1983

The Relationships Among Occupational Stress, Life Stress, Social Support and the Burnout Experienced by Staff Nurses Working in Diverse Hospital-Based Specialty Areas

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THE RELATIONSHIPS AMONG OCCUPATIONAL STRESS, LIFE STRESS, SOCIAL SUPPORT AND THE BURNOUT EXPERIENCED BY STAFF NURSES WORKING IN DIVERSE HOSPITAL-BASED SPECIALTY AREAS

by

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A Dissertation Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

July

1983

ACKNOWLEDGEMENTS

I would like to thank the Director of my dissertation committee, Dr. Anne McCreary Juhasz, for her insight and creativity in the planning of this project and in the preparation of this report; the members of my dissertation committee, Dr. Elizabeth Brophy, Dr. Jack Kavanagh, and Dr. Steven Miller for their helpful suggestions in developing the study and this report; Dr. Ronald Morgan for his availability and guidance during the formative stages of this project; Dr. Joseph Fidler for his patience and expertise during the computer analysis of the study's data; the staff nurses who participated in the study; the members of my research team, Ms. Lily Strong, Ms. Christin R. Frommelt, Ms. Kristine B. Kizer, Ms. Ann Bolger, and Ms. Kimberly Vereecke, for their assistance with the technical, and often tedious, aspects of this project; my friends for their love and support; and my father, Norman, whose passion for producing quality work has always inspired me.

VITA

Diane Cronin-Stubbs was born in Oak Park, Illinois on February 27, 1946.

She graduated from Oak Lawn High School, Oak Lawn, Illinois, in June, 1964. In June, 1969, she received an Associate of Arts in Nursing degree from Mayfair College, Chicago, Illinois. In December, 1974, she earned a Bachelor of Science in Nursing degree from the University of Illinois at the Medical Center. She was inducted into Sigma Theta Tau and was awarded membership in Who's Who Among Students in American Universities and Colleges in 1975. The Master of Science in Nursing degree was received from the University of Illinois in Psychiatric-Mental Health Nursing in March, 1976. In January, 1984, she received the Doctor of Philosophy degree in Educational Psychology from Loyola University of Chicago. During the completion of her dissertation research from 1982-1983, she was a recipient of a Schmitt Fellowship.

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(1977), "Family Crisis Intervention: A Study" (1978), "Adjustment of the New Graduate to the World of Nursing Service" with Patricia S. Gregor (1980), "Professional and Personal Stress: A Survey" with Barbara Velsor-Friedrich (1981), "Sexuality and Mental Health: Implications for Nursing" (1981), "A Tool for Evaluating the Clinical Performance of Students in a Process-Oriented Nursing Curriculum" with Joan J. Mathews (1982), "Professional Burnout Part I: The Concept, Sources, and Methods of Coping with Job-Related Stress" (1982), "Professional Burnout Part II: A Survey of Enterostomal Therapists" (1982), and "Preventing Burnout by Adaptively Managing Stress: Biopsychosocial Strategies" (1983). She also authored a chapter on interpersonal relationships in community nursing practice for a community health nursing book published by Wendy Burgess and Ethel Ragland (1984).

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TABLE OF CONTENTS

LIST OF TABLES

CONTENTS OF APPENDICES

CHAPTER I

INTRODUCTION

A form of stress which has been researched in recent years is burnout. This phenomenon is a severe form of stress which affects workers' physical and mental health and job performance. Burnout is characterized by physical and mental exhaustion and detachment from clients. This investigator became interested in the topic as a result of conducting workshops and exploratory studies on job satisfaction, stress, and burnout in nursing (Cronin-Stubbs, 1977, 1982; Cronin-Stubbs & Gregor, 1980; Cronin-Stubbs & Velsor-Friedrich, 1981). Reviewing the literature revealed a dearth of systematic research focused on burnout in the nursing profession.

This chapter is an introduction to the present study which is an exploration of burnout as it is observed in professional nurses. The researcher believed that identifying those variables that relate to burnout could contribute to the knowledge of job-related stress as well as provide useful information to those working to promote the prevention and management of burnout in nurses.

Statement of the Problem

Defining the phenomenon as "emotional exhaustion resulting from the stress of interpersonal conflict," Maslach (1978b), stated that burnout is similar to other forms of stress in patterns of response. However, burnout is a distinctive kind of emotional exhaustion involving

a loss of positive feelings, compassion, and respect for clients (p. 56).

Bailey, Steffen, and Grout (1980) noted that "research on work-related stress of nurses is in its infancy" (p. 15). Although burnout has been discussed in the nursing literature since 1978, reports of empirical investigations have only recently appeared. Jones (1980c), an investigator of burnout in health professionals, observed that the phenomenon is associated with turnover, absenteeism, tardiness, physical illnesses, serious on-the-job mistakes, patient neglect, employee theft, job dissatisfaction, and alcohol and prescription drug use. Maslach (1978b) suggested that additional descriptive research is necessary to understand burnout and its correlates. The purpose in the present study was to identify some of those variables which may relate to burnout in nurses.

Significance of the Study

Burnout is costly to employees, employing institutions, and consumers. Patrick (1979) asserted that the "economic, social, psychological, physical and emotional costs of the burnout syndrome among health care personnel, who are working to provide high-quality care to patients, families and clients, always is significant" (p. 78). The loss of motivation and the development of negative self-concepts and negative job attitudes characteristic of burnout are cited as impeding effectiveness and the delivery of quality patient care (Cherness, 1980). Although the stress of working with clients can predispose the worker to experiencing burnout, the professional's stress and burnout can adversely affect clients. Clients suffer when the

"burned-out teacher, police officer, or public health nurse . . . contribute to the interpersonal stress and difficulties of those they 'serve' " (Cherniss, 1980, p. 37).

In addition to the effects on job performance, Maslach (1978b) found in her research that the burnout syndrome correlated with other indices of personal stress, such as psychophysiologic disorders, alcohol and drug abuse, mental disorders, and family and interpersonal conflicts. Qualitative productivity can be expected from caregivers who are physically and psychologically capable of giving that kind of care, but not from those who are experiencing burnout.

Institutions are impaired by burnout, not only because it affects health care delivery, but also because it is costly when it results in high turnover rates and nursing shortages (Bishop, 1980, p. 31). Kaye and Krol (1981), for example, cited a survey of 3700 registered nurses of whom approximately 1200 left nursing "chiefly because of understaffing, excessive work loads and 'plain old exhaustion' " (p. 16).

Although chronic stress on the job predisposes one to experiencing burnout, aspects of one's personal life may also contribute to the process. Investigations conducted by Daubney (1980) and Otto (1980) support this premise. Research is needed to identify the specific personal and professional factors which relate to burnout so that methods for preventing and managing this costly phenomenon can be generated. Studies have not been conducted where the relationships among the personal and professional factors under investigation in the present study and the degree of burnout experienced by staff nurses have been explored. Identifying variables which relate to burnout can provide useful information

to those involved in providing quality health care to patients and in curbing the escalating turnover rates and subsequent shortages of nurses. Specifically, identifying the correlates of burnout can aid (a) staff nurses in planning methods for managing stress and preventing burnout, (b) nursing service administrators in developing employee incentive and retention programs, (c) nurse educators in preparing students for their roles as nurses, and (d) researchers engaging in experimental and quasi-experimental investigations of nursing burnout.

Purposes of the Study

The main short-term purpose in this study was to identify some of the personal and professional variables which may relate to nursing burnout. The long-term purpose was to contribute to the knowledge of work-related stress. In this descriptive-correlational study, the relationships among selected variables and the degree of burnout experienced by staff registered nurses working in diverse hospital-based specialty areas were explored. In particular, the following problems were investigated: To what extent does occupational stress or the frequency and/or intensity of certain job-related stressors contribute to burnout? Does the specialty area or setting in which the nurse works influence her response to job-related stress? Does life stress or the amount of positive and/or negative changes in the nurses' lives contribute to occupational burnout? Can a social support system which does not supply affirmation, affect, and/or aid contribute to the burnout process? Do nurses working in the psychiatric-mental health, operating room, intensive care, and medical settings experience comparable occupational stress, social support, and burnout?

Research Hypotheses

The hypotheses tested in the present study, stated in the null form, were the following:

1. There are no significant relationships among occupational stress, work setting, life stress, social support and the degree of burnout experienced by staff registered nurses.

2. There is no significant difference in the occupational stress experienced by the staff nurses working in the four specialty areas.

3. There is no significant difference in the social support experienced by the staff nurses working in the four specialty areas.

4. There is no significant difference in the degree of burnout experienced by the staff nurses working in the four specialty areas.

Definition of Terms

1. Staff nurse: an individual who has graduated from either an associate degree, diploma, or baccalaureate program for the preparation of registered nurses and who is employed full-time as a staff nurse in a specified work setting at a general hospital.

2. Burnout: adverse psychophysiologic, psychologic, and behavioral reactions to stressors perceived by the staff nurse and assessed by the nurse's response to the Staff Burnout Scale for Health Professionals (Jones, 1980c).

3. Occupational stress: the frequency and/or intensity of work-related stressors (i.e., factors which evoke the stress response) perceived by the staff nurse and assessed by the Nursing Stress Scale (Gray-Toft & Anderson, 1981a).

4. Work setting: a unit or department in a hospital in which

medical and nursing care is provided for patients. In this study, "work setting" refers to one of the following specialty areas: a psychiatric-mental health unit, an operating room or suite, an intensive care unit, and a medical care unit.

psychiatric-mental health unit: an area in the hospital in which evaluation and treatment of individuals experiencing acute manifestations of mental illness are provided.

operating room: an area in the hospital in which surgical procedures are performed.

intensive care unit: an area in the hospital in which continuous, concentrated, and specialized acute care is provided for individuals experiencing life-threatening physical illnesses.

medical unit: an area in the hospital in which adults who are experiencing physical illnesses are treated with medication and/or non-invasive procedures.

5. Life stress: the extent to which life event changes or human experiences were perceived by the staff nurse as having a positive and/or negative impact discerned by the nurse's response to the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978).

6. Social support: the extent to which the staff nurse experienced affirmation, affect, and/or aid in her personal and occupational social network, assessed by the nurse's response to the Norbeck Social Support Questionnaire (Norbeck, Lindsey, & Carrieri, 1981).

Procedure

Psychometric methods were used to test hypothesized relationships among specified independent variables, i.e., occupational stress, work

setting, life stress, and social support, and the dependent variable, burnout. In addition, differences in the occupational stress, social support, and degree of burnout experienced by the staff nurses working in the study's specialty areas were explored.

Staff registered nurses working in either the psychiatric-mental health, operating room, intensive care, or medical specialty areas at one of three large (900-1100 beds) metropolitan medical center hospitals were randomly chosen for participation in the study. Purposive sampling, determined by common size, purpose, and patronage characteristics, was used to select the participating hospitals.

Collecting data from the nurses chosen for participation in the study involved the administration of the following research instruments: the Staff Burnout Scale, the Nursing Stress Scale, the Life Experiences Survey, the Norbeck Social Support Questionnaire, and the Self-Report Questionnaire. Administering the instruments was done while meeting with the nurses individually or in groups or by distributing and retrieving the questionnaires through the mail. Descriptive statistics, multiple regression analysis, multivariate analysis of variance, factorial analysis of variance, and Pearson correlation analysis were used to analyze the study's data.

Assumptions and Limitations of the Study

The results of this research are limited by the soundness of the investigator's assumptions and by the deficiencies in the design which may affect internal and external validity. The underlying assumptions of this study were that the theories upon which the study was based are valid and that the work settings differed from each other in types of

nursing care delivered and degrees of interpersonal involvement with clients and colleagues.

The main threat to internal validity in a study of this nature is the dearth of reliable and valid instruments to measure burnout and its correlates. In addition, "an especially salient threat to internal validity in simple correlational studies" is the ambiguity about the direction of causal inference (Cook & Campbell, 1979, p. 54). The researcher attempted to identify correlates of nursing burnout which can generate hypotheses for quasi-experimental and experimental studies. However, in the present study, statements about cause and effect relationships were avoided.

To enhance the validity of the answers to the research questions, the control of variance in the present study was attempted by (a) maximizing systematic variance by using comparison groups or work settings as diverse as possible, (b) controlling extraneous systematic variance by using random sampling to select the participants for the study, and (c) minimizing error variance by using reliable and valid measures of the research variables. To avoid introducing extraneous sources of variance into the hypothesized relationships and to enhance the homogeneity of the sample, specific criteria were used to select the participants for the study.

External validity is the degree to which the investigator's findings are generalizable. Although random sampling was used to select the staff nurses, the use of purposive sampling to select the hospitals within a certain geographic location limits the findings to institutions which share similar size and service characteristics in that area.

Findings are also limited to the population of nurses working in the study's hospitals who met the selection criteria for participation in the study.

Summary and Overview

The first chapter was an introduction to the present study. The purpose in the study was to explore the relationships among selected variables and the degree of burnout experienced by staff nurses working in diverse hospital-based specialty areas. The following problems were investigated: To what extent does occupational stress contribute to burnout? Does the specialty area in which the nurse works influence her response to job-related stress? Does life stress contribute to burnout? What are the effects of social support on burnout? Do nurses working in the psychiatric-mental health, operating room, intensive care, and medical settings experience comparable occupational stress, social support, and burnout? A study to identify the factors which relate to burnout can provide important information to those invested in providing quality patient care and in curbing the turnover rates and shortages in nurses.

In Chapter II, a review of the literature relating to the concept of burnout and the sources of the phenomenon hypothesized in the present study is provided. The methods for collecting and analyzing the research data are described in Chapter III. Chapter IV presents the results of the study and Chapter V includes a discussion of those results. In Chapter VI, a recapitulation of the study, implications for nursing practice, and suggestions for further research are presented.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose in the present study was to explore the relationships among selected variables and the degree of burnout experienced by registered nurses working in a staff position in diverse hospital-based work settings. In the first section of this chapter a discussion of the concept of burnout is presented. Included are the theoretical definitions of burnout; the incidence of burnout in health, education, and social service occupations; the characteristics and effects of burnout; and the stages believed to constitute burnout. The literature and research relevant to the possible sources of burnout in nursing hypothesized in the present study are examined in the second section of the review. These include occupational stress, work setting, life stress, and social support. The need for research focused on the possible relationships among these variables and burnout in nursing is highlighted in the following discussion.

The Concept of Burnout

A response, in part, to occupational stress that has been frequently observed in recent years is burnout, affecting mental and physical health as well as job performance. Research has validated burnout as an identifiable syndrome with certain core characteristics: loss of motivation, physical and emotional exhaustion, withdrawal from the job, and loss of compassion for clients (Meyer, 1979; Otto, 1980).

Pines and Aronson (1981) describe burnout as "a general erosion of the spirit" (p. 3). A complex social psychological phenomenon, burnout is considered a common reaction to job stress, reducing "the motivation and effectiveness of many human service providers" (Cherniss, 1980, p. 9).

The Incidence of Burnout

In her investigations of burnout, Maslach (1978a) used field observations and questionnaires to discern the social and psychological dimensions of burnout in 200 professionals. Her sample included lawyers, physicians, prison personnel, social welfare workers, clinical psychologists and psychiatrists in mental hospitals, childcare workers and psychiatric nurses. Her findings showed that these professional groups tended to cope with the stress of multiple demands made on them by a form of distancing characterized by negative, cynical, and callous attitudes toward clients and themselves. They lost emotional feeling for the persons they worked with and began treating them in detached or dehumanized ways. According to Maslach, this phenomenon occurs across a wide variety of work settings to anyone who encounters continuous interpersonal stress and who is intimately involved with troubled human beings, learning about their psychological, social or physical problems. From their investigations, Pines and Aronson (1981) asserted that the intense involvement which precipitates burnout is "particularly prevalent in health, education and social occupations . . . ." (p. 15).

Freudenberger (1975), the first to label the syndrome in 1975, noted that burnout occurs in psychiatrists, physicians, nurses, social workers, dentists, accountants, lawyers, and educators within one year

of beginning work. From their research, Pines and Aronson (1980) maintained that burnout takes longer to develop in some professions than others. Nurses tended to experience the syndrome within several months to a year; social workers and inner city teachers within two years; and doctors, dentists, teachers, and private practitioners within four to five years. Greenberger (1981) observed that corporate managers experience burnout within two years of being promoted to administrative positions, where their responsibilities and contacts with other people increased.

In their research comparing burnout and its correlates in professional men and women, Pines and Aronson (1981) found that burnout was greater among women because "women were at a disadvantage, especially in their work conditions" (p. 91). Women reported more tedium or burnout, less freedom, autonomy, influence, variety, challenge, rewards, and "fewer opportunities for self-expression and self-actualization . . . . These women also had more of such negative features as environmental pressures and overextension caused by the demands of other people" (p. 91). Women who choose to combine a career with having a family are in further jeopardy of role conflict and of experiencing burnout and, "in extreme cases," are vulnerable to "emotional breakdown and suicide" (p. 94). The researchers found that "role conflict and the distractions at home and at work were highly correlated with tedium; the more conflict and the more distractions, the more tedium" (p. 96).

There appears to be, then, a significant incidence of burnout, especially in women. In studies of burnout, other aspects of one's personal life which may contribute to the process require investigation.

Daubney's (1980) study of stress and coping with newborn death among nurses working in a neonatal intensive care unit corroborated this premise. He found that levels of perceived work stress were significantly related to the total number of death-related experiences in the nurses' personal lives. Otto (1980), from his research on burnout in the teaching and helping professions, concluded that responses to both perceived personal problems and to occupational factors enhance the individual's susceptibility to burnout. Studies such as the present one are needed to identify the specific personal and professional factors which relate to this phenomenon.

The Characteristics and Effects of Burnout

According to the research and literature, burnout involves changes in physical and mental health and performance and is costly to employees, institutions, and consumers. Maslach (1978a) asserted that burnout is a key factor in (a) poor delivery of health and welfare services, (b) low worker morale, (c) absenteeism, and (d) turnover. She noted that "a common response to burn-out is to quit and get out, either by changing jobs, moving into administrative work (and getting away from direct contact with patients or clients), or even leaving the profession entirely" (Maslach, 1977, p. 4). Edelwich and Brodsky (1980) alleged that turnover is both a cause and a result of burnout. Because staff members who remain after someone leaves have an increased work load and experience a disruption in their support networks, they become vulnerable to experiencing burnout and to leaving the institution.

However, another response of workers to burnout might be to stay

on the job and become " 'deadwood'. They do as little as possible, and their most likely response to all inquiries is: 'I don't know, I just work here,' or 'I don't know -- it's not my job' " (Pines & Aronson, 1980, p. 7). Describing burnout in the Chicago public school system, Yuenger (1981) stated that teachers who have been on the job for a while, "if not actively looking elsewhere in a tight job market, have been reduced to unenthusiastic, time-serving automatons in the classroom" (p. 1). Reflecting on the effects of burnout on performance, he quoted one teacher, " 'Well, I have only 5 more years before retiring. Why make myself ill? I can't do anything about it. I'm just going to turn it off and not feel guilty if every kid in my class does not learn' " (p. 10).

From his research, Freudenberger (1975) observed that burnout victims became suspicious and resistant to change. He asserted that, "change is threatening to an exhausted person" (p. 78).

The literature on burnout more consistently describes the detrimental effects of burnout on performance than does the stress research. Cherniss (1980), summarizing the stress and burnout literature, contended that "when an entire work group burns out, the result is the development of an institutional climate that is antithetical to the goals of humane care and rehabilitation" (p. 32). New workers become socialized by the group manifesting burnout to be less effective and less committed to the organization's goals. Thus, although the stress of working with clients can predispose the worker to burnout, workers' stress can adversely affect clients. Those cared for by a staff experiencing burnout, for example, respond with such reactions as negativism,

distrust, anxiety, fear, and anger (Beland, 1980; Edelwich & Brodsky, 1980).

In addition to the physical and emotional exhaustion which characterize burnout, Maslach (1978b) found in her research that the syndrome correlated with other indices of personal stress, such as psychophysiologic disorders, alcohol and drug abuse, mental disorders, and family and interpersonal conflicts. Relevant to the latter, in a study of 130 policemen and their families, Maslach and Jackson (1979) found that high burnout scores were associated with domestic strains which were absent or mild in families of low burnout scorers. Younger officers tended to score higher than older officers on burnout measures and therefore seemed to be in greater jeopardy.

The Stages of Burnout

Further information about the characteristics and effects of burnout can be gleaned from an examination of the stages of burnout. It is believed that burnout occurs not suddenly but gradually in identifiable stages. Although various theoretical paradigms have been advanced (Daley, 1979; Edelwich & Brodsky, 1980), the following model was derived from empirical evidence.

From observing health and welfare workers over long periods of time, Maslach (see Shubin, 1978) alleged that the manifestations of burnout clustered in stages. Individuals most vulnerable to experiencing these stages were those who had initially demonstrated excessive commitment and dedication to their jobs, idealistic enthusiasm, high energy, and unrealistic expectations.

Stage I. The first phase of burnout is characterized by emotional

and physical exhaustion. Signs and symptoms include fatigue, irritability, increased use of drugs and alcohol, loss of enthusiasm, backaches, insomnia, headaches, chronic colds, ulcers, and other stress-related disorders.

Stage II. The development of negative, cynical, callous attitudes towards clients, co-workers, and themselves as persons and as professionals marks the second phase of burnout. Health care workers experiencing this phase avoid others emotionally, lose concern for clients, and overuse distancing techniques, such as detachment, dehumanization, and depersonalization.

Stage III. During the last phase of burnout, workers experience disgust with their personal and professional lives, withdraw not only from clients, but also from family and friends, and feel hopeless and depressed.

Beland (1980), in her discussion of the burnout syndrome in nurses, described the consequences of nurses' using detachment and dehumanization to distance themselves from the emotional intensity of patient care. Although slight detachment, or emotional/physical separation from the client, can enhance objectivity in the planning of care, profound detachment results in the nurses' functioning as automatons "without feeling or evident concern for the needs of patients" (p. 199). This signifies burnout and can be manifested by nurses spending less time with clients and more time with peers or by leaving the nursing field entirely. Being absent excessively, extending coffee and meal breaks, leaving one hospital to work at another, or leaving patient care to pursue higher degrees in nursing or other fields are often

motivated by feeling "burned out."

Dehumanization occurs when the nurse divests clients of their human qualities. Describing patients in demeaning terms, such as "that vegetable in room 727" serves to provide emotional distance, but at the expense of empathic and individualized patient care. Yasko (1981) cited studies (Maslach & Solomon, 1976; Pilette, 1980) where professionals using dehumanizing behaviors with clients influenced others in the work environment to use these behaviors and to treat clients in punative manners.

Summarizing the literature on the stages of burnout, Cherniss (1980) concluded that burnout is a "process in which a previously committed professional disengages from his or her work in response to stress and strain experienced in the job" (p. 18). Even though one stage may lead to another, the changes in the worker may be mild and barely perceptible. In addition, there are vast individual differences in workers' responses to job-related stress. Pines and Aronson (1980) observed that burnout can last from a few days or weeks, with spontaneous recovery, to months or years without recovery.

From the examination of the concept of burnout thus far, the syndrome seems to involve maladaptive psychophysiological, psychological, and behavioral reactions to occupational stressors which are perceived to be of excessive intensity and prolonged duration. Psychophysiological responses include stress-related disorders, such as extreme fatigue, chronic colds, and ulcers. Psychological reactions to job stress include emotional exhaustion, negative job attitudes, loss of concern for clients, and depression. Behaviorally, adverse effects on

job performance are manifest when the employee experiencing burnout withdraws from clients, physically or psychologically, when she makes mistakes, is neglectful, or treats clients in dehumanized ways. Tardiness, absenteeism, or leaving one hospital to find employment elsewhere may also be behavioral indicants of burnout. In brief, burnout, apparently a reaction, in part, to job-related stress, affects the mental and physical health and the quality of performance of those experiencing the phenomenon. It results from working in situations that are interpersonally and emotionally demanding (Pines & Aronson, 1981). Health, education, and social service professions are characterized as emotionally demanding. Persons working in those occupations are therefore vulnerable to burnout. In the present study, factors thought to be related to burnout in nurses were investigated.

Factors Which May Relate to Burnout in Nursing

Although burnout has been discussed in the nursing literature since 1978 (Beland, 1980; Houlihan, 1982; Lamb, 1979; Lenhart, 1980; Magill, 1982; Shubin, 1978; Storlie, 1979), results of empirical investigations on the factors which relate to burnout are only currently being reported in the literature. While some researchers have studied factors which may constitute the characteristics and effects of burnout (Jones, 1980a, 1980b, 1980d, 1981a, 1981b; Mytych, 1981), others have attempted to identify those variables which may contribute to the burnout process (Cheatham & Stein, 1982; Cronin-Stubbs, 1982; Jones, 1980b; Pines & Kanner, 1982; Yasko, 1981). The researcher of the present investigation was concerned with the latter, i.e., exploring those factors which may be sources of burnout in nurses. The following, then,

is a presentation of reports of research which are consistent with this focus.

Jones (1980b), in a study of 36 staff nurses working in diverse specialty areas, found that work setting significantly correlated with burnout. Nurses who worked in the emergency or critical care areas reported more burnout than those who worked in less intensive settings ($r = .46$, $p < 0.01$). Though Jones's (1980b) findings were derived from a small, nonrandom sample of nurses working at one hospital, interpretation of the data suggests that the specialty area in which nurses work may contribute to burnout.

To determine the sources of burnout in enterostomal therapists (registered nurses who specialize in the care of colostomy patients), this researcher developed a semi-structured assessment guide used to interview 150 enterostomal therapists attending a burnout workshop at their 1981 Annual Conference in Chicago (Cronin-Stubbs, 1982). Results of the a posteriori content analysis revealed the following factors as the most frequently cited sources of burnout: (a) work or role overload, (b) juxtaposing home and work responsibilities, (c) interpersonal relationships with staff and physicians, and (d) conflicts with administration, i.e., lack of support and bureaucratic restrictions on fulfilling their roles as enterostomal therapists. From these data, it would seem that stressors in the work environment, including a lack of supportive relationships, as well as aspects of the nurses' personal lives contribute to burnout. However, the reliability and validity of the instrument used in the Cronin-Stubbs project has not been established. Also, generalizing findings from a nonrandom sample of nurses who work as

specialists in one area to broader populations of nurses is questionable.

Positing that burnout may be due to both the presence of negative conditions, such as conflicting demands and work overload, and the absence of positive conditions, such as support and challenge, Pines and Kanner (1982) found in their exploratory study of thousands of workshop participants that certain work-related stressors and a nonsupportive network of colleagues correlated with burnout. It may be noted that r and p values were not reported by the researchers. Also, since the sample was not a random, representative one and the instruments used to assess stress and support were not described, further research seems needed in order to draw conclusions about the relationship of occupational stress and social support to burnout.

In her nation wide survey of 185 master's prepared oncology nurses, Yasko (1981) found that the major sources of stress which related to her respondents' burnout were (a) the complex bureaucratic organizational structure of the employing agency, (b) the lack of psychological support from peers, physicians, and administrators, and (c) factors related to the oncology clinical specialist's role, e.g., role overload/expectations. In addition, the greater the level of occupational stress, assessed by a single item on Yasko's self-report questionnaire, the greater the degree of burnout, assessed by the Staff Burnout Scale for Health Professionals (Jones, 1980c) (r = .42, $p < 0.01$). On her self-report instrument, Yasko also included an item pertaining to the amount of social support the nurses believed was available to them. Correlating the responses to this item with the nurses' burnout scores,

Yasko found that the greater the lack of social support in the work environment, the greater the degree of burnout (r = .37, $p < 0.01$). Interpretation of these findings suggest that certain occupational stressors as well as limited social support may contribute to the burnout process. However, as in the previous investigations, the findings of Yasko's study were based on exploratory data. Objective, more comprehensive measures than have been previously used are needed to assess occupational stress and social support. For example, since support from one's personal network may offset the lack of support from work, a thorough assessment of the nurses' personal and work-related support networks should be obtained. Since the findings of these investigations of burnout in nurses cannot be generalized beyond the limited and often nonrandom samples of workshop participants or nursing specialists to more representative populations of nurses, it seems obvious that further research is warranted. From the work of investigating burnout that has been done, it seems that the phenomenon is a maladaptive response to occupational stressors. Work setting (Jones, 1980b), stressors in one's personal life (Cronin-Stubbs, 1982), and social support (Cronin-Stubbs, 1982; Pines & Kanner, 1982; Yasko, 1981) may also be relevant.

Some researchers who have studied burnout in nurses included variables related to personality characteristics, such as locus of control and anxiety-proneness (Gray-Toft & Anderson, 1981b; Yasko, 1981). However, in the present study the researcher focused on situational and social factors as possible correlates of burnout. This emphasis is consistent with other researchers' perception of the problem (Maslach, 1976; Pines & Kanner, 1982) and the results of studies of stress in

nurses (Anderson & Basteyns, 1981; Gentry, Foster, & Froehling, 1972; Gray-Toft & Anderson, 1981b). Citing her research on health and welfare professionals, for example, Maslach (1976) concluded that "many of the causes of burnout are located not in permanent traits of the people involved, but in certain specific social and situational factors . . . ." (p. 16). Although personality factors may be relevant, Maslach identified such institutional variables as staff-patient ratios and such social variables as staff-patient relationships and availability of social support as pertinent to burnout. Summarizing the stress literature, Coleman (1973) asserted that "there is a substantial body of evidence to suggest that in the face of extreme or prolonged stress, constitutional and personality factors may do no more than determine how long the individual can withstand the stress" (p. 170). Therefore, mindful of the focus on situational and social factors as well as the limitations of the studies reviewed, the researcher in the present study used objective measures to examine the relationships among work stress, life stress, personal and work-related social support, and burnout reported by a random sample of nurses working in four diverse specialty areas.

Occupational Stress

In the present study, it was hypothesized that burnout is, in part, a response to occupational or work-related stressors of excessive intensity and/or of prolonged duration. The theory and research on occupational stress originates in business and industry (Caplan, Cobb, French, & Harrison, 1975; House, 1974; Kahn, 1978; MacNeill, 1981; McGrath, 1977; McLean, 1974; Neff, 1968). However, concern for the

stressfulness of working in the human service area has stimulated discussion and research focused on occupational stressors and burnout in health professionals, as for example, nurses.

Although Selye's (1956) definition of stress is usually cited in studies of stress and burnout, other definitions are also pertinent (see Sharit & Salvendy, 1982, for a review of definitions and measures of occupational stress). Stress is defined by Hartl (1982) as "that physical and emotional experience which results from a requirement to change from the condition of the moment to any other condition" (p. 255). Discussing occupational stress, MacNeill (1981) suggested that when an individual experiences an event in the work situation as a change with sufficient magnitude to be a threat to this physiological and psychological equilibrium, the perceived threat or stressor triggers the stress response. These definitions are consistent with Gray-Toft and Anderson's (1981a) definition of stress as a "cue in the physical, social, or psychological environment that threatens the equilibrium of an individual" (p. 12).

Changes which threaten the individual's equilibrium, then, are labeled stressors and they trigger the stress response. Stressors in the work environment are the sources of occupational stress. Burnout is typically considered to be a response to occupational stressors (Jones, 1980c) which are perceived by the worker to be of excessive intensity and/or of prolonged duration (Cherniss, 1980).

The relationship between the frequency and the intensity of job-related stressors and the burnout of staff nurses were explored in this project. Because the focus in this study was not to identify specific

occupational stressors, an overview of the sources of occupational stress of nurses working in the specialty areas under investigation is presented. A comparison of the factors included in the Nursing Stress Scale (NSS), the instrument used in the present study to assess the frequency and intensity of work-related stressors, and those found in nursing studies to be frequent or important sources of stress for staff nurses is shown in Appendix A. Thirty-six of the 42 stressors listed on the NSS were cited in the studies reviewed. These included, for example, factors pertaining to relationships with patients and their families, such as feeling inadequately prepared to help with the emotional needs of a patient's family, and work load, as, for example, experiencing a large number of admissions at one time. Frequently mentioned sources of stress in those studies not listed on the NSS included (a) lack of control over situations in the work environment (Jacobson, 1978), (b) incompetence of supervisors (Jacobson, 1978), (c) work/role overload (Anderson & Basteyns, 1981; Cronin-Stubbs & Velsor-Friedrich, 1981; Gray-Toft & Anderson, 1981b; Huckabay & Jagla, 1979; Preston et al., 1981; Yasko, 1981), (d) managing the multiple and often conflicting demands and responsibilities of home and work (Cronin-Stubbs, 1982; Cronin-Stubbs & Velsor-Friedrich, 1981; Jacobson, 1978), (e) lack of administrative rewards (Bailey et al., 1980; Preston et al., 1981), (f) bureaucratic-political issues (Jacobson, 1978; Yasko, 1981), and (g) life event changes (Bailey et al., 1980; Cronin-Stubbs & Velsor-Friedrich, 1981). It appears from this review that the NSS reflects the occupational stressors experienced by the nurses in the studies cited in Appendix A. In addition, it seems that personal factors, such

as life event changes, also contribute to nurses' occupational stress.

While the studies reviewed focused on the frequency of stressors, investigating the impact of both the intensity and the frequency of occupational stressors is a relatively new enterprise. Whether or not frequent and/or intense occupational stress and life stress contribute to burnout is one of the concerns in the present study.

Work Setting

As noted by Jones (1980b), the particular specialty area in which the nurse works may influence her response to stressors. Reviewing the nursing research on occupational stress (see Appendix A) revealed that most of the studies of stress in nursing involved nurses working in intensive care units while studies of non-intensive care nurses are limited. Studies such as the present one where the stress and burnout of nurses working in diverse specialty areas are investigated within the same study are minimal. Marshall (1980) emphasized the importance of comparative research involving work settings when she stated,

> Pressures may be different for different kinds of nurses. Extent of experience, level in the organization, and degree of specialization are the more obvious potential distinctions. The literature currently offers few opportunities to explore such differences in stress terms (p. 23).

Garbin (1979), in her discussion of stress research in clinical settings, noted that nurses "differ in the amount of stress they perceive in such settings as an intensive care unit or a psychiatric unit" (p. 89). Staff nurses from each of four specialty areas were asked to participate in the present study. Nurses from psychiatric-mental health, operating room, intensive care, and medical units were involved. The following is a discussion of the research done in these work settings.

Studies where the stressfulness of intensive care nursing is compared with the stressfulness of non-intensive nursing yield discrepant findings. In their study of 34 nurses working in three intensive and three general medical-surgical units, Gentry, Foster, and Froehling (1972) found significant differences between the groups for self-rated depression ($p < 0.01$). They concluded that nurses working in the intensive care unit (ICU) are under more psychologic and emotional stress than their non-ICU counterparts and that, as a result, the former has a tendency to become more depressed, hostile, and anxious.

Dissimilar results were advanced by the following studies. Maloney (1979), in his study of the occupational stress of 60 intensive care and non-intensive care nurses, found that non-intensive care nurses reported significantly more state and trait anxiety, somatic complaints, and personal-family problems than did intensive care nurses ($p < 0.05$). Johnson (1979), in her comparative study of anxiety/stress among 70 nurses employed in various units, found that stress, defined as state and trait anxiety, was highest in medical nurses, moderate in intensive care nurses, and lowest in psychiatric nurses. In a recent study by Mohl, Denny, Mote, and Coldwater (1982), the investigators found no differences in levels of clinical distress of nurses working in two intensive care units ($n = 38$)[1] compared with those working in two general medical units ($n = 30$). Nurses from one of the intensive care units reported the least amount of stress among the four groups ($p < 0.05 - 0.02$). Stress or clinical distress was assessed in this study by

[1] "N" is used in this report to represent the total number of respondents in a study, while "n" signifies a portion of the respondents.

the somatization, interpersonal sensitivity, depression, and anxiety subscales of the Symptom Distress Check List.

From her extensive review of studies of intensive care unit stress, Stehle (1981) concluded that "critical care units, although generally portrayed as highly stressful were not shown to be more stressful than other types of nursing units" (p. 182). Because discrepant findings exist among the studies cited in the present review, however, further comparative research incorporating intensive care nurses seems warranted.

Comparing the stress levels of 29 operating room and 27 medical-surgical nurses, Preston et al. (1981) found that although some differences occurred in the sources of stress, there were no differences in the perceived stress levels of the nurses. Both groups reported moderate to low levels of stress in their work environments.

In their study to determine the effect of stress on job satisfaction and the frequency and sources of stress experienced by 122 nurses working in five specialty units at one hospital (i.e., medicine, surgery, cardiovascular surgery, oncology, and hospice), Gray-Toft and Anderson (1981b) found significant differences among specialty areas ($p \leq 0.05$). Using the NSS to assess occupational stress, the researchers found that medical nurses reported highest frequencies of stress, cardiovascular surgical nurses second highest levels, and surgical nurses third highest. Hospice nurses expressed lowest levels of stress. Suggesting that turnover rates are reflective of burnout, the researchers also found that as nursing stress increased, turnover also increased. During a five month period, compared with the other settings in the study, medical nurses

manifested the highest turnover rate (30%) while there was no turnover among the hospice nurses who had reported the lowest frequency of stress.

Since the above studies were not based on similar conceptual frameworks or operational definitions of stress, it is difficult to draw conclusions about the findings. In addition, none of the studies were investigations of the relationship between occupational stress and burnout nor comparisons of the stress and burnout of nurses working in the psychiatric-mental health, operating room, intensive care, and medical settings. The researcher in the present study examined the relationship between not only the occupational stress and burnout of nurses working in these four settings, but also included factors in the nurse's personal life which were thought to influence her responses to job-related stress.

Life Stress

As shown in the exploratory study by Cronin-Stubbs (1982), stressors in nurses' personal lives may contribute to burnout. Assessing the role of life stress in studies of occupational stress and burnout is supported by McLean (1974) who stated, "Reactions to stress can only be understood in the context of the job holder's entire life situation" (p. 21). In his discussion of occupational stress, MacNeill (1981) also contended that, because of the "interactive nature of person, work, and non-work variables" (p. 78), researchers of work stress need to consider general life stressors. This seems important, too, in studies of burnout. As Patrick (1979) noted, "stress associated with marital problems, parenting difficulties, financial strains, social pressures,

and other disruptive influences can compound job-related stress to significantly promote the severity and the rapidity of the burnout process" (p. 88).

Consistent with the definitions of stress and occupational stress cited earlier, life stress includes types of situations or events in one's life which threaten human psychophysiological stability (Hefferin, 1981) or precipitate a change in the life pattern of the individual (Petrich & Holmes, 1977). In the present study, life stress is operationally defined in terms of self-reported life changes which have a positive and/or negative impact on the respondent and is assessed by means of the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978).

Because burnout affects physical and psychological health and job attitudes, studies relevant to the effects of life stress on these areas will be cited. (See Dohrenwend & Dohrenwend, 1974 and Rabkin & Struening, 1976 for reviews.) Researchers have demonstrated a relationship between stressful life event changes and subsequent physical and mental disorders. Although causal links between life changes and health outcomes have not been established, "enough research has been reported to support the idea that life events, particularly if accumulated over a relatively brief time period, represent some risk to physical and mental health" (Eckenrode & Gore, 1981, p. 43). Holmes and Rahe (1967), for example, using the Schedule of Recent Experiences to measure life event changes or life stress, found in their studies that somatic and psychologic illnesses were associated with high life change scores for the time period immediately prior to the illnesses. That is, those individuals who had experienced recent positive and negative life-change

events, such as job promotions or divorces, reported more illnessess and accidents than did those with fewer changes in their life-styles. Extrapolating from their data, they concluded that persons with high life change scores (≥ 300) are likely to develop illnesses or experience accidents subsequent to the period of multiple changes. Research on the general public (McNeil & Pesznecker, 1977), on college students (Herbert, 1976), and on psychiatric inpatients (Bell, 1977) supports the findings of Holmes and Rahe.

In their study of the relationship between life stress and depression in 64 college students, Sarason et al. (1978), using the Life Experiences Survey, found significant relationships between changes perceived by the respondents as negative and self-ratings of depression ($p < 0.05$). In his studies of life event changes as stressors relevant to the onset of mental disorder, Barrett (1979) distinguished classes of events specific to depression and anxiety. He assessed life events and perceptions of distress associated with those events in 231 volunteers, selected on the basis of results on the Hopkins Symptom checklist. The stressors which elicited a depressive disorder in his respondents were events having to do with people. These included changes in relationships, such as conflict, divorce, and death. Those who responded with anxiety were more distressed by changes related to work and performance, such as job failure, financial problems, and examination failure. He concluded that an interaction occurs between particular stressors and individual vulnerability factors and that life event changes play an established role in the onset of certain depressive and anxiety disorders.

In her extensive review of the literature and research on life event stressors throughout the life cycle, Hefferin (1981) noted that life stress adversely affects not only health, but also interferes with cognitive functions, such as judgment, and contributes to the incidence of accidents. These effects could deleteriously affect the employee's decision making and performance at work.

Life stress may also influence attitudes about work. Sarason and Johnson (1979), in their study of 44 naval personnel, found that personal life stress, as assessed by the Life Experiences Survey, was significantly related to job satisfaction, as assessed by the Job Description Index, ($p < 0.05$). In particular, positive life changes were associated with job satisfaction and negative life changes were associated with job dissatisfaction. The researchers concluded that stressors in one's personal life contribute to one's attitudes about work.

Reports of investigators exploring the relationship between life stress and burnout are only recently appearing in the literature. A significant relationship was found between life stress, as assessed by the Life Experiences Survey, and burnout, as assessed by the Maslach Burnout Inventory, in Scott's (1980) study of 53 ambulance paramedics. Paramedics who had high burnout scores had statistically higher life stress scores than paramedics with low burnout scores ($p < 0.05$). Scott concluded that life stress is one of the situational variables that contributes to the burnout and subsequent turnover rates of personnel who work in emergency medical services.

In her study of situational stressors, coping methods, and amounts of life-change stress perceived by critical care staff nurses and

supervisors (N = 79) working in five acute care hospitals, Oskins (1982), using the Schedule of Recent Experiences, found that 57% of the nurses were at risk of experiencing a change in their health status. She concluded that "a significant number of the sample showed some level of risk to their health from the stress levels they were enduring" (p. 165). However, Oskins did not assess the actual health status of her participants nor did she determine if there were relationships among occupational stress, life stress, and health outcomes.

The affects of life stress on physical and mental health are similar to some of the characteristics of burnout. Burnout results, in part, from stressors related to work, such as intense interpersonal involvement with clients. Changes in attitudes toward self, others, and work are concomitants of the burnout process. Therefore, a study of burnout, such as the present one, would be incomplete without including life stress as a factor which may contribute to the phenomenon. In the present study, the relationships among work-related variables, such as occupational stress and work setting, personal variables, such as life stress and social support, and the burnout experienced by staff nurses have been explored.

Social Support

As noted, the results of exploratory studies by Cronin-Stubbs (1982), Pines and Kanner (1982), and Yasko (1981) suggest that a lack of supportive relationships may contribute to the burnout process in nurses. The relationship of social support to occupational and life stress has been explored for some time (Andrews, Tennant, Hewson, & Vaillant, 1978; Cobb, 1976; French, 1974; House & Wells, 1977; Likert,

1961; Nuckolls, Cassel, & Kaplan, 1972; Pinneau, 1975; Sarason, Levine, Basham, & Sarason, 1981). However, the results of research focused on the relationship of social support to stress and burnout in the health-related occupations, as, for example, nursing, is only recently appearing. In the present investigation, an attempt was made to examine the impact of social support in the context of occupational and life stressors on burnout as it was experienced by staff nurses.

A lack of agreement on the conceptual and operational definitions of social support exists. Norbeck (1981) noted that the concept is used currently "by behavioral and health scientists to denote variously defined supportive interactions" (p. 44). Eckenrode and Gore (1981) identified the common focus of the various definitions of social support as "helping properties and processes of the social-relational systems in which persons are located" (p. 50). They defined social support networks as aggregates of "potentially helpful affiliates" (p. 51). In the present review, social support, social support systems, and social support networks are used interchangeably.

The instrument used in the present study to assess social support, the Norbeck Social Support Questionnaire (Norbeck, Lindsey, & Carrieri, 1981), was derived from Kahn and Antonucci's (1980) conceptual framework. These researchers defined social support as "interpersonal transactions that include one or more of the following key elements: affect, affirmation, and aid" (p. 267). Affect refers to emotional support or "expressions of liking, admiration, respect, or love" (p. 267). Affirmation is defined as "expressions of agreement or acknowledgement of the appropriateness or rightness of some act or statement of another person"

(p. 267). Aid includes "those transactions in which direct aid or assistance is given, including things, money, information, time, and entitlements" (p. 268). One of the variables of the Norbeck Social Support Questionnaire includes subscale measures for affect, affirmation, and aid.

Findings of research which examined the relationship of social support to stress are usually described in terms of the efficacy of social support in moderating or buffering the effects of occupational and/or life stress (French, 1974; House & Wells, 1977; Pinneau, 1975). Cherniss (1980), suggested that supportive family and friends, as well as a satisfying personal life, can buffer a stressful work situation. Cobb (1976), from his review of the research, concluded that supportive relationships, either at work or in one's personal life, function to protect the individual, throughout his life span, from some of the adverse outcomes of life stress, such as "depression, alcoholism, and other psychiatric illness" (p. 310).

It may be that social support plays an even more important role in a health profession comprised mostly of women, such as nursing. McClelland (1975), for example, found that interpersonal relationships are more important for women than for men and that women, to feel satisfied with their work situations, require meaningful relationships. Sarason, Levine, Basham, and Sarason (1981), in their investigation of the relationship between social support and psychological discomfort, found for the women (n = 127), but not for the men (n = 100) in their study, significant negative correlations between measures of social support, i.e., numbers of persons in the social support network and

degree of satisfaction with the network, and measures of emotional discomfort, i.e., hostility, anxiety and depression (r = -.26 to -.34, $p < 0.001$). In that study, the investigators also found that respondents who were low in social support were more emotionally labile and more pessimistic about the present and future than were those high in social support. The implication of these findings seems to be that for women, social support may be a factor in mediating the effects of stress, thereby preventing some of the emotional consequences of burnout.

Physical illnesses are also thought to be minimized by social support (see DiMatteo & Hays, 1981, for a review). Nuckolls, Cassel, and Kaplan (1972), for example, found that women high in life stress and low in psychosocial assets, such as social support, had three times more birth complications than did women similar in life changes but high in psychosocial assets. Gottlieb (1981), in his review of recent studies, surmised that "some deficiency in people's primary-group ties is associated with increased vulnerability to disease, both medical and psychiatric" (p. 201).

From these findings, it seems that deficiencies in social support, especially during periods of frequent and/or intense stress at work and at home could also predispose one to experiencing burnout. Support during those times would lessen the deleterious effects of those stressors. However, findings of other researchers do not confirm these relationships. In their survey of 863 individuals from the general population in Australia, Andrews and her co-investigators (1978) found that social support did not moderate the relationships between life stress and psychological impairment. Those individuals with high life event

stress and direct support from known others during crises, assessed by instruments developed by the researchers, were as likely to manifest symptoms of neurosis, assessed by the General Health Questionnaire (Goldberg, 1972), as those who were socially isolated. Citing a study where a lack of social support was positively associated with both high life stress scores and psychological symptoms without an apparent mediating effect (Miller, Ingham, & Davidson, 1976), Andrews et al. (1978) questioned the notion that social support buffers the effects of life and work stress. Dolinsky (1982) derived similar findings from his study (N = 51) of life stress as a function of rural and urban communities, socioeconomic status, and social support. Neither size nor quality of support systems mediated perceived amounts or impact of life stressors.

Similarly, research on the moderating effects of social support on occupational stress has yielded inconsistent results. For example, mixed findings were derived from Winnubst, Marcelissen, and Kleber's (1982) study of 1246 employees working in 13 different industrial organizations in the Netherlands. Although social support was found to buffer the impact of work-related stressors on psychological outcomes, e.g., depression and anxiety, and behavioral outcomes, e.g., use of cigarettes ($p \leq 0.05$), no mediating effect for health problems, such as somatic complaints and hypertension, was found. All variables in this study were assessed using the investigators' Organizational Stress Questionnaire.

Positing a buffering or moderating role of social support has recently been challenged on methodological grounds. In their critical

review of the stress and social support research, Eckenrode and Gore (1981) noted that "the statistical finding that the correlation between stress and illness is reduced in the presence of support is taken as evidence that stress-buffering has occurred" (p. 51). However, since researchers have not investigated social support processes experimentally, they concluded that positing moderating effects is unfounded. Because the present study is correlational-descriptive by design, statements about the moderating or stress-buffering effects of social support were avoided.

As shown by the review of the literature, the relationship between social support and occupational and life stress is unclear, possibly because the "social environment is capable of radiating both stress and support" (Gottlieb, 1981, p. 228). Investigations on the differences in social support among nurses working in diverse specialty areas have not been reported. The influence of social support upon the burnout process also remains unknown, since research of the relationships of these variables is only recently being published. In addition, objective, reliable, and valid measures to assess the occupational stress, burnout, and social support of nurses have, until recently, been unavailable. Therefore, an investigation of the role of social support in nursing stress and burnout, as conceptualized in the present study, is a relatively new enterprise.

Investigations of this nature seem timely since changes in social support could be stress-provoking and enhance one's vulnerability to burnout. Discussing social changes which promote occupational stress and burnout, Ryerson and Marks (1981) cited the disintegration of social

support groups as an important recent change. Although interpersonal relationships are often a source of professional and personal stress (McLean, 1974; Wallace, 1978), the lack of supportive relationships with others might contribute to stress and burnout (Pines & Kafry, (1978).

Maslach (1977) informally observed that burnout rates were lower in groups of health professionals who had institutionally sanctioned opportunities to "get together to discuss problems, and get advice and support" (p. 11). In their research involving 290 students and 241 business, health, and social service professionals between 17 and 87 years old, Pines and Aronson (1981) found that supportive personal and professional social relationships were negatively correlated with burnout ($\underline{r}$ = -.17 to -.25; $\underline{p} \leq 0.001$). However, the results of these studies were based on exploratory, descriptive data. Lacking were objective instruments to measure social support.

The importance of social support for nurses has been gaining recognition (Puetz, 1981). Michaels (1971) observed that nurses are often "so in need of support themselves" (p. 1933) that they are unable to give support to their patients. Discussing burnout in nurses as a result of prolonged crisis states, Janken (1974) suggested that deficiencies in personal and professional support systems can promote disequilibrium in a stressful situation and predispose nurses to burnout.

Providing professional and personal support for nurses in the form of ongoing support groups, workshops, formal and informal networking, nurse-to-nurse consultation, individual counseling, group psychotherapy, and psychiatric liaison services is frequently recommended as means to

prevent and/or manage stress and burnout (Baldwin, 1981; Clark, 1980; Cronin-Stubbs, 1982; Cronin-Stubbs & Velsor-Friedrich, 1981; Eisendrath, 1981; Epting, 1981; Johnson, Richardson, Von Endt, & Lindgren, 1982; Kovecses, 1980; Sutterly, 1979; Thomas, 1982). However, these recommendations do not reflect systematic investigations upon which the effectiveness of such support can be based.

In their review of the literature on nurse support groups on intensive care units, Weiner and Caldwell (1981) found fragmentary and limited, though positive and objective evidence for the impact of these groups on helping nurses to cope with the stressors of their work environment. Gray-Toft (1980), in a study of 17 hospice nurses, found that a counseling support program reduced self-reported stress and increased job satisfaction. However, it should be noted that in this study the group of respondents was small.

Limited research has been conducted in which relationships among social support and the stress and burnout of nurses have been explored. In the previously cited study by Mohl et al. (1982), a relationship was observed between occupational stress and social support among intensive care nurses. Those nurses who reported the least amount of clinical distress also reported the greatest amount of staff support. Assessed by one of the subscales of the Work Environment Scale (Moos & Ensel, 1974), staff support was defined as "the degree to which supervisors support workers and encourage mutual support" (p. 373). Extrapolating from their small sample (N = 13), the researchers conjectured that "high levels of staff support appear central to reducing stress levels" (p. 373). Further experimental research beyond the scope of the present

study would be needed to support this relationship.

In a larger exploratory study of the effects of work-related social support and psychological resources on occupational stress and burnout in 98 staff nurses working at one hospital in Texas, Paredes (1982) observed a significant and negative relationship between social support and burnout. Nurses who reported high levels of support from supervisors and co-workers, assessed by Caplan et al.'s (1975) Social Support Index, experienced significantly less burnout, assessed by the Maslach Burnout Inventory ($p \leq 0.01$). Pines and Kanner (1982), in their cross-cultural exploratory study of social support and burnout, found that Israeli nurses (n = 169) were consistently more involved in supportive networks of family and friends and experienced less burnout, assessed using the Tedium Measure (Pines & Aronson, 1981), than American nurses (n = 352). Interpreting this study's results is difficult since quantitative results and a description of the instrument used to assess social support were lacking. However, from the results of these initial investigations, it seems that social support may be an important factor to consider when studying burnout.

Research on the role of social support in nursing stress yields inconclusive results, while investigations of the relationship between social support and nursing burnout have just begun. Using comprehensive and objective measures, the researcher in the present study examined the relationships among social support, occupational and life stress and the degree of burnout reported by a large sample of nurses working in four hospital-based specialty areas.

Summary

The focus of the second chapter was a review of the literature including the theoretical basis for the present study and the variables hypothesized as being related to nursing burnout. Affecting mental and physical health and job performance, burnout is observed in those health, education, and social service professionals whose work involves continuous interpersonal stress and intimate involvement with other human beings. Characterized by physical and emotional exhaustion, hopelessness, depression, and detachment from clients, co-workers, family, and friends, burnout is costly to employees, employing institutions, and consumers. Although the phenomenon is considered to be a response to occupational stressors, researchers now believe that changes or stressors in workers' personal lives are also relevant. Reviewing the literature revealed that factors which may contribute to the burnout process in nursing, in addition to occupational stress, include work setting, life stress, and social support.

In the present study, it was hypothesized that occupational or work-related stressors of excessive intensity and/or of prolonged duration contribute to burnout. Frequent or important sources of occupational stress identified in previous nursing studies included factors pertaining to work load, such as not having enough time to provide emotional support for a patient and his family, lack of support from co-workers and supervisors, relationships and/or conflicts with patients, their families, supervisors, physicians, and other departments, staffing, death of patients, uncertainty concerning the treatment of patients, and personal stressors, such as managing the responsibilities of both

working and having a family. As noted, these studies examined the frequency rather than the intensity of stressors.

Another factor believed to contribute to burnout in nurses in the present study was the specialty area in which they worked. While the intensive care setting is thought to be highly stressful, studies where the stress of intensive care nursing was compared with non-intensive care nursing has yielded inconsistent results. Comparative studies where the occupational stress of working in the other settings under investigation in the present study are minimal. Since none of those investigations included an examination and comparison of the relationships between occupational stress and burnout of nurses working in psychiatric-mental health, operating room, intensive care, and medical units, the present study seemed warranted.

Life stress, or changes in the nurses' personal lives thought to effect a positive and/or negative impact, was the third variable hypothesized to contribute to nursing burnout. Although some support exists for the view that life stress affects physical and mental health and job attitudes, research on the relationship between life stress and burnout is meager.

The last variable considered to relate to burnout in nurses was social support, or a lack of supportive relationships at work and/or at home. Although most researchers have attempted to demonstrate that social support buffers or moderates the effects of occupational and life stress, contrary evidence and challenges to the buffering notion also exist.

Scant are the investigations on the role of social support in

nursing stress and burnout. From the research that has been conducted, the presence of social support at work or from a network of family and friends may lessen clinical distress, while the absence of support may enhance one's vulnerability to experiencing burnout.

It has been shown by the reviewer that there is a need for research designed to provide additional information about the relationships among the variables in the present study hypothesized to be relavant to the burnout experienced by staff nurses working in diverse hospital-based specialty areas. The design and methods for investigating these relationships are discussed in the next chapter.

CHAPTER III

RESEARCH METHODOLOGY

The purpose in the present study was to identify factors which may relate to burnout as it is observed in professional nurses. Delineating these variables could contribute to the knowledge of job-related stress as well as be helpful to those who are working to promote the prevention and management of burnout in nurses. This chapter includes a discussion of the design and hypotheses of the study, the research setting and sample, and the data collection and analysis procedures.

Design and Hypotheses

Psychometric methods were used to identify the relationships among the independent variables, occupational stress, work setting, life stress, and social support, and the dependent variable, burnout, and to determine if there are differences in the occupational stress, social support, and degree of burnout experienced by the staff nurses working in the four specialty areas. The work setting included the psychiatric-mental health, operating room, intensive care, and medical specialty areas. Since observing relationships among variables without manipulating them was the focus of the present study, the investigation was by design correlational-descriptive. Kerlinger (1973), comparing experimental with nonexperimental, correlational designs, cited the inability of the researcher to manipulate and control variables and to randomly assign individuals to treatment groups and the possibility of

misinterpreting the study's results due to the ambiguity of the cause and effect relationships as the main limitations of correlational research. Polit and Hungler (1978), however, stated that the descriptive, correlational method of research is an efficient, effective means of collecting a large amount of data related to a problem area. The inductive procedure utilized in this design promotes the researcher's discovering significant variables and relationships that might not be identified within the confines of the experimental research method controlled by deductive procedures. Identifying significant variables and relationships among those factors which relate to burnout can generate hypotheses for future quasi-experimental and experimental studies. However, since no manipulation of variables or positing of cause and effect relationships was attempted in the present study, the descriptive-correlational method was most appropriate for this investigation.

The hypotheses tested in the present study, stated in the null form, were the following:

1. There are no significant relationships among occupational stress, work setting, life stress, social support and the degree of burnout experienced by staff registered nurses.

2. There is no significant difference in the occupational stress experienced by the staff nurses working in the four specialty areas.

3. There is no significant difference in the social support experienced by the staff nurses working in the four specialty areas.

4. There is no significant difference in the degree of burnout experienced by the staff nurses working in the four specialty areas.

The instruments used to test these hypotheses are discussed in the

following section.

Instrumentation

The variables which were amenable to measurement were burnout, assessed by the Staff Burnout Scale for Health Professionals (Jones, 1980c), occupational stress, assessed by the Nursing Stress Scale (Gray-Toft & Anderson, 1981a), life stress, assessed the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978), and social support, assessed by the Norbeck Social Support Questionnaire (Norbeck, Lindsey, and Carrieri, 1981). The variable, work setting, was studied by including nurses from each of the four specialty areas under investigation. Demographic information was obtained using the Self-Report Questionnaire developed by the researcher.

The Staff Burnout Scale for Health Professionals (SBS-HP). Burnout was operationally defined in the present study as scores on the Staff Burnout Scale for Health Professionals (see Appendix B). This instrument, developed by Jones (1980c) for use with health and social service professionals, yields scores ranging from 20, i.e., no evidence of burnout, to 140, i.e., high degree of burnout (Jones, 1980c, p. 3). Of the three scales currently available for measuring burnout, the SBS-HP, the Tedium Measure, and the Maslach Burnout Investory, the SBS-HP is most representative of the components of burnout as conceived in the present study. The SBS-HP, a self-administered 30-item inventory, measures psychophysiological, psychological, and behavioral adverse reactions to occupational stress. While the Nursing Stress Scale assesses the frequency and intensity of job-related stressors, the SBS-HP assesses respondents' perceptions of the consequences or effects of

those stressors. On a scale of one to six, respondents are instructed in the directions to the SBS-HP to check ratings which best reflect the extent to which they agree or disagree with each of the 30 statements according to their current feelings or reactions. The estimated completion time of the SBS-HP is 5 to 15 minutes. Of the 30 items comprising the scale, 20 items measure the presence and degree of the burnout syndrome while 10 items form a Lie Scale.

Using the SBS-HP to assess the experienced burnout of staff nurses and other social service professionals, such as mental health technicians and alcoholism counselors, Jones (1980b, 1980d) obtained a Spearman-Brown spit-half reliability coefficient of .93 and an average item-with-total score correlation coefficient of .71 (range = .59 to .82). Jones (1980c) concluded that the relatively high correlations among the items "suggest that an all encompassing construct called staff 'burnout' is being assessed" (p. 3).

Validity studies by Jones and others using staff nurses as respondents (Jones, 1980a, 1980b, 1980d, 1981a; Mytych, 1981) revealed that the SBS-HP significantly correlated with certain consequences of job stress believed to be manifest of the burnout syndrome. These included, for example, (a) turnover (r = .41 to .63, $p < 0.01$), (b) absenteeism (r = .34 to .54, $p < 0.01$), (c) tardiness (r = .58, $p < 0.01$), (d) physical illness (r = .48, $p < 0.01$), (e) serious on-the-job mistakes (r = .59, $p < 0.01$), (f) patient neglect (r = .38, $p < 0.05$), and (g) prescription drug use (r = .59, $p < 0.05$). The SBS-HP, then, has sufficient reliability and validity for use in the present study.

Scoring the SBS-HP involves calculating both a Burnout Scale

score and a Lie Scale score. Items 1, 2, 5, 6, 8, 10, 11, 13, 14, 16, 17, 18, 21, 22, 25, 26, 27, 28, 29, and 30 comprise the Burnout Scale, while items 3, 4, 7, 9, 12, 15, 19, 20, 23, and 24 make up the Lie Scale. Deriving the Burnout Scale score involves transforming the scale of checked responses ranging from one to six to numerical scores ranging from seven to one, respectively, omitting the numerical score of four. The numerical scores for the responses to the Burnout Scale items are then summed to yield a burnout score (range = 20 to 140).

The Lie Scale score is obtained by transforming numerical scores of seven on items 4, 7, 9, 19, and 20 to ones and adding those with numerical scores of one on items 3, 12, 15, 23, and 24. Ranging from 0 to 10, higher scores on the Lie Scale reflect a respondent's attempts to "fake good" in selecting their responses or to "deny actions, beliefs, and feelings that nearly everyone has had at work at one time or another" (Jones, 1980c, p. 4). Since respondents with scores of seven or above on the Lie Scale may be attempting to be dishonest in their responding, Jones (personal communication, May, 1982) believes their scores on the Burnout Scale to be in question and suggests dropping them from studies using the SBS-HP.

The Nursing Stress Scale (NSS). The staff nurse's occupational stress, operationally defined as her perceptions of the frequency and/or intensity of specified stressors in the work environment, was assessed by Gray-Toft and Anderson's (1981a) Nursing Stress Scale (see Appendix C). As shown in the Review of the Related Literature, this 42-item Likert scale adequately represents the stressors identified in previous studies of nurses' occupational stress (see Appendix A).

Respondents are asked in the instructions to respond to each of the stressful situations listed in the NSS by indicating whether or not the situation has been experienced as stressful, and, if so, how often, assessed by a six point frequency scale, and how strongly, assessed by a seven point intensity scale. The instrument yields, then, scores for both frequency and intensity of stressors. The NSS is self-administered and requires approximately 10 minutes to complete.

Using the NSS to assess the occupational stress of 122 nurses, Gray-Toft and Anderson (1981a) found that the instrument had a test-retest reliability coefficient of .81 for a two-week interval and the following internal consistency scores: (a) Guttman split-half coefficient = .79, (b) Spearman-Brown coefficient = .79, (c) Cronbach's alpha coefficient = .89, and (d) a standardized item alpha = .89. The researchers concluded that the NSS demonstrated satisfactory consistency among items.

Convergent construct validity was established by finding significant correlations between the NSS and measures of trait anxiety, assessed by the Institute for Personality and Ability Testing (IPAT) Anxiety Scale Questionnaire ($\underline{r} = .39$, $\underline{p} \leq 0.01$) and state anxiety, assessed by the Affect Rating Scale ($\underline{r} = .35$, $\underline{p} < 0.01$). Positing that turnover was an important index of high levels of occupational stress and burnout, the researchers further demonstrated the validity of the NSS by observing a relationship between scores on the NSS and turnover rates for a five-month period. Nurses who worked on units characterized by the highest rates of turnover reported the highest levels of stress and vice versa. Additionally, the NSS was found to validly assess the stress levels of

nurses working in varied settings. In one study, the NSS differentiated the stressfulness of working in the medical, surgical, cardiovascular surgery, oncology, and hospice hospital units ($p < 0.05$) (Gray-Toft & Anderson, 1981b). The NSS has sufficient validity and reliability, then, to measure the occupational stress of nurses in the present study who work in diverse settings.

Scoring the NSS involves summing the 42 responses to the frequency and the intensity scales. Where respondents indicate that the listed stressful situation had never occurred, that item is scored as zero.

The Life Experiences Survey (LES). In the present study, life stress, operationally defined in terms of self-reported positive and/or negative life event changes, was assessed using Sarason et al.'s (1978) Life Experiences Survey (see Appendix D). This instrument was adapted from Holmes' and Rahe's (1967) Schedule of Recent Events (SRE) which lists life changes or events found to be experienced frequently by individuals in the general population. The advantage of using the LES rather than the SRE is that the LES provides respondents an opportunity to distinguish positive, or desirable, from negative, or undesirable, life changes. Life stress researchers have noted the importance of discriminating desirable and undesirable life event changes (Andrew, Tennant, Hewson, & Vaillant, 1978; Gersten, Langner, Eisenberg, & Orzek, 1974; Hurst, 1979). For example, negative life changes have been found to more consistently correlate with certain types of personal maladjustment and depression than do positive life changes (Sarason et al., 1978). Because the critical factor in the stress response seems to be the component of change, whether pleasant or unpleasant (Selye, 1956),

both the negative change score and the positive change score of the LES were used in the present study.

Although the LES includes sections for both the general population and for students, only the first section was believed to be appropriate for the present study's participants. This section, a self-administered 47-item measure, assesses life change events and the impact of those changes. Spaces are provided on the instrument for respondents to add changes they had experienced that are not listed among the 47 events. In response to all of the items, participants are instructed in the directions to the LES to identify those events they had experienced in the recent past and to rate their impact on a 7-point scale, from extremely negative (-3) to extremely positive (+3). The instrument requires approximately 15 to 20 minutes to complete.

Sarason et al. (1978) reported test-retest reliability coefficients ranging from .56 to .88 over five to six week intervals for the LES. Convergent construct validity was demonstrated by correlating the LES with stress-related measures, such as anxiety, assessed by the State-Trait Anxiety Inventory ($\underline{r}$ = .24 to .37, $\underline{p} < 0.05$), and depression, assessed by the Beck Depression Inventory ($\underline{r}$ = .24, $\underline{p} < 0.05$), and with academic performance, assessed by grade point average ($\underline{r}$ = -.40, $\underline{p} < 0.001$). Follow-up studies using the LES demonstrated that the negative change score of the LES was more predictive of certain dependent measures, such as anxiety and depression, than was the SRE (Sarason et al., 1978, p. 939). For assessing the effects of positive and negative life changes on the burnout experienced by the staff nurses in the present study, the LES has sufficient reliability and validity.

Scoring the LES involves summing the ratings of those events indicated by the respondent as having a positive impact, yielding a positive life change score and those events designated as having a negative impact, yielding a negative life change score. These scores include the ratings for those items added to the LES by the respondents.

The Norbeck Social Support Questionnaire (NSSQ). Social support or the extent to which nurses in the present study experienced affirmation, affect, and/or aid in their personal and occupational social networks was assessed by the Norbeck Social Support Questionnaire (Norbeck, Lindsey, & Carrieri, 1981) (see Appendix E). Although the scale also yields measures for other aspects of social support, such as size of network, and duration and frequency of contact with supportive others, only the responses to the questions relevant to the subscale variates, affirmation, affect, and aid, were of concern in the present study. However, in compliance with Norbeck's request that this researcher contribute to her database, the nurses in the present study completed the entire questionnaire. With Norbeck's permission, the researcher added instructions and the Source column to the NSSQ to determine which of the nurses' relationships were work-related and which originated in their personal lives.

The NSSQ is a self-administered instrument which requires approximately 10 minutes to complete. In the directions for completing the NSSQ, respondents are asked to (a) list persons who comprise their support network, (b) specify the category of relationship for each of those persons, (c) identify the source of the relationship, and (d) answer nine Likert scale questions about those relationships. Six of the

items pertain to the extent to which respondents experience affirmation, affect, and aid in their relationships.

Using the NSSQ with 75 graduate nursing students, Norbeck et al. (1981) found a high degree of test-retest reliability with a one week interval (r = .85 to .92) and internal consistency (r = .89 to .97) for each of the variates relevant to the present study. In a follow-up study of 44 female graduate nursing students, test-retest reliability coefficients with a seven month interval ranged from .58 to .78, representing a moderately high degree of stability over time (Norbeck, Lindsey, & Carrieri, 1983).

Since the NSSQ was derived from Kahn and Antonucci's conceptual definitions of social support, content validity exists for the scale. Concurrent validity for the affirmation, affect, and aid variates was demonstrated by finding significant correlations between those variates and the variables assessed by Cohen and Lazarus's Social Support Questionnaire in a study of 42 graduate nursing students (r = .33 to .56, $p < 0.05$ to $p < 0.001$) (Norbeck et al., 1981). Convergent and divergent construct validity was demonstrated in a study of 500 staff employees working at a large university medical center by finding significant correlations between the NSSQ subscales and the FIRO-B constructs relevant to social support: need for inclusion and need for affection (r = .19 to .27, $p < 0.05$ to $p < 0.01$), and by finding no relationship between the NSSQ and FIRO-B's non-relational dimension: need for control (Norbeck et al., 1983). For assessing the affect, affirmation, and aid aspects of social support relevant to the present study, the NSSQ has sufficient reliability and validity.

Calculating the subscale scores for affirmation, affect, and aid includes summing the responses to the items pertaining to those variates and dividing the total by the number of persons in the respondents' social network. Alternative methods for scoring the NSSQ are available from Norbeck (personal communication, July, 1982).

The Self-Report Questionnaire is a 20 item instrument developed by the researcher (see Appendix F). The instrument, comprised of two sections, keeps identifying demographic information about the respondents separate from those items on the questionnaire which elicit potentially incriminating information about the nurses' responses to job stress, such as absenteeism, job searches undertaken, and alcohol and drug use. Data from the Self-Report Questionnaire were used to describe the study's respondents and to guide the investigator's further research.

Research Settings

Staff nurses working in diverse specialty areas at one of three large (900-1100 beds) Chicago area medical center hospitals were chosen for participation in this study. Purposive sampling, determined by common size, purpose, and patronage characteristics, was used to select the participating hospitals. The hospitals are private, not-for-profit, short-term-stay (i.e., $<$ 30 days), general medical-surgical facilities. Providing comprehensive health care, conducting research for the improvement of patient care and medical services, and educating physicians and nurses are the aims shared by the three hospitals. All offer services to a multiethnic population representative of the ethnic composition of persons residing in Chicago and its surrounding areas. With its particular commitment to providing services to the inner city poor and needy,

Hospital A tends to serve a larger proportion of Public Aid recipients than do Hospitals B and C.

The turnover rates and the average length of service of the staff nurses who work at the three hospitals are comparable. The percentages of nurses who terminated employment from Hospitals A, B, or C in 1982 were 30%, 34%, and 25% to 30% respectively. Nurses typically work at the hospitals for 2½ years (Hospital A), 2½ to 3 years (Hospital B), and 1½ to 2 years (Hospital C).

The work settings or specialty areas at the three hospitals from which the research participants were chosen included the in-patient psychiatric-mental health unit, the adult medical, surgical, and coronary care intensive care units, the operating room, and the adult medical units. To maximize systematic variance, an attempt was made in the selection of the settings to foster homogeneity within the specialty areas and to enhance differences among them. For example, because prior research had shown that the stressors identified by nurses who worked with critically ill infants and children were different from the stressors perceived by nurses who worked with adults experiencing life-threatening illnesses (Barut, 1978; Gentry et al., 1972; May, 1972), only adult intensive care units were included in the present study. Also, although some nurses who work in the operating room rotate to the recovery room, to foster homogeneity of that setting, only nurses working full-time in the operating room were selected.

A comparison of the settings used in the present study is shown in Table 1. Characteristics unique to Hospitals A, B, and C are designated in parentheses. As shown, differences existed among the work settings.

Table 1

A Comparison of Aspects of the Work Environment of the Psychiatric-Mental Health, Operating Room, Intensive Care, and Medical Settings Across Hospitals A, B, and C[a]

Aspects of the Work Envrionment	Work Settings			
	Psychiatric-mental health unit	Operating room	Intensive care unit	Medical unit
Types of patient conditions treated or operating room surgical procedures performed	Affective disorders Schizophrenia Borderline personality Organic brain syndrome Alcohol and drug abuse Anorexia nervosa (C)	Open heart Thoracic General (e.g., abdominal) Neurosurgery Eye, ear, nose and throat Plastic surgery Genito-urinary Orthopedic Gynecologic (A) (C) Traumatic injuries (e.g., gun shot and stab wounds) (A)	Respiratory failure Myocardial infarction Congestive heart failure Neurological disorders (e.g., brain damage) Postoperative open heart surgery and neurosurgery	Multisystem chronic progressive diseases (e.g., heart disease, pulmonary disorders, gastrointestinal disorders, cancer, renal failure, diabetes, rheumatoid arthritis, brain tumors, multiple sclerosis, cerebral vascular accidents, sickle cell crisis) Infectious diseases Diagnostic work-ups
Staff nurse to patient ratio (weekdays)	1:5 (A) 1:2 (B) 1:3 (C)	2:1	1:2 (A) (B) 2:1 (C)	1:4 (A) 1:6 (B) 1:5 (C)

Table 1 (continued)

Aspects of the Work Environment	Work Settings			
	Psychiatric-mental health unit	Operating room	Intensive care unit	Medical unit
Nursing care personnel on unit	Registered nurses Mental health workers Nurses' aides (A)	Registered nurses Licensed practical nurses Operating room technicians	Registered nurses Nurses' aides (A)	Registered nurses Licensed practical nurses Nurses' aides (A) (B) Student nursing assistants (C)
Length of shift	8 hours	8 hours	12 hours (A) 8 or 12 hours (B)(C)	8 hours
Method of administering care	Team (A) Modified primary (B) Primary (C)	Functional (A) (C) Team (B)	Primary (A) (C) Modified primary (B)	Modular (A) (B) Primary (C)
Typical nursing tasks	Establishes and develops nurse-patient relationships Monitors vital signs Administers medications Performs treatments (e.g., dressing changes)	Preoperative assessment, patient teaching, and support Intraoperative intervention (e.g., scrubs, circulates, and provides physical support for the patient,	Monitors patient and his responses to life supporting equipment (e.g., IV drugs, cardiac monitors, ventillators, interarterial balloons, nasogastric tubes)	Administers physical care (e.g., bed baths), treatments (e.g., dressing changes), and medications Teaches and supports patient and family

Table 1 (continued)

Aspects of the Work Environment	Work Settings			
	Psychiatric-mental health unit	Operating room	Intensive care unit	Medical unit
Typical nursing tasks (continued)	Conducts group activities Attends staff meetings Teaches patient and family about condition and care Conducts group and family therapy (C)	assesses patient's responses to surgical procedures) Postoperative evaluation of the effects of surgery on the patient and his family Maintains room and supplies Attends committee meetings (C)	Coordinates care among the members of the health care team Administers physical care (e.g., bed baths), treatments (e.g., dressing changes), and medications Teaches patient and family about condition and care Performs electrocardiograms Monitors functioning of equipment (e.g., calibration of arterial Swan Ganz)	Conducts discharge planning with patient, family, and community Assists with diagnostic procedures

Table 1 (continued)

Aspects of the Work Environment	Work Settings			
	Psychiatric-mental health unit	Operating room	Intensive care unit	Medical unit
Estimated amount of intimate interpersonal involvement and/or conflict experienced by staff nurses	Intense interpersonal involvement and frequent conflicts with patients, families, physicians, and colleagues	Little involvement with patients, families, and colleagues Frequent conflicts with physicians	Little involvement with patients Moderate involvement and occasional conflicts with families, colleagues, and physicians	Moderate involvement and occasional conflicts with patients, families, colleagues, and physicians
Turnover rates of registered nurses	21% (A) 38% (B) 27.3% (C)	20% (A) 28% (B) 15% (C)	21% (A) (C) 39.6% (B)	36% (A) 34% (B) 27.5% (C)

[a]Letters in parentheses identify characteristics specific to Hospital A, B, or C.

In particular, different patient conditions were treated, diverse nursing tasks were performed, and differing amounts of interpersonal involvement were experienced by the nurses. It was assumed, therefore, that since the work settings were diverse, the occupational stress and burnout experiences of the nurses would vary.

As indicated by the letters in parentheses in Table 1, differences existed within the settings among the three hospitals. Therefore, homogeneity within the specialty areas was not achieved and extraneous sources of variance were introduced into the study. The uncontrolled for differences within the settings may accordingly affect the interpretation of the study's results.

In addition, the psychiatric-mental health units at Hospital C were located at two geographic locations. Although analyses of variance revealed no significant differences in the burnout (F = 2.33, p = 0.134) and occupational stress (F = .051, p = 0.818) scores for the two groups of psychiatric-mental health nurses, the results of the study may have been confounded by the unaccounted for differences that may exist within the psychiatric-mental health settings at Hospital C.

Research Sample

To avoid introducing extraneous sources of variance into the study and to enhance the homogeneity of the nurses chosen from each of the four settings at each of the three hospitals, certain criteria were used in selecting the research respondents. For example, to avoid interjecting into the present study's results the confounding effects of male-female differences in burnout found by Pines and Aronson (1981) and in social support found by McClelland (1975) and Sarason et al.

(1981), sex was controlled for in the present study by including only women as participants. Because it is estimated that about 97% of nurses are female, the generalizability of the present study's findings should not be jeopardized.

Additional selection criteria included that the participants be employed full-time as staff nurses in one of the study's specialty areas and have graduated from an associate degree, diploma, or baccalaureate program for the preparation of registered nurses. Since Yasko (1981) found differences in the stressors identified by master's prepared oncology clinical specialists in her study from those identified by staff nurses who care for clients with cancer as reported in the literature, in the present study, possible differences in perceptions of occupational stress were controlled for by including only nurses working in staff positions. Therefore, nurses holding master's degrees or positions in which their responsibilities included management/administration (i.e., head nurses, unit leaders, charge nurses) or education (i.e., teacher-practitioners) were not included.

Selection of the Research Respondents

To assure obtaining a large enough sample for the number of variables under investigation, it was determined that at least 240 respondents or 20 nurses from each specialty area at each hospital should be selected for participation in the study. Identifying the respondents for the study involved, first, contacting the vice-president of nursing at each of the three hospitals and explaining the purpose and procedures of the study (see Appendix G). Following the protocol that they recommended, applications for conducting research at the

institutions were submitted to the hospital's nursing research committees. Approval to conduct the study was obtained from each institution's nursing and hospital research committees, institutional review boards for the protection of human subjects, and directors of the specialty areas pertinent to the study. Following this approval, the researcher met with the directors of the specialty areas at Hospitals A and C to procure lists of staff nurses who qualified for participation in the study. Since access to names of nurses who work at Hospital B was prohibited by that hospital's policy, one of the members of the nursing research committee functioned as the researcher's preceptor and facilitated the selection of the respondents. Meeting times and locations for collecting the research data were arranged through a member of the nursing research committee at Hospital A, the researcher's preceptor at Hospital B, and the directors of the specialty areas at Hospital C.

From the lists of nurses who qualified for participation, stratified random sampling was used to select the study's respondents. The researcher's preceptor at Hospital B was taught to use the same method of choosing participants as that used by the researcher. This method involved recording the name of the nurses who qualified for participation on separate slips of paper and selecting twenty names from each of the well-shuffled containers that represented each of the four specialty areas at each of the three hospitals. After the nurse's name was selected and recorded, it was returned to the container, the slips of paper were shaken, and another name was chosen. When those nurses who were selected and contacted indicated that they did not desire to participate in the study, their names were returned to the containers and

additional nurses were selected and contacted. This process, termed "fishbowl sampling with replacement," assures that each name pulled out of the containers has the same probability of being selected. Although the returned names were not eligible for selection, had they not been returned to the container, the sampling method "would not have met the criterion definition of a random selection" (Fox, 1970, p. 168).

A summary of the derivation of the respondents who comprised the study's sample from those who had originally qualified for participation is found in Table 2. As indicated, in order to obtain sufficient numbers of nurses who worked in the psychiatric-mental health settings at Hospitals A and B and in the operating room at Hospital B, it was necessary to select and contact all the nurses who fulfilled the selection criteria in those settings.

Of the 614 nurses who were selected for participation, the eventual number of research respondents was 296. The numbers of nurses participating from Hospitals A, B, and C were 86 (29.1%), 75 (25.3%), and 135 (45.6%) respectively. The numbers of respondents from each of the settings were as follows: psychiatric-mental health = 66 (22.3%), operating room = 65 (22%), intensive care = 74 (25%), and medicine = 91 (30.7%). Reasons for the differences in the numbers of respondents across the hospitals are given in the discussion on collecting the research data.

Description of the Research Respondents

Information about the research respondents derived from the Self-Report Questionnaire is presented in Appendices H through N. As shown, 63.7% (n = 189) of the respondents were single, 27.1% (n = 80) were married, and 9.2% (n = 27) were divorced or separated (see Appendix H).

Table 2

Derivation of the 296 Respondents from Those Who Qualified for Participation in the Study

Hospital	Setting	Number of Nurses Fulfilling Criteria	Number Selected and Contacted	Number Agreeing to Participate	Number Dropped from the Study	Net Number of Participants
	Psychiatric-mental health	26	26	21	2[a]	19
A	Operating room	45	44	28	1[a], 4[b]	23
	Intensive care	66	44	24	--	24
	Medicine	88	31	21	1[b]	20
	Psychiatric-mental health	39	39	12	--	12
B	Operating room	55	55	19	--	19
	Intensive care	121	70	23	--	23
	Medicine	99	70	21	--	21
	Psychiatric-mental health	60	53	36	1[c]	35
C	Operating room	63	60	24	1[b]	23
	Intensive care	90	61	27	--	27
	Medicine	108	61	50	--	50
Totals		860	614	306	--	296

[a]Eliminated from the study due to the inadvertent selection of males

[b]Eliminated from the study because data sets contained large amounts of missing data

[c]Eliminated from the study due to Lie Scale scores of ≥ 7 on the SBS-HP

The majority were between 21 and 30 years old (76.2%, n = 225) (see Appendix I) and held bachelor's degrees in nursing (63.1%, n = 187) (see Appendix J). Most had worked in nursing between 2 and 10 years (65.4%, n = 194), while 11.5% (n = 34) had worked less than 6 months, 11.8% (n = 35) between 1 and 2 years, and 8.9% (n = 26) more than 10 years (see Appendix K). As indicated in Appendix L, 42.6% (n = 126) of the nurses rotated shifts, while 29.1% (n = 86) typically worked the day shift, 19.6% (n = 58) the evening shift, and 8.8% (n = 26) the night shift.

Although the method of administering nursing care varied somewhat across the hospitals and within the work settings (see Table 1, p. 57), 72% (n = 213) of the respondents were involved in some form of primary care nursing (see Appendix M). Nurses who worked in the psychiatric-mental health and intensive care settings at Hospital B, for example, functioned in a modified system of primary care where the nurse has responsibility for the total care of each of her patients. However, some tasks are performed using the team approach, such as taking vital signs and administering medications.

As shown in Appendix N, 66.6% (n = 197) of the respondents spent 25 or more hours per week in direct contact with patients. Of the 16.9% (n = 50) who spent 15 hours or less directly with patients, 10% (n = 29) were operating room nurses whose involvement with patients is limited by the nature of their work.

In sum, typical respondents, characterized by those comprising the majority of the nurses in the present study, can be described as single, between 21 and 30 years old, and bachelor's prepared in nursing.

They had worked in nursing between 2 to 10 years, were, in their current positions, either rotating shifts or working the day shift, and were spending at least 25 hours per week administering primary care nursing.

Research Procedures

From each of four specialty areas at each of three Chicago medical center hospitals, a total of 296 staff nurses participated in the study. In this section the methods of administering the research instruments and analyzing the research data are presented.

Collection of the Research Data

Prior to administering the questionnaires selected for the study, it was necessary to obtain permission to use the SBS-HP, the NSS, the LES, and the NSSQ from the developers of those instruments. Appendix O contains letters from those persons granting the researcher permission to use their instruments.

The questionnaires were administered at the three Hospitals from September 3, 1982 through December 13, 1982 (Hospital A: September 3 through September 22; Hospital B: September 28 through December 13; Hospital C: October 20 through November 15). Collecting the data involved administering the research instruments either in person or through the mail to the randomly chosen staff nurses who agreed to participate in the study. Eliciting participation in the study involved sending each nurse who was selected an Introductory Letter which contained an explanation of the researcher's purposes and an invitation to participate in the study (see Appendix P). The letters were distributed at Hospital A by the directors of the specialty areas, at Hospital B by the researcher's preceptor, and at Hospital C by delegates of the

specialty areas' directors. Accompanying the letter was a Response Form (see Appendix P) and a return envelope. On the Response Form, the nurse indicated whether or not she wished to participate in the study and, if so, by which method. Due to the generally poor response rates to mailed questionnaires (Kerlinger, 1973), the researcher believed that offering alternative methods for collecting the research data would maximize participation in the study. As shown on the Response Form, these methods included the researcher's (a) meeting with the nurses during group meetings, (b) meeting with them individually, or (c) providing them with the questionnaires and a return envelope.

If after a two week period the Response Form was not received from the nurse, she was sent a Follow-up Letter (see Appendix Q) accompanied by a set of the research instruments and a return envelope. Those nurses who did not respond to the first Follow-up Letter were sent a second letter two weeks later (see Appendix R). On the average, 60% (n = 178) of the participants responded to the Introductory Letter, an additional 25% (n = 74) to the first Follow-up Letter, and an added 15% (n = 44) to the second Follow-up Letter.

Sending the follow-up letters and using additional methods of eliciting participation in the study were particularly necessary at Hospitals A and B where the response to the Introductory Letter was initially insufficient. An added measure included posting placards on the units which contained information about data collection meeting times and locations as well as encouragement to participate in the project. At Hospital C, however, this was not warranted since the response rate to the Introductory Letters was, in general, quite high.

Reasons for the differences in response might be that, first, the researcher allotted more time to collect data at Hospital C. From her experience at each of Hospitals A and B of allowing only two weeks to collect data from all four specialty areas, the researcher planned at least one week per specialty area at Hospital C for data collection. Second, nurses at Hospital C are required to accomplish performance objectives which include participation in nursing research. Many stated that their involvement in the study was an opportunity to achieve those objectives. Lastly, the researcher was provided meeting rooms at Hospital C which were either on the nursing units or more easily accessible to the nurses than those at Hospitals A and B. The researcher believes that both her visibility on the units and the accessibility of the meeting locations enhanced participation in the study at Hospital C.

An extraneous source of variance may have been introduced into the study by using alternate methods of collecting the research data. To control for this variability, whether communicating with the respondents in person or through the mail, the researcher attempted to standardize the procedures of administering the questionnaires. When a nurse met with the researcher individually or during a group session, she was thanked for agreeing to participate in the study and asked to (a) read the Informed Consent Form (see Appendix S), print her name on the first page, and sign her name on the second page, (b) complete the questionnaires, and (c) return the consent form and questionnaires to the researcher. She was also invited to ask questions as needed during the completing of the questionnaires and thanked again for her involvement in the study. As shown by the form which accompanied the mailed

questionnaires (see Appendix T), this is similar to the procedure followed when communicating with respondents who elected to receive and return the questionnaires by mail.

To assess the homogeneity of the respondents who met with the researcher in person (53%, n = 156) and those who received the questionnaires by mail (47%, n = 156), t-tests were performed. The results revealed no significant differences between the groups of respondents on measures of frequency of occupational stress (t = .47, p = 0.64), intensity of occupational stress (t = .08, p = 0.94), and burnout (t = .77, p = 0.44). However, unaccounted for variability may have been introduced into the study during the personal encounters between the researcher and the respondents. For example, approximately 30 nurses who met with the researcher asked for interpretation of the instructions to the LES and/or the NSSQ. However, only three nurses who used the mailed system phoned the researcher for clarification. These differences may affect the interpretation of the study's results.

Analysis of the Research Data

The data obtained from the research instruments were prepared for computer analysis. Using the procedures outlined in the section on Instrumentation, the SBS-HP, NSS, LES, and NSSQ were scored. Due to large amounts of missing data, six sets of questionnaires were eliminated from the study (see Table 2, p. 64). When responses to only one or two items on a questionnaire were missing, however, that set was retained and a notation made that the score on that particular instrument reflected missing data. As a result, 2.7% or 8 of the 296 scores on the SBS-HP, 8.4% or 25 of the 592 scores on the NSS, and 1.5% or 13

of the 888 scores on the NSSQ included missing data. Since respondents were instructed to select items on the LES relevant to them, there was no method of detecting missing responses on that instrument. Since some of the scores used in the analysis of the data reflected missing responses, caution is used in interpreting the results of the study.

As per the procedure recommended by Jones (personal communication, May, 1982), one set of instruments was not used in the study since the respondent scored a seven on the SBS-HP Lie Scale. An additional three sets were discarded since in the selection of the respondents from the lists provided, males whose names were indistinguishable from females' names were inadvertently included in the study.

Following the scoring of the instruments and the elimination of those that had been discarded for various reasons, data from 296 sets of questionnaires were submitted to the Biomedical Computer Program: P Series (BMDP), Statistical Analysis System (SAS), and Statistical Package for the Social Sciences (SPSS) computer programs. These programs provide for the performance of operations for generating descriptive information about the respondents and their scores on the research instruments and for testing the study's hypotheses. Although the P-values obtained after performing the statistical tests were reported, P-values at, or less than, the 0.05 level of significance were used for rejecting the study's null hypotheses.

To test the first hypothesis, a stepwise multiple regression analysis was performed. Using this procedure, it can be determined which of the independent variables under investigation best accounts for or predicts the variability in the dependent variable. Beginning

with the variable that most highly correlates with burnout, the stepwise procedure systematically enters variables into the regression equation until additional hypothesized variables no longer significantly increase the amount of variance explained.

Since occupational stress and social support were each composed of two or more variates, the second and third hypotheses were tested using multivariate analyses of variance (MANOVA). The MANOVA procedure "deals with a vector containing several dependent variables" and is used "to determine whether statistically significant differences exist between two or more groups based on the groups' members' scores on the set of dependent variables rather than a single variable as in ANOVA" (Amick & Walberg, 1975, p. 225). In the present study, the MANOVA procedures were used to determine if there were differences in the occupational stress (Hypothesis 2) and social support (Hypothesis 3) experienced by the nurses working in the four specialty areas.

Additional procedures, such as factorial analyses of variance (ANOVA) and a posteriori tests, were also performed to examine more closely the results of the MANOVA procedures. With these tests, the particular sources of the significant differences in occupational stress and social support suggested by the MANOVA procedures could be explored. With the factorial ANOVA, the "independent and interactive effects of two or more independent variables on a dependent variable" (Kerlinger, 1973, p. 245) are evaluated. Since it was determined that the three hospitals were not homogeneous on the measures of frequency of occupational stress ($F = 4.30$, $p = 0.014$), intensity of occupational stress ($F = 8.16$, $p = 0.001$), and burnout ($F = 3.56$,

$p = 0.029$), the factor, hospital, was taken into account by including it as a blocking variable in tests of those hypotheses where work setting was an independent variable. Therefore, factorial analyses of variance were appropriate for assessing the independent and interactive effects of work setting and hospital on each of the variates of occupational stress, i.e., frequency and intensity, and social support, i.e., affirmation, affect, and aid.

An *a posteriori* test or a pairwise comparison among means, such as Duncan's Multiple Range Test, is performed after overall tests of significance leads to rejection of the null hypothesis and the researcher desires to detect the exact source of the effects (Kirk, 1968, p. 87). For example, significant differences among the work settings on any of the variates comprising occupational stress and social support suggested by the results of the factorial analyses of variance can be examined using *a posteriori* comparisons to determine which work setting is significantly different from the others.

A factorial ANOVA was used to test the fourth hypothesis. Taking hospital into account as a blocking variable, use of this procedure assisted the researcher in determining if there were significant differences in the burnout experienced by the nurses working in the four specialty areas.

Summary

In the third chapter, the methods of collecting the data for this correlational-descriptive study and the procedures for testing the four research hypotheses were discussed. Using the Staff Burnout Scale for Health Professionals, the Nursing Stress Scale, the Life Experiences

Survey, the Norbeck Social Support Questionnaire, and the Self-Report Questionnaire, data were collected from 296 randomly chosen female nurses who had graduated from an associate degree, diploma, or baccalaureate program for the preparation of registered nurses and who were working full-time in a staff position in one of four hospital-based specialty areas. The participants were described as typically single, between 21 and 30 years old, bachelor's prepared, employed between 2 and 10 years in nursing, and involved in directly administering primary care nursing for 25 or more hours per week while either rotating shifts or working the day shift.

Methods of administering the questionnaires to the respondents included meeting with them as part of a group or individually or mailing the questionnaires to them. Whether meeting with the respondents personally or communicating with them by mail, standardized procedures were used to administer the questionnaires.

The data obtained from the questionnaires were prepared for statistical analysis and submitted to computer programs appropriate for testing the study's hypotheses. Multiple regression analysis, multivariate analyses of variance, and factorial analyses of variance were the statistical procedures used to assess the relationships among the hypothesized variables and to determine if differences existed in the occupational stress, social support, and burnout experienced by the nurses working in the four specialty areas.

Chapter IV includes a presentation of the results from the analysis of the research data. Findings pertinent to testing the study's hypotheses and to performing the additional analyses of the data are described.

CHAPTER IV

RESULTS

In this chapter, the results of the data analysis are presented. A description of the nurses' responses to the research instruments precedes the presentation of the findings specific to each of the hypotheses tested. Lastly, information obtained from additional analyses of the research data are introduced.

A Description of the Respondents' Scores on the Research Instruments

A summary of the descriptive statistics for the scores that the 296 research respondents obtained on each of the study's questionnaires is displayed in Table 3. In Table 4, the means obtained by the nurses working in each hospital and work setting are presented. Additional statistical information is provided in Appendix U. It is interesting to note that none of the respondents obtained the highest possible score on the SBS-HP (i.e., 140) which, according to Jones (1980c), represents a high degree of burnout. The mean burnout score ($\bar{X}$ = 59.1) for the respondents in the present study was higher than the average of the mean burnout scores ($\bar{X}$ = 57.0) obtained by staff nurses in Jones's (1980b, c, d) SBS-HP validation studies and higher than the mean burnout score ($\bar{X}$ = 51.1) on the SBS-HP obtained by master's prepared oncology clinical specialists in Yasko's (1981) study. As shown in Table 4, among the four work settings at each of the three hospitals, the highest burnout

Table 3

Summary of Descriptive Statistics of
Respondents' Scores on the SBS-HP, NSS, LES, and NSSQ (N = 296)

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP: Staff Burnout Scale for Health Professionals	Burnout	23 - 127	59.1	19.9
	Lie Scale	0 - 6	1.8	1.6
NSS: Nursing Stress Scale	Occupational Stress: Frequency	33 - 191	105.3	34.6
	Occupational Stress: Intensity	35 - 248	154.4	45.9
LES: Life Experiences Survey	Life Stress: Positive Changes	0 - 53	9.7	8.5
	Life Stress: Negative Changes	0 - 82	9.2	10.0
NSSQ: Norbeck Social Support Questionnaire	Social Support: Affirmation	8 - 221	89.6	42.8
	Social Support: Affect	10 - 227	97.2	45.5
	Social Support: Aid	6 - 226	88.0	42.2

Table 4

Summary of Respondents' Mean Scores on the Variables, Burnout, Occupational Stress, Life Stress, and Social Support, by Hospital and Work Setting (N = 296)

Hospital	Setting	Variables							
		Burn-out	Occupational Stress		Life Stress		Social Support		
			Frequency	Intensity	Positive	Negative	Affirmation	Affect	Aid
A	Psych (n=19)	63.8	75.9	122.1	7.8	13.9	75.6	83.5	74.2
	OR (n=23)	68.7	93.6	115.9	11.5	10.7	54.6	63.6	59.7
	ICU (n=24)	58.5	102.4	160.1	6.8	7.6	91.2	100.0	92.1
	Med (n=70)	64.6	118.2	160.9	15.7	9.2	74.3	83.3	74.7
B	Psych (n=12)	63.3	96.6	153.8	8.9	8.6	99.1	96.1	86.5
	OR (n=19)	58.5	76.6	117.4	9.2	7.1	88.4	96.4	94.7
	ICU (n=23)	55.2	111.2	155.7	10.3	10.1	97.6	99.2	95.0
	Med (n=21)	56.7	122.2	177.8	11.7	11.3	100.6	111.5	100.5
C	Psych (n=35)	56.0	87.8	139.6	8.7	10.8	99.9	110.6	97.8
	OR (n=23)	57.9	96.2	154.1	8.0	7.2	96.0	104.1	94.0
	ICU (n=27)	55.4	130.2	172.7	7.7	6.6	89.5	95.5	82.6
	Med (n=50)	57.7	124.6	183.2	10.6	8.7	96.4	104.2	92.5

scores were obtained from the operating room nurses at Hospitals A and C and from the psychiatric-mental health nurses at Hospital B. Although it is possible to obtain a score of seven or more on the SBS-HP Lie Scale, the respondent in the present study with a score of seven was dropped from the study prior to the computer analysis of the data.

Overall, the mean score on the NSS for intensity of occupational stress ($\bar{X}$ = 154.4) was higher than the mean score for frequency of occupational stress ($\bar{X}$ = 105.3). Among the four settings at Hospitals A and B, medical nurses reported the highest frequency of occupational stress scores and, at Hospitals A, B, and C, the highest intensity of occupational stress scores. At Hospital C, intensive care nurses reported the highest frequency of occupational stress scores.

On the LES, overall scores for positive life changes ($\bar{X}$ = 9.7) were slightly higher than were scores for negative life changes ($\bar{X}$ = 9.2). Among the four settings, medical nurses obtained the highest positive life change scores at Hospitals A, B, and C, while psychiatric-mental health nurses at Hospitals A and C and medical nurses at Hospital B obtained the highest negative life change scores.

The mean score for the affect variate of social support ($\bar{X}$ = 97.2), measured by the NSSQ, was higher than the scores for affirmation ($\bar{X}$ = 89.6) and aid ($\bar{X}$ = 88.0). Intensive care nurses at Hospital A, medical nurses at Hospital B, and psychiatric-mental health nurses at Hospital C scored highest on affirmation, affect, and aid.

The Findings Relevant to the Study's Hypotheses

In this section, the findings arrived at after each hypothesis was tested are presented. The first hypothesis pertained to those

factors which may relate to burnout in professional nurses, while the remaining three hypotheses referred to the differences that may exist in the occupational stress, social support, and burnout scores of nurses working in the four specialty areas.

> Hypothesis #1: There are no significant relationships among occupational stress, work setting, life stress, social support and the degree of burnout experienced by staff registered nurses.

The findings, after performing the stepwise multiple regression analysis, are illustrated in Table 5. The variables which were entered into the multiple regression equation included frequency of occupational stress, intensity of occupational stress, positive life changes, negative life changes, affirmation, affect, aid, and the psychiatric-mental health, operating room, intensive care, and medical work settings. Since work setting constitutes categorical data rather than interval data from measurement scales, this variable was entered into the equation as a dummy variable. Because differences were known to exist among Hospitals A, B, and C, the category, hospital, was also included in the regression equation as a dummy variable. Raw scores rather than mean scores for affirmation, affect, and aid were used in this analysis.

Since no additional independent variables were found to be significant predictors of burnout, the stepwise procedure terminated at the end of the seventh step. Accordingly, 35.1% (R^2) of the variance in burnout was accounted for by the combined effects of 7 of the 14 independent variables entered into the equation. The seven predictors thus identified were intensity of occupational stress, positive life changes, negative life changes, affect or emotional support, Hospital A, the

Table 5

Results of the Stepwise Multiple Regression for Burnout as Related to Occupational Stress, Work Setting, Life Stress, and Social Support

$R^2 = 0.351 \quad C(P) = 6.48$

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Square	F	P-Values
Regression	7	41141.076	5877.297	22.25	0.0001
Error	288	76072.275	264.140		
Total	295	117213.351			

Factors	B-Values	Standard Error	Sum of Squares	F	P-Values
Intercept	34.743				
Occupational Stress: Intensity	0.174	0.023	14556.983	55.11	0.0001
Life Stress: Positive Changes	- 0.201	0.114	828.762	3.14	0.0776
Life Stress: Negative Changes	0.582	0.098	9386.430	35.54	0.0001
Social Support: Affect	- 0.115	0.022	7488.999	28.35	0.0001
Hospital A	6.642	2.179	2454.425	9.29	0.0025
Work Setting: Psychiatric-Mental Health Unit	5.705	2.530	1343.607	5.09	0.0249
Work Setting: Operating Room	9.318	2.565	3487.470	13.20	0.0003

psychiatric-mental health work setting, and the operating room work setting. All of these variables except positive life changes were significant at the 0.05 level of significance. Intensity of occupational stress, negative life changes, and affect were highly significant predictors of burnout ($p < 0.0001$).

To assess the consistency of the stepwise multiple regression analysis, a backward elimination procedure was performed. The results of this procedure were identical to those of the stepwise procedure shown in Table 5.

Since all the variables included in the multiple regression equation were not assessed on the same scale of measurement, the unstandardized B-values cannot be used to determine which of the variables were the "best" predictors of burnout, nor can the relative contribution of each of the variables to burnout be determined from the B-values. However, the relative importance of each of the independent variables may be determined by comparing the sizes of their sum of squares. Accordingly, from most to least important in predicting the degree of burnout in the present study were intensity of occupational stress, negative life changes, affect, the operating room work setting, Hospital A, the psychiatric-mental health work setting, and positive life changes. In addition, intensity of occupational stress was approximately twice as important as affect, while affect and negative life stress were comparable in importance. Changes in the respondents' personal life perceived as negative, or undesirable, were 11 times more important in the prediction of burnout than changes perceived as positive, or desirable. The negative B-values of the variables, positive life changes and affect,

suggest that lower amounts of positive stress and emotional support are associated with higher degrees of burnout and vice versa. Since at least one of the components of each of the hypothesized variables was found to significantly contribute to the explanation of the variability in burnout, the first hypothesis was rejected.

> Hypothesis #2: There is no significant difference in the occupational stress experienced by the staff nurses working in the four specialty areas.

The results of testing the second hypothesis using a multivariate analysis of variance (MANOVA), which accounted for both the frequency and the intensity variates of occupational stress simultaneously, are shown in Table 6. Although the findings of the MANOVA indicated that there was a significant main effect due to work setting ($F = 12.79$, $p \leq 0.0001$) and a significant blocking effect due to hospital ($F = 4.09$, $p \leq 0.0028$), there was a significant multivariate interaction between work setting and hospital ($F = 2.20$, $p = 0.0104$). This interaction may indicate that there were greater differences between the mean scores of either the frequency or the intensity variates than on the other variate and that these differences were significant.

In order to examine the form of the interaction and the main effects of each of the dependent variables, factorial analyses of variance (ANOVA) were performed. The results of the factorial ANOVA for the frequency of occupational stress and the *a posteriori* comparison of the four work settings are shown in Table 7. As indicated, there existed a significant main effect due to work setting ($F = 27.69$, $p \leq 0.0001$), a significant blocking effect due to hospital ($F = 4.18$, $p = 0.0163$), and no significant interaction between work setting and

Table 6

Results of the Multivariate Analysis of Variance (MANOVA) for the Differences in Occupational Stress Among the Work Settings

MANOVA Test Criteria for the Hypothesis of No Overall Work Setting Effect

H = Type IV SS and CP Matrix for Work Setting
E = Error SS and CP Matrix
P = Dependent Variables (Frequency and Intensity of Occupational Stress) = 2
Q = Hypothesis Degrees of Freedom = 3
NE = Degrees of Freedom of E = 284
S = Min (P, Q) = 2
M = .5 (Abs(P - Q) - 1) = 0.0
N = .5 (NE - P - 1) = 140.5

Results

Wilk's Criterion L = DET(E)/DET(H + E) = 0.77549788
Exact F = (1 - SQRT(L))/SQRT(L) · (NE - 1)/Q with 2Q and 2(NE - 1)DF

F(6,566)	P-Value
12.79	0.0001

Table 6 (continued)

MANOVA Test Criteria for the Hypothesis of No Overall Hospital Effect

H =	Type IV SS and CP Matrix for Hospital	
E =	Error SS and CP Matrix	
P =	Dependent Variables (Frequency and Intensity of Occupational Stress)	= 2
Q =	Hypothesis Degrees of Freedom	= 2
NE =	Degrees of Freedom of E	= 284
S =	Min (P, Q)	= 2
M =	.5 (Abs(P - Q) - 1)	= - 0.5
N =	.5 (NE - P - 1)	= 140.5

Results

Wilk's Criterion L = DET(E)/DET(H + E) = 0.94457444

Exact F = (1 - SQRT(L))/SQRT(L) · (NE + Q - P - 1)/P with 2P and 2(NE + Q - P - 1)DF

F(4,566)	P-Value
4.09	0.0028

Table 6 (continued)

MANOVA Test Criteria for the Hypothesis of No Overall Work Setting by Hospital Effect

H = Type IV SS and CP Matrix for Work Setting by Hospital
E = Error SS and CP Matrix
P = Dependent Variables (Frequency and Intensity of Occupational Stress) = 2
Q = Hypothesis Degrees of Freedom = 6
NE = Degrees of Freedom of E = 284
S = Min (P, Q) = 2
M = .5 (Abs(P - Q) - 1) = 1.5
N = .5 (NE - P - 1) = 140.5

Results

Wilk's Criterion L = DET(E)/DET(H + E) = 0.91267418
Exact F = (1 - SQRT(L))/SQRT(L) · (NE - 1)/Q with 2Q and 2(NE - 1)DF

F(12,566)	P-Value
2.20	0.0104

Table 7

Results of the Factorial Analysis of Variance and A Posteriori Test for the Differences in Frequency of Occupational Stress Among the Work Settings

Factorial ANOVA

Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Work Setting	3	75490.342	27.69	0.0001
Hospital	2	7592.298	4.18	0.0163
Work Setting by Hospital	6	11340.254	2.08	0.0556

Duncan's Multiple Range Test

(Means with the same letter are not significantly different)

Grouping	Mean	N	Work Setting
A	122.6	91	Medicine
A	115.3	74	Intensive Care
B	89.6	65	Operating Room
B	86.0	66	Psychiatric-Mental Health

Alpha = 0.01 Degrees of Freedom = 284 Mean Squares for Error = 908.6

hospital (F = 2.08, p = 0.0556). Since the interaction was not significant and hospital was only a blocking variable, the *a posteriori* test, Duncan's Multiple Range Test, was performed to locate the source of the effects due to work setting. As shown in Table 7, there were no significant differences in the frequency of occupational stress between the medical and the intensive care units and between the operating room and the psychiatric-mental health units. However, nurses who worked in either medical or intensive care units experienced occupational stress significantly more frequently than did nurses who worked in either the operating room or psychiatric-mental health units ($p \leq 0.01$).

Similar findings were observed from the results of performing the factorial ANOVA and the *a posteriori* comparison relative to the intensity of occupational stress. As shown in Table 8, there was a significant main effect due to work setting (F = 22.37, $p \leq 0.0001$), a significant blocking effect due to hospital (F = 7.16, p = 0.0009), and no significant interaction between work setting and hospital (F = 1.62, p = 0.1410). Results of the Duncan's Multiple Range Test indicated that there were no significant differences in the intensity of occupational stress between the medical and the intensive care settings and between the operating room and the psychiatric-mental health settings. However, nurses working in either the medical or intensive care units experienced significantly more intensity of occupational stress than did nurses working in either the psychiatric-mental health or operating room settings ($p \leq 0.01$).

Inspecting the work setting means for frequency and for intensity of occupational stress (see Tables 7 and 8) reveals that the mean scores

Table 8

Results of the Factorial Analysis of Variance and A Posteriori Test for the Differences in Intensity of Occupational Stress Among the Work Settings

Factorial ANOVA

Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Work Setting	3	111349.352	22.37	0.0001
Hospital	2	23739.936	7.16	0.0009
Work Setting by Hospital	6	16139.659	1.62	0.1410

Duncan's Multiple Range Test

(Means with the same letter are not significantly different)

Grouping	Mean	N	Work Setting
A	177.0	91	Medicine
A	163.3	74	Intensive Care
B	137.2	66	Psychiatric-Mental Health
B	129.9	65	Operating Room

Alpha = 0.01 Degrees of Freedom = 284 Mean Squares for Error = 1658.94

for frequency were lower than were the mean scores for intensity. In addition, the differences between the frequency of occupational stress means were typically less than were the differences between the intensity of occupational stress means. Perhaps some of these differences account for the significant interaction observed in the results of the MANOVA procedure. As noted by the values of the frequency means, highest to lowest scores were obtained by the medical, intensive care, operating room, and psychiatric-mental health nurses. However, inspecting the values of the intensity means indicates that although medicine and intensive care nurses continued to exhibit highest and second highest scores, psychiatric-mental health nurses obtained higher scores on intensity of occupational stress than did the operating room nurses. The differences, however, were not significant.

Since performance of the MANOVA resulted in the finding that there were significant differences in occupational stress experienced by the nurses working in the four specialty areas, the second null hypothesis was rejected. As noted by further analyses, significant differences among the work settings existed in both the frequency and the intensity of occupational stress. These differences were due to significantly more frequent and more intense experiences of occupational stress by the medical and the intensive care nurses than by the operating room and the psychiatric-mental health nurses.

> Hypothesis #3: There is no significant difference in the social support experienced by the staff nurses working in the four specialty areas.

The results of performing the MANOVA to test the third hypothesis are shown in Table 9. Simultaneously taking into account the variates

Table 9

Results of the Multivariate Analysis of Variance (MANOVA) for the Differences in Social Support Among the Work Settings

MANOVA Test Criteria for the Hypothesis of No Overall Work Setting Effect

H = Type IV SS and CP Matrix for Work Setting
E = Error SS and CP Matrix
P = Dependent Variables (Affirmation, Affect, and Aid variates of Social Support) = 3
Q = Hypothesis Degrees of Freedom = 3
NE = Degrees of Freedom of E = 284
S = Min (P, Q) = 3
M = .5 (Abs(P - Q) - 1) = - 0.5
N = .5 (NE - P - 1) = 140.0

Results

Wilk's Criterion
$L = DET(E)/DET(H + E) = 0.91898213$
$W = -(NE - .5(P - Q + 1)) \cdot LN(L) = 23.9525$
$U = NE - .5(P - Q + 1) = 283.5000$
$Z = SQRT((P \cdot P \cdot Q \cdot Q - 4)/(P \cdot P + Q \cdot Q - 5)) = 2.4337$
$B = (P \cdot Q - 2)/4 = 1.7500$

F approximation $= (U \cdot Z - 2B)/(P \cdot Q) \cdot (1 - L^{1/Z})/L^{1/Z}$ with $P \cdot Q$ and $U \cdot Z - 2B$ DF

F(9,686)	P-Value
2.69	0.0045

Table 9 (continued)

MANOVA Test Criteria for the Hypothesis of No Overall Hospital Effect

H =	Type IV SS and CP Matrix for Hospital	
E =	Error SS and CP Matrix	
P =	Dependent Variables (Affirmation, Affect, and Aid variates of Social Support)	= 3
Q =	Hypothesis Degrees of Freedom	= 2
NE =	Degrees of Freedom of E	= 284
S =	Min (P, Q)	= 2
M =	.5 (Abs(P - Q) - 1)	= 0.0
N =	.5 (NE - p - 1)	= 140.0

Results

Wilk's Criterion L = DET(E)/DET(H + E) = 0.95868332

Exact F = (1 - SQRT(L))/SQRT(L) · (NE + Q - P - 1)/P

F(6,564)	P-Value
2.00	0.0633

Table 9 (continued)

MANOVA Test Criteria for the Hypothesis of No Overall Work Setting by Hospital Effect

H = Type IV SS and CP Matrix for Work Setting by Hospital
E = Error SS and CP Matrix
P = Dependent Variables (Affirmation, Affect, and Aid variates of Social Support) = 3
Q = Hypothesis Degrees of Freedom = 6
NE = Degrees of Freedom of E = 284
S = Min (P, Q) = 3
M = .5 (Abs(P - Q) - 1) = 1.0
N = .5 (NE - P - 1) = 140.0

Results

Wilk's Criterion
$L = DET(E)/DET(H + E) = 0.92905018$
$W = -(NE - .5(P - Q + 1)) \cdot LN(L) = 20.9739$
$U = NE - .5(P - Q + 1) = 285.0000$
$Z = SQRT((P \cdot P \cdot Q \cdot Q - 4)/(P \cdot P + Q \cdot Q - 5)) = 2.8284$
$B = (P \cdot Q - 2)/4 = 4.0000$

F approximation $= (U \cdot Z - 2B)/(P \cdot Q) \cdot (1 - L^{1/Z})/L^{1/Z}$ with $P \cdot Q$ and $U \cdot Z - 2B$ DF

F(18,798)	P-Value
1.17	0.2808

comprising social support, i.e., affirmation, affect, and aid, the findings indicated that there was a significant main effect due to work setting ($F = 2.69$, $p = 0.0045$), no significant blocking effect due to hospital ($F = 2.00$, $p = 0.0633$), and no significant multivariate interaction ($F = 1.17$, $p = 0.2808$).

Factorial analyses of variance were performed to examine the individual effects of the dependent variables. The results of the factorial ANOVA for the affirmation variate of social support and the a posteriori comparison of the four work settings are displayed in Table 10. As shown, a significant main effect existed for work setting ($F = 3.71$, $p = 0.0121$), but there was no significant blocking effect due to hospital ($F = 1.88$, $p = 0.1550$) and no significant interaction between work setting and hospital ($F = 1.34$, $p = 0.2389$). As shown by the results of Duncan's Multiple Range Test, the only significant differences between the work settings occurred between the intensive care and the psychiatric-mental health specialty areas. Nurses who worked in the intensive care setting experienced significantly more affirmation or acknowledgement by others than did nurses who worked in the psychiatric-mental health setting ($p \leq 0.01$).

As illustrated in Table 11, there was no significant main effect ($F = 1.75$, $p = 0.1558$), blocking effect ($F = 0.42$, $p = 0.6552$), or interaction between work setting and hospital ($F = 0.47$, $p = 0.8300$) for the dependent variable, affect. Therefore, it may be assumed that the significant main effect due to work setting found by performing the MANOVA was due to the significant differences found for affirmation and aid. As Table 12 illustrates, there was a significant main effect due

Table 10

Results of the Factorial Analysis of Variance and A Posteriori Test for the Differences in Affirmation Among the Work Settings

Factorial ANOVA

Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Work Setting	3	12.173	3.71	0.0121
Hospital	2	4.101	1.88	0.1550
Work Setting by Hospital	6	8.791	1.34	0.2389

Duncan's Multiple Range Test

(Means with the same letter are not significantly different)

Grouping	Mean	N	Work Setting
A	8.0	74	Intensive Care
B A	7.6	91	Medicine
B A	7.6	65	Operating Room
B	7.5	66	Psychiatric-Mental Health

Alpha = 0.01 Degrees of Freedom = 284 Mean Squares for Error = 1.093

Table 11

Results of the Factorial Analysis of Variance for the Differences in Affect Among the Work Settings

Factorial ANOVA

Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Work Setting	3	7.60	1.75	0.1558
Hospital	2	1.23	0.42	0.6552
Work Setting by Hospital	6	4.09	0.47	0.8300

Mean Scores

Mean	N	Work Setting
8.5	74	Intensive Care
8.5	65	Operating Room
8.3	91	Medicine
8.1	66	Psychiatric-Mental Health

Table 12

Results of the Factorial Analysis of Variance and A Posteriori Test for the Differences in Aid Among the Work Settings

Factorial ANOVA

Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Work Setting	3	22.644	3.09	0.0272
Hospital	2	4.668	0.96	0.3858
Work Setting by Hospital	6	12.712	0.87	0.5193

Duncan's Multiple Range Test

(Means with the same letter are not significantly different)

Grouping	Mean	N	Work Setting
A	8.1	65	Operating Room
B A	7.9	74	Intensive Care
B A	7.6	91	Medicine
B	7.3	66	Psychiatric-Mental Health

Alpha = 0.01 Degrees of Freedom = 284 Mean Squares for Error = 2.443

to work setting ($F = 3.09$, $p = 0.0272$) for the aid variate of social support. There was no blocking effect ($F = 0.96$, $p = 0.3858$) or interaction between work setting and hospital ($F = 0.87$, $p = 0.5193$). As indicated by Duncan's Multiple Range Test, operating room nurses experienced significantly more aid or direct assistance than did psychiatric-mental health nurses ($p \leq 0.01$).

Inspection of the work setting means for the affirmation and aid variates of social support (see Tables 10 and 12) revealed no particular pattern of scores among the intensive care, medical, and operating room settings. However, nurses who worked in the psychiatric-mental health setting scored lowest on measures of affirmation and aid.

From the findings of the MANOVA procedure that there were significant differences in the social support experienced by the nurses working in the four specialty areas, the third hypothesis was rejected. Further analyses revealed that the differences among the work settings were accounted for by the affirmation and aid variates of social support with intensive care nurses experiencing significantly more affirmation and operating room nurses reporting significantly more aid than did the psychiatric-mental health nurses.

> Hypothesis #4: There is no significant difference in the degree of burnout experienced by the staff nurses working in the four specialty areas.

Performance of the factorial analysis of variance for the dependent variable, burnout, indicated that there was no significant main effect due to work setting ($F = 0.90$, $p = 0.4432$), a significant blocking effect due to hospital ($F = 3.49$, $p = 0.0318$), and no significant interaction ($F = 0.36$, $p = 0.9019$) (see Table 13). Although the

Table 13

Results of the Factorial Analysis of Variance
for the Differences in Burnout Among the Work Settings

	Factorial ANOVA			
Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Work Setting	3	1070.541	0.90	0.4432
Hospital	2	2765.559	3.49	0.0318
Work Setting by Hospital	6	862.879	0.36	0.9019

Mean Scores

Mean	N	Work Setting
61.9	65	Operating Room
59.6	66	Psychiatric-Mental Health
59.0	91	Medicine
56.4	74	Intensive Care

differences were not significant, burnout scores were highest for the operating room nurses, second highest for the psychiatric-mental health nurses, third highest for the medical nurses, and lowest for the intensive care nurses. Since there were no significant differences in the degree of burnout experienced by the nurses working in the four specialty areas, the fourth hypothesis was not rejected.

Other Analyses and Serendipitous Findings

Additional analyses were performed on the data which were unrelated to the study's hypotheses. The findings are reported in this section.

Results of performing an *a posteriori* content analysis of the positive and negative changes and the perceived impact of those stressors not included on the LES but added by the respondents in the spaces provided on the instrument are displayed in Appendix V. Of the 296 nurses in the study, 75 added 100 positive and 76 added 104 negative life changes to the LES. As shown, the nurses' relationships and careers were the source of most of the additional positive and negative stressors. Interesting was the finding that what was perceived as having a positive impact by some respondents, such as managing multiple demands or returning to school for an advanced degree, was perceived as having a negative impact by other respondents. In addition, some stressors, such as moving in with a boyfriend or returning to school, were viewed by some respondents as positive and negative stressors simultaneously.

Analysis of the data derived from the part of the NSSQ which the researcher added pertaining to the source of the respondents'

relationships revealed that there was no relationship between the source of the nurses' relationships, i.e., personal life or work, and burnout. The correlation coefficient for the proportion of the social support network derived from work and burnout was $r = 0.06$ ($p = 0.2687$).

Pearson correlation analyses and factorial analyses of variance were performed to explore possible relationships between burnout and selected variables assessed by items on the Self-Report Questionnaire (see Table 14). As shown, a significant negative correlation was found between burnout and the number of hours spent in direct contact with patients ($r = -0.12$, $p = 0.0397$). That is, the less hours the nurses were involved in giving direct patient care, the more they experienced burnout and vice versa. Burnout positively and significantly correlated with total length of service in nursing ($r = 0.11$, $p = 0.0492$), job searches undertaken ($r = 0.38$, $p \leq 0.0001$), absenteeism ($r = 0.22$, $p \leq 0.0001$), tardiness ($r = 0.14$, $p = 0.0763$), physical illnesses ($r = 0.25$, $p \leq 0.0001$), and use of prescription "calming" drugs ($r = 0.15$, $p = 0.0098$).

The results of the factorial analyses of variance are displayed in Table 15. As indicated, there were no significant differences in the burnout experienced by the staff nurses due to the shift they worked, the method by which they administered patient care, the degree in nursing they held, their marital status, and whether or not they were the primary source of financial support for their families.

Although the factor, hospital, was included as a blocking variable for testing the study's hypotheses, examining the sources of differences in burnout and occupational stress across the three hospitals

Table 14

Pearson Correlation Coefficients for Burnout and Selected Variables

Variable	Correlation Coefficient	P-Values
Length of service on unit	0.06	0.2847
Length of service at present hospital	0.09	0.1260
Total length of service in nursing	0.11	0.0492*
Number of hours spent in direct contact with patients each week	-0.12	0.0397*
Participation in previous stress, burnout, and/or job satisfaction research studies	-0.005	0.9379
Age	0.04	0.4931
Number of job searches undertaken during prior month	0.38	0.0001*
Number of days absent during the prior month	0.22	0.0001*
Number of times tardy during the prior month	0.14	0.0163*
Number of times physically ill during the prior month	0.25	0.0001*
Number of drinks of alcohol consumed in an average week of drinking	0.07	0.2464
Number of times a prescription drug is ingested to "calm down" in a typical week	0.15	0.0098*

*Significant at the 0.05 level

Table 15

Results of Factorial Analysis of Variance for
Selected Variables and the Dependent Variable Burnout

Independent Variable: Shift				
Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Shift	3	342.679	0.29	0.8328
Hospital	2	2727.199	3.48	0.0321
Shift by Hospital	6	2877.033	1.22	0.2939

Independent Variable: Method of Administering Patient Care				
Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Method of Administering Care	4	1750.312	1.13	0.3437
Hospital	2	1765.132	2.27	0.1047
Method of Administering Care by Hospital	3	2707.084	2.33	0.0737

Independent Variable: Degree in Nursing				
Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Degree	2	1576.888	2.03	0.1326
Hospital	2	3515.946	4.54	0.0115
Degree by Hospital	4	901.014	0.58	0.6765

Table 15 (continued)

Independent Variable: Marital Status				
Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Marital Status	2	357.123	0.45	0.6380
Hospital	2	2742.958	3.46	0.0328
Marital Status by Hospital	4	247.624	0.16	0.9602

Independent Variable: Nurse as Primary Source of Financial Support				
Source of Variance	Degrees of Freedom	Sum of Squares	F	P-Values
Financial Support	1	1335.862	3.45	0.0643
Hospital	2	3015.175	3.89	0.0215
Financial Support by Hospital	2	551.221	0.71	0.4917

revealed that nurses at Hospital A had significantly higher burnout scores ($\bar{X}$ = 63.9) than did nurses at Hospitals B ($\bar{X}$ = 57.8) and C ($\bar{X}$ = 56.8). However, nurses at Hospital C scored significantly higher on both frequency ($\bar{X}$ = 111.3) and intensity ($\bar{X}$ = 164.8) of occupational stress than did nurses at Hospital A (frequency: $\bar{X}$ = 97.8; intensity: $\bar{X}$ = 140.1) (see Tables 16 and 17).

Summary

Presenting the results of the data analyses was the focus in the fourth chapter. The description of the respondents' scores on the research instruments was followed by the findings which resulted from testing each of the four hypotheses and from performing additional analyses of the research data.

Since the results of performing a multiple regression analysis indicated that 35% of the variance in burnout was accounted for by the statistically significant predictors, intensity of occupational stress, negative life changes, affect, the operating room work setting, Hospital A, the psychiatric-mental health work setting, and positive life changes, the first hypothesis was rejected.

That there were significant differences in the occupational stress among the four work settings found by performing a multivariate analysis of variance (MANOVA) resulted in the rejection of the second hypothesis. Additional analyses revealed that the frequency and the intensity of occupational stress were experienced significantly more by the medical and intensive care nurses than by the operating room and psychiatric-mental health nurses.

Results of a MANOVA revealed that nurses working in the four

Table 16

Results of the A Posteriori Test for the Differences in Burnout Among the Hospitals

Duncan's Multiple Range Test
(Means with the same letter are not significantly different)

Grouping	Mean	N	Hospital
A	63.9	86	A
B	57.8	75	B
B	56.8	135	C

Alpha = 0.01 Degrees of Freedom = 284 Mean Squares for Error = 396.177

Table 17

Results of the A Posteriori Test for the Differences in Occupational Stress Among the Hospitals

Duncan's Multiple Range Test
(Means with the same letter are not significantly different)

Grouping	Mean Frequency	Mean Intensity	N	Hospital
A	111.3	164.8	135	C
B A	103.2	151.9	75	B
B	97.8	140.1	86	A

Alpha = 0.01 Degrees of Freedom = 284 Mean Squares for Error = 908.6 (Frequency)
1658.94 (Intensity)

specialty areas experienced significantly different amounts of social support, therefore, the third hypothesis was rejected. Further analyses revealed that these differences were due to intensive care nurses experiencing significantly more aid than psychiatric-mental health nurses.

Since no significant differences in the degree of burnout experienced by the nurses working in the four specialty areas were found by performing a factorial analysis of variance, the fourth hypothesis was not rejected.

The results of analyses not related to the study's hypotheses were described. The source of nurses' positive and negative changes which they added to the LES were their relationships and careers. There was no association between the source of the nurses' relationships identified in the NSSQ and burnout. Positive and significant relationships were found between burnout and total length of service in nursing, job searches undertaken, absenteeism, tardiness, physical illnesses, and drug use. A negative and significant relationship was found between burnout and the number of hours the nurses spent in direct contact with patients. Nurses employed at Hospital A reported significantly more burnout than did nurses at Hospitals B and C. However, nurses working at Hospital C expressed significantly more frequency and intensity of occupational stress than did nurses at Hospital A.

A discussion of the study's major and serendipitous findings is presented in Chapter V.

CHAPTER V

DISCUSSION

An interpretation of the findings related to the present study on the relationships among occupational stress, work setting, life stress, social support and the burnout experienced by professional nurses is presented in this chapter. Discussed are the respondents' scores on the research instruments, the results related to the hypotheses, and the serendipitous findings.

A Discussion of the Respondents' Scores on the Research Instruments

As noted in the presentation of the study's findings in Chapter IV, the respondents in the present study scored higher on the SBS-HP than did participants in prior studies in which that instrument was used. Additional information, for example, about the characteristics of the respondents from the various studies and their employing institutions, would be needed in order to make useful comparisons or to draw conclusions from that observation.

Interesting was the finding that the nurses in the present study perceived greater intensity of occupational stress than frequency of occupational stress. As noted in the review of the literature, previous studies of nurses' job-related stress have focused mainly on the frequency of occupational stressors. It seems, however, that the intensity of stressors or how strongly they are perceived to impact on nurses may

contribute more to understanding nurses' occupational stress than how frequently the stressors occur. For example, in the intensive care setting, the death of one patient may affect nurses more adversely than the pressures of caring daily for patients with life-threatening illnesses.

As indicated by the higher overall positive life stress scores than negative life stress scores on the LES, the respondents in this study were able to distinguish those changes in their lives which they experienced as having a positive impact from those perceived as having a negative impact. This seems to corroborate Selye's (1956) premise that, whether positive or negative, the critical factor in the stress response seems to be the component of change.

While the NSSQ assessed both on-the-job and off-the-job social support, the observation that intensive care nurses at Hospital A, medical nurses at Hospital B, and psychiatric-mental health nurses at Hospital C scored higher on the three measures of social support than the nurses in the other settings leads one to wonder if there are differences in the support available at each of the hospitals. Distinguishing the sources of support from the nurses' occupational and personal networks in the analysis of the data would have been needed to corroborate this premise.

A Discussion of the Findings Relevant to the Study's Hypotheses

In this section, interpretations of the findings from testing the study's hypotheses are offered. Suppositions are advanced and questions are raised about the results which were found.

Hypothesis #1: There are no significant relationships among occupational stress, work setting, life stress, social support and the degree of burnout experienced by staff registered nurses.

Since the factors, intensity of occupational stress, negative life stress, affect or emotional support, the operating room work setting, Hospital A, the psychiatric-mental health work setting, and positive life stress, were found to significantly predict burnout, the first hypothesis was rejected. Interpreting the relationships among these variables is made cautiously since only 35% of the variance in burnout was explained by these factors.

The finding that occupational stress was the most important predictor of burnout is consistent with the belief that burnout is a reaction to stress on the job (Cherniss, 1980) and with the findings of Paredes (1982) who reported that occupational stress accounted for more variance than any of the other variables in his study. The observation in the present investigation that there was a positive and significant correlation between occupational stress and burnout also corresponds to Yasko's (1981) findings. Burnout, then, does seem to be a response to stressors experienced on the job.

But, as suggested by the findings of Daubney (1980) and Otto (1980), personal factors are also pertinent. In the present study, negative life stress, though half as important as occupational stress, was the second most important predictor of burnout. Though not significant in itself, positive life stress, in combination with the other variables under investigation, also contributed significantly to the explanation of burnout. The relationship found in the present study

between life stress and burnout corroborates the findings of Scott (1980). Consistent with the findings of previous research that negative life changes are more predictive of dependent measures than are positive life changes (Sarason et al., 1978), negative life stress was approximately eleven times more important than positive life stress in predicting burnout in the present study. In addition, since negative life changes were positively associated with burnout, while positive life changes were negatively associated with burnout, providing respondents the opportunity to discriminate negative, or undesirable, from positive, or desirable, life event changes, as suggested by, for example, Andrews et al. (1978), seemed beneficial in the present study. It is possible that changes in one's personal life that are perceived as desirable contribute to the prevention of burnout, while changes which are experienced as undesirable may potentiate the effects of stress experienced at work.

The finding that social support was negatively associated and predictive of burnout is consistent with previous research (Pines & Aronson, 1981; Pines & Kanner, 1982). Findings of studies by Norbeck et al. (1983) have indicated that affirmation, affect, and aid are predictive of criterion variables. However, only one of the variates under investigation, affect, was found to be significantly related to burnout.

In the present study, affect or expressions of "liking, admiration, respect, or love" (Kahn & Antonucci, 1980, p. 267) predicted burnout, while affirmation or acknowledgement by others did not. While recognition may promote job satisfaction (Cronin-Stubbs, 1977), perhaps

being cared about by others is more important in the prevention of burnout.

As suggested in the findings by Jones (1980b), the setting in which the nurses in the present study worked contributed to their burnout experience. However, contrary to Jones's results that working in units where traumatic or life-threatening illnesses are treated contributed to burnout, the settings which were associated with burnout in the present study were the psychiatric-mental health and operating room units. Perhaps the sources of burnout differ across settings. For example, as noted in the comparison of the work settings in Table 1 (p. 59), differences existed in the amounts of interpersonal involvement experienced by the nurses working in the four specialty areas. While nurses in the intensive care and medical settings encountered little to moderate amounts of involvement and/or conflict, nurses in the psychiatric-mental health setting perceived intensive interpersonal involvement and frequent conflicts with patients, families, colleagues, and physicians. Although operating room nurses experienced little direct involvement with patients and families, they encountered frequent conflicts with physicians. Differences in the interpersonal involvement and/or conflicts encountered by the nurses may have contributed to the observation that working in the psychiatric-mental health and operating room settings is associated with burnout, while working in the intensive care and medical settings is not.

Interesting was the finding that working at Hospital A was a predictor of burnout. As noted in the discussion of the research settings (see p. 54), in comparison with Hospitals B and C, Hospital A

was found to provide services to a larger proportion of Public Aid recipients. Systematic exploration of the characteristics of the hospitals would have been needed to account for the differences in burnout observed among the hospitals.

As further analyses of the data demonstrated, although nurses working at Hospital A had significantly higher burnout scores than nurses who worked at the other two hospitals, nurses who worked at Hospital C obtained significantly higher intensity and frequency of occupational stress scores. Since, as noted in the discussion of the research settings (see p. 55), nurses typically worked at Hospital C a shorter length of time than nurses who worked at Hospital A, perhaps nurses from Hospital C who were experiencing symptoms of burnout had terminated employment from Hospital C prior to the collection of the research data.

> Hypothesis #2: There is no significant difference in the occupational stress experienced by the staff nurses working in the four specialty areas.

Testing the second hypothesis revealed that nurses who worked in either the medical or the intensive care settings experienced significantly more frequency and intensity of occupational stress than nurses who worked in either the operating room or the psychiatric-mental health settings. Therefore, this hypothesis was rejected.

Although Gentry et al. (1972) found significantly greater levels of stress among nurses who worked in the intensive care units in comparison with those who worked in the medical-surgical settings, the findings of the present study, as those of the study by Mohl et al. (1982), revealed no significant differences in stress levels between the intensive

care and the medical settings. Consistent with Johnson's (1979) findings, occupational stress in the present study was highest in medical nurses, second highest in intensive care nurses, and lowest in psychiatric-mental health nurses. As in Gray-Toft and Anderson's (1981b) study, medical nurses in the present study reported highest frequencies of occupational stress among the specialty areas. Contrary to Stehle's (1981) conclusion that critical care units are not any more stressful than other types of settings, the intensive care unit in the present study was characterized as more stressful than two of the other three settings. Results of the present study were also discrepant from those of Preston et al. (1981) who found no differences in the stress levels of medical-surgical nurses and operating room nurses.

Some of the sources of the differences in occupational stress observed among the four settings may be identified by examining Table 1 (pp. 56-59). While nurses in the psychiatric-mental health setting deliver care pertinent to patients' psychosocial needs and nurses in the operating room setting deliver predominantly physical care, nurses in the medical and intensive care settings typically respond to patients' biopsychosocial needs. For example, interaction with patients' families is more common in the medical and intensive care settings than in the other two settings. Responding to multiple variables in the care of patients holistically may be more stressful than specializing in particular aspects of their care.

Perhaps a source of stress specific to the medical and intensive care settings is the knowledge base required in the performance of the work. As indicated in Table 1 (pp. 56 & 57), medical nurses care for

patients with disorders involving diverse systems of the body (e.g., cardiovascular, pulmonary, gastrointestinal, and central nervous systems). Intensive care nurses are required to operate specialized technological equipment, such as ventillators and cardiac monitors, in caring for their patients.

Although the high stress scores of nurses working in the intensive care setting can be partially understood since they care for acutely ill patients with life-threatening illnesses, the high stress levels in the medical settings may be accounted for by the observation that, as noted in Table 1 (pp. 56 & 59), among the four settings in two of the hospitals, turnover rates and staff-patient ratios were highest among the medical nurses. In addition, 52% (n = 47) of the nurses working in the medical setting cared for patients with cancer. Perhaps caring for large numbers of clients who have terminal illnesses is particularly stressful in environments where the cohesiveness of the work group is disrupted by co-workers terminating employment.

> Hypothesis #3: There is no significant difference in the social support experienced by the staff nurses working in the four specialty areas.

In comparison with the psychiatric-mental health nurses, significant differences were found in the affirmation experienced by the intensive care nurses and in the aid experienced by the operating room nurses resulting in the rejection of the third hypothesis. Although the differences were not significant, psychiatric-mental health nurses also experienced less affect than the nurses working in the other settings. Since on-the-job and off-the-job social support were not distinguished in analyzing the data, interpretations of the results are

made cautiously.

It is interesting to observe that intensive care nurses reported receiving greater affirmation than did the psychiatric-mental health nurses. Affirmation in the present study referred to not only the acknowledgement or recognition perceived by others, but also the degree to which the respondents believed they could confide in and receive validation for their actions or thoughts from members of their social networks. One would expect psychiatric-mental health nurses to be affirming to each other. However, since most of their interventions occur as interactions within the nurse-patient relationship, the care they give is often not apparent to their co-workers. The results of those interventions are also less evident than those of intensive care nurses. In addition, one psychiatric-mental health nurse noted that "No two psych nurses can agree about what's the best treatment for a patient. Not enough is known yet about the care of the mentally ill to agree with what each other is doing!" As a result of the nature of their work, therefore, perhaps it is more difficult for psychiatric-mental health nurses to provide feedback to each other than it is for intensive care nurses.

Since they daily make decisions involving critically ill patients, intensive care nurses may ask for and receive more validation about their work than psychiatric-mental health nurses. Since the results of their physical care is often more visible than the effects of the psychiatric nurses' psychosocial care, intensive care nurses may more easily provide each other with feedback. Since, too, as discussed in the previous section, intensive care nurses experienced more frequent

and more intense stress on the job than psychiatric-mental health nurses, perhaps they receive more support because their need is more apparent.

Though difficult to determine from the information provided, it may be that the differences in affirmation between the two groups of nurses due to the support they receive from their personal networks are related to the varying degrees in the interpersonal intensity they experience at work. As noted in the discussion of the findings of the first hypothesis, informal discussions with psychiatric-mental health nurses revealed that they encountered intense degrees of interpersonal intimacy in their care of patients while intensive care nurses experienced little to moderate degrees of involvement. As one psychiatric-mental health nurse commented, "After dealing with emotional issues all day long, I can't wait to get home to barricade my doors." Perhaps, too, psychiatric-mental health nurses find it difficult to relinquish their professional role behaviors when with those in their personal networks. One nurse said, "I listen to patients' problems and then I go home to listen to my friends' problems. For once, I'd like to be listened to!" Perhaps psychiatric-mental health nurses find it difficult to confide in others and to obtain needed support.

On the other hand, operating room nurses, by the nature of their work, may be more accustomed to asking for support in the form of aid or direct assistance than psychiatric-mental health nurses. In the operating room setting, for example, the team comprised of physicians and nurses rely on concrete assistance from each other in the performance of their functions, while this type of reciprocity is not mandated by the nature of the work performed by the psychiatric-mental health

team. Perhaps their skill of seeking help from others at work transfers to operating room nurses' personal relationships.

> Hypothesis #4: There is no significant difference in the burnout experienced by the staff nurses working in the four specialty areas.

Although in combination with the other variables under investigation, the psychiatric-mental health and operating room settings contributed to the explanation of burnout in the testing of the first hypothesis, there were no significant differences in the degree of burnout reported by the nurses working in the four settings. Therefore, this hypothesis was not rejected. Not finding significant differences among the setting is inconsistent with the findings of Jones (1980b) who reported significantly greater degrees of burnout in critical care settings as compared with less intensive settings. Also, although occupational stress contributed most to the prediction of burnout in the present study and nurses from the medical and intensive care settings reported significantly greater levels of occupational stress than the nurses in the other settings, the burnout scores of the intensive care and medical nurses were not accordingly higher than the scores of the other nurses. In fact, though the differences were not significant, the burnout scores of the medical and intensive care nurses were lower than those of the operating room and psychiatric-mental health nurses. Since the results of their interventions may be more apparent than those of the psychiatric-mental health and operating room nurses, perhaps medical and intensive care nurses experience a greater sense of accomplishment and job satisfaction than the nurses in the other settings. Also, perhaps their strategies for coping with the particular type of

stressors they encounter are more effective than those used by the psychiatric-mental health and operating room nurses.

Since only 35% of the variance was accounted for by the variables under investigation, it seems that variables other than those included in the present study are operant which might contribute to the understanding of the relationship between occupational stress and burnout. Some of those variables may have been identified in the results from the additional analyses of the data.

Discussion of Serendipitous Findings

Reviewing the life events which the respondents had added to the LES revealed that most of the additional positive and negative stressors pertained to changes in their careers or in their personal and occupational interpersonal relationships (see Appendix V). As noted, relationships were the most frequent source of negative life stress and the second most frequent source of positive life stress. In addition, in the testing of the first hypothesis, it was found that social support and positive life stress were inversely related to burnout. These observations lend support to previous researchers' assertions that interpersonal relationships are sources of both pleasure and pain (Gottlieb, 1981; McLean, 1974; Pines & Kafry, 1978; Wallace, 1978). Relationships characterized by conflict and excessive intensity can be sources of personal and professional stress, but a lack of supportive relationships, either at home or at work, may contribute to the burnout process.

Performing the Pearson correlation analyses and the factorial analyses of variance resulted in the identification of variables which

may be related to burnout. Some of these variables may be antecedents to burnout, or stressors which contribute to or potentiate the burnout process. For example, consistent with Yasko's (1981) findings, the fewer the number of hours the nurses in the present study spent in direct contact with clients, the greater the degree of burnout they experienced. However, although primary nursing may afford nurses an opportunity to spend more time in direct contact with patients than team or functional nursing, the method of administering care was not found to be related to burnout in the present study.

As in Jones's (1980b) study, the longer the nurses in the present study had worked in nursing, the greater their reported burnout. However, the length of service at the present job was not related to burnout. Inconsistent with Jones's (1980b) findings, the shift the nurses worked was not associated with burnout. This discrepancy may be related to the observation that the majority of the nurses in the present study worked either the day shift or rotated shifts while burnout in Jones's (1980b) study was related, in addition to rotating shifts, to working the evening and night shifts.

Although burnout in Yasko's (1981) study was inversely related to age, no relationship was found between age and burnout in the present study. Consistent with Yasko's findings, burnout also was not related to the nurses' educational preparation or marital status. However, women who chose to combine a career with having a family are thought to be more vulnerable to burnout than are men (Pines & Aronson, 1981) and many of the stressors the respondents added to the LES pertained to managing the multiple demands of work and family life. Since the

majority of the nurses in the present study were single and between 21 and 30 years old, perhaps the factor, marital status, is multidimensional. For example, it is possible that the support available in a marital relationship offsets the stressfulness of the additional responsibilities.

Some of the variables identified by the performance of the additional analyses of the data may be considered consequences or indices of burnout. For example, significantly correlated with burnout in the present study, as found by Jones (1980c) and Maslach (1978b), were job searches undertaken, absenteeism, tardiness, and the incidence of physical illnesses. Jones (1980c) also found a significant correlation between burnout and both prescription drug and alcohol use. In the present study, there was a significant relationship between drug use and burnout, but there was no significant relationship between alcohol use and burnout. Since the majority of the nurses in the present study were under 30 years old, perhaps there is more a tendency in the younger age group to use drugs, such as tranquilizers, rather than alcohol, in attempting to cope with job-related and personal stressors.

Summary

The fifth chapter included the discussion of the study's findings. It was noted that additional information would be needed to identify the basis for the observation that the respondents in the present study scored higher on the SBS-HP than nurses of previous studies using that instrument. That the nurses in the present study scored higher on intensity as compared with frequency of occupational stress seems to indicate that the perceived impact of stressors is more important to

nurses than how often those stressors occur. Studying the impact of changes in the nurses' personal lives confirmed the assumption that positive and negative stressors can be distinguished. Since nurses working in a different specialty area at each of the three hospitals obtained the highest scores on the measures of social support, it may be that on-the-job support differs among hospitals.

In the interpretation of the results of testing the first hypothesis, it was advanced that burnout is a reaction to stressors encountered at work, but that personal factors, such as changes perceived as undesirable in one's personal life, are also relevant. From the relationships which were observed among the variables, it was suggested that positive life stress and emotional support may counteract the effects of burnout, while the particular setting in which nurses work may promote its occurrence.

Although, in combination with the other variables under investigation, working in the psychiatric-mental health and operating room settings contributed to the explanation of burnout in the testing of the first hypothesis, analysis of the second hypothesis revealed that nurses working in the medical and intensive care settings experienced significantly greater frequencies and intensities of occupational stress than nurses working in the other settings. It was conjectured that nurses working in medical and intensive care settings, in responding to patients' holistic needs, manage multiple variables and are required to have an extensive knowledge base which may be more stress-provoking than specializing in either the psychological or the physical care of patients. Turnover rates, staff-patient ratios, and caring for

patients with terminal illnesses were offered as possible reasons for the high stress levels of nurses working in the medical setting.

In the interpretation of the findings related to the third hypothesis, it was suggested that psychiatric-mental health nurses report receiving less affirmation than intensive care nurses because, due to the nature of their work, they find it difficult to give each other feedback and to confide in persons in their occupational and personal networks. Intensive care nurses may receive more affirmation than psychiatric-mental health nurses because they seek more validation for decisions they make involving their critically ill patients, the results of their interventions are more visible, and their need for support is more apparent to others in their environments. Operating room nurses may be more accustomed to asking for and seeking direct assistance from members of their work team and may therefore receive more on-the-job and off-the-job aid than psychiatric-mental health nurses.

Although the variables, occupational stress and work setting, contributed to the prediction of burnout and medical and intensive care nurses reported highest occupational stress scores among the four settings, that there were no significant differences in burnout among the four settings as found by testing the fourth hypothesis seems inconsistent with what would be expected. Additional variables, including some of those identified in the additional analyses conducted by the researcher, may be relevant to the burnout process. For example, personal and occupational interpersonal relationships, the number of hours nurses spend in direct contact with patients, and the length of service in nursing may contribute to the process. Variables found to

be significantly correlated with burnout which may signify the phenomenon are job searches undertaken, absenteeism, tardiness, physical illnesses, and the use of prescription drugs.

In the sixth and final chapter, a recapitulation of the study, implications of the findings for nursing practice, and recommendations for further research are presented.

CHAPTER VI

RECAPITULATION, IMPLICATIONS, AND RECOMMENDATIONS

A summary of the investigation of the factors which may pertain to burnout in staff nurses is presented. Ways in which the study's results can be used by nurses and recommendations for additional research are offered.

Recapitulation

A severe form of stress which affects workers' physical and mental health and job performance, burnout is costly to employees, employing institutions, and consumers. Characterized by negative and cynical job attitudes, emotional and physical exhaustion, and withdrawal from clients, the phenomenon may result in high rates of turnover, absenteeism, tardiness, physical illnesses, alcohol and prescription drug use, job dissatisfaction, and patient neglect. Nurses who are impaired with burnout are ill-equiped to administer quality care to their patients.

The purposes in this correlational-descriptive study were to identify occupational and personal variables which may relate to the burnout of professional nurses and to contribute to the knowledge of work-related stress. Psychometric methods were used to examine the relationships among the independent variables, occupational stress, work setting, life stress, and social support, and the dependent variable, burnout, and to assess the differences in the occupational stress, social support, and burnout among staff nurses working in four specialty areas.

Occupational stress was assessed by the Nursing Stress Scale, life stress was measured by the Life Experiences Survey, social support was determined by the Norbeck Social Support Questionnaire, and burnout was evaluated by the Staff Burnout Scale for Health Professionals. Additional information about the respondents was obtained using the researcher's Self-Report Questionnaire.

Female staff nurses who had graduated from an associate degree, diploma, or baccalaureate program for the preparation of registered nurses and who were working full-time in either the psychiatric-mental health, operating room, intensive care, or medical specialty areas at one of three large Chicago medical center hospitals were randomly chosen for participation in the study. The 296 respondents were characterized as typically single, between 21 and 30 years old, bachelor's prepared, employed between 2 and 10 years in nursing, and involved in administering primary care nursing for 25 or more hours per week while either rotating shifts or working the day shift.

Standardized procedures were used when administering the research instruments, whether to the respondents personally or through the mail. Multiple regression analysis, multivariate analysis of variance, and factorial analysis of variance were the statistical procedures used to test the study's hypotheses. Stated in the null form, these included:

1. There are no significant relationships among occupational stress, work setting, life stress, social support and the degree of burnout experienced by staff registered nurses.

2. There is no significant difference in the occupational stress experienced by the staff nurses working in the four specialty areas.

3. There is no significant difference in the social support experienced by the staff nurses working in the four specialty areas.

4. There is no significant difference in the degree of burnout experienced by the staff nurses working in the four specialty areas.

Assorted findings resulted from testing the four hypotheses and from performing additional analyses of the study's data. Since intensity of occupational stress, negative life changes, affect, the operating room work setting, Hospital A, the psychiatric-mental health work setting, and positive life changes significantly predicted 35% of the variance in burnout, the first hypothesis was rejected. It was concluded that the burnout of nurses is a reaction to stressors experienced at work as well as factors pertinent to their personal life, such as life event changes. In addition, positive life changes and emotional support may counteract the effects of burnout, while the particular work setting in which nurses work may promote its occurrence.

The second hypothesis was rejected because it was found that medical and intensive care nurses experienced significantly more frequency and intensity of occupational stress than did operating room and psychiatric-mental health nurses. Managing the multiple variables of responding to patients' biopsychosocial needs and needing to have an extensive knowledge base were cited as possible reasons for the high stress levels reported by medical and intensive care nurses. Although the intensive care setting where patients with life-threatening illnesses are cared for is often considered a highly stressful environment, the high stress level of nurses working on the medical unit was thought to be related to turnover of staff, staff-patient ratios, and caring for

patients with terminal illnesses.

Because intensive care nurses experienced significantly more affirmation and operating room nurses encountered significantly more aid than did the psychiatric-mental health nurses, the third hypothesis was rejected. That psychiatric-mental health nurses perceived less affirmation than did intensive care nurses was interpreted as relevant to their difficulty in providing each other with feedback about performance and in confiding in others in their occupational and personal networks. Intensive care nurses, however, may seek and receive more validation from others since their decisions involve critically ill patients, the results of their interventions are observable, and their need for support is more apparent. It was surmised that since operating room nurses daily ask for and receive assistance from team members at work, they are more likely to experience on-the-job and off-the-job aid than are psychiatric-mental health nurses.

Although occupational stress and work setting contributed to the explanation of burnout and nurses from two of the settings experienced significantly greater levels of occupational stress than nurses in the other settings, there were no significant differences in the burnout experienced by the nurses working in the four specialty areas. Therefore, the fourth hypothesis was not rejected. Since, in addition, only 35% of the variance in burnout was explained by the variables investigated in the study, additional variables not explored in this study may relate to the burnout process.

As suggested by the results of performing additional analyses of the data, variables which were not investigated in the present study

but which may relate to burnout include personal and professional interpersonal relationships, number of hours in direct contact with patients, and length of service in nursing. Job searches undertaken, absenteeism, tardiness, physical illnesses, and prescription drug use, significant correlates of burnout, may be consequences of the phenomenon.

Implications for Nursing Practice

Based on the major and serendipitous findings of the study, implications for nurses can be advanced. As indicated, although burnout is related to stressors which occur at work, changes in the nurses' personal life also contribute to the process. Changes perceived as negative were positively associated with burnout, while changes perceived as positive were negatively associated with burnout. Therefore, nurses may want to balance those events they perceive as negative with changes they experience as positive. However, since too many changes of any kind can promote the deleterious effects of stress (Selye, 1956), controlling, as much as possible, the number of changes experienced at one time may prove healthful. For example, if the unit on which the nurse works is undergoing multiple changes, she can curtail personal changes until she has adjusted to those at work. When nurses move to other states, they might consider seeking a position similar to the one they left until they feel adjusted to the personal changes which attend geographic relocations. Since affect, in combination with the other variables under investigation, negatively correlated with burnout, nurses undergoing positive and negative personal and occupational changes may wish to seek additional emotional support during those stressful times.

Nurses may also choose to institute self-management techniques for planning life and career changes. This involves identifying long-term and short-term goals, thereby controlling the number and impact of changes encountered during a specific time period. Self-management strategies also involve using cognitive-behavioral principles to manage stressful changes when they do occur (see Meichenbaum, 1977, for examples).

In combination with intense degrees of occupational stress, the following also contributed to the burnout experience: large amounts of negative life stress, small amounts of positive life stress, small amounts of affect, employment at Hospital A, and working in the psychiatric-mental health or operating room settings. Nurses working in psychiatry or the operating room may wish to control the amount of life changes they choose to encounter which they know will affect them adversely and to counter negative events with self-selected positive events. They may also wish to learn to manage those occupational stressors which may not occur frequently, but which may have a strong impact on them when they do occur. Since intensities of stressors involve personal perceptions of the meaning nurses ascribe to them, cognitive-behavioral strategies for coping with stressors, as suggested by Meichenbaum (1977), may be useful for averting the harmful effects of occupational stress. For example, mustering resources and rehearsing coping behaviors before they are needed foster adaptive management of stressors during highly intense times.

If intimate interpersonal relationships and/or conflicts are factors which contribute to occupational stress and burnout, nurses can

monitor periods of intensity with activities that are less emotionally stimulating, such as doing paperwork or spending some time alone for rest and relaxation. Discharging the tension of intense interpersonal encounters, through, for example, physical exercise, can be revitalizing. Since nurses in the present study who spent more hours in direct contact with patients experienced less burnout, efforts to prevent and manage burnout should not involve spending less time with patients. Rather, how that time is used and what nurses do when not with patients should be examined. For example, since psychiatric-mental health nurses may not be seeking as much support from co-workers as they may need, rather than isolating themselves when seeking refuge from interpersonal intensity, it may be helpful for them during non-working hours to be with others who provide unconditional support. Interpersonal conflicts which may promote burnout can be dealt with using conflict resolution skills and institutionalized procedures for confronting conflicts which occur with others in the work group, as for example, doctors, and with patients and their families.

Working in the psychiatric-mental health and operating settings may be relevant to burnout since nurses in those areas seldom see the results of their work. Psychiatric-mental health nurses often work with large populations of schizophrenic patients who manifest high rates of recidivism and operating room nurses typically see patients only while they are undergoing surgery. Both groups may wish to institute monitoring and feedback systems. For the psychiatric-mental health nurses, this may mean noting small gains in treatment, such as less withdrawal in their patients. Operating room nurses may opt to accompany

surgeons on rounds to observe patients' progress. The current trend toward perioperative nursing may provide operating room nurses an opportunity to experience patients before, during, and after surgery and may help to prevent the burnout of working in that setting. Both psychiatric-mental health nurses and operating room nurses may wish to alternate tasks where the results are not seen for awhile with those that are immediately productive. In addition, psychiatric-mental health nurses could rotate working on teams which serve chronically and severely ill patients with working on teams of acutely ill patients.

Although working in the psychiatric-mental health and operating room settings contributed to burnout, the medical and intensive care settings were characterized in the present study as most stressful. However, since nurses working in those settings experienced less burnout than the psychiatric-mental health and operating room nurses, perhaps medical and intensive care nurses might consider exchanging information with nurses from the other settings about ways in which they cope with stress.

Since they experienced less affirmation or validation than intensive care nurses and less aid or assistance than operating room nurses, psychiatric-mental health nurses might consider additional methods for getting needs for support met. For example, since their interventions are seldom recognizable, they might develop performance criteria consisting of specific, observable, and measurable behaviors relevant to caring for patients and to participating in projects on the unit. Formal and informal systems of peer review could be used to provide opportunities for nurses to obtain feedback based on the achievement of

those objectives. Case conferences where nurses share information about their care of patients can provide forums for feedback and helpful problem-solving. Participating in support networks of psychiatric-mental health nurses outside of their institutions might also provide opportunities for obtaining new perspectives and affirmation.

So that nurses can function as active, effective members of support networks, they might consider bolstering their interpersonal, communication, and group skills. Use of assertiveness skills, for example, might augment their ability to set limits on the numbers and kinds of interpersonally intense experiences they engage in and to ask for needed support.

Although length of service in nursing was highly correlated with burnout, length of service in current positions and length of service at employing institutions were not correlated with burnout. Changing jobs seems to be one way nurses deal with pending burnout as noted by the high turnover rates of nurses discussed in the first chapter and the significant correlation between job searches undertaken and burnout found in the present study. However, perhaps less costly methods of avoiding burnout could be explored. For example, transferring to another unit may provide a needed change, at the same time diminishing the adjustments required of the nurse and the costs to the institution.

The significant correlation between the use of drugs and burnout found in the present study validates current interest in the impaired nurse. Seeking support from peer assistance networks available through many state nursing associations may help nurses who are experiencing drug abuse to develop more adaptive ways of coping with personal and

occupational stressors.

Recommendations for Further Research

Generalizations made as a result of this study are limited to female staff nurses who meet the selection criteria for participation in the study and who work at one of the three hospitals included in the study or at a Chicago area hospital which shares similar size and service characteristics as those used in the study. To confirm the relationships among the variables found in the study, another study with a larger, more geographically representative sample is warranted. Including both men and women in the study would enhance the external validity of the findings and further investigate Pines and Aronson's (1981) contention that women are more vulnerable to experiencing burnout than men.

Since only 48% of the nurses at the three hospitals who were contacted elected to participate in the present study, perhaps those who chose not to participate were experiencing symptoms of burnout, such as apathy and emotional exhaustion. Or, nurses who were manifesting signs of burnout may have terminated employment prior to the beginning of the investigation. Generalizability of the present study's findings would be enhanced if the demographic characteristics and occupational stress and burnout levels of a random sample of nurses choosing not to participate in the study were compared with those of the study's respondents. Comparisons could also be made between the stress and burnout of nurses who are employed and those who had recently terminated employment.

Comparative research using specialty areas in addition to the

psychiatric-mental health, operating room, intensive care, and medical settings might be conducted in order to promote generalization of the findings beyond the limits of those four work settings. Investigating the specific sources of occupational stress and burnout within each setting may clarify the discrepancy between the findings of this study that working in the psychiatric-mental health and operating room settings contributed to burnout and those of Jones (1980b) that working in the emergency room and intensive care units contributed to the phenomenon.

Since only 35% of the variance in burnout was explained in the study, researchers wishing to conduct similar investigations should attempt to enhance the studies' internal validity. One approach might be to control for additional extraneous sources of variance. For example, using hospitals with comparable turnover and burnout rates and terms of employment of its staff nurses would have enhanced the validity of the interpretations made about the differences in occupational stress found among the specialty areas.

Another source of extraneous variance may have been introduced into the results of the study by administering the questionnaires in person to 53% (n = 156) of the respondents and by mail to 47% (n = 140) of the respondents. Future researchers might wish to utilize the same data collection methods with all respondents.

Internal validity is also augmented by minimizing error variance, as, for example, by using objective, reliable, and valid instruments which share no variance with each other. Although the LES was found to reliably and validly assess the life event changes of the general

population, Norbeck's (1983) adaptation of the instrument, normed using graduate nursing students, may be more appropriate in studies of nurses.

In addition, there was some overlap in the scores on the LES and the NSS since many of the changes that respondents added to the LES were stressors pertaining to work. One way of controlling for the resultant autocorrelation of the life stress and occupational stress variables may be to exclude the respondents' ratings on the items added to the LES pertaining to work.

Perhaps the psychiatric-mental health and operating room nurses obtained high burnout scores and low occupational stress scores because the instrument used to assess occupational stress, i.e., the NSS, was not sensitive to the stressors of working in those settings. Recently revised editions of the NSS, available from the developers of the instrument, may be more appropriate for assessing the occupational stress of, for example, psychiatric-mental health nurses.

Systematic variance may be increased in future studies of nursing burnout by including variables which, in combination with occupational stress, work setting, life stress, and social support, explain a larger percentage of the variance in burnout than that accounted for in the present study. For example, it was conjectured that the intensity of interpersonal involvement and/or conflict in the psychiatric-mental health and operating room settings accounted for those settings contributing to the explanation of burnout. Also, interpersonal relationships were cited as frequent sources of positive and negative life stress. If, indeed, burnout is a response to the stress of continuous and intense interpersonal involvement and/or conflict on the job as conjectured by

Maslach (1978b) and others (Pines & Aronson, 1981), studies of burnout may need to include an investigation of nurses' interpersonal relationships. Since the estimates of interpersonal involvement in the present study were derived from informal interviews with a small number of nurses working in the four settings, an examination of the interpersonal dimension, in particular, the intensity of involvement with others, as it relates to nursing burnout should be done systematically using objective measures.

Since in previous studies (Gray-Toft & Anderson, 1981b; Paredes, 1982; Yasko, 1981) it was found that individual or personality variables predicted variance in burnout, factors, such as anxiety-proneness, locus of control, and ego strength, might be included in additional research on the burnout of nurses. In the present study, it was found that although medical and intensive care nurses experienced more occupational stress than psychiatric-mental health and operating room nurses, working in the intensive care and medical settings did not contribute to burnout. It might be interesting to examine the self-concept and self-esteem of nurses who work in the four specialty areas. The nurses' reactions to and methods of coping with personal and occupational stress, as, for example, their use of assertive versus passive-dependent behaviors, may also contribute to the understanding of burnout.

Since it was noted that, because the results of their interventions may be more apparent to them, medical and intensive care nurses may experience more job satisfaction than psychiatric-mental health and operating room nurses, perhaps nurses' satisfaction with their jobs mediates the effects of occupational and life stress in the burnout

process. Accordingly, inclusion of job satisfaction in investigations of burnout may contribute to the understanding of this phenomenon.

Additional recommendations for future research derived from the major and serendipitous findings of the study include the following. As noted in the discussion of the respondents' scores, staff nurses in the present study with bachelor's degrees or less had higher burnout scores than the master's prepared clinical specialists in Yasko's (1981) study. Comparative research is needed to validate this observation and to explore the sources of the difference in scores between the two groups of nurses.

Additional research is needed to explore the sources of the higher occupational stress levels of nurses working in the medical and intensive care areas as compared with nurses working in the psychiatric-mental health and operating room settings. For example, as conjectured in the discussion of this finding, giving holistic care to clients, as in the medical and intensive care settings, may be more stressful than focusing on particular facets of patients' care, such as their needs for psychosocial intervention or surgical treatment. However, systematic research is needed to support this contention.

Since master's prepared oncology clinical specialists in Yasko's (1981) study had lower burnout scores than staff nurses in the present study who worked on medical units largely comprised of patients who were terminally ill with cancer, further research is needed to explore the relationship between educational background and burnout and to compare the sources of stress and satisfaction of these groups of nurses.

Since working at one of the hospitals included in the present study was found to contribute to burnout, comparative research is needed to identify the sources of the differences in burnout among hospitals of similar size and service characteristics. In addition, using hospitals which differ from each other may generate information about characteristics of organizations, such as the quality of leadership and supervision, which contribute to occupational stress and burnout.

Additional research is needed to study the social support systems of nurses as they relate to occupational and life stress. As noted in the discussion of the findings related to social support, though both personal and work-related support were assessed, there were differences in the scores obtained by the nurses working in the four specialty areas at the three hospitals. Although performing a Pearson correlation analysis revealed that the number of persons in the support network originating in the nurses' work environment did not relate to burnout, perhaps a more definitive investigation of the sources of social support and their relationships to personal and occupational stress and to burnout is warranted. For example, Paredes (1982), in his study of nursing stress and burnout, discriminated the support available from supervisors, co-workers, friends, and relatives and found that supervisory and relative social support were negatively associated and predictive of burnout while friendship and co-worker support were not. Determining if the type of support, i.e., affect, affirmation, or aid, from particular groups of on-the-job or off-the-job significant others during stressful periods at work or at home mediates the effects of stress may be more pertinent to understanding burnout than the numbers

of persons providing that support.

As the findings indicated, psychiatric-mental health nurses reported the lowest scores in social support among the four groups of nurses. Further study is needed to identify the sources of the differences in social support among nurses working in diverse specialty areas and to determine to what extent psychiatric-mental health nurses who are low in social support provide support to their patients.

Further exploration of the variables investigated in the present study and generated by performing the additional analyses of the data is needed. Further study to determine functional relationships among such variables as occupational stress, life stress, work setting, social support, length of service in nursing, number of hours in direct patient care and the degree of burnout experienced by staff nurses is warranted. For example, as conjectured in the discussion of the findings (p. 109), do positive, or desirable, changes in the nurses' life prevent burnout, while negative, or undesirable, changes potentiate the effects of occupational stress? Factors identified as correlates of burnout, such as job searches undertaken, absenteeism, tardiness, physical illnesses, and prescription drug use, require longitudinal study to determine if they are characteristics of burnout or consequences of the process. The results of psychometric investigations, such as the present one, are in need of validation by concurrent or follow-up studies where systematic observations are made of the patient care given by nurses experiencing high levels of occupational stress and burnout. Are they, as Jones (1980c) suggested, more neglectful and error-prone than nurses not experiencing burnout?

The results of correlational-descriptive research contribute to knowledge, but predictive and prescriptive information is more readily derived from the findings of experimental and quasi-experimental investigations. Experimental studies are needed where variables believed to be related to burnout can be manipulated and where interventions thought to be ameliorative of the process can be attempted. Corrective measures identified in the significant findings of these studies would be helpful to those involved in providing quality health care to patients and in curbing the costly turnover rates of staff nurses.

Summary

The purpose in the sixth and final chapter was to summarize the investigation of burnout in professional nurses and to offer ways in which the results may be used by nurses and future investigators of the phenomenon. Implications for nurses derived from the study's findings included using self-management and cognitive-behavioral strategies for controlling the amount and impact of personal and occupational stressors, bolstering communication and conflict resolution skills for managing certain stressors, developing monitoring and feedback systems for obtaining goal-specific validation, and participating in networks of nurses for exchanging information about coping with personal and professional stressors.

Suggestions for further research included augmenting the external and internal validity of findings in future research focused on burnout and conducting comparative research on (a) staff nurses and master's prepared clinical specialists, (b) the administration of holistic care versus specialization, (c) the characteristics of hospitals which may

contribute to occupational stress and burnout, and (d) on-the-job and off-the-job social support as it relates to personal and occupational stress. It was also recommended that experimental and quasi-experimental research be performed to validate the results of correlational-descriptive investigations and to generate prescriptive measures for the management of stress and the prevention of burnout.

Significant findings from investigations of the burnout of professional nurses contribute to the knowledge about the personal and occupational variables which promote this costly phenomenon. Since the burnout of nurses is characterized by physical and emotional exhaustion, a loss of compassion and respect for clients, and, in some cases, serious on-the-job mistakes and patient neglect, this information can be crucial to those invested in preventing burnout and in promoting optimal patient care. Quality health care can be delivered by nurses who are physically and psychologically equipped to give that kind of care, but not by those who are exhausted, unmotivated, and apathetic. Knowledge of the factors which relate to burnout and methods for preventing its occurrence can benefit staff nurses vulnerable to the phenomenon, institutions impaired by employee burnout, and recipients of health care.

REFERENCES

REFERENCES

Amick, D. J., & Walberg, H. J. Introductory multivariate analysis. Berkeley, California: McCutchan Publishing Corporation, 1975.

Anderson, C. A., & Basteyns, M. Stress and the critical care nurse reaffirmed. Journal of Nursing Administration, 1981, 11, 31-34.

Andrews, G., Tennant, C., Hewson, D., & Vaillant, G. Life event stress, social support, coping style, and risk of psychological impairment. The Journal of Nervous and Mental Disease, 1978, 166, 307-316.

Bailey, J. T., Steffen, S. M., & Grout, J. W. The stress audit: Identifying the stressors of ICU nursing. Journal of Nursing Education, 1980, 19, 15-25.

Baldwin, A. On the scene: Stanford University Hospital. Changing work stress: Use of the nurse-to-nurse consultation. Nursing Administration Quarterly, 1981, 5, 42-27.

Barrett, J. E. The relationship of life events to the onset of neurotic disorders. In J. E. Barrett (Ed.), Stress and mental disorder. New York: Raven Press, 1979.

Barut, C. J. A descriptive study of potential sources of stress as reported by nurses working in critical-care units and on general medical-surgical floors (Doctoral dissertation, University of Toledo, 1978). Dissertation Abstracts International, 1978, 39, 2955-B. (University Microfilms No. 7824515)

Beland, I. The burnout syndrome in nurses. In J. Werner-Beland (Ed.), Grief responses to long-term illness and disability. Reston, Virginia: Reston Publishing Company, 1980.

Bell, J. M. Stressful life events and coping methods in mental-illness and -wellness behaviors. Nursing Research, 1977, 26, 136-140.

Bishop, J. E. The person and business costs of 'job burnout'. The Wall Street Journal, November 11, 1980, pp. 31; 35.

Caplan, R. D., Cobb, S., French, J. R. P., Jr., Harrison, R. V., & Pinneau, S. R., Jr. Job demands and worker health: Main effects and occupational differences (U.S. Department of Health, Education, & Welfare, National Institute for Occupational Safety & Health Publication No. NIOSH 75-160). Washington, D.C.: U.S. Government Printing Office, 1975.

Cheatham, J., & Stein, R. Relationship between self-actualization scores of staff nurses and burnout syndrome symptoms. Nursing Leadership, 1982, 5, 2-13.

Cherniss, C. Staff burnout: Job stress in the human services. Beverly Hills, California: Sage Publications, 1980.

Clark, C. C. Burnout: Assessment and intervention. Journal of Nursing Administration, 1980, 10, 39-43.

Cobb, S. Social support as a moderator of life stress. Psychosomatic Medicine, 1976, 38, 300-314.

Coleman, J. C. Life stress and maladaptive behavior. American Journal of Occupational Therapists, 1973, 27, 169-180.

Cook, T. D., & Campbell, D. T. Quasi-experimentation: Design and analysis issues for field settings. Chicago, Illinois: Rand McNally College Publishing Company, 1979.

Cronin-Stubbs, D. Job satisfaction and dissatisfaction among new graduate staff nurses. Journal of Nursing Administration, 1977, 7, 44-49.

Cronin-Stubbs, D. Professional burnout part two: A survey of enterostomal therapists. Journal of Enterostomal Therapy, 1982, 9, 14-16.

Cronin-Stubbs, D., & Gregor, P. S. Adjustment of the new graduate to the world of nursing service. In S. K. Mirin (Ed.), Teaching tomorrow's nurse: A nurse educator reader. Wakefield, Massachusetts: Nursing Resources, Inc., 1980.

Cronin-Stubbs, D., & Velsor-Friedrich, B. Professional and personal stress: A survey. Nursing Leadership, 1981, 4, 19-26.

Daley, M. R. 'Burnout': Smoldering problem in protective services. Social Work, 1979, 24, 375-379.

Daubney, J. H. Stress and styles of coping with newborn death among nurses in a neonatal intensive care unit (Doctoral dissertation, University of Akron, 1980). Dissertation Abstracts International, 1980, 41, 1088-B. (University Microfilms No. 8019112)

DiMatteo, M. R., & Hays, R. Social support and serious illness. In B. H. Gottlieb (Ed.), Social networks and social support. Beverly Hills, California: Sage Publications, 1981.

Dohrenwend, B. S., & Dohrenwend, B. P. (Eds.). Stressful life events: Their nature and effects. New York: John Wiley & Sons, 1974.

Dolinsky, J. G. Perceived life stress: A function of rural and urban communities, socioeconomic status and natural support systems (Doctoral dissertation, California School of Professional Psychology, 1982). Dissertation Abstracts International, 1982, 43, 851-B. (University Microfilm No. DA8219424)

Eckenrode, J., & Gore, S. Stressful events and social supports: The significance of context. In B. H. Gottlieb (Ed.), Social networks and social support. Beverly Hills, California: Sage Publications, 1981.

Edelwich, J., & Brodsky, A. Burn-out: Stages of disillusionment in the helping professions. New York: Human Sciences Press, 1980.

Eisendrath, S. J. Psychiatric liaison support groups for general hospital staff. Psychosomatics, 1981, 22, 685-688; 693-694.

Epting, S. P. Coping with stress through peer support. Topics in Clinical Nursing, 1981, 2, 47-59.

Fox, D. J. Fundamentals of research in nursing. New York: Appleton-Century-Crofts, 1970.

French, J. R. P., Jr. Person-role fit. In A. McLean (Ed.), Occupational stress. Springfield, Illinois: Charles C. Thomas, 1974.

Freudenberger, H. J. The staff burn-out syndrome in alternative institutions. Psychotherapy: Theory, research and practice, 1975, 12, 73-82.

Garbin, M. Stress research in clinical settings. Topics in Clinical Nursing, 1979, 1, 87-95.

Gentry, W. D., Foster, S. B., & Froehling, S. Psychological response to situational stress in intensive and non-intensive nursing. Heart and Lung, 1972, 1, 793-796.

Gersten, J. C., Langner, T. S., Eisenberg, J. C., & Orzek, L. Child behavior and life events: Undesirable change or change per se? In B. S. Dohrenwend & B. P. Dohrenwend (Eds.), Stressful life events: Their nature and effects. New York: John Wiley & Sons, 1974.

Goldberg, D. P. The detection of psychiatric illness by questionnaire. London: Oxford University Press, 1972.

Gottlieb, B. H. Preventive interventions involving social networks and social support. In B. H. Gottlieb (Ed.), Social networks and social support. Beverly Hills, California: Sage Publications, 1981.

Gottlieb, B. H. (Ed.). Social networks and social support. Beverly Hills, California: Sage Publications, 1982.

Gray-Toft, P. Effectiveness of a counseling support program for hospice nurses. Journal of Counseling Psychology, 1980, 27, 346-354.

Gray-Toft, P. Personal communication, June 1982.

Gray-Toft, P., & Anderson, J. G. The Nursing Stress Scale: Development of an instrument. Journal of Behavioral Assessment, 1981a, 3, 11-23.

Gray-Toft, P., & Anderson, J. G. Stress among hospital nursing staff: Its causes and effects. Social Science Medicine, 1981b, 15A, pp. 639-647.

Greenberger, R. S. How 'burnout' affects corporate managers and their performance. The Wall Street Journal, April 23, 1981, pp. 1; 17.

Hartl, D. E. Stress management and the nurse. In D. C. Sutterly & G. F. Donnelly (Eds.), Coping with stress: A nursing perspective. Rockville, Maryland: Aspen Systems Corporation, 1982.

Hefferin, E. A. Life cycle stressors: An overview of research. In D. C. Sutterly & G. F. Donnelly (Eds.), Coping with stress: A nursing perspective. Rockville, Maryland: Aspen Systems Corporation, 1981.

Herbert, D. J. Psychophysiological reactions as a function of life stress and behavioral rigidity. Journal of Psychiatric Nursing and Mental Health Services, 1976, 14, 23-27.

Holmes, T. H., & Rahe, R. H. The Social Readjustment Rating Scale. Journal of Psychosomatic Research, 1967, 11, 213-218.

Houlihan, P. Consider yourself for a change: The phenomenon of burn-out. Nephrology Nurse, 1982, 4, 39-40.

House, J. S. Occupational stress and coronary heart disease: A review and theoretical integration. Journal of Health and Social Behavior, 1974, 15, 12-27.

House, J. S., & Wells, J. A. Occupational stress, social support, and health. Paper presented at the Conference on Reducing Occupational Stress. Sponsored by the Center for Occupational Mental Health, Cornell University and the National Institute of Occupational Safety and Health, White Plains, New York, 1977.

Huckabay, L., & Jagla, B. Nurses' stress factors in the intensive care unit. Journal of Nursing Administration, 1979, 9, 21-26.

Hurst, M. W. Life changes and psychiatric symptom development: Issues of content, scoring, and clustering. In J. E. Barrett (Ed.), Stress and mental disorder. New York: Raven Press, 1979.

Jacobson, S. P. Stressful situations for neonatal intensive care nurses. The American Journal of Maternal Child Nursing, 1978, 3, 144-150.

Janken, J. K. The nurse in crisis. Nursing Clinics of North America, 1974, 9, 17-26.

Johnson, M. N. Anxiety/stress and the effects on disclosure between nurses and patients. Advances in Nursing Science, 1979, 1, 1-20.

Johnson, R. M., Richardson, J. I., Von Endt, L. L., & Lindgren, K. B. The professional support group: A model for psychiatric clinical nurse specialists. Journal of Psychosocial Nursing and Mental Health Services, 1982, 20, 9-13.

Jones, J. W. Environmental and cognitive correlates of staff burnout: Implications for rational restructuring. Paper presented at the First Annual Chicago Conference on Behavior Analysis, Chicago, 1980a.

Jones, J. W. A measure of staff burnout among health professionals. Paper presented at the Annual Convention of the American Psychological Association, Montreal, 1980b.

Jones, J. W. Preliminary manual: The Staff Burnout Scale for Health Professionals (SBS-HP). Park Ridge, Illinois: London House Management Consultants, 1980c.

Jones, J. W. The staff burnout scale: A validity study. Paper presented at the Annual Meeting of the Midwestern Psychological Association, St. Louis, 1980d.

Jones, J. W. Attitudinal correlates of employee theft of drugs and hospital supplies among nursing personnel. Nursing Research, 1981a, 30, 349-351.

Jones, J. W. Dishonesty, staff burnout, and unauthorized work break extensions. Personality and Social Psychology Bulletin, 1981b, 7, 406-409.

Jones, J. W. Personal communication, May 1982.

Kahn, R. Job burnout: Prevention and remedies. Public Welfare, 1978, 36, 61-63.

Kahn, R. L., & Antonucci, T. C. Convoys over the life course: Attachment, roles, and social support. In P. B. Baltes & O. C. Brim, Jr. (Eds.), Life-span development and behavior (Vol. 3). New York: Academic Press, 1980.

Kaye, G. H., & Krol, S. The nursing shortage: This time traditional responses won't work. The Journal of Nursing Leadership and Management, 1981, 12, 13-17.

Kerlinger, F. N. Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart, & Winston, Inc., 1973.

Kirk, R. E. Experimental design: Procedures for the behavioral sciences. Belmont, California: Brooks/Cole Publishing Company, 1968.

Kovecses, J. S. Career guide: Burnout doesn't have to happen. Nursing 80, 1980, 10, 105-111.

Lamb, H. R. Staff burnout in work with long-term patients. Hospital and Community Psychiatry, 1979, 30, 396-398.

Lenhart, R. C. Faculty burnout -- and some reasons why. Nursing Outlook, 1980, 28, 424-425.

Likert, R. New patterns of management. New York: McGraw-Hill, 1961.

MacNeill, D. H. The relationship of occupational stress to burnout. In J. W. Jones (Ed.), The burnout syndrome. Park Ridge, Illinois: London House Press, 1981.

Magill, K. A. Burnin, burnout, and the brightly burning. Nursing Management, 1982, 13, 17-21.

Maloney, J. P. Job stress and its consequences on a group of intensive care and non-intensive care nurses (Doctoral dissertation, University of Maryland, 1979). Dissertation Abstracts International, 1980, 41, 521-B. (University Microfilms No. 8016980)

Marshall, J. Stress amongst nurses. In C. L. Cooper & J. Marshall (Eds.), White collar and professional stress. New York: John Wiley & Sons, 1980.

Maslach, C. Burned-out. Human Behavior, 1976, 5, 16-22.

Maslach, C. Burn-out syndrome: A social psychological analysis. Paper presented at the Annual Convention of the American Psychological Association, San Francisco, 1977.

Maslach, C. Burned out. In B. A. Backer, P. M. Dubbert & E. J. P. Eisenman (Eds.), Psychiatric/mental health nursing: Contemporary readings. New York: D. Van Nostrand Company, Inc., 1978a.

Maslach, C. Job burnout: How people cope. Public Welfare, 1978b, 36, 56-58.

Maslach, C., & Jackson, S. E. Burned-out cops and their families. Psychology Today, 1979, 12, 58-62.

Maslach, C., & Jackson, S. E. The measurement of experienced burnout. Unpublished manuscript, 1980. (Available from Christina Maslach, Psychology Department, University of California, Berkley, California, 94720).

Maslach, C., & Solomen, T. Social pressure toward dehumanization. Paper presented at the Annual Convention of the Western Psychological Association, Los Angeles, April 1976.

May, J. G. A psychiatric study of a pediatric intensive therapy unit. Clinical Pediatrics, 1972, 11, 76-82.

McClelland, D. Power: The inner experience. New York: Irvington Publishers, Inc., 1975.

McGrath, J. E. Settings, measures, and themes: An integration review of some research on social-psychological factors in stress. In A. Monat & R. S. Lazarus (Eds.), Stress and coping: An anthology. New York: Columbia University Press, 1977.

McLean, A. (Ed.). Occupational stress. Springfield, Illinois: Charles C. Thomas, 1974.

McNeil, J., & Pesznecker, B. L. Keeping people well despite life change crises. Public Health Reports, 1977, 92, 343-348.

Meichenbaum, D. Cognitive behavior modification: An integrative approach. New York: Plenum Press, 1977.

Meyer, J. H. Social construction of burnout: An emergent theory (Doctoral dissertation, Boston University, 1979). Dissertation Abstracts International, 1980, 41, 4568-B. (University Microfilms No. 8005256)

Michaels, D. R. Too much in need of support to give any? American Journal of Nursing, 1971, 71, 1932-1935.

Miller, P. McC., Ingham, J. G., & Davidson, S. Life events, symptoms, and social support. Journal of Psychosomatic Research, 1976, 20, 516-522.

Mohl, P. C., Denny, N. R., Mote, T. A., & Coldwater, C. Hospital unit stressors that affect nurses: Primary task versus social factors. Psychosomatics, 1982, 23, 366-374.

Moos, R., & Ensel, P. The Work Environment Scale. Palo Alto, California: Consulting Psychologists Press, 1974.

Mytych, K. M. Burnout in the ED nurse. JEN: Journal of Emergency Nursing, 1981, 7, 265-268.

Neff, W. S. Work and human behavior. New York: Atherton Press, 1968.

Norbeck, J. S. Social support: A model for clinical research and application. Advances in Nursing Science, 1981, 3, 43-59.

Norbeck, J. S. Personal communication, July 1982.

Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. The development of an instrument to measure social support. Nursing Research, 1981, 30, 264-269.

Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. Further development of the Norbeck Social Support Questionnaire: Normative data and validity testing. Nursing Research, 1983, 32, 4-9.

Nuckolls, K. B., Cassel, J., & Kaplan, B. H. Psychosocial assets, life crisis, and the prognosis of pregnancy. American Journal of Epidemiology, 1972, 95, 431-441.

Olsen, M. OR nurses' perceptions of stress. AORN Journal, 1977, 25, 43-47.

Otto, N. R. Professional burnout: A Delphic probe to determine its definition, characteristics, causes, and solutions (Doctoral dissertation, University of Minnesota, 1980). Dissertation Abstracts International, 1981, 41, 2865-A. (University Microfilms No. 8102146)

Paredes, F. C. The relationship of psychological resources and social support to occupational stress and burnout in hospital nurses (Doctoral dissertation, University of Houston, 1982). Dissertation Abstracts International, 1982, 43, 881-B. (University Microfilms No. DA8217213)

Patrick, P. K. S. Burnout: Job hazard for health workers. Hospitals, 1979, 53, 87-89.

Petrich, J., & Holmes, T. H. Life change and onset of illness. Medical Clinics of North America, 1977, 61, 825-838.

Pilette, P. Caution: Objectivity and specialization may be hazardous to your humanity. American Journal of Nursing, 1980, 80, 1588-1590.

Pines, A., & Aronson, E. Burnout. Northbrook, Illinois: MTI Teleprograms Inc., 1980.

Pines, A., Aronson, E., with Kafry, D. Burnout: From tedium to personal growth. New York: The Free Press, 1981.

Pines, A., & Kafry, D. Occupational tedium in the social services. Social Work, 1978, 23, 499-507.

Pines, A., Kanner, A. D. Nurses' burnout: Lack of positive conditions and presence of negative conditions as two independent sources of stress. In E. A. McConnell (Ed.), Burnout in the nursing profession. St. Louis: C. V. Mosby, 1982.

Pines, A., & Maslach, C. Characteristics of staff burnout in mental health settings. Hospital and Community Psychiatry, 1978, 29, 233-237.

Pinneau, S. R. Effects of social support on psychological and physiological strains (Doctoral dissertation, University of Michigan, 1975). Dissertation Abstracts International, 1976, 36, 5359-B. (University Microfilms No. 76-9491)

Polit, D., & Hungler, B. Nursing research: Principles and methods. Philadelphia: J. B. Lippincott Company, 1978.

Preston, C. S., Ivancevich, J. M., & Matteson, M. T. Stress and the OR nurse. AORN Journal, 1981, 33, 662-671.

Puetz, B. E. Who cares for the care-givers? Occupational Health Nursing, 1981, 29, 34-37.

Rabkin, J. G., & Struening, E. C. Life events, stress and illness. Science, 1976, 194, 1013-1020.

Ryerson, D., & Marks, D. Career burnout in the human services: Strategies for intervention, In J. W. Jones (Ed,), The burnout syndrome. Park Ridge, Illinois: London House Press, 1981.

Sarason, I. G., & Johnson, J. H. Life stress, organizational stress, and job satisfaction. Psychological Reports, 1979, 44, 75-79.

Sarason, I. G., Johnson, J. H., & Siegel, J. M. Assessing the impact of life changes: Development of the Life Experiences Survey. Journal of Consulting and Clinical Psychology, 1978, 46, 932-946.

Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. Assessing social support: The Social Support Questionnaire (Report No. CO-004). Arlington, Virginia: Office of Naval Research (Code 452) May 15, 1981.

Scott, C. W. The burn-out syndrome in ambulance paramedics (Doctoral dissertation, United States International University, 1980). Dissertation Abstracts International, 1980, 41, 1149-B. (University Microfilms No. 8019055)

Selye, H. The stress of life. New York: McGraw-Hill, 1956.

Sharit, J., & Salvendy, G. Occupational stress: Review and reappraisal. Human Factors, 1982, 24, 129-162.

Shubin, S. Burnout: The professional hazard you face in nursing. Nursing 78, 1978, 8, 22-27.

Stehle, J. L. Critical care nursing stress: The findings revisited. Nursing Research, 1981, 30, 182-186.

Storlie, F. J. Burnout: The elaboration of a concept. American Journal of Nursing, 1979, 79, 2108-2111.

Sutterly, D. C. Stress and health: A survey of self-regulation modalities. Topics in Clinical Nursing, 1979, 1, 1-30.

Thomas, J. Supervisors get burned-out, too. Nursing Management, 1982, 13, 47-49.

Wallace, J. M. Living with stress. Nursing Times, 1978, 74, 457-458.

Weiner, M. F., & Caldwell, T. Stress and coping in ICU nursing. II. Nurse support groups on intensive care units. General Hospital Psychiatry, 1981, 3, 129-134.

Winnubst, J. A. M., Marcelissen, F. H. G., & Kleber, R. J. Effects of social support in the stressor-strain relationship: A Dutch sample. Social Science Medicine, 1982, 16, 475-482.

Yasko, J. The relationship between selected variables and the degree of burnout experienced by nurses prepared at the master's level functioning in the role of an oncology clinical nursing specialist (Doctoral dissertation, University of Pittsburgh, 1981). Dissertation Abstracts International, 1983, 43, 2165-B. (University Microfilms No. DA8210643)

Yuenger, J. Teacher burnout -- our classroom crisis. Chicago Tribune, February 1, 1981, Section 1, pp. 1; 10.

APPENDIX A

APPENDIX A

NURSES' OCCUPATIONAL STRESSORS

Occupational stressors listed on the Nursing Stress Scale (NSS)	Studies where the stressors included on the NSS were cited as sources of nursing stress
1. Breakdown of the computer and/or specialized equipment.	Bailey, Steffen, & Grout, 1980[a] Huckabay & Jagla, 1979[b] Olsen, 1977[c]
2. Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment.	Jacobson, 1978[d]
3. Making a decision concerning a patient when the physician is unavailable.	Bailey et al., 1980 Jacobson, 1978
4. Making decisions that affect peers (e.g., when nurse in charge).	Bailey et al., 1980
5. Performing procedures that patients experience as painful or embarrassing.	
6. Difficulty in working with a particular nurse (or nurses) on a unit.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981[e] Jacobson, 1978 Olsen, 1977 Preston, Ivancevich, & Matteson, 1981[f]
7. Having to deal with a particularly difficult patient, for example, demanding, crying, combative.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981

Occupational stressors listed on the Nursing Stress Scale (NSS)	Studies where the stressors included on the NSS were cited as sources of nursing stress
8. Uncertainty regarding the operation and functioning of specialized equipment and/or procedures.	Bailey et al., 1980 Huckabay & Jagla, 1979 Jacobson, 1978
9. Being asked a question by a patient and/or his family for which I do not have a satisfactory answer.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Jacobson, 1978
10. Disagreement concerning the treatment of a patient.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Olsen, 1977
11. Frequent changes in house staff.	
12. Physical exertion in caring for patients.	Huckabay & Jagla, 1979
13. Not enough time to complete all of my assigned nursing tasks.	Anderson & Basteyns, 1981[g] Cronin-Stubbs & Velsor-Friedrich, 1981 Preston et al., 1981
14. Feeling inadequately prepared to help with the emotional needs (including guilt) of a patient's family.	Cronin-Stubbs & Velsor-Friedrich, 1981 Gray-Toft & Anderson, 1981b[h] Huckabay & Jagla, 1979
15. Number of rapid decisions that must be made.	Huckabay & Jagla, 1979 Preston et al., 1981

Occupational stressors listed on the Nursing Stress Scale (NSS)	Studies where the stressors included on the NSS were cited as sources of nursing stress
16. The death of a patient.	Bailey et al., 1980 Gray-Toft & Anderson, 1981b Huckabay & Jagla, 1979 Jacobson, 1978
17. Conflict with a physician.	Anderson & Basteyns, 1981 Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Huckabay & Jagla, 1979 Jacobson, 1978 Olsen, 1977 Preston et al., 1981
18. Lack of an opportunity to share experiences and feelings with other personnel on the unit.	Bailey et al., 1980 Yasko, 1981
19. Large number of admissions at one time.	
20. A physician ordering what appears to be inappropriate treatment for a patient.	Bailey et al., 1980
21. Conflict with a supervisor.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Huckabay & Jagla, 1979

Occupational stressors listed on the Nursing Stress Scale (NSS)	Studies where the stressors included on the NSS were cited as sources of nursing stress
22. Fear of making a mistake in treating a patient or harming a patient physically or psychologically.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Jacobson, 1978
23. Conflict with a patient's family.	
24. Not enough staff to adequately cover the unit.	Anderson & Basteyns, 1981 Bailey et al., 1980 Jacobson, 1978
25. Preparing and/or transporting a body to the morgue.	
26. Too many non-nursing tasks required, such as clerical work, committee work, mandatory meetings.	Bailey et al., 1980
27. Feeling inadequately prepared to help with the emotional needs of a patient.	Anderson & Basteyns, 1981 Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Huckabay & Jagla, 1979
28. Conflict with or delays in service from another department, for example, Pharmacy, Lab, Dietary, X-ray, Transportation.	Bailey et al., 1980 Huckabay & Jagla, 1979
29. Inadequate information from a physician regarding the medical condition of a new admission or current patient.	Bailey et al., 1980 Jacobson, 1978

Occupational stressors listed on the Nursing Stress Scale (NSS)	Studies where the stressors included on the NSS were cited as sources of nursing stress
30. Feeling helpless in the case of a patient who fails to improve, including brain dead, neurologically damaged, and cancer patients.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981
31. Sensory overload due to multiple alarms, monitoring devices, noise level.	Huckabay & Jagla, 1979
32. Multiple order changes.	
33. Listening or talking to a family about a patient's critical condition, for example, possible brain damage, death, loss of a limb.	Huckabay & Jagla, 1979
34. Unreasonable deadlines from a supervisor.	Bailey et al., 1980 Cronin-Stubbs & Velsor-Friedrich, 1981 Preston et al., 1981
35. A physician not being present in a medical emergency.	Bailey et al., 1980
36. Lack of opportunity and/or inability to talk with other unit personnel about problems on the unit.	Bailey et al., 1980 Yasko, 1981
37. An emergency situation involving the life of a patient.	Bailey et al., 1980 Olsen, 1977

Occupational stressors listed on the Nursing Stress Scale (NSS)	Studies where the stressors included on the NSS were cited as sources of nursing stress
38. Unpredictable staffing and scheduling.	Bailey et al., 1980
39. Not enough time to provide emotional support for a patient and his family.	Anderson & Basteyns, 1981 Cronin-Stubbs & Velsor-Friedrich, 1981 Huckabay & Jagla, 1979
40. Inadequate communication from a supervisor regarding hospital policy, changes in procedures, announcements.	Cronin-Stubbs & Velsor-Friedrich, 1981 Jacobson, 1981
41. Inability to take scheduled breaks/vacations/ days off.	
42. Inadequate space to care for a patient.	Bailey et al., 1980 Huckabay & Jagla, 1979

[a]Sample: 1800 Intensive Care Nurses

[b]Sample: 46 Intensive Care Nurses

[c]Sample: 104 Operating Room Nurses

[d]Sample: 220 Neonatal Intensive Care Nurses

[e]Sample: 65 Staff Nurses From Diverse, Unidentified Specialty Areas

[f]Sample: 29 Operating Room and 27 Medical-Surgical Nurses

[g]Sample: 182 Intensive Care Nurses

[h]Sample: 122 Staff Nurses From Medical, Surgical, Cardiovascular Surgical, Oncology, and Hospice Hospital Units.

APPENDIX B

APPENDIX B

THE STAFF BURNOUT SCALE FOR HEALTH PROFESSIONALS

SBS-HP©

Name _____ Social Security # _____ Position _____

INSTRUCTIONS

For each statement check the one answer which best reflects how much you **agree** or **disagree** with each statement. Answer according to how you **currently feel** in each case.

	(1) Agree Very Much	(2) Agree Pretty Much	(3) Agree a Little	(4) Disagree a Little	(5) Disagree Pretty Much	(6) Disagree Very Much
1. I feel fatigued during the workday.	☐	☐	☐	☐	☐	☐
2. Lately, I have missed work due to either colds, the flu, fever, or other illnesses.	☐	☐	☐	☐	☐	☐
3. Once in a while I lose my temper and get angry on the job	☐	☐	☐	☐	☐	☐
4. All my work habits are good and desirable ones.	☐	☐	☐	☐	☐	☐
5. I experience headaches while on the job.	☐	☐	☐	☐	☐	☐
6. After work I often feel like relaxing with a drink of alcohol.	☐	☐	☐	☐	☐	☐
7. I never gossip about other people at work.	☐	☐	☐	☐	☐	☐
8. I feel that the pressures of work have contributed to marital and family difficulties in my life.	☐	☐	☐	☐	☐	☐
9. I am never late for an appointment.	☐	☐	☐	☐	☐	☐
10. I often have the desire to take medication (e.g., tranquilizers) to calm down while at work.	☐	☐	☐	☐	☐	☐
11. I have lost interest in my patients and I have a tendency to treat these people in a detached, almost mechanical fashion.	☐	☐	☐	☐	☐	☐
12. At work I occasionally think of things that I would not want other people to know about.	☐	☐	☐	☐	☐	☐
13. I often feel discouraged at work and often I think about quitting.	☐	☐	☐	☐	☐	☐
14. I frequently get angry at and irritated with my patients.	☐	☐	☐	☐	☐	☐
15. I am sometimes irritable at work.	☐	☐	☐	☐	☐	☐
16. I have trouble getting along with my fellow employees.	☐	☐	☐	☐	☐	☐
17. I am very concerned with my own comfort and welfare at work.	☐	☐	☐	☐	☐	☐
18. I try to avoid my supervisor(s).	☐	☐	☐	☐	☐	☐
19. I truly like all my fellow employees.	☐	☐	☐	☐	☐	☐
20. I always do what is expected of me at work, no matter how inconvenient it might be to do so.	☐	☐	☐	☐	☐	☐
21. I am having some work performance problems lately due to uncooperative patients.	☐	☐	☐	☐	☐	☐
22. All the rules and regulations at work keep me from optimally performing my job duties.	☐	☐	☐	☐	☐	☐
23. Sometimes at work I put off until tomorrow what I ought to do today.	☐	☐	☐	☐	☐	☐
24. I do not always tell the truth to my supervisor or co-workers.	☐	☐	☐	☐	☐	☐
25. I find my work environment depressing.	☐	☐	☐	☐	☐	☐
26. I feel uncreative and understimulated at work.	☐	☐	☐	☐	☐	☐
27. I often think about finding a new job.	☐	☐	☐	☐	☐	☐
28. Worrying about my job has been interfering with my sleep.	☐	☐	☐	☐	☐	☐
29. I feel there is little room for advancement at my place of employment.	☐	☐	☐	☐	☐	☐
30. I avoid patient interaction when I go to work.	☐	☐	☐	☐	☐	☐
	(1)	(2)	(3)	(4)	(5)	(6)

APPENDIX C

APPENDIX C

THE NURSING STRESS SCALE

Code Number _____

THE NURSING STRESS SCALE:
STRESSFUL SITUATIONS QUESTIONNAIRE

On the following pages are a number of situations that commonly occur on a hospital unit. For each item decide how OFTEN in your present unit you have found the situation to be stressful. If this situation has never been stressful, check the box marked "NEVER" and go on to the next situation. However, if you have experienced the situation to be stressful, indicate HOW OFTEN it is stressful by circling the appropriate number on the 6-point scale. Then, decide the INTENSITY of the stress experienced by circling the appropriate number on the 7-point scale.

FREQUENCY: How often is situation stressful?

NEVER	A FEW TIMES A YEAR OR LESS	ONCE A MONTH OR LESS	A FEW TIMES A MONTH	ONCE A WEEK	A FEW TIMES A WEEK	EVERY DAY

INTENSITY OF STRESS

1	2	3	4	5	6	7
Very mild, barely noticeable			Moderate			Major, severe

Example:

00. Watching a patient suffer.

Never ☐ HOW OFTEN: 1 2 (3) 4 5 6

HOW STRONG: 1 2 3 4 5 (6) 7

If watching a patient suffer is occasionally stressful (say a few times a month) you would circle the number 3. If, when you experience stress, it is a fairly strong feeling, but not as strong as you can imagine, you would circle a 6.

HOW OFTEN:	1 A few times a year	2 Monthly	3 A few times a month	4 Weekly	5 A few times a week	6 Daily

HOW STRONG:	1 Very mild	Moderate	7 Very strong

1. Breakdown of the computer and/or specialized equipment.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

2. Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

3. Making a decision concerning a patient when the physician is unavailable.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

4. Making decisions that affect peers (e.g., when nurse in charge).

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

5. Performing procedures that patients experience as painful or embarrassing.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

6. Difficulty in working with a particular nurse (or nurses) on a unit.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

7. Having to deal with a particularly difficult patient, for example, demanding, crying, combative.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

	1	2	3	4	5	6
HOW OFTEN:	A few times a year	Monthly	A few times a month	Weekly	A few times a week	Daily

	1			7
HOW STRONG:	Very mild		Moderate	Very strong

8. Uncertainty regarding the operation and functioning of specialized equipment and/or procedures.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

9. Being asked a question by a patient and/or his family for which I do not have a satisfactory answer.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

10. Disagreement concerning the treatment of a patient.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

11. Frequent changes in house staff.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

12. Physical exertion in caring for patients.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

13. Not enough time to complete all of my assigned nursing tasks.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

14. Feeling inadequately prepared to help with the emotional needs (including guilt) of a patient's family.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

	1	2	3	4	5	6
HOW OFTEN:	A few times a year	Monthly	A few times a month	Weekly	A few times a week	Daily

	1			7
HOW STRONG:	Very mild		Moderate	Very strong

15. Number of rapid decisions that must be made.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

16. The death of a patient.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

17. Conflict with a physician.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

18. Lack of an opportunity to share experiences and feelings with other personnel on the unit.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

19. Large number of admissions at one time.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

20. A physician ordering what appears to be inappropriate treatment for a patient.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

21. Conflict with a supervisor.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

	1	2	3	4	5	6
HOW OFTEN:	A few times a year	Monthly	A few times a month	Weekly	A few times a week	Daily

	1						7
HOW STRONG:	Very mild			Moderate			Very strong

22. Fear of making a mistake in treating a patient or harming a patient physically or psychologically.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

23. Conflict with a patient's family.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

24. Not enough staff to adequately cover the unit.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

25. Preparing and/or transporting a body to the morgue.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

26. Too many non-nursing tasks required, such as clerical work, committee work, mandatory meetings.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

27. Feeling inadequately prepared to help with the emotional needs of a patient.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

28. Conflict with or delays in service from another department, for example, Pharmacy, Lab, Dietary, X-ray, Transportation.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

HOW OFTEN:	1 A few times a year	2 Monthly	3 A few times a month	4 Weekly	5 A few times a week	6 Daily
HOW STRONG:	1 Very mild			Moderate		7 Very strong

29. Inadequate information from a physician regarding the medical condition of a new admission or current patient.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

30. Feeling helpless in the case of a patient who fails to improve, including brain dead, neurologically damaged, and cancer patients.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

31. Sensory overload due to multiple alarms, monitoring devices, noise level.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

32. Multiple order changes.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

33. Listening or talking to a family about a patient's critical condition, for example, possible brain damage, death, loss of a limb.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

34. Unreasonable deadlines from a supervisor.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

35. A physician not being present in a medical emergency.

NEVER HOW OFTEN: 1 2 3 4 5 6

☐ HOW STRONG: 1 2 3 4 5 6 7

	1	2	3	4	5	6
HOW OFTEN:	A few times a year	Monthly	A few times a month	Weekly	A few times a week	Daily

	1			7
HOW STRONG:	Very mild		Moderate	Very strong

36. Lack of opportunity and/or inability to talk with other unit personnel about problems on the unit.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

37. An emergency situation involving the life of a patient.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

38. Unpredictable staffing and scheduling.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

39. Not enough time to provide emotional support for a patient and his family.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

40. Inadequate communication from a supervisor regarding hospital policy, changes in procedures, announcements.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

41. Inability to take scheduled breaks/vacations/days off.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

42. Inadequate space to care for a patient.

NEVER ☐ HOW OFTEN: 1 2 3 4 5 6

HOW STRONG: 1 2 3 4 5 6 7

Used with permission from Pamela Gray-Toft, Ph.D., Department of Medical Research, Methodist Hospital of Indiana, Indianapolis, Indiana, 46206.

APPENDIX D

APPENDIX D

THE LIFE EXPERIENCES SURVEY

Code Number _____

THE LIFE EXPERIENCES SURVEY

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please check those events which you have experienced in the recent past and indicate the time period during which you have experienced each event. Be sure that all check marks are directly across from the items they correspond to.

Also, for each item checked below, please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred. That is, indicate the type and extent of impact that the event had. A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
1. Marriage			-3	-2	-1	0	+1	+2	+3
2. Detention in jail or comparable institution			-3	-2	-1	0	+1	+2	+3
3. Death of spouse			-3	-2	-1	0	+1	+2	+3
4. Major change in sleeping habits (much more or much less sleep)			-3	-2	-1	0	+1	+2	+3
5. Death of close family member:									
a. mother			-3	-2	-1	0	+1	+2	+3
b. father			-3	-2	-1	0	+1	+2	+3
c. brother			-3	-2	-1	0	+1	+2	+3
d. sister			-3	-2	-1	0	+1	+2	+3
e. grandmother			-3	-2	-1	0	+1	+2	+3
f. grandfather			-3	-2	-1	0	+1	+2	+3
g. other (specify)			-3	-2	-1	0	+1	+2	+3
6. Major change in eating habits (much more or much less food intake)			-3	-2	-1	0	+1	+2	+3
7. Foreclosure on mortgage or loan			-3	-2	-1	0	+1	+2	+3
8. Death of close friend			-3	-2	-1	0	+1	+2	+3

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
9. Outstanding personal achievement			-3	-2	-1	0	+1	+2	+3
10. Minor law violations (traffic tickets, disturbing the peace, etc.)			-3	-2	-1	0	+1	+2	+3
11. Male: Wife/girl-friend's pregnancy			-3	-2	-1	0	+1	+2	+3
12. Female: Pregnancy			-3	-2	-1	0	+1	+2	+3
13. Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)			-3	-2	-1	0	+1	+2	+3
14. New job			-3	-2	-1	0	+1	+2	+3
15. Serious illness or injury of close family member:									
a. father			-3	-2	-1	0	+1	+2	+3
b. mother			-3	-2	-1	0	+1	+2	+3
c. sister			-3	-2	-1	0	+1	+2	+3
d. brother			-3	-2	-1	0	+1	+2	+3
e. grandfather			-3	-2	-1	0	+1	+2	+3
f. grandmother			-3	-2	-1	0	+1	+2	+3
g. spouse			-3	-2	-1	0	+1	+2	+3
h. other (specify)			-3	-2	-1	0	+1	+2	+3
16. Sexual difficulties			-3	-2	-1	0	+1	+2	+3
17. Trouble with employer (in danger of losing job, being suspended, demoted, etc.)			-3	-2	-1	0	+1	+2	+3
18. Trouble with in-laws			-3	-2	-1	0	+1	+2	+3
19. Major change in financial status (a lot better off or a lot worse off)			-3	-2	-1	0	+1	+2	+3
20. Major change in closeness of family members (increased or decreased closeness)			-3	-2	-1	0	+1	+2	+3

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
21. Gaining a new family member (through birth, adoption, family member moving in, etc.)			-3	-2	-1	0	+1	+2	+3
22. Change of residence			-3	-2	-1	0	+1	+2	+3
23. Marital separation from mate (due to conflict)			-3	-2	-1	0	+1	+2	+3
24. Major change in church activities (increased or decreased attendance)			-3	-2	-1	0	+1	+2	+3
25. Marital reconciliation with mate			-3	-2	-1	0	+1	+2	+3
26. Major change in number of arguments with spouse (a lot more or a lot less arguments)			-3	-2	-1	0	+1	+2	+3
27. Married male: Change in wife's work outside the home (beginning work, ceasing work, changing to a new job, etc.)			-3	-2	-1	0	+1	+2	+3
28. Married female: Change in husband's work (loss of job, beginning new job, retirement, etc.)			-3	-2	-1	0	+1	+2	+3
29. Major change in usual type and/or amount of recreation			-3	-2	-1	0	+1	+2	+3
30. Borrowing more than $10,000 (buying home, business, etc.)			-3	-2	-1	0	+1	+2	+3
31. Borrowing less than $10,000 (buying car, TV, getting school loan, etc.)			-3	-2	-1	0	+1	+2	+3

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
32. Being fired from job			-3	-2	-1	0	+1	+2	+3
33. Male: Wife/girlfriend having abortion			-3	-2	-1	0	+1	+2	+3
34. Female: Having abortion			-3	-2	-1	0	+1	+2	+3
35. Major personal illness or injury			-3	-2	-1	0	+1	+2	+3
36. Major change in social activities, e.g., parties, movies, visiting (increased or decreased participation)			-3	-2	-1	0	+1	+2	+3
37. Major change in living conditions of family (building new home, remodeling, deterioration of home, neighborhood, etc.)			-3	-2	-1	0	+1	+2	+3
38. Divorce			-3	-2	-1	0	+1	+2	+3
39. Serious injury or illness of close friend			-3	-2	-1	0	+1	+2	+3
40. Retirement from work			-3	-2	-1	0	+1	+2	+3
41. Son or daughter leaving home (due to marriage, college, etc.)			-3	-2	-1	0	+1	+2	+3
42. Ending of formal schooling			-3	-2	-1	0	+1	+2	+3
43. Separation from spouse (due to work, travel, etc.)			-3	-2	-1	0	+1	+2	+3
44. Engagement			-3	-2	-1	0	+1	+2	+3
45. Breaking up with boyfriend/girlfriend			-3	-2	-1	0	+1	+2	+3
46. Leaving home for the first time			-3	-2	-1	0	+1	+2	+3
47. Reconciliation with boyfriend/girlfriend			-3	-2	-1	0	+1	+2	+3

5

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
Other recent experiences which have had an impact on your life. List and rate.									
48._____			-3	-2	-1	0	+1	+2	+3
49._____			-3	-2	-1	0	+1	+2	+3
50._____			-3	-2	-1	0	+1	+2	+3

APPENDIX E

APPENDIX E

THE NORBECK SOCIAL SUPPORT QUESTIONNAIRE

Number _____ [1-4]
Date _____

SOCIAL SUPPORT QUESTIONNAIRE

PLEASE READ ALL DIRECTIONS
ON THIS PAGE BEFORE STARTING.

Please list each significant person in your life on the right. Consider all the persons who provide personal support for you or who are important to you.

Use only first names or initials, and then indicate the relationship, as in the following example. In the third column, indicate whether the relationship originated in your personal life (P) or at work (W).

Example:

	First Name or Initials	Relationship	Source
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

etc.

Use the following list to help you think of the people important to you, and list as many people as apply in your case.

- -spouse or partner
- -family members or relatives
- -friends
- -work or school associates
- -neighbors
- -health care providers
- -counselor or therapist
- -minister/priest/rabbi
- -other

You do not have to use all 24 spaces. Use as many spaces as you have important persons in your life.

WHEN YOU HAVE FINISHED YOUR LIST, PLEASE TURN TO PAGE 2.

PERSONAL NETWORK

	First Name or Initials	Relationship	Source	
1.	_____	_____	_____	[32]
2.	_____	_____	_____	[33]
3.	_____	_____	_____	[34]
4.	_____	_____	_____	[35]
5.	_____	_____	_____	[36]
6.	_____	_____	_____	[37]
7.	_____	_____	_____	[38]
8.	_____	_____	_____	[39]
9.	_____	_____	_____	[40]
10.	_____	_____	_____	[41]
11.	_____	_____	_____	[42]
12.	_____	_____	_____	[43]
13.	_____	_____	_____	[44]
14.	_____	_____	_____	[45]
15.	_____	_____	_____	[46]
16.	_____	_____	_____	[47]
17.	_____	_____	_____	[48]
18.	_____	_____	_____	[49]
19.	_____	_____	_____	[50]
20.	_____	_____	_____	[51]
21.	_____	_____	_____	[52]
22.	_____	_____	_____	[53]
23.	_____	_____	_____	[54]
24.	_____	_____	_____	[55]

[5-6]

Number _____ [1-4]
Date _____

For each person you listed, please answer the following questions by writing in the number that applies.

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

Question 1: How much does this person make you feel liked or loved?	Question 2: How much does this person make you feel respected or admired?	PERSONAL NETWORK First Name or Initials	Relationship	Source
1. _____	1. _____	1. _____	_____	_____ [32]
2. _____	2. _____	2. _____	_____	_____ [33]
3. _____	3. _____	3. _____	_____	_____ [34]
4. _____	4. _____	4. _____	_____	_____ [35]
5. _____	5. _____	5. _____	_____	_____ [36]
6. _____	6. _____	6. _____	_____	_____ [37]
7. _____	7. _____	7. _____	_____	_____ [38]
8. _____	8. _____	8. _____	_____	_____ [39]
9. _____	9. _____	9. _____	_____	_____ [40]
10. _____	10. _____	10. _____	_____	_____ [41]
11. _____	11. _____	11. _____	_____	_____ [42]
12. _____	12. _____	12. _____	_____	_____ [43]
13. _____	13. _____	13. _____	_____	_____ [44]
14. _____	14. _____	14. _____	_____	_____ [45]
15. _____	15. _____	15. _____	_____	_____ [46]
16. _____	16. _____	16. _____	_____	_____ [47]
17. _____	17. _____	17. _____	_____	_____ [48]
18. _____	18. _____	18. _____	_____	_____ [49]
19. _____	19. _____	19. _____	_____	_____ [50]
20. _____	20. _____	20. _____	_____	_____ [51]
21. _____	21. _____	21. _____	_____	_____ [52]
22. _____	22. _____	22. _____	_____	_____ [53]
23. _____	23. _____	23. _____	_____	_____ [54]
24. _____	24. _____	24. _____	_____	_____ [55]

[7-9]

GO ON TO NEXT PAGE

[10-12]

[5-6]

Number _____ [1-4]
Date _____

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

Question 3:

How much can you confide in this person?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

[13-15]

Question 4:

How much does this person agree with or support your actions or thoughts?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

[16-18]

PERSONAL NETWORK

	First Name or Initials	Relationship	Source
1.	_____	_____	_____ [32]
2.	_____	_____	_____ [33]
3.	_____	_____	_____ [34]
4.	_____	_____	_____ [35]
5.	_____	_____	_____ [36]
6.	_____	_____	_____ [37]
7.	_____	_____	_____ [38]
8.	_____	_____	_____ [39]
9.	_____	_____	_____ [40]
10.	_____	_____	_____ [41]
11.	_____	_____	_____ [42]
12.	_____	_____	_____ [43]
13.	_____	_____	_____ [44]
14.	_____	_____	_____ [45]
15.	_____	_____	_____ [46]
16.	_____	_____	_____ [47]
17.	_____	_____	_____ [48]
18.	_____	_____	_____ [49]
19.	_____	_____	_____ [50]
20.	_____	_____	_____ [51]
21.	_____	_____	_____ [52]
22.	_____	_____	_____ [53]
23.	_____	_____	_____ [54]
24.	_____	_____	_____ [55]

[5-6]

GO ON TO NEXT PAGE

Number _____ [1-4]
Date _____

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

Question 5:

If you needed to borrow $10, a ride to the doctor, or some other immediate help, how much could this person usually help?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

[19-21]

Question 6:

If you were confined to bed for several weeks, how much could this person help you?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

[22-24]

PERSONAL NETWORK

	First Name or Initials	Relationship	Source
1.	_____	_____	_____ [32]
2.	_____	_____	_____ [33]
3.	_____	_____	_____ [34]
4.	_____	_____	_____ [35]
5.	_____	_____	_____ [36]
6.	_____	_____	_____ [37]
7.	_____	_____	_____ [38]
8.	_____	_____	_____ [39]
9.	_____	_____	_____ [40]
10.	_____	_____	_____ [41]
11.	_____	_____	_____ [42]
12.	_____	_____	_____ [43]
13.	_____	_____	_____ [44]
14.	_____	_____	_____ [45]
15.	_____	_____	_____ [46]
16.	_____	_____	_____ [47]
17.	_____	_____	_____ [48]
18.	_____	_____	_____ [49]
19.	_____	_____	_____ [50]
20.	_____	_____	_____ [51]
21.	_____	_____	_____ [52]
22.	_____	_____	_____ [53]
23.	_____	_____	_____ [54]
24.	_____	_____	_____ [55]

[5-6]

GO ON TO NEXT PAGE

Number _____ [1-4]
Date _____

Question 7:

How long have you known this person?

1 = less than 6 months
2 = 6 to 12 months
3 = 1 to 2 years
4 = 2 to 5 years
5 = more than 5 years

Question 8:

How frequently do you usually have contact with this person? (Phone calls, visits, or letters)

5 = daily
4 = weekly
3 = monthly
2 = a few times a year
1 = once a year or less

PERSONAL NETWORK

	First Name or Initials	Relationship	Source	
1.				[32]
2.				[33]
3.				[34]
4.				[35]
5.				[36]
6.				[37]
7.				[38]
8.				[39]
9.				[40]
10.				[41]
11.				[42]
12.				[43]
13.				[44]
14.				[45]
15.				[46]
16.				[47]
17.				[48]
18.				[49]
19.				[50]
20.				[51]
21.				[52]
22.				[53]
23.				[54]
24.				[55]

PLEASE BE SURE YOU HAVE RATED EACH PERSON
[25-27] ON EVERY QUESTION. GO ON TO THE LAST PAGE. [28-30]

[5-6]

9. During the past year, have you lost any important relationship due to moving, a job change, divorce or separation, death, or some other reason? [57]

_____ 0. No
_____ 1. Yes

IF YES:

9a. Please indicate the number of persons from each category who are no longer available to you.

_____spouse or partner [58]
_____family members or relatives [59-60]
_____friends [61-62]
_____work or school associates [63-64]
_____neighbors [65-66]
_____health care providers [67 68]
_____counselor or therapist [69]
_____minister/priest/rabbi [70]
_____other (specify)_____ [71-72]

9b. Overall, how much of your support was provided by these people who are no longer available to you? [73]

_____0. none at all
_____1. a little
_____2. a moderate amount
_____3. quite a bit
_____4. a great deal

APPENDIX F

APPENDIX F

SELF-REPORT QUESTIONNAIRE

Code Number _____

SELF-REPORT QUESTIONNAIRE
Part I: Work-Related Information
Strictly Confidential

DIRECTIONS: By use of a check (✓) please indicate your response to the following items.

1. In what type of clinical setting do you work?

   _____ (1) Psychiatric-mental health

   _____ (2) Operating room

   _____ (3) Intensive care (please specify type)_____

   _____ (4) Medical

2. What shifts do you typically work?

   _____ (1) Permanent days

   _____ (2) Permanent evenings

   _____ (3) Permanent nights

   _____ (4) Rotate

3. How long have you worked on your unit?

   _____ (1) Less than 6 months

   _____ (2) Between 7 and 12 months

   _____ (3) Between 1 and 2 years

   _____ (4) Between 2 and 3 years

   _____ (5) Between 3 and 5 years

   _____ (6) Between 5 and 10 years

   _____ (7) More than 10 years (please specify)_____

4. What method of administering patient care is used on your unit?

_____ (1) Primary

_____ (2) Modular

_____ (3) Team

_____ (4) Functional

5. How many hours per week are spent in direct contact with patients?

_____ (1) Less than 5

_____ (2) Between 5 and 10

_____ (3) Between 10 and 15

_____ (4) Between 15 and 20

_____ (5) Between 20 and 25

_____ (6) Between 25 and 30

_____ (7) More than 30 (please specify)_____

6. How long have you worked at this hospital?

_____ (1) Less than 6 months

_____ (2) Between 7 and 12 months

_____ (3) Between 1 and 2 years

_____ (4) Between 2 and 3 years

_____ (5) Between 3 and 5 years

_____ (6) Between 5 and 10 years

_____ (7) More than 10 years (please specify)_____

7. How long have you worked as a staff registered nurse in all of the places you have worked including this hospital?

_____ (1) Less than 6 months

_____ (2) Between 7 and 12 months

_____ (3) Between 1 and 2 years

_____ (4) Between 2 and 3 years

_____ (5) Between 3 and 5 years

_____ (6) Between 5 and 10 years

_____ (7) More than 10 years (please specify)_____

8. How many times have you looked for another job in the past month?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) 5 - 6

_____ (5) 7 or more (please specify)_____

9. How many days of work have you missed in the past month?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) 5 - 6

_____ (5) 7 or more (please specify)_____

10. How many times did you arrive at work late in the past month?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) 5 - 6

_____ (5) 7 or more (please specify)_____

11. How many times have you been physically ill in the past month?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) 5 - 6

_____ (5) 7 or more (please specify)_____

12. How many drinks of alcohol do you typically consume in an average week of drinking?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) 5 - 6

_____ (5) 7 or more (please specify)_____

13. How many times do you ingest a prescription drug to "calm down" in a typical week?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) 5 - 6

_____ (5) 7 or more (please specify)_____

14. Is your income the primary source of financial support for your family?

_____ (1) No

_____ (2) Yes

Code Number _____

SELF-REPORT QUESTIONNAIRE
Part II: Demographic Information
Strictly Confidential

DIRECTIONS: By use of a check (✓) please indicate your response to the following items.

1a. What is the highest grade of school you have completed? (Circle one)

Grade School	High School	College	Graduate School
1 2 3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18 19 20 21 22

1b. Indicate the highest degree in nursing you hold.

_____ (1) Diploma

_____ (2) Associate degree

_____ (3) Baccaluareate degree

_____ (4) Masters degree

_____ (5) Doctorate

2. What is your marital status?

_____ (1) Single, never married

_____ (2) Married

_____ (3) Divorced or separated

_____ (4) Widowed

3. What is your racial or ethnic background?

_____ (1) Asian American

_____ (2) Black

_____ (3) White

_____ (4) Hispanic

_____ (5) American Indian

_____ (6) Other (please specify)_____

4. Into what age bracket do you fall?

_____ (1) Under 21 years of age

_____ (2) 21 years to 25 years

_____ (3) 26 years to 30 years

_____ (4) 31 years to 35 years

_____ (5) 36 years to 40 years

_____ (6) 41 years to 45 years

_____ (7) 46 years to 50 years

_____ (8) 51 years to 55 years

_____ (9) 56 years or over

5. How many research studies have you participated in within the last 6 months that have dealt with stress, burnout, and/or job satisfaction?

_____ (1) 0

_____ (2) 1 - 2

_____ (3) 3 - 4

_____ (4) Other (please specify)_____

6. If you would like a summary of the study's findings, please indicate where and to whom you would like the summary sent. (Please allow 4-6 months for delivery)

Name _____

Address _____

City _____ State _____ Zip _____

THANK YOU FOR YOUR PARTICIPATION!

APPENDIX G

APPENDIX G

LETTER OF INTRODUCTION TO VICE-PRESIDENTS OF NURSING

3150 North Sheridan, 27B
Chicago, Illinois 60657
July 16, 1982

Ms. Blank, R.N., M.S.N.
Vice-President of Nursing
HOSPITAL A
Chicago, Illinois 60600

Dear Ms. Blank:

I am a doctoral candidate at Loyola University of Chicago and am conducting my dissertation research on stress and burnout in staff nurses. Your institution has been chosen as one of three hospitals which share common size, purpose, and patronage characteristics. I have enclosed materials which may expedite the processing of my proposal.

Because I plan to use four specialty areas, I've provided you with a packet of materials for each of the directors of those departments. Following an abstract and the proposal are copies of the letter from the Graduate School of Loyola University notifying me that my dissertation committee approved the proposal and a copy of the form from Loyola's Institutional Review Board approving the project. Please note that the IRB's recommendation has been incorporated in the separation of the Self-Report Questionnaire into two parts which will be independently coded (see proposal, page 32, and Appendix C). This proposal qualified for the expedited review process at Loyola. In each packet, I've also included a copy of my Curriculum Vitae which describes my research background on page 11.

For my study, I would like to collect data at your institution from September 1, 1982 to November 1, 1982. The units from which I plan to select staff nurses are the psychiatric-mental health, operating room, intensive care, and medicine. The nurses will be asked to complete five questionnaires which will involve 50-60 minutes of their time. Please note that the proposal reflects the data collection methods being explored at all the hospitals I plan to use. I describe meeting with the nurses in groups or individually but also mention that distributing and retrieving the materials through the mail is an option. The preferred method is the former. In this instance, I would randomly

select 20 nurses from each of the specialty areas, send them introductory letters which explain the study and the choices of meeting times and locations for completing the questionnaires, and then meet with them during the times they selected to collect the research data. With this method the nurses would also have the option of meeting with me individually to complete the questionnaires. I realize that the methods I would use to collect my data would require negotiation with the directors of the departments and I would be willing to meet with them at their convenience. At the completion of the study, the respondents will receive a written summary of the results.

I would be willing to offer a Stress Management/Burnout Prevention workshop upon completion of my study for the nurses employed at your hospital. I view giving this workshop as a way of returning to your employees some of the time and effort they invest in my study and communicating the study's findings. However, the workshop will not be used as an incentive to elicit participants for the study. This would constitute subtle coercion and could attract a biased sample of participants. Therefore, should you agree to my conducting the study at your hospital, I ask that the nurses not be informed of the workshop until after I've completed collecting my data.

Please note that (a) this study does not involve patients: the questionnaires can be completed by the nurses during personal time and should not interfere with patient care, (b) it is not an experimental study: nothing is being manipulated or altered, (c) the data are either anonymous or confidential between respondent and investigator, and (d) previous studies have indicated that giving employees an opportunity to express opinions about stressful aspects of their jobs actually improves job attitudes.

I appreciate the opportunity to conduct my study at your institution and look forward to hearing from you.

Sincerely,

Diane Cronin-Stubbs

Ms. Diane Cronin-Stubbs, M.S.N.
Doctoral Candidate
LOYOLA UNIVERSITY OF CHICAGO

Enc. Abstract
Proposal
Approval of proposal by dissertation committee
Approval of proposal by IRB, Loyola University
Curriculum Vitae

APPENDIX H

APPENDIX H

MARITAL STATUS OF THE RESEARCH RESPONDENTS (N = 296)

Hospital	Marital Status	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Single, Never Married	8	2.7	14	4.7	19	6.4	9	3.0	50	16.8
	Married	6	2.0	7	2.4	4	1.4	9	3.0	26	8.8
	Divorced or Separated	5	1.7	2	.7	1	.3	2	.7	10	3.4
	Widowed	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Single, Never Married	9	3.0	13	4.4	17	5.7	18	6.1	57	19.2
	Married	3	1.0	4	1.4	5	1.7	3	1.0	15	5.1
	Divorced or Separated	0	0.0	2	.7	1	.3	0	0.0	3	1.0
	Widowed	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
C	Single, Never Married	19	6.4	10	3.4	17	5.7	36	12.2	82	27.7
	Married	9	3.0	10	3.4	8	2.7	12	4.1	39	13.2
	Divorced or Separated	7	2.4	3	1.0	2	.7	2	.7	14	4.8
	Widowed	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Totals		66	22.2	65	22.1	74	24.9	91	30.8	296	100.0

APPENDIX I

APPENDIX I

AGE OF THE RESEARCH RESPONDENTS (N = 296)

Hospital	Age	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Under 21	0	0.0	0	0.0	0	0.0	1	.3	1	.3
	21 - 25	0	0.0	2	.7	3	1.0	4	1.4	9	3.1
	26 - 30	6	2.0	16	5.4	17	5.7	10	3.4	49	16.5
	31 - 35	4	1.4	3	1.0	3	1.0	1	.3	11	3.7
	36 - 40	2	.7	2	.7	1	.3	4	1.4	9	3.1
	41 - 45	5	1.7	0	0.0	0	0.0	0	0.0	5	1.7
	46 - 50	2	.7	0	0.0	0	0.0	0	0.0	2	.7
	51 - 55	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Under 21	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	21 - 25	3	1.0	4	1.4	8	2.7	16	5.4	31	10.5
	26 - 30	5	1.7	10	3.4	10	3.4	4	1.4	29	9.9
	31 - 35	2	.7	3	1.0	4	1.4	1	.3	10	3.4
	36 - 40	2	.7	0	0.0	1	.3	0	0.0	3	1.0
	41 - 45	0	0.0	2	.7	0	0.0	0	0.0	2	.7
	46 - 50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	51 - 55	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
C	Under 21	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	21 - 25	7	2.4	8	2.7	13	4.4	34	11.5	62	21.0
	26 - 30	11	3.7	12	4.1	11	3.7	11	3.7	45	15.2
	31 - 35	6	2.0	2	.7	1	.3	2	.7	11	3.7
	36 - 40	4	1.4	0	0.0	0	0.0	2	.7	6	2.1
	41 - 45	2	.7	1	.3	1	.2	0	0.0	4	1.2
	46 - 50	3	1.0	0	0.0	1	.2	0	0.0	4	1.2
	51 - 55	2	.7	0	0.0	0	0.0	1	.3	3	1.0
Totals		66	22.5	65	22.1	74	24.6	91	30.8	296	100.0

APPENDIX J

APPENDIX J

NURSING DEGREE HELD BY THE RESEARCH RESPONDENTS (N = 296)

Hospital	Highest Degree in Nursing	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Diploma	5	1.7	6	2.0	10	3.4	3	1.0	24	8.2
	Associate Degree	5	1.7	6	2.0	1	.3	6	2.0	18	6.0
	Baccalaureate Degree	9	3.0	11	3.7	13	4.4	11	3.7	44	14.8
B	Diploma	5	1.7	9	3.0	9	3.0	1	.3	24	8.1
	Associate Degree	0	0.0	4	1.4	1	.3	1	.3	6	2.0
	Baccalaureate Degree	7	2.4	6	2.0	13	4.4	19	6.4	45	15.3
C	Diploma	9	3.0	3	1.0	1	.3	4	1.4	17	5.7
	Associate Degree	6	2.0	4	1.4	4	1.4	6	2.0	20	6.8
	Baccalaureate Degree	20	6.8	16	5.4	22	7.4	40	13.5	98	33.1
Totals		66	22.3	65	21.9	74	24.9	91	30.6	296	99.7

APPENDIX K

APPENDIX K

LENGTH OF SERVICE IN NURSING
OF THE RESEARCH RESPONDENTS (N = 296)

Hospital	Length of Service in Nursing	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Less than 6 mos.	0	0.0	0	0.0	0	0.0	4	1.4	4	1.4
	Between 7 & 12 mos.	1	.3	0	0.0	0	0.0	0	0.0	1	.3
	Between 1 & 2 yrs.	0	0.0	2	.7	3	1.0	2	.7	7	2.4
	Between 2 & 3 yrs.	4	1.4	4	1.4	0	0.0	5	1.7	13	4.5
	Between 3 & 5 yrs.	3	1.0	6	2.0	5	1.7	1	.3	15	5.0
	Between 5 & 10 yrs.	7	2.4	9	3.0	14	4.7	6	2.0	36	12.1
	More than 10 yrs.	4	1.4	2	.7	2	.7	2	.7	10	3.5
B	Less than 6 mos.	1	.3	1	.3	0	0.0	10	3.4	12	4.0
	Between 7 & 12 mos.	2	.7	0	0.0	0	0.0	1	.3	3	1.0
	Between 1 & 2 yrs.	1	.3	2	.7	0	0.0	5	1.7	8	2.7
	Between 2 & 3 yrs.	2	.7	3	1.0	10	3.4	1	.3	16	5.4
	Between 3 & 5 yrs.	0	0.0	6	2.0	7	2.4	2	.7	15	5.1
	Between 5 & 10 yrs.	5	1.7	5	1.7	4	1.4	2	.7	16	5.5
	More than 10 yrs.	1	.3	2	.7	2	.7	0	0.0	5	1.7
C	Less than 6 mos.	5	1.7	1	.3	0	0.0	12	4.1	18	6.1
	Between 7 & 12 mos.	1	.3	1	.3	0	0.0	1	.3	3	.9
	Between 1 & 2 yrs.	3	1.0	2	.7	3	1.0	12	4.1	20	6.8
	Between 2 & 3 yrs.	5	1.7	3	1.0	10	3.4	11	3.7	29	9.8
	Between 3 & 5 yrs.	1	.3	6	2.0	5	1.7	10	3.4	22	7.4
	Between 5 & 10 yrs.	14	4.7	8	2.7	8	2.7	2	.7	32	10.8
	More than 10 yrs.	6	2.0	2	.7	1	.3	2	.7	11	3.7
Totals		66	22.2	65	21.9	74	25.1	91	30.9	296	100.1

APPENDIX L

APPENDIX L

SHIFT TYPICALLY WORKED BY THE RESEARCH RESPONDENTS (N = 296)

Hospital	Shift	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Days	5	1.7	15	5.1	4	1.4	8	2.7	32	10.9
	Evenings	4	1.4	0	0.0	1	.3	7	2.4	12	4.1
	Nights	5	1.7	0	0.0	2	.7	3	1.0	10	3.4
	Rotate	5	1.7	8	2.7	17	5.7	2	.7	32	10.8
B	Days	3	1.0	11	3.7	1	.3	1	.3	16	5.3
	Evenings	9	3.0	1	.3	2	.7	4	1.4	16	5.4
	Nights	0	0.0	2	.7	1	.3	0	0.0	3	1.0
	Rotate	0	0.0	5	1.7	19	6.4	16	5.4	40	13.5
C	Days	16	5.4	20	6.8	0	0.0	2	.7	38	12.9
	Evenings	10	3.4	3	1.0	7	2.4	10	3.4	30	10.2
	Nights	5	1.7	0	0.0	3	1.0	5	1.7	13	4.4
	Rotate	4	1.4	0	0.0	17	5.7	33	11.1	54	18.2
Totals		66	22.4	65	22.0	74	24.9	91	30.8	296	100.1

APPENDIX M

APPENDIX M

METHOD OF ADMINISTERING CARE USED BY THE RESEARCH RESPONDENTS (N = 296)

Hospital	Method of Administering Patient Care	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Primary	1	.3	0	0.0	24	8.1	0	0.0	25	8.4
	Modular	0	0.0	0	0.0	0	0.0	19	6.4	19	6.4
	Team	18	6.1	0	0.0	0	0.0	1	.3	19	6.4
	Functional	0	0.0	23	7.8	0	0.0	0	0.0	23	7.9
	Modified Primary	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Primary	4	1.4	0	0.0	0	0.0	0	0.0	4	1.4
	Modular	0	0.0	0	0.0	0	0.0	21	7.1	21	7.1
	Team	0	0.0	19	6.4	0	0.0	0	0.0	19	6.4
	Functional	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Modified Primary	8	2.7	0	0.0	23	7.8	0	0.0	31	10.5
C	Primary	35	11.8	1	.3	27	9.1	50	16.9	113	38.1
	Modular	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Team	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Functional	0	0.0	22	7.4	0	0.0	0	0.0	22	7.4
	Modified Primary	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Totals		66	22.3	65	21.9	74	25.0	91	30.7	296	100.0

APPENDIX N

APPENDIX N

NUMBER OF HOURS THE RESEARCH RESPONDENTS
SPENT IN DIRECT CONTACT WITH PATIENTS (N = 296)

Hospital	Hours in Direct Contact with Patients Per Week	Work Setting: Psychiatry n	Psychiatry %	Operating Room n	Operating Room %	Intensive Care n	Intensive Care %	Medicine n	Medicine %	Totals n	Totals %
A	Less than 5	0	0.0	2	.7	0	0.0	1	.3	3	1.0
	5 to 10	2	.7	3	1.0	0	0.0	4	1.4	9	3.1
	10 to 15	5	1.7	2	.7	0	0.0	0	0.0	7	2.4
	15 to 20	2	.7	0	0.0	1	.3	1	.3	4	1.3
	20 to 25	2	.7	4	1.4	1	.3	3	1.0	10	3.4
	25 to 30	6	2.0	7	2.4	9	3.0	4	1.4	26	8.8
	More than 30	2	.7	5	1.7	13	4.4	7	2.4	27	9.2
B	Less than 5	0	0.0	6	2.0	0	0.0	0	0.0	6	2.0
	5 to 10	0	0.0	2	.7	0	0.0	1	.3	3	1.0
	10 to 15	0	0.0	2	.7	1	.3	0	0.0	3	1.0
	15 to 20	2	.7	0	0.0	0	0.0	1	.3	3	1.0
	20 to 25	2	.7	0	0.0	0	0.0	6	2.0	8	2.7
	25 to 30	5	1.7	2	.7	10	3.4	10	3.4	27	9.2
	More than 30	3	1.0	7	2.4	12	4.1	3	1.0	25	8.5
C	Less than 5	0	0.0	7	2.4	0	0.0	0	0.0	7	2.4
	5 to 10	1	.3	4	1.4	0	0.0	1	.3	6	2.0
	10 to 15	4	1.4	1	.3	0	0.0	1	.3	6	2.0
	15 to 20	3	1.0	1	.3	1	.3	2	.7	7	2.3
	20 to 25	10	3.4	2	.7	0	0.0	5	1.7	17	5.8
	25 to 30	13	4.4	4	1.4	10	3.4	25	8.4	52	17.6
	More than 30	4	1.4	4	1.4	16	5.4	16	5.4	40	13.6
Totals		66	22.5	65	22.3	74	24.9	91	30.6	296	100.3

APPENDIX O

APPENDIX O

LETTERS OF PERMISSION

John W. Jones, Ph.D.

London House Management Consultants, Inc.

1550 NORTHWEST HIGHWAY PARK RIDGE, ILLINOIS 60068 (312) 298-7311 TWX 910-2530-338 CABLE ADDRESS: "LHMC"

Diane Cronin-Stubbs
3150 N. Sheridan
#27-B
Chicago, IL 60657

Dear Diane,

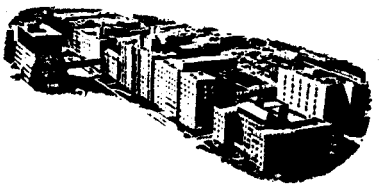
You have my permission to use the SBS-HP for research purposes. Please feel free to xerox this scale.

Cordially,

John Jones

John Jones, Ph.D.
Licensed Psychologist

METHODIST
HOSPITAL
OF INDIANA, INC.



CEO ASSOCIATE
OFFICE OF THE PRESIDENT

April 26, 1982

Ms. Diane Cronin-Stubbs, M.S.N.
Doctoral Candidate
3150 North Sheridan, Apt. 27B
Chicago, Illinois 60657

Dear Diane:

I am excited to hear that you are doing work on nursing stress. Please find enclosed: 1) a reprint of my article in Social Science & Medicine; 2) a copy of the questionnaire, which includes ICU questions; 3) a conceptual breakdown of items into subscales (as I indicated to you, this is not based on factor analysis).

You certainly have my permission to use the instrument, acknowledging its source. As soon as we have completed a preliminary factor analysis, I will send you the results. It would be good for further analysis to be done with your data included. We could also compare and contrast results from our respective hospitals.

Please call or write if you have further need.

Sincerely,

Pam Gray-Toft

Enc.

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Psychology NI-25

April 30, 1982

Diane Cronin-Stubbs, M.S.N.
3150 North Sheridan Road
Apartment 27B
Chicago, IL 60657

Dear Ms. Cronin-Stubbs:

You have my permission to use the Life Experiences Survey. I would like a report of your research when it is completed.

Good luck.

Sincerely,

Irwin G. Sarason
IGS:kdw

enc.

APPENDIX A

Request Form

I request permission to copy the Norbeck Social Support Questionnaire (NSSQ) for use in research in a study entitled: The Relationship Between Occupational Stress, Life Stress, Social Support and the Degree of Burnout Experienced by Staff Registered Nurses Working in the Psychiatric-Mental Health, Operating Room, Intensive Care, and Medical Hospital-Based Work Settings.

In exchange for this permission, I agree to submit to Dr. Norbeck a copy of the one-page scoring sheet for each subject tested. These data will be used to establish a broad normative database for the instrument for clinical and non-clinical populations. Aside from use in the pooled data bank, no other use will be made of the data submitted. Credit will be given to me in reports of normative statistics that make use of the data I submitted for pooled analyses.

Diane Cronin-Stubbs
(Signature)

June 28, 1982
(Date)

Position and Full Address of Investigator: Doctoral Candidate
(home) 3150 North Sheridan #27B
Chicago, Illinois 60657
(phone) (312) 935-2946

Permission is hereby granted to copy the NSSQ for use in the research described above.

Jane S Norbeck
Jane S. Norbeck

July 6 1982
(Date)

Please send *two signed* copies of this form to:

Jane S. Norbeck, D.N.Sc.
Department of Mental Health and Community Nursing
University of California, San Francisco
N505-Y
San Francisco, California 94143

APPENDIX P

APPENDIX P

INTRODUCTORY LETTER TO STAFF NURSES

3150 N. Sheridan Road
Apartment 27B
Chicago, Illinois 60657

September 17, 1982

Dear Staff Nurse:

I am Diane Cronin-Stubbs, a graduate student at Loyola University, working on my doctorate. My main research interest is job-related stress in staff nurses. The purpose of this letter is to invite your participation in the study I am conducting for the completion of my degree.

The purpose of the study is to identify factors which relate to stress and burnout in nurses. It is my belief that identifying those factors can assist (a) staff nurses in planning stress management and burnout prevention strategies, (b) nursing service administrators in developing employee incentive and retention programs, and (c) nurse educators in designing pragmatic nursing curricula.

I have received approval to conduct this study by the appropriate administrators at your institution. You have been randomly selected from a list of staff nurses who work full-time in your specialty area at your hospital. Although there may be no direct benefit to you in participating in my study, your experience as a staff nurse can contribute to solving some of the problems which exist in our profession.

Specifically, your involvement in the study will require that you complete a set of questionnaires which you can obtain by selecting one of the methods listed on the Response Form accompanying this letter.

I've estimated that completing the questionnaires should take about 50-60 minutes of your time. There are no risks involved in participating in the study and, by notifying me, you may withdraw your involvement at any time. When I have completed my study, you will have an opportunity to receive a written summary of the findings.

Your responses to the questionnaires will be kept <u>strictly confidential</u>. The following measures will be taken to protect your anonymity:

1. Information about who participated in the study will be available to no one.

2. Code numbers will be used on the questionnaires, and the list which includes both the nurse's name and her code number will be available to no one.
3. I will be the only one collecting the completed questionnaires from you.
4. In communicating the research results, neither individual participants nor their employing institutions will be discussed: only group data will be reported.

If you are willing to participate in my study, please check the appropriate space on the form accompanying this letter and mail it to me in the enclosed envelope by Saturday, September 25, 1982. Because you've been randomly selected for participation in my study, it is important that you return the response form, even if you prefer not to participate. Simply check the appropriate space and return the form to me.

If you have questions about the study, contact me and I'll try to answer them. My home phone number is 935-2946 (leave your name and phone number on my answering machine if I'm not there and I'll call you back). I believe together we can learn about the factors which relate to nurses' job stress and burnout. I look forward to hearing from you.

Sincerely,

Diane Cronin-Stubbs

Ms. Diane Cronin-Stubbs, M.S.N.
Doctoral Candidate
Loyola University of Chicago

P.S. There are two copies of the Response Form. Please keep one as a reminder of our meeting times. Thank you in advance for your involvement in my project.

Code Number_____

RESPONSE FORM

1. I will be available at your hospital during the time spans listed below. Next to the option most convenient for you, indicate the time you'll be able to meet with me to complete the questionnaires.

   _____ Tuesday, November 9, 1982 from 2:00 p.m. to 4:30 p.m. in the 4 North Conference Room.

   _____ Wednesday, November 10, 1982 from 7:00 a.m. to 8:00 a.m. in the 4 North Conference Room.

   _____ Thursday, November 11, 1982 from 2:00 p.m. to 4:30 p.m. in the 4 North Conference Room.

2. If you would prefer meeting with me at another time, please call me (935-2946) or list your phone number(s) and I'll phone you:

   _____
   (Work: Please indicate best times to call)

   _____
   (Home: Please indicate best times to call)

3. If you would like to participate in my study but have difficulties with scheduling times, I can provide you with the questionnaires and you can complete them at a time and place more convenient for you. As I will provide you with a return envelope, indicate below which method of returning the completed questionnaires you would like:

   _____ Seal envelope and drop in box in Ms. Secretary's office (Room 400)

   _____ Direct mailing to Diane Cronin-Stubbs (I'll provide the stamps)

4. If you would prefer not to participate in the study, please check here _____ and return this form to me.

Thank you for your consideration.

APPENDIX Q

APPENDIX Q

FIRST FOLLOW-UP LETTER

3150 North Sheridan
Apartment 27B
Chicago, Illinois 60657
October 1, 1982

Dear Staff Nurse:

A couple of weeks ago, I sent you a letter inviting your participation in the study I'm doing for my doctoral dissertation on nursing stress and burnout. I have received a number of responses; however, I'm missing yours. In the event that you didn't receive the original letter or were not able to participate due to scheduling difficulties, I've enclosed a set of my questionnaires for your convenience. If you are willing to participate in my study, please

1. read the Informed Consent Form, print your name on the first page, and sign your name on the second page,
2. complete the questionnaires, and
3. return all materials to me in the enclosed envelope by Monday, October 11 or as soon as possible. If you would prefer to meet with me to complete the questionnaires, please phone me (935-2946).

Nurses who have participated in the study have taken an average of 35" to complete the questionnaires and have experienced no distress from being in the study. In fact, many have said that they appreciated the opportunity to express their thoughts and feelings about their jobs.

I appreciate any time and effort you can invest in helping me with my research. If you would prefer not to participate in my study, please use the enclosed envelope to mail the questionnaires back to me. Because you have been chosen at random from those nurses who work in your specialty area, it is important that I hear from you either way.

Thank you in advance for any assistance you can offer. Your involvement is important to increasing our understanding of stress and burnout in our profession.

Sincerely,

Diane Cronin-Stubbs

Ms. Diane Cronin-Stubbs, M.S.N.
Doctoral Candidate
Loyola University of Chicago

enc.

APPENDIX R

APPENDIX R

SECOND FOLLOW-UP LETTER

3150 North Sheridan
Apartment 27B
Chicago, Illinois 60657
October 28, 1982

Dear Staff Nurse:

A couple of weeks ago, I sent you a set of questionnaires to facilitate your participation in my study on nursing stress and burnout. I realize that it may have been difficult for you to find the time to complete them, but please know that your doing so would be greatly appreciated.

If you are willing to participate in my study, please complete the questionnaires and return them to me by Friday, November 12, 1982. If you've misplaced the questionnaires or would rather return them to me in person, please phone me (935-2946).

If you would prefer not to participate in the study, please return the uncompleted questionnaires. Either way, I look forward to hearing from you.

Sincerely,

Diane Cronin-Stubbs

Ms. Diane Cronin-Stubbs, M.S.N.
Doctoral Candidate
Loyola University of Chicago

APPENDIX S

APPENDIX S

INFORMED CONSENT FORM

Code Number _____

IRB Number _____

LOYOLA UNIVERSITY OF CHICAGO
Department of Foundations of Education

INFORMED CONSENT

Project Title: Nursing Stress and Burnout.

I, _____, state that I am over 18 years of age and that I wish to participate in the research being conducted by Diane Cronin-Stubbs.

Description of purpose and explanation of procedures: The purpose of the study is to identify factors which relate to stress and burnout in nurses. Procedures to be followed include the staff nurse's meeting with the investigator either individually or in a group comprised of other staff nurses who have agreed to participate in the study to complete the research questionnaires. An alternative is to receive and return the questionnaires by mail. Completing the questionnaires will involve approximately 50-60 minutes of time. Questions that the staff nurse has concerning the procedures to be followed or that may arise as a result of the study will be answered. Each nurse will have an opportunity to receive a written summary of the study's results.

Risks and discomforts: Previous studies on stress and burnout and research which has used the present study's questionnaires have indicated that there are no known risks involved in participating in this study. However, should a staff nurse find a particular item objectionable or unduly stress-provoking, she has the option of skipping that question. If the staff nurse experiences discomfort while completing the questionnaires, she also has the option of discontinuing her participation in the study. The staff nurse's anonymity and the confidentiality of her responses are being preserved by
(a) withholding information which would reveal who participated in the study,

(b) using code numbers to represent the nurse and her employing institution,
(c) maintaining the security of lists which identifies the nurse with her code numbers,
(d) retrieving all data personally, and
(e) reporting the research results in such a way that will reveal neither the identity of the individual staff nurse nor her hospital.

Potential benefits: Although there may be no direct benefits to participating in this study for the staff nurse, it is believed that she is contributing to the knowledge about stress and burnout in nursing. This information can be helpful to (a) staff nurses in planning methods for managing stress and preventing burnout, (b) nursing service administrators in developing employee incentive and retention programs, (c) educators in designing nursing curricula, and (d) researchers engaging in further studies of nursing stress and burnout.

Alternatives: The staff nurse has the option of (a) meeting with the investigator individually or as a member of a group of staff nurses to complete the questionnaires or returning the questionnaires to Diane Cronin-Stubbs by mail, (b) withholding her consent to participate in this study, (c) withdrawing her participation from the study at any time, without prejudice, by notifying Diane Cronin-Stubbs, (d) skipping items on the questionnaires which she experiences as objectionable or stressful, and/or (e) having the summary of the study's results sent to someone other than herself so that her name will not appear on any of the questionnaires.

I acknowledge that Diane Cronin-Stubbs has fully explained to me the procedures involved and the need for the present study; has informed me that I may withdraw from participation at any time without prejudice; and has offered to answer any questions which I may have concerning the procedures to be followed.

I consent to the publication of any data which may result from this study for the purpose of advancing knowledge about nursing stress and burnout, providing my name or any other identifying information (initials, employing institution, etc.) are not used in conjunction with such publication.

I freely and voluntarily consent to my participation in this study.

Researcher	Staff Nurse
Date	Date

APPENDIX T

APPENDIX T

INSTRUCTION FORM ACCOMPANYING MAILED QUESTIONNAIRES

Date:

To:

From: Diane Cronin-Stubbs

Subject: Nursing Stress and Burnout study

Thank you for agreeing to participate in my study. Please 1) read the Informed Consent Form, print your name on the first page, and sign your name on the second page, 2) complete the questionnaires, and 3) return the consent form and the questionnaires to me in the enclosed envelope by _____ or as soon as possible.

I appreciate your involvement in my study. Please phone me if you have any questions (935-2946).

Sincerely,

Diane Cronin-Stubbs

APPENDIX U

APPENDIX U

SUMMARY OF DESCRIPTIVE STATISTICS OF RESPONDENTS' SCORES
ON THE SBS-HP, NSS, LES, AND NSSQ[a] BY HOSPITAL AND WORK SETTING (N = 296)

Hospital A

Setting: Psychiatric-Mental Health (n = 19)

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP	Burnout	39 - 123	63.8	24.5
NSS	Occupational Stress: Frequency	37 - 123	75.9	24.7
	Occupational Stress: Intensity	53 - 208	122.1	41.4
LES	Life Stress: Positive changes	0 - 28	7.8	8.1
	Life Stress: Negative changes	0 - 82	13.9	17.9
NSSQ	Social Support: Affirmation	8 - 135	75.6	39.6
	Social Support: Affect	10 - 154	83.5	44.8
	Social Support: Aid	6 - 154	74.2	44.0
	Setting: Operating Room (n = 23)			
SBS-HP	Burnout	26 - 124	68.7	20.9
NSS	Occupational Stress: Frequency	36 - 157	93.6	34.6
	Occupational Stress: Intensity	38 - 197	115.9	43.9
LES	Life Stress: Positive changes	0 - 53	11.5	12.4
	Life Stress: Negative changes	0 - 57	10.7	14.2
NSSQ	Social Support: Affirmation	12 - 107	54.6	26.0
	Social Support: Affect	13 - 134	63.6	32.0
	Social Support: Aid	14 - 123	59.7	28.4

Hospital A

Setting: Intensive Care

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP	Burnout	31 - 100	58.5	16.4
NSS	Occupational Stress: Frequency	46 - 153	102.4	29.3
	Occupational Stress: Intensity	75 - 234	160.1	34.6
LES	Life Stress: Positive changes	0 - 21	6.8	6.0
	Life Stress: Negative changes	0 - 43	7.6	8.8
NSSQ	Social Support: Affirmation	34 - 193	91.2	42.9
	Social Support: Affect	39 - 202	100.0	48.2
	Social Support: Aid	38 - 212	92.1	45.2
	Setting: Medicine (n = 20)			
SBS-HP	Burnout	23 - 127	64.6	31.9
NSS	Occupational Stress: Frequency	55 - 174	118.2	38.5
	Occupational Stress: Intensity	45 - 241	160.9	51.9
LES	Life Stress: Positive changes	2 - 46	15.7	10.3
	Life Stress: Negative changes	0 - 30	9.2	9.5
NSSQ	Social Support: Affirmation	16 - 132	74.3	32.8
	Social Support: Affect	17 - 207	83.3	45.3
	Social Support: Aid	20 - 125	74.7	31.0

Hospital B

Setting: Psychiatric-Mental Health (n = 12)

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP	Burnout	27 - 113	63.3	27.9
NSS	Occupational Stress: Frequency	35 - 145	96.6	33.8
	Occupational Stress: Intensity	99 - 223	153.8	43.0
LES	Life Stress: Positive changes	0 - 22	8.9	6.3
	Life Stress: Negative changes	0 - 23	8.6	7.4
NSSQ	Social Support: Affirmation	36 - 162	99.1	45.2
	Social Support: Affect	35 - 162	96.1	43.8
	Social Support: Aid	38 - 172	86.5	44.4
	Setting: Operating Room (n = 19)			
SBS-HP	Burnout	39 - 75	58.5	8.7
NSS	Occupational Stress: Frequency	41 - 133	76.6	24.3
	Occupational Stress: Intensity	47 - 214	117.4	43.3
LES	Life Stress: Positive changes	0 - 28	9.2	7.0
	Life Stress: Negative changes	0 - 41	7.1	9.2
NSSQ	Social Support: Affirmation	23 - 199	88.4	52.8
	Social Support: Affect	35 - 200	96.4	49.5
	Social Support: Aid	37 - 187	94.7	48.3

Hospital B

Setting: Intensive Care (n = 23)

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP	Burnout	23 - 91	55.2	19.3
NSS	Occupational Stress: Frequency	50 - 191	111.2	33.9
	Occupational Stress: Intensity	88 - 223	155.7	41.7
LES	Life Stress: Positive changes	0 - 38	10.3	9.3
	Life Stress: Negative changes	0 - 40	10.1	11.2
NSSQ	Social Support: Affirmation	33 - 221	97.6	49.1
	Social Support: Affect	30 - 193	99.2	44.5
	Social Support: Aid	31 - 226	95.0	48.6
	Setting: Medicine (n = 21)			
SBS-HP	Burnout	34 - 87	56.7	15.3
NSS	Occupational Stress: Frequency	88 - 166	122.2	22.3
	Occupational Stress: Intensity	120 - 231	177.8	29.5
LES	Life Stress: Positive changes	1 - 27	11.7	7.3
	Life Stress: Negative changes	0 - 31	11.3	8.9
NSSQ	Social Support: Affirmation	38 - 170	100.6	39.3
	Social Support: Affect	40 - 208	111.5	45.3
	Social Support: Aid	41 - 183	100.5	40.9

Hospital C

Setting: Intensive Care (n = 27)

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP	Burnout	24 - 95	55.4	18.9
NSS	Occupational Stress: Frequency	76 - 185	130.2	28.9
	Occupational Stress: Intensity	107 - 239	172.7	36.4
LES	Life Stress: Positive changes	0 - 24	7.7	7.2
	Life Stress: Negative changes	0 - 36	6.6	7.4
NSSQ	Social Support: Affirmation	26 - 208	89.5	44.1
	Social Support: Affect	25 - 227	95.5	48.0
	Social Support: Aid	24 - 165	82.6	40.4
	Setting: Medicine (n = 50)			
SBS-HP	Burnout	32 - 87	57.7	15.7
NSS	Occupational Stress: Frequency	60 - 191	124.6	29.6
	Occupational Stress: Intensity	94 - 248	183.2	32.9
LES	Life Stress: Positive changes	0 - 41	10.6	8.0
	Life Stress: Positive changes	0 - 21	8.7	5.5
NSSQ	Social Support: Affirmation	26 - 176	96.4	41.0
	Social Support: Affect	22 - 177	104.2	41.7
	Social Support: Aid	29 - 196	92.5	39.4

Hospital C

Setting: Psychiatric-Mental Health (n = 35)

Instrument	Variable Assessed	Scores		
		Range	Mean	Standard Deviation
SBS-HP	Burnout	24 - 118	56.0	21.9
NSS	Occupational Stress: Frequency	35 - 149	87.8	30.3
	Occupational Stress: Intensity	35 - 228	139.6	50.6
LES	Life Stress: Positive changes	0 - 29	8.7	7.9
	Life Stress: Negative changes	0 - 51	10.8	10.3
NSSQ	Social Support: Affirmation	37 - 199	99.9	45.2
	Social Support: Affect	40 - 225	110.6	47.7
	Social Support: Aid	41 - 204	97.8	44.8
	Setting: Operating Room (n = 23)			
SBS-HP	Burnout	39 - 104	57.9	16.8
NSS	Occupational Stress: Frequency	33 - 156	96.2	28.9
	Occupational Stress: Intensity	52 - 229	154.1	39.8
LES	Life Stress: Positive changes	0 - 36	8.0	8.1
	Life Stress: Negative changes	0 - 32	7.2	8.5
NSSQ	Social Support: Affirmation	50 - 199	96.0	36.9
	Social Support: Affect	50 - 209	104.1	43.0
	Social Support: Aid	50 - 180	94.0	39.8

[a] SBS-HP: Staff Burnout Scale for Health Professionals
NSS : Nursing Stress Scale
LES : Life Experiences Survey
NSSQ : Norbeck Social Support Questionnaire

APPENDIX V

APPENDIX V

POSITIVE AND NEGATIVE LIFE STRESSORS NOT LISTED IN THE LES

Positive life stressors: Changes reported to have a positive impact on nurses' lives (n = 75)

Categories of Additional Changes	Impact		
	Extremely Positive +3	Moderately Positive +2	Slightly Positive +1
Career			
1. Professional issues (e.g., returning to school for B.S.N. or M.S.N., moderating a nursing conference, planning to change careers)	7	15	3
2. Job-related factors (e.g., good work performance evaluation, close relationship with a patient, taking a leave of absence)	3	2	1
3. Managing multiple demands (e.g., "Working and going to school both full-time")	1	1	--
Relationships			
1. With friends (e.g., forming new relationships, improved communication with others, major changes in close friends)	8	4	1
2. With men (e.g., new boyfriend, falling in love, moving in with boyfriend)	6	2	1
3. With family (e.g., reunion with family after 5 years, improved communication with adolescent, 2 year old daughter in day care)	4	2	1

Positive life stressors: Changes reported to have a positive impact on nurses' lives (n = 75)

Categories of Additional Changes	Impact		
	Extremely Positive +3	Moderately Positive +2	Slightly Positive +1
Health			
1. Psychological (e.g., beginning or being in psychotherapy)	4	3	--
2. Physical (e.g., surgery, tubal ligation, increased exercise and jogging)	3	2	--
3. Spiritual (e.g., "Spiritual growth")	3	--	--
Leisure/Recreation/Pleasure			
1. Travel/Vacation (e.g., trip to Jamaica, prolonged holiday)	4	3	--
2. Hobbies (e.g., acting workshop, flying lessons)	--	3	--
3. Pets (e.g., adopting two kittens, raising a puppy)	1	1	--
Miscellaneous			
1. Automobile ownership (e.g., bought a new car, learned to drive, paid off new car)	4	--	1
2. Having all dreams come true	1	--	--
3. Buying new furniture	1	--	--

Positive life stressors: Changes reported to have a positive impact on nurses' lives (n = 75)

Categories of Additonal Changes	Impact		
	Extremely Positive +3	Moderately Positive +2	Slightly Positive +1
Miscellaneous - continued			
4. Change in lifestyle (e.g., coming to America "Loss of old friends, gaining new friends, making more money")	--	2	--
5. Moving (e.g., planning to leave Chicago)	--	--	2

Negative life stressors: Changes reported to have a negative impact on nurses' lives (n = 76)

Categories of Additonal Changes	Impact		
	Extremely Negative -3	Moderately Negative -2	Somewhat Negative -1
Relationships			
1. With friends (e.g., lack or loss of close friends/support system, roommate problems, inability to communicate with others effectively)	7	7	4
2. With family (e.g., conflict with a family member, family experiencing tragic losses, difficulty with adolescent)	10	1	2

Negative life stressors: Changes reported to have a negative impact on nurses' lives (n = 76)

Categories of Additonal Changes	Impact		
	Extremely Negative -3	Moderately Negative -2	Somewhat Negative -1
Relationships - continued			
3. With men (e.g., difficulties with boyfriend, moving in with boyfriend, harrassment from former boyfriend)	3	7	2
4. With co-workers (e.g., conflicts with peers, gossip at work)	1	1	--
Career			
1. Professional issues (e.g., returning to school for B.S.N. or M.S.N., assuming a leadership role in nursing, failing state boards/nursing certification exam)	6	4	6
2. Job-related factors (e.g., poor work performance evaluation, getting too involved with patients, unable to obtain desired position at another hospital: "I feel trapped")	2	1	1
3. Managing multiple demands (e.g., "Work, school, husband, and children")	2	1	1
Crimes			
1. Against self (e.g., assaulted with intent to rape, punished without due cause)	3	--	--

Negative life stressors: Changes reported to have a negative impact on nurses' lives (n = 76)

Categories of Additional Changes	Impact		
	Extremely Negative -3	Moderately Negative -2	Somewhat Negative -1
Crimes - continued			
2. Involving property (e.g., theft, found door lock broken)	2	--	--
3. Involving others (e.g., kidnap and rape of daughter)	1	--	--
Miscellaneous			
1. Marriage (e.g., unmarried, uncertain about marriage, infidelity of spouse)	5	1	--
2. Financial status (e.g., not having enough money for desired possessions or activities, not getting child support)	4	--	1
3. Automobile ownership (e.g., deterioration of automobile, accident involving new car)	4	--	--
4. Health (e.g., back injury, decreased jogging due to injury, miscarriage)	2	2	--
5. Leisure/Recreation/Pleasure (e.g., not having enough time for personal recreation, illness of pet, death of pet)	1	1	1

Negative life stressors: Changes reported to have a negative impact on nurses' lives (n = 76)

Categories of Additional Changes	Impact		
	Extremely Negative -3	Moderately Negative -2	Somewhat Negative -1
Miscellaneous - continued			
6. Aging (e.g., turning 27 years old, being over 30 years old, becoming 40 years old: "Realizing our vulnerability and our inability to conquer all worlds")	1	--	2
7. Goals (e.g., "Accomplishing desired goals but fearing loss of what I've gained," making a major decision about future goals and plans)	1	--	1
8. Frequent moves	--	1	--
9. Change of tenants in apartment building	--	--	1

APPROVAL SHEET

The dissertation submitted by Diane Cronin-Stubbs has been read and approved by the following committee:

Dr. Anne M. Juhasz, Director
Professor, Foundations of Education, Loyola

Dr. Jack Kavanagh
Associate Professor, Foundations of Education and
Associate Dean, School of Education, Loyola

Dr. Steven Miller
Professor, Foundations of Education, Loyola

Dr. Elizabeth Brophy
Associate Professor, Nursing and
Director, Graduate Program in Nursing, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

June 28, 1983 — Anne McCreary Juhasz

Date — Director's Signature