was no statistically significant difference between the mean burnout score of the different groups by age ($F = 2.18$, $p = .09$). The 20 to 29 year age group had a mean burnout score of 59.2 ($SD = 18.7$); those between 30 and 39 had a mean score of 53.1 ($SD = 17.0$); nurses between the ages of 40 and 49 scored a mean of 47.9 ($SD = 15.2$) and nurses from 50 to 59 had a mean burnout score of 47.9 ($SD = 24.9$). There was a suggestion that younger nurses

experienced burnout more often than older nurses ($p < .10$). Although there was a considerable number of low burnout scores within each of the four groups, 21.2% of the nurses in the 20 to 29 age category and 9.7% of the nurses in the 30 to 39 age category had burnout scores of 80 or higher while no one between 40 and 59 years of age scored higher than 79.

Role-Related Variables

Five hypotheses with role-related variables were tested.

1. Neonatal intensive care nurses who work more than 40 hours per week will show a higher degree of burnout than neonatal intensive care nurses who work 40 hours per week or less.

The mean burnout scores were compared between nurses who worked more than 40 hours per week ($n = 74$) and those nurses who worked 40 hours or less per week ($n = 51$). The differences between the two groups was significant ($F = 4.47$, $p < .04$), but in the opposite direction anticipated. Neonatal nurses who worked more than 40 hours per week had a lower mean burnout score ($\bar{x} = 50.7$, $SD = 17.7$) than those nurses who worked 40 hours or less per week ($\bar{x} = 57.5$, $SD = 17.5$).

2. Neonatal intensive care nurses who rotate shifts will show a higher degree of burnout than neonatal intensive care nurses who do not rotate shifts. Burnout scores by shift rotation are presented in Table 3.

Table 3

Burnout Scores by Shift Rotation

$\underline{N}$ = 125

Rotate Shifts	$\underline{N}$	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Yes	49	57.1 (17.6)	40.8	42.9	16.3
No	76	51.2 (17.8)	47.4	46.0	6.6

When the mean burnout scores were compared between nurses who rotated shifts and those nurses who did not rotate shifts, it was found that the nurses who rotated shifts had a somewhat higher mean burnout score ($\bar{x}$ = 57.1, $\underline{SD}$ = 17.6) than the nurses who did not rotate shifts ($\bar{x}$ = 51.2, $\underline{SD}$ = 17.8), but the difference was not statistically significant at the $\prec$ .05 level ($\underline{F}$ = 3.31, $\underline{p}$ = .07). However, 10% more of the nurses who rotated shifts had burnout scores of 80 to 100.

3. There is a relationship between the length of breaks the neonatal intensive care nurse takes and his or her burnout score. Data relating to burnout scores by length of breaks are presented in Table 4.

Table 4

Burnout Scores by Length of Break Periods

$\underline{N}$ = 124

Length of Breaks	N	Burnout Scores Mean (SD)	Minimum	Maximum
$\leq$ 15 min	48	52.6 (20.2)	23	96
15 - 30 min	46	56.6 (16.3)	25	99
31 - 60 min	30	50.6 (16.3)	26	83

The mean burnout score was not related to the length of breaks. The mean burnout scores for the different groups were as follows: $\leq$ 15 minutes, ($\bar{x}$ = 52.6, $\underline{SD}$ = 20.2); 15 to 30 minutes, ($\bar{x}$ = 56.6, $\underline{SD}$ = 16.3), and 31 to 60 minutes ($\bar{x}$ = 50.6, $\underline{SD}$ = 16.3). There was no statistical difference between the means of the different groups ($\underline{F}$ = 1.13, $\underline{p} > .05$).

4. Neonatal intensive care nurses who have greater than 1:2 nurse/patient ratio will show a higher degree of burnout than neonatal intensive care nurses who have a 1:2 nurse/patient ratio.

There was no difference between the mean burnout score ($\bar{x}$ = 53.5, $\underline{SD}$ = 16.8) of nurses who had a nurse/patient ratio of 1:2 ($\underline{n}$ = 51) and the mean burnout score ($\bar{x}$ = 53.7, $\underline{SD}$ = 19.8) of nurses

whose nurse patient ratio was greater than 1:2 (n = 59) (F = 0.004, $p > .05$).

5. Neonatal intensive care nurses who do not participate in a full day nursing conference outside of the hospital at least once a year will show a higher burnout score than those neonatal intensive care nurses who do participate in a full day nursing conference outside of the hospital at least once a year. Summary statistics by conference attendance is presented in Table 5.

Table 5

Burnout Scores by Frequency of Attendance at All Day Conference Outside of Hospital

N = 125

Attendance	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
At Least Once per Year	50	53.1 (17.1)	40	50	10
Twice per Year	50	50.0 (17.3)[a]	58	34	8
Every Other Year	8	55.8 (12.0)	25	75	-
Less Than Once A Year	17	63.8 (21.3)[a]	29.4	47.1	23.5

[a] Mean burnout score for those attending conference less than once per year significantly greater than that for those attending twice per year ($p < .05$).

Frequency of conference attendance was somewhat related to burnout scores ($F = 2.66$, $p < .06$). The mean burnout score for those nurses who attended a conference less than once a year was compared with the mean burnout scores of the remaining three groups: conference attendance at least once a year; conference attendance twice a year; and conference attendance every other year, using a Bonferroni multiple comparison test. The nurses who attended a conference less than once a year had a significantly higher mean burnout score ($\bar{x} = 63.8$, $SD = 21.3$) than those nurses who attended a conference twice a year ($\bar{x} = 50.0$, $SD = 17.3$), ($p < .05$). No other comparisons were made.

Personal Perception Variables

Ten hypotheses with independent variables related to the individual's personal perception were tested.

1. Neonatal intensive care nurses who perceive that they work in an overly crowded unit will show a higher degree of burnout than neonatal intensive care nurses who perceive that they work in a unit that is not overly crowded. Data concerning burnout by perception of adequate work space are presented in Table 6.

Table 6

Burnout Score By Perception of Adequate Work Space

N = 125

Workspace	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Almost Always	32	43.6 (13.1)[a,b]	71.9	28.1	-
Most of Time	42	53.6 (18.4)	42.9	45.2	11.9
Rarely	30	59.6 (16.8)[a]	26.7	60.0	13.3
Almost Never	21	59.5 (19.0)[b]	33.3	47.7	19.0

[a] Rarely group had mean burnout score significantly greater than always group ($p < .05$).
[b] Almost never group had mean burnout score significantly greater than always group ($p < .05$)

The nurses were asked if they felt they had enough physical space in which to work almost always, most of the time, rarely or almost never. Nurses who perceived that they worked in crowded conditions had statistically significant higher burnout scores than those nurses who did not perceive crowded working conditions ($F = 5.85$, $p < .001$). Nurses who reported that they rarely or never had adequate space in which to work had higher burnout scores ($\bar{x} = 59.6$, $SD = 16.8$; $\bar{x} = 59.5$, $SD = 19.0$ respectively) ($p < .05$) than those nurses who reported they always had adequate work space ($\bar{x} = 43.6$, $SD = 13.1$). No other paired comparisons were significant.

2. Neonatal intensive care nurses who perceive that there is not enough time to do an adequate job will show a higher degree of burnout than neonatal intensive care nurses who perceive that there is enough time to do an adequate job. Summary statistics of burnout by perception of enough time to do an adequate job is presented in Table 7.

Table 7

Burnout Scores By Perception of Enough Time to do an Adequate Job

N = 125

Adequate Time	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Always	17	42.1 (13.1)	64.7	35.3	-
Often	78	54.9 (16.3)	42.3	48.7	9.0
Rarely	30	56.3 (21.9)	40.0	40.0	20.0

The mean burnout scores were compared between the three groups of nurses, those who always felt they had enough time to do an adequate job, those who usually or often felt there was enough time, and those who rarely felt there was enough time to do an adequate job. Nurses who perceived they did not have enough time to do an adequate job had significantly greater burnout scores

($F = 4.26$, $p < .02$) than those who felt they had enough time. The nurses who perceived they usually had enough time also had significantly greater burnout scores ($\bar{x} = 54.9$, $SD = 16.3$) than the nurses who always had enough time ($\bar{x} = 42.1$, $SD = 13.1$) ($p < .05$). No other paired comparisons were significant.

3. Neonatal intensive care nurses with less than two years NICU experience who perceive they received inadequate technical training for their job will show a higher degree of burnout than neonatal intensive care nurses with less than two years NICU experience who perceive that they received adequate technical training for their job.

Due to the small sample size of nurses with less than two years of experience in the NICU, it was not possible to test this hypothesis and obtain meaningful results.

4. Neonatal intensive care nurses who perceive that they are unable to meet their own professional goals will have a higher degree of burnout than will neonatal intensive care nurses who perceived they are able to fulfill their own professional goals.

It was not possible to test whether or not the nurses' perceptions of meeting their goals affected burnout since the majority of nurses (94%) felt they were able to meet their own goals.

5. Neonatal intensive care nurses who perceive that they are not appreciated for their efforts will have a higher degree of burnout than neonatal intensive care nurses who perceive that they are recognized for their efforts. Perception of appreciation was divided into two categories. Nurses were asked their perception of appreciation by their fellow staff members and supervisors and how they felt parents appreciated their efforts. Summary statistics for burnout as related to perceived appreciation by fellow staff members and supervisors is presented in Table 8, and statistics for burnout as related to perceived appreciation by parents is presented in Table 9.

Table 8

Burnout Scores By Perceived Frequency of Appreciation from Fellow Staff Members and Supervisors

$N = 121$

Frequency of Appreciation	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Always	15	38.7 (11.6)[a]	86.7	13.3	-
Most of Time	69	48.2 (14.6)[b]	53.6	43.5	2.9
Rarely or Never	37	68.0 (15.1)[a,b]	13.5	62.2	24.3

[a] Mean burnout score significantly greater in rarely or never group than in always group ($p < .05$).
[b] Mean burnout score significantly greater in rarely or never group than in most of the time group ($p < .05$).

Nurses who felt appreciated by fellow staff members had statistically significant lower burnout scores than nurses who felt unappreciated ($F = 31.12$, $p < .0001$). Nurses who rarely or never felt appreciated had significantly higher burnout scores ($\bar{x} = 68.0$, $SD = 15.1$) than the nurses who felt they were always appreciated ($\bar{x} = 38.7$, $SD = 11.6$), ($p < .05$). Nurses who rarely or never felt appreciated also had significantly higher burnout scores than nurses who were often appreciated ($\bar{x} = 48.2$, $SD = 14.6$).

Table 9

Burnout Scores by Frequency of Perceived Appreciation from Parents

$N = 124$

Frequency of Appreciation	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Always	52	48.6 (17.5)	53.8	38.5	7.7
Most of Time	61	56.0 (17.2)	39.3	49.2	11.5
Rarely or Never	11	61.1 (19.9)	36.6	45.5	18.2

In general, as the nurses' perception of parental appreciation increased, the mean burnout score decreased ($F = 3.66$, $p < .03$). However, due to the small sample size in one of the groups none of the paired comparisons was significant. Note

that the percentage of nurses with burnout scores of 80 to 100 increased when parental appreciation was absent.

6. Neonatal intensive care nurses who perceive parental visiting hours as too flexible will have a higher degree of burnout than neonatal intensive care nurses who do not perceive parental visiting hours as too flexibile. Data concerning burnout scores by visiting hours are presented in Table 10.

Table 10

Burnout Scores By Perception Of Visiting Hours

N = 123

Visiting Hours	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Too Flexible	17	63.2 (21.1)	23.5	41.2	35.3
Just Right	104	51.2 (16.8)	50.0	43.3	6.7
Too Limited	2	66.0 (7.1)	-	100.0	-

Nurses were asked to state whether they perceived the visiting hours in their unit as too flexible, just right, or too limited. Nurses who perceived the visiting hours as too flexible had statistically significant higher mean burnout scores ($\bar{x}$ = 63.2, SD = 21.1) than the nurses who perceived the visiting hours as just right ($\bar{x}$ = 51.2, SD = 16.8). (Bonferroni multiple comparison, $p < .05$). Due to the sm ll sample size (n = 2) in the third group

comparisons were not possible.

7. Neonatal intensive care nurses who perceive that they did not receive adequate psychological preparation to deal with the moral and ethical decisions of neonatal intensive care will show a higher degree of burnout than those neonatal intensive care nurses who perceive that they did receive adequate psychological preparation to deal with the moral and ethical decisions of neonatal intensive care. Burnout scores as related to psychological preparation are presented in Table 11.

Table 11

Burnout Scores by Perceived Degree of Psychological Preparation

N = 121

Psychological Preparation	N	Burnout Scores Mean	(SD)	Minimum	Maximum
Very Good	9	46.0	(14.6)	32	79
Good	56	51.5	(17.9)	24	89
Poor	50	57.6	(17.7)	23	99
Very Poor	6	50.2	(19.8)	36	89

Perceived degree of psychological preparation was not related to burnout ($F = 1.76$, $p > .05$).

8. Neonatal intensive care nurses who perceive a low morale on their unit will show a higher degree of burnout than neonatal intensive care nurses who perceive a high morale on their unit. Burnout scores by perceived morale are presented in Table 12.

Table 12

Burnout Scores By Perceived Morale on the Units

N = 117

Morale	N	Burnout Scores Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Very Good	6	40.7 (13.4)[a,b]	66.7	33.3	-
Good	63	45.4 (13.7)[a,b]	63.5	36.5	-
Poor	43	64.6 (17.1)[a]	23.3	51.1	25.6
Very Poor	5	72.0 (16.7)[b]	-	20.0	80.0

[a] Nurses with poor morale had significantly higher burnout scores than nurses with good or very good morale ($p < .05$).

[b] Nurses with very poor morale had significantly higher burnout scores than nurses with good or very good morale ($p < .05$).

The average burnout score differed by perception of morale on the unit ($F = 17.73$, $p < .001$). Nurses who perceived the morale on their unit to be poor had significantly higher burnout scores ($\bar{x} = 64.6$, $SD = 17.1$) than nurses who perceived the morale on their unit to be either good ($\bar{x} = 45.4$, $SD = 13.7$) or very good ($\bar{x} = 40.7$, $SD = 13.4$). These differences in burnout scores also

existed for nurses who worked on units where morale was perceived as very poor. The mean burnout score for the nurses who perceived morale as being very poor was 72.0 (SD = 16.7).

9. Neonatal intensive care nurses who perceive their job as being routine will show a higher degree of burnout than neonatal intensive care nurses who perceive their job as being one that involves a moderate to large variation in routine. Data concerning burnout scores by perception in variation of routine are presented in Table 13.

Table 13

Burnout Scores by Perceived Variation in Daily Routine

N = 124

Variation	N	Burnout Scores Mean (SD)	% With Burnout Scores of 20-49	50-79	80-100
Large	63	50.7 (17.6)	49.2	41.3	9.5
Little to None	61	56.1 (17.9)	41.0	47.5	11.5

Burnout scores for nurses who perceived their job as routine ($\bar{x}$ = 56.1, SD = 17.9) did not differ significantly from those nurses who perceived a large variation in routine ($\bar{x}$ = 50.7, SD = 17.6) ($F = 2.81$, $p > .05$).

10. Neonatal intensive care nurses who perceive the leadership style of their immediate supervisor to be autocratic will show a higher degree of burnout than neonatal intensive care nurses who perceive the leadership style of their immediate supervisor to be democratic. Presented in Table 14 are data concerning burnout scores by perception of leadership style of supervisor.

Table 14

Burnout Score by Leadership Style of Supervisor

N = 123

Leadership Style	N	Burnout Score Mean (SD)	% With Burnout Score of 20-49	50-79	80-100
Autocratic	15	62.2 (19.7)	26.7	61.0	13.3
Democratic	80	50.3 (17.0)	50.0	42.5	7.5
Laissez-Faire	28	58.1 (18.3)	39.3	42.8	17.9

Mean burnout scores differed by leadership style of the immediate supervisor ($F = 4.09$, $p < .02$). Nurses who perceived their supervisors leadership style to be democratic had a mean burnout score of 50.3 ($SD = 17.0$) which was significantly less than that of those nurses who perceived their supervisors leadership style to be autocratic ($\bar{x} = 62.2$, $SD = 19.7$). No other paired

comparisons were made. The laissez-faire response was included on the questionnaire to provide a third response so subjects would not be forced into choosing either autocratic or democratic leadership style.

Discussion

Hypotheses were tested in three categories: personal resource, role-related, and personal perception. Six of 10 hypotheses in the personal perception category were supported, while only two of the five hypotheses in the role-related category were supported. These findings are consistent with both Yasko (1983) and Warner and Lopez (1984) who found the majority of the significant findings were in the personal perception category.

Age was the only personal resource variable tested in this study. Cherniss (1980) and Freudenberger (1975) suggested that younger professionals have an increased tendency for burnout due to a loss of idealism and unrealistic expectations which are not met. Yasko (1983) and Warner and Lopez (1984) also found that younger nurses have an increased tendency for burnout. Yasko (1983) found a significant, but low negative correlation between age and burnout. Warner and Lopez (1984) found that younger nurses had higher mean burnout scores than older nurses. While the findings of this study did not obtain a significant relationship between age and burnout, at the $\alpha = .05$ level, there

was the suggestion that younger nurses experienced burnout more frequently than older nurses.

Only two of the role-related variables were found to be significant and one of these was in the opposite direction anticipated. Maslach and Pines (1977) found that longer working hours were associated with more stress and negative attitudes of the staff. These same researchers (Pines & Maslach, 1978) found in a different study that the fewer hours worked, the better the nurses liked their job. Other authors (Astbury & Yu, 1982; Gribbins & Marshall, 1982; and Jacobson, 1978) reported understaffing and overwork as major stressors in the work environment. Based on these reports it was hypothesized that nurses who worked greater than 40 hours a week would have higher burnout scores than nurses who worked less than 40 hours a week. The findings of this study did not support this hypothesis. The findings were in the opposite direction. Nurses who worked less than 40 hours per week had higher burnout scores. However, the findings of this study did support Yasko's (1983) findings. Yasko (1983) found that the number of hours spent each week in role-related activites was negatively, but not significantly correlated with burnout. Chernis (1980) stated that long work hours and hard work led to burnout only when the work was not meaningful. It may be possible that the nurses who worked less than 40 hours per week did so because they realized they were burned out. It should also be pointed out that

the significant finding of higher burnout scores in nurses who work less than 40 hours per week may be statistically significant, but not clinically meaningful since the mean burnout scores were 50.7 and 57.5 which may not translate into clinically meaningful differences.

The hypothesis relating burnout to conference attendance was formulated based on the suggestions of several authors (Price, 1979; Seuntzens, 1978; Walker, 1982; and Yee, 1981) that continuing education or conference attendance would provide the nurse with opportunities to grow and also provide the nurse with a short break away from the unit which might help to reduce stress. The findings of this study appear to support these suggestions. Nurses who attended a full day conference less frequently than once a year had higher mean burnout scores than the nurses who regularly attended conferences.

Jones (1981a) found that burnout was correlated positively with longer work breaks, while Warner and Lopez (1984) found that nurses who spent less time on breaks had higher burnout scores. The researcher was not able to replicate either of these findings. Burnout scores were not significantly different between the groups by length of breaks.

Maslach and Pines (1977) and Pines and Maslach (1978) found that the larger the patient to staff ratio the less the staff liked their jobs. Other authors (Astbury & Yu, 1982; Gribbins &

Marshall, 1982; Jacobson, 1982; Marshall & Kasman, 1980) suggested that understaffing may lead to increased stress resulting in burnout. Warner and Lopez (1984) were unable to replicate the findings of Maslach and Pines (1977). They did not find a difference in burnout by nurse/patient ratio. This study was also unable to replicate these findings. A variable which was not controlled for in this study was the level of NICU in which the nurse worked. The acuity of patients differs between a level II NICU and a level III NICU. The nurse/patient ratio in a level II can be higher because the infants are usually not as critical. These factors may have had an influence on the findings in this particular study.

In the personal perception category six hypotheses were found to be significant. Two hypotheses were not testable due to sample size and two were found to be non-significant.

Price (1979), Huckabay and Jagla (1979), Lavandero (1981), and Patrick (1984) discussed environmental factors relating to burnout. One of the environmental conditions mentioned was an overcrowded unit. When discussing environmental frustrations Bilodeau (1973) mentioned small rooms, inadequate storage space and a unit too small for the number of people working. The findings of this study supported the suggestion that a perception of an overcrowded unit or inadequate space may be related to burnout.

The finding that nurses who perceived they did not have adequate time to do a good job had higher burnout scores supports the work of Anderson and Basteyns (1981), Huckabay and Jagla (1979), and Pines and Kanner (1982) who found that heavy workloads and time pressures are stressors to nurses. Warner and Lopez (1984) did not find any difference in burnout scores between nurses who perceived adequate time to do a good job and those who did not perceive adequate time.

There is much in the literature (Alexander, 1980; Edelwich & Brodsky, 1980; Simone, 1984) regarding lack of appreciation, ungrateful clients or lack of positive feedback from clients and supervisors leading to stress and burnout. Warner and Lopez (1984) found that critical care nurses who were recognized for a job well-done had lower burnout scores than nurses who did not perceive they were recognized for jobs well done. The findings of this study supported Warner and Lopez's (1984) findings. Neonatal intensive care nurses who perceived appreciation from fellow staff members and supervisors had lower burnout scores than the nurses who did not perceive they were appreciated.

Flexible visiting hours have been recognized by several authors (Hay & Oken, 1972; Marshall & Kasman, 1980; and Simone, 1984) as leaving staff open and vulnerable with "no place to hide" (Hay & Oken, 1972, p. 112) thus creating stress that can lead to burnout. On the other hand, Astbury and Yu (1982) concluded that

the increased parent/staff contact which is made possible by open, flexible visiting hours did not contribute to increased stress in the NICU. This study supported the contention that flexible visiting hours does create increased stress leading to burnout. Nurses who perceived that visiting hours were too flexible had higher mean burnout scores than the nurses who did not perceive visiting hours as too flexible.

Maslach (1976) and Edelwich and Brodsky (1980) suggested that a cost of burnout is lower staff morale. Warner and Lopez (1984) found that burnout was related to low unit morale. This study supports these findings.

Bildeau (1973) stated that staff in critical care areas "feel that the supervisor's decisions are not always based on the full understanding of their needs and resent it when limits are put on their decision making" (p. 359). Veninga (1979) suggested that subordinates resent supervisors who do not delegate decision making because it implies that they are not competent. Maslach and Pines (1977) found that when staff had input into decision making the staff evaluated the institution more positively and liked their jobs more. Duxbury, Armstrong, Drew, and Henly (1984) found that head nurse consideration was negatively correlated with burnout. This study replicated the Warner and Lopez (1984) study by defining leadership style as autocratic, democratic or laissez-faire. This study supported the Warner and Lopez (1984)

findings that input into decision making was inversely related to burnout.

The Staff Burnout Scale for Health Professionals was utilized to measure burnout. Scores can range from 20 indicating no burnout to 120 suggesting severe burnout. This researcher believes that the tool could be broken down more precisely into ranges of burnout. The way the tool is scored at this time makes it difficult to determine if one was mildly, moderately or severely burned out by scores. The demographic data sheet which was utilized by the researcher could also use some refining which would make the tool more precise.

Harrison's (1983) Social Competence Model combined with Erikson's (1963) epigenetic principles provided the theoretical framework for this study. The finding that younger neonatal nurses were somewhat more prone to burnout than older nurses may be explained using Erikson's (1963) stage of intimacy versus isolation. The younger nurses may still be working through this stage. They are motivated and making commitments to others. When these nurses enter the work world they become disillusioned, due to staffing, economic, and other problems. They may not be able to fulfill their commitments the way they had envisioned.

The inverse relationship between the nurses' perception of appreciation and burnout may be explained by Harrison's (1983) model. In Harrison's (1983) model burnout is dependent upon one's

perception of his or her effectiveness. The perception of appreciation may lead to the belief that one's efforts are effective thereby allowing the nurse to develop a sense of competence. If appreciation is not perceived, that sense of competence may fail to develop, leading to burnout.

Harrison (1983) described "helping factors" as those factors that encouraged a sense of competence thereby decreasing the likelihood of burnout occurring. "Barriers to helping" are those factors which will hinder the development of a sense of competence thereby increasing the likelihood of burnout occurring. In this study, "helping factors" were appreciation, participation in conferences, and a democratic leadership style by one's immediate supervisor. "Barriers to helping" included low unit morale, flexible visiting hours, and inadequate work space.

In summary, this study supported much of the previous research on burnout in nurses. Other findings are inconsistent with previous research and require further study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

A descriptive-correlational study was conducted to determine the relationship between burnout and specified independent variables affecting neonatal intensive care nurses. The dependent variable of burnout was measured by the Staff Burnout Scale for Health Professionals. Information pertaining to the independent variables was obtained by a demographic data sheet designed by the researcher. The independent variables tested were divided into three categories: (1) personal resource variables, (2) role-related variables, and (3) personal perception variables. There was one variable in the personal resource category, the subject's age. Role-related variables included number of hours worked per week, whether or not the nurse rotated shifts, the length of breaks taken by nurses, nurse/patient ratio, and conference attendance or continuing education participation outside of the hospital. Personal perception variables included perception of adequate working space, perception of enough time to do an adequate job, perception of adequate technical training if the nurse had less than two years of NICU experience, perception

of being able to meet one's professional goals, perception of being appreciated by fellow staff members and supervisors and by parents, perception of flexibility of visiting hours, perception of adequate psychological preparation to deal with moral and ethical issues that occur in a neonatal intensive care unit, perception of morale, perception of one's job as routine, and perception of leadership style of one's immediate supervisor.

Subjects were chosen from a national listing of NAACOG members who had identified themselves as neonatal intensive care nurses. Two hundred seventy-five packets containing the SBS-HP, the demographic data sheet and a cover letter were mailed to the randomly selected subjects on November 20, 1985, 162 were returned for a response rate of 58%. Of the 162 responses 38 were eliminated from the study leaving a final sample size of 125.

Conclusions

Based on the findings of this study, the following conclusions have been drawn by this investigator.

1. Younger neonatal nurses have a greater tendency to experience burnout than older nurses.

2. Shift rotation has a tendency to increase burnout in the neonatal intensive care nurse.

3. The amount of time neonatal nurses spend on breaks is not a factor in burnout.

4. The number of infants the nurse cares for does not contribute to burnout in the neonatal intensive care nurse.

5. Part time neonatal nurses (those who work less than 40 hours per week) may experience burnout more often than full time nurses. They may have realized that they were burned-out and took steps to prevent further burnout by changing their work schedule.

6. Participation in continuing education on a regular basis appears to act as a buffer against burnout in neonatal intensive care nurses.

7. Inadequate work space or an overly crowed unit appears to be stressful for the neonatal intensive care nurse. The stress resulting from lack of space may contribute to burnout.

8. Overwork to the point that the neonatal intensive care nurse feels that he or she cannot do an adequate job is a stressor for the nurse which may lead to burnout.

9. Appreciation by others for the nurses efforts acts as a buffer against burnout in the neonatal intensive care nurse.

10. Increased contact with parents and other visitors due to flexible visiting hours creates stress for the neonatal nurse which may lead to burnout.

11. Low unit morale contributes to burnout in the neonatal intensive care nurse, whereas high morale or good morale acts as a buffer against burnout.

12. Lack of input into policies due to an autocratic leadership style of a superior may lead to burnout of the neonatal nurse.

Recommendations

Based on this study the following recommendations are made to neonatal nurses and supervisors to help prevent and cope with burnout.

1. Neonatal supervisors should make it possible for their staff to participate in continuing education on a regular basis. Neonatal nurses should not depend solely on their supervisors to provide continuing education opportunities, but should actively seek out continuing education opportunities such as conferences.

2. Neonatal head nurses and administrators should be open to suggestions and allow participation from their staff in decisions that effect the staff when possible.

3. Nursing administration should do all that is possible to provide adequate work space and prevent over crowding of their neonatal intensive care units. This may take the form of limiting admissions whenever necessary to working for larger units.

4. Neonatal nurses should be encouraged to be supportive of one another. Neonatal supervisors should be supportive of their staff and make an effort to recognize staff members for doing a good job.

5. Flexible visiting hours are of great benefit to the families of ill neonates, but these flexible visiting hours can be stressful for the nurses. Nursing administration should provide nurses with lounge areas to enable them to spend their break time away from visitors and family members if they so desire.

Recommendations for Further Research

Based on the findings of this study, the following recommendations are made for further research.

1. It is recommended that further research be conducted to determine the difference between stressors in a level II NICU versus a level III NICU.

2. Future studies should compare factors which are related to burnout in the neonatal intensive care with those factors that contribute to burnout in pediatric intensive care units and adult intensive care units.

3. Further research should be conducted to determine if the nurse/patient ratio is related to burnout when the acuity of patients is considered.

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APPENDICES

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February 14, 1986

Ms. Nancy Camp
2005 F. North Williamsburg Drive
Decatur, Georgia 30033

Dear Ms. Camp:

This is in regard to your letter of February 8 (enclosed).

We no longer control the rights to RELATIONSHIPS IN SOCIAL SERVICE PRACTICE: CONTEXT AND SKILLS, by Keefe/Maypole. The author can be contacted at the following address:

Professor Thomas Keefe
Dept. of Sociology, Anthropology,
and Social Work
University of Northern Iowa
Cedar Falls, Iowa 50614

Thank you for your interest in our textbooks.

Cordially,

Mary Kay Hancharick

Mary Kay Hancharick
Editorial Services Coordinator

:mkh
Enclosure

The University of Alabama
School of Social Work
Box 1935
University, AL 35486

25 March 1986

Ms. Nancy Camp
2005 F. North Williamsburg Drive
Decatur, Georgia 30033

Dear Ms. Camp:

Don Maypole and Tom Keefe forwarded your request to use my burnout material in your thesis. It sounds like a good idea to me, but from experience I suggest that you make sure that the publisher does not mind. It is certainly fine with me.

I have gotten out of the burnout field for all intents and purposes, but your inquiry brings several points to mind. First, there is probably a better presentation of the model, with the same figure if I am not mistaken, in the attached paper from Barry Farber's book. You might want to communicate with Siri Jayaratne at the School of Social Work at the University of Michigan, who has used the same model in some of his studies. Siri is likely to be very accomodating, and he will probably have much to offer. Incidentally, Brooks-Cole didn't seem to mind the use of the figure in the Pergamon book.

Dr. Lynda Harrison, my wife, is a research professor in nursing, and her field is the newborn ICU. Her interests, and matters I have learned a little bit about, range from bonding to high-tech care. I would really be interested to see how your study relates to such a setting, where there are some relatively discrete behaviors that contribute to variations in babies' well-being, and perhaps to a practitioner's sense of competence. But on the larger scale, emergencies, life and death action, severely impaired babies, trying to make sense of it all with parents and for oneself, I do not know how things will work. A former colleague and good friend, Ellie Moses of the School of Social Work at UT-Knoxville, has worked somewhat on this situation with neonatal ICU folks, and she may be another resource.

I would love to know just what you are doing. Could you manage to send along a proposal? It is likely that I will be in Atlanta to consult with one of our research practicum sites. Let me know if I can be helpful to you or your chairperson on the project. Good luck in any case!

Sincerely,

David Harrison

W. David Harrison, PhD
Associate Professor
Doctoral Program

DATA SHEET

Please select one response to each question. Indicate your response by placing a checkmark (✓) on the line next to the response that best describes your setting or your beliefs.

1. What is your age?
   ____(1) 20 to 29
   ____(2) 30 to 39
   ____(3) 40 to 49
   ____(4) 50 or over

2. How many hours per week do you usually work?
   ____(1) Less than 10
   ____(2) 10 to 20
   ____(3) 21 to 40
   ____(4) 41 to 50
   ____(5) Over 50

3. Do you rotate shifts?
   ____(1) Yes
   ____(2) No

   If yes, please indicate the approximate percentage of time you spend on each shift.
   ____(1) Days 7 to 3
   ____(2) Evenings 3 to 11
   ____(3) Nights 11 to 7

4. How much time do you spend on breaks per shift?
   ____(1) 15 minutes or less
   ____(2) 16 to 30 minutes
   ____(3) 31 to 60 minutes
   ____(4) 61 to 120 minutes

5. What is the normal nurse-patient ratio in your unit?
   ____(1) 1:1
   ____(2) 1:2
   ____(3) 1:3
   ____(4) 1:4

6. How often do you participate in a full day nursing conference outside of the hospital?
   ____(1) At least once a year
   ____(2) Twice a year
   ____(3) Every other year
   ____(4) Less than once a year

7. Do you think that you have enough physical space in which to work?
   ____(1) Almost always
   ____(2) Most of the time
   ____(3) Rarely
   ____(4) Almost never

8. Do you think that you have enough time during your shift to do an adequate job?
   ____(1) Almost always
   ____(2) Most of the time
   ____(3) Rarely
   ____(4) Never

DATA SHEET
Page 2

9. Do you think that your technical training in the NICU was:
____(1) Very good
____(2) Good
____(3) Fair
____(4) Poor

10. Do you have any professional goals?
____(1) Yes
____(2) No

If yes, do you think that you are able to meet these professional goals in your current work setting?
____(1) Almost always
____(2) Most of the time
____(3) Rarely
____(4) Never

11. Do you think that your efforts are appreciated by other staff members or your supervisors?
____(1) Almost always
____(2) Most of the time
____(3) Rarely
____(4) Never

12. Do you think that your efforts are appreciated by parents?
____(1) Almost always
____(2) Most of the time
____(3) Rarely
____(4) Never

13. Does your unit practice flexible visiting hours for family members?
____(1) Yes
____(2) No

If yes, do you think that the visiting hours are:
____(1) Too flexible
____(2) Just right
____(3) Too limited

Would you like to see visiting hours changed?
____(1) Yes
____(2) No

If yes, how? _____

14. Do you think that the psychological preparation you received to enable you to deal with the moral and ethical decisions in the NICU was:
____(1) Very good
____(2) Good
____(3) Poor
____(4) Very poor

15. How would you describe the morale in your unit?
____(1) Very good
____(2) Good
____(3) Poor
____(4) Very poor

16. How routine do you perceive your job as being?
____(1) No variation in routine
____(2) Large variation in routine
____(3) Little variation in routine

17. How do you perceive the leadership style of your immediate supervisor?
____(1) Autocratic - No input from staff accepted in regards to decisions or policy.
____(2) Democratic - Staff able to have input on some decisions or policies.
____(3) Laissez-fair - Absence of leadership.

18. How many years have you practiced nursing?
____(1) Less than 1 year
____(2) 1 to 3 years
____(3) 4 to 7 years
____(4) 8 to 11 years
____(5) 12 or more years

19. What is your primary area of practice?

Please specifiy. _____

20. How many years have you worked in the NICU?
____(1) Less than 1 year
____(2) At least 1, but less than 2 years
____(3) 2 to 3 years
____(4) 4 to 5 years
____(5) More than 5 years

2005 F North Williamsburg Drive
Decatur, Georgia 30033

November 14, 1985

Dear Fellow Neonatal Nurses,

I am a graduate student in neonatal/perinatal nursing at Emory University. I am conducting a study to determine factors which influence burnout in neonatal intensive care nurses. Your name was selected from the national membership list of neonatal nurses of NAACOG. I would like to invite you to participate in this study; however, participation is strictly voluntary.

Burnout is detrimental not only because patient care can suffer, but also because nurses who suffer from burnout may leave nursing. It is, therefore, important to determine factors which may lead to burnout in order to make changes which will decrease the likelihood of burnout occurring.

You are an important part of this study because it is vital that an adequate sample be obtained for meaningful results.

Anonymity will be maintained. You are not required to identify yourself or the institution in which you work in any way. All data obtained for this study will be reported in group form.

Enclosed you will find two forms. If you decide to participate in this study, please answer all questions on both sides of each form and return them in the enclosed envelope provided no later than December 20, 1985. The forms should not take any more than 30 minutes to complete.

Completion and return of the questionnaire constitutes voluntary participation in this study. If you have questions concerning this study, you may contact me at (404) 982-0687.

Thank you for your time and cooperation.

Sincerely,

Nancy Camp

Nancy Camp, R.N.

Enclosures

London House, Inc.

1550 Northwest Highway
Park Ridge, Illinois 60068
(312) 298-7311
TWX 910-2530-338
Cable Address: LHMC PRID

July 23, 1985

Mr. Nancy Camp
2005 F North Williamsburg
Decatur, GA 30033

Dear Ms. Camp:

Permission to reprint 300 copies of the Staff Burnout Scale for Health Professionals has been granted provided that you follow the terms and conditions that are outlined on the Reprint Request Form.

Enclosed you will find relevant studies that you mentioned in your last correspondence.

Sincerely,

Lisa D. Hoffman

Lisa D. Hoffman
Research Office Manager

Enclosures

END