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Nurse Executives' Psychological Well-Being: The Relationships Among Stress,
Social Support, Coping, and Optimism

by

Jayne Haberman Cohen

DISSERTATION

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NURSE EXECUTIVES' PSYCHOLOGICAL WELL-BEING: THE
RELATIONSHIPS AMONG STRESS, SOCIAL SUPPORT,
COPING, AND OPTIMISM

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Abstract

NURSE EXECUTIVES' PSYCHOLOGICAL WELL-BEING: THE RELATIONSHIPS AMONG STRESS, SOCIAL SUPPORT, COPING, AND OPTIMISM

Jayne Haberman Cohen, RN, DNSc

University of California, San Francisco, 1989

The purpose of this study was to: (a) determine the occupational stressors, coping strategies, and sources and types of social support of nurse executives, (b) compare the sample's level of psychological symptomatology with norms, and (c) examine the effects of stress, social support, and optimism in predicting psychological well-being.

Research questions related to these goals were addressed.

Public health nursing directors ($N = 43$) located throughout California, participated in the study. Mailed questionnaire booklets were used to collect data from the target population. They contained a demographic survey and four preexisting tools: DeLongis, Folkman, and Lazarus' Hassles Scale, Caplan's "People Around You," Scheier and Carver's Life Orientation Test, and Derogatis' Brief Symptom Inventory form of the Hopkins Symptom Checklist. A subset of the sample ($n = 21$) participated in face-to-face, taped structured interviews which elicited additional data on nurse executive work stress, coping strategies, and social support dimensions. Both quantitative and qualitative strategies were employed.

Several significant findings emerged from this study. The mean psychological symptom score was greater than the published norm, suggesting psychological distress ($t = 2.39$, $p < .05$). In a regression analysis, total number of years in nursing accounted for 14.8% of the variance in psychological symptoms, the dependent variable. Once this variable was accounted for, level of optimism accounted for an additional 29.8% of the variance. Total hassles and co-worker social support together accounted for 6.57% of the variance in the last step, but were not statistically significant. Interview data identified the major occupational stressors, coping strategies, and sources and types of social support for this group of nursing directors.

High stress for nurse executives who direct health care for the public poses problems at many levels. Negative outcomes from stress at work can have deleterious consequences for the nursing division, the entire organization, and the administrator's nonwork life. As members of the organization's top management team, nurse executives are responsible for the leadership of the nursing division including the clinical practice of nursing throughout the institution. This study's findings are potentially generalizable to nurse executives in a variety of work settings.

Jane S. Norbeck
Sponsor

Dedication

This dissertation is dedicated to Jonathan David Cohen,
my son, whose tolerance, encouragement, and love
made the process completely manageable.

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I would like to express my most sincere gratitude to Dr. Jane S. Norbeck for her extensive emotional, appraisal, informational, and instrumental support, both in her role as the Chair of my dissertation committee and as my mentor throughout my years as a doctoral student at U.C. San Francisco. Her integrity is an exemplar for the entire school.

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CHAPTER ONE
THE STUDY PROBLEM

Background to the Problem

Executive nurses are members of the organization's top management team responsible for the leadership of the nursing organization including clinical practice of nursing throughout the institution. The nurse executive facilitates the provision of quality, cost-effective client care in coordination with other executive management members to fulfill the organizational mission and goals. In addition, this team member establishes productive working relationships with other internal departments and must be responsive to the external environment.

Mintzberg (1975) identifies the major functions within the executive role. These include figurehead, leader, liaison, monitor, disseminator, spokesperson, entrepreneur, disturbance handler, resource allocator, and negotiator.

Stevens (1985) considers all nursing executive functions as intellectual activities. Principal functional categories include:

1. Providing vision which is considered the ultimate meaning of leadership in nursing administration.
2. Setting goals including the ethos of nursing and nursing care.

3. Problem solving involving major issues with resolution affecting the entire nursing division.
4. Bridging which comprises three components:
 - a. Linkpin function (i.e., bridging among departments within the nursing division).
 - b. Connecting the conceptual with the actual (e.g., ideas and plans with actual performance).
 - c. Temporal dimensions uniting the present with the future (e.g., human resource development to fulfill future organizational needs).
5. Negating, including the elimination of dysfunctional policies and practices.
6. Unifying the direction and purpose of all of the functions mentioned above.

The study of occupational stress, its mediators, and health outcomes involves the convergence among individual characteristics, the work setting, and the structure in which they are embedded (House, 1981). Much research on occupational stress has concentrated on work settings and work roles. This strategy is a bit too narrow, for life consists of a myriad of dynamic roles and activities. Perhaps a clearer understanding of work stress in relation to outcome variables will emerge as research focused on the interrelationships among different life roles is completed (Kahn, Hein, House, Kasl, & McClean, 1982).

Occupational stress among contemporary nurse executives does not occur in isolation, but is enmeshed within a turbulent environmental context. The concept of turbulence refers to the rapidly changing configuration of the environment (Katz & Kahn, 1978), and in health care today, these environmental changes are extremely difficult and at times impossible to predict. Uncertainty, conceptualized in its most negative form, provides a predominant source of occupational stress at this time (Sharit & Salvendy, 1982). Goldberg (1978) maintains that executives, due to their training and personality characteristics in which the need to influence and control is paramount, tend to lack tolerance for uncertainty.

The nurse executive exists within a female occupation juxtaposed to male occupational dominance (Biordi, 1986). This position, which can be viewed as marginal, is exaggerated by gender, organizational position, and the complexity of the work, intensified by high visibility. Marginality exists when one resides in several simultaneous life domains with permeable boundaries. Women in nurse executive roles are enmeshed in three disparate worlds: work standards of femininity and family, clinical nursing, and male-dominated management.

Many nurse executives are women and are more likely to be disadvantaged in the corporate world than men. As health care institutions take on corporate characteristics, female

nurse executives potentially are at great risk for work stress and strain stimulated by the changing environment which mandates major role changes.

Stevens (1985) emphasizes that all functions of the nursing division are the ultimate responsibility of the nurse executive. This responsibility can only be achieved by the person who has a view from the top. Negative outcomes from stress at work not only affect the individual executive in terms of physical and psychological disorders, but can permeate nonwork life and have potential deleterious consequences for the organization (Cooper & Melhuish, 1980). Nurses functioning in executive roles thus can directly and indirectly affect client care. This issue alone mandates the need for the identification of occupational stressors and potential mediators among nurse executives.

Statement of the Problem

An individual's appraisal of the environment and coping responses facilitates or hinders the response to stressors. Organizations in a state of turmoil must make a number of internal changes to adapt to external forces for survival. These changes create demands and challenge the resources of individuals within the system. Individual coping responses feed back into the organization. These individual responses will intensify or diminish organizational strain. Persons

functioning at the top levels within the system will have a substantial impact.

Work stress is very much a contemporary issue. The tumultuous environment in the United States' health care industry is creating new demands which potentially exceed individual resources. Within this environment, health care administrators are particularly at risk from strain stimulated by new and complex stressors at work. Nurses functioning in executive roles are one such vulnerable group.

A clear answer as to whether greater stressors are experienced at the top of an organization or at lower levels of management in an organizational hierarchy has not emerged (Burke & Weir, 1980). What can be concluded is that distress among executives has a more far-reaching and potentially deleterious impact on the total system than does distress in middle managers. This is due to the administrators' capacity to disrupt the normative climate of their organizations (e.g., organizational values, the communication modes, and the exercise of authority; Katz & Kahn, 1978).

A number of characteristics and resources of the individual and the environment can serve to intensify or reduce the effect of stressors. One environmental resource with the potential to reduce the impact of stressors is social support. Two issues potentially place the population

of nurse executives at risk for limited social support resources. As one ascends the career ladder, the number of peers decreases, and, due to the competitive nature of our contemporary health care environment, colleagues in one's local area can no longer be utilized as consultants and confidants.

It is important to be aware that social support might facilitate coping with stressful managerial tasks, but by itself, or associated issues in obtaining it, may also be the source of stress. Supportive others at work might impose constraints on the manager by limiting coping strategies. The administrator in search of support exposes personal weaknesses which can intensify anxiety. The utilization of support is often weighed carefully by managers enmeshed in complex organizations.

The essence of social support according to Thoits (1986) is that significant others suggest alternate strategies or directly participate in an individual's coping efforts which serves to supplement and reinforce those endeavors. Supporters use a number of techniques either simultaneously or sequentially as the stressful situation or stress reaction is targeted. Socially similar others (viz., socioculturally and situationally similar persons) are more likely to provide effective support. The supporter with similar situational experiences offers greater empathy for the distressed person. Empathic understanding validates

emotional reactions and provides acceptance enabling the individual to freely discuss feelings. Distress is reduced through assistance from empathic helpers directed at the feelings or elements of the situation that are most meaningful for the stressed individual. Effective support must fit the needs of the distressed person.

This issue has important implications for the nurse executive. The occupant of this role is often isolated from similar others within one's own organization. There are no similar others. It forces the executive to reach out to others for support beyond the organization and at times in distant places. This could make the relationships somewhat artificial and therefore perhaps less supportive.

The association between having good relationships and well-being tends to be complex, reciprocal, and contingent. The social support-coping connection appears almost circular. "People who cope well tend to be those who enlist support, and effective coping with one's distress may be critical to maintaining relationships when one is under stress" (Coyne & DeLongis, 1986, p. 454).

The nurse executive walks a fine line. The holder of this position is both the nursing spokesperson within the management structure of the institution and a general officer in the parent body (Stevens, 1985). The melding of these major roles is essential for effective performance.

The top nursing position helps to create a climate which permeates the entire nursing organization.

The potential for numerous situational stressors impinging on the nurse executive is apparent considering the multiplicity of roles and functions alone. Modified by other factors (e.g., individual characteristics and environmental factors), the potential for both physiological and psychological strain is conceivable. External and internal organizational turbulence and uncertainty conceived as major organizational stressors can, in addition, negatively affect executive work effectiveness. The likelihood of diminished effectiveness permeating the entire system, might ultimately affect client care.

Purpose of the Study

As the provision of health care shifts from acute care to numerous community settings, nurse leaders functioning outside of the hospital environment are perhaps facing new stressors and subsequent strain. Management and organizations are going through rapid change. The potential costs both in dollars to institutions and the toll on individual well-being are great.

Stressors and subsequent strain impact all members of society. Assessment of the sources of stressors and planning, intervention, and evaluation of techniques for alleviating the strain is imperative work for scientists.

The effect of work stress not only influences the physical and psychological health of the administrator but also affects the organization.

The goal of improving the quality of life itself subsumes the achievement, maintenance, and enhancement of psychological and physical health. As existence within the work setting is so much a part of life in general for executives, attention directed toward the identification of specific factors which influence negative effects on health will be helpful in planning subsequent interventions.

The purpose of this project is to describe the qualities of the variables and explore the relationship among the following variables pertaining to community-based nurse executives: (a) occupational stressors and work hassles, (b) nonwork stressors (hassles), (c) sources and types of social support, (d) coping strategies, (e) level of optimism, and (f) psychological well-being.

Significance of the Study

Dynamic changes in American health care have produced complex stressors that potentially adversely affect the contemporary nurse executive. Limited financial resources, changing governmental regulations, and the mounting competition among health care organizations for both clients and funding are significant sources of occupational stress faced by today's top nurse administrators.

The potential significance of this study encompasses several domains. It is one of the few research projects that exclusively examines issues focused on nurse executives. Not only will the findings be relevant to top nurse administrators, but might also be useful to other executives, especially female executives in service industries.

In addition this study examines a unique composite of variables. Occupational and nonwork stress are measured, along with social support, coping strategies, and level of optimism. Examining environmental and personal resistance resources and how these variables relate to the psychological well-being of nurse executives will aid in the understanding of the stress-illness relationship.

Another contribution is that this research project extends the examination of dispositional optimism in relation to psychological health. Most previous work has used physical health as the outcome variable.

Finally, the methodological strategies employed (i.e., both quantitative and qualitative components) might help to produce more comprehensive analyses of the complex phenomena (Duffy, 1987) examined in this research study.

CHAPTER TWO
CONCEPTUAL FRAMEWORK, LITERATURE REVIEW,
AND RESEARCH QUESTIONS

Conceptual Framework

The effect of stress on health is a continuing concern in contemporary society. House's (1981) paradigm of stress research depicts stressors as antecedents of perceived stress, leading to physiological, cognitive, and behavioral responses to stress. Conditioning variables (i.e., personal and environmental resources) serve as mediators of the stress-illness relationship. A primary focus of research in this arena is the study of the contribution of these variables and processes as a part of this association (Lazarus & Folkman, 1984).

The conceptual framework supporting this study is adapted from the paradigm of stress research by House (1981). A theoretical model of potential relationships among the variables is presented in Figure 2.1.

Theoretical Aspects of Stress

Stress

A theoretical framework for understanding how individuals react to stress was developed by Hans Selye (1956). His work is based on the premise that any activity or emotion creates some degree of stress requiring a change

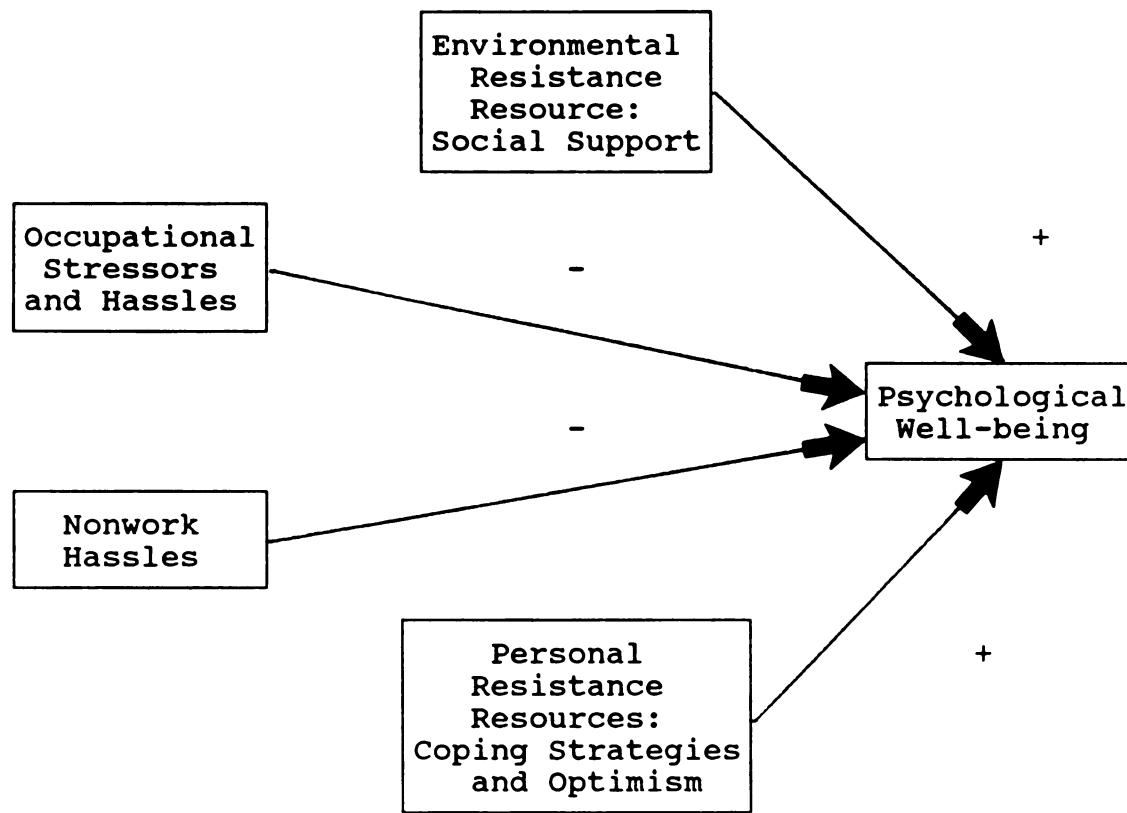


Figure 2.1. Model of the relationships among stressors, resistance resources, and the outcome measure conceptualized for this study.

or response in the individual. His contention is that life is basically stressful, for life itself requires adaptation to continual change. This theory suggests that stress can be appraised by quantitative measurements of chemical and structural changes produced within the body. In his later work, Selye (1976) refined his theory. Stress was operationalized as "the nonspecific response of the body to any demand" (p. 15). The demand (i.e., the stressor) can be

positive or negative. The importance lies in the intensity of the demand for adaptation to promote homeostasis.

The effective stressor is a stimulus perceived either psychologically or physiologically (Tache & Seyle, 1985). Individual differences exist both in the impact and the subsequent development of manifestations from the stressor. A combination of endogenous (e.g., genetic predisposition) and exogenous (i.e., an environmental condition) factors creates unique characteristic individual differences.

Some maintain that the focus must center on the reduction of stressors. Others contend that negative stress is a part of life and can rarely be dramatically altered.

McGrath (1977) enumerates five predominant and interrelated themes regarding stress. These conceptualizations span different substantive problem areas and include:

1. The cognitive appraisal theme (i.e., emotional experiences are in part a function of one's perceptions and expectations of a situation).

2. The experience theme (i.e., previous experience with a stressor attenuates the effects of stress).

3. The negative experience theme (i.e., previous negative experience increases stress).

4. The inverted-U theme (i.e., stress is viewed as arising from increments or decrements of a stimulus away from some optimal zone).

5. The social interaction theme (i.e., in the context of stress research, social interaction is a two-edged sword).

These themes are not intended to provide a comprehensive theory of stress, but to represent some general conceptualizations. They primarily serve three functions: (1) as a group of substantive issues for planning future research, (2) as a warning of potential methodological problems needing further study, and (3) as an overview of convergent stress research topics.

McGrath (1977, p. 75) notes "the occurrence of stress and its effects can be measured at physiological, psychological, behavioral (task and interpersonal performances), and organizational levels."

Lazarus (1976) proposes that negative stress occurs when demands on the individual surpass adjustive resources. Stress is dependent on external conditions, individual vulnerabilities, and the physiological and psychological defense systems. He notes that the total arrangement of environmental demands perceived as a complex stimulus can produce stress. A more recent conceptualization of psychological stress describes it as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering well-being" (Lazarus & Folkman, 1984, p. 19).

Occupational Stress

Work is a principal life activity. Kasl (1978) reviewed the empirical evidence regarding the work environment in relation to worker health and well-being. The outcome variables included measures of cardiovascular health, indicators of mental health, and indices of job satisfaction. One can view the stress at work issue in two ways: (a) as an excess of environmental demands over the capability to meet them (e.g., overload), and (b) more broadly by examining the first, but in addition, overlaying person-environment fit (i.e., matching individual needs with sources of satisfaction from work). Occupational stress similar to stress in general is an individual phenomenon, quite subjective in nature.

Kahn, Hein, House, Kasl, and McLean (1982) note that stress associated with organizational settings is a major part of an individual's total stress. This is due in part to the actual exposure (time) within this setting. They propose the Institute for Social Research Model of Stress which depicts the major variables of interest as well as a casual schema. The flow of variables is from the objective environment to the psychological environment to potential physiological, behavioral, and/or affective responses, and finally to mental and physical health and disease. Two additional variables--enduring properties of the individual (genetic, demographic, and personality) and interpersonal

relations--encase the psychological environment and the responses as shown in Figure 2.2.

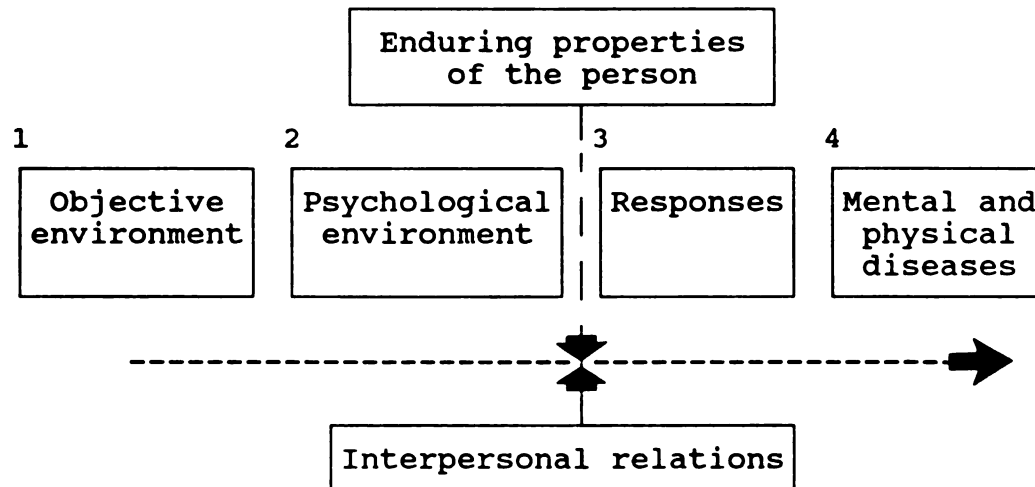


Figure 2.2. Adaptation of the Institute for Social Research Model of Stress. From Katz, D., & Kahn, R.L. (1978). The social psychology of organizations (Figure 17-1). New York: Wiley.

Individual properties and interpersonal relationships can potentially impact the system to alter the outcome variables. These authors report that research findings demonstrate that major stressors in organizations can lead to adverse physical and mental health outcomes, however they caution against drawing inferences due to methodological weaknesses (viz., self-reported symptoms and cross-sectional strategies).

A wide range of stressors may occur in organizational settings. One can examine four levels to identify the stressors according to Kahn et al. (1982). These include the external environment, the organization as a whole, major functional components of the organization, and organizational positions or roles. Certain properties of an organization's external and internal environment may be predictive of occupational stressors. Turbulence over stability, randomness over clustering, scarcity over munificence, and diversity over and above homogeneity together provide insight into the sources of occupational stressors (Katz and Kahn, 1978).

The most common research paradigm for studying occupational stress focuses on stress as the independent variable which affects the dependent variables (i.e., the undesirable consequences), under certain conditions (Holt, 1982). Objectively-defined independent variables include physical properties of the work environment, time variables, changes in the work, and social/organizational properties. Subjectively defined independent variables include role-related issues, person-environment fit, and nonwork issues. The dependent variables are measured physiologically, psychologically, and/or behaviorally. Moderator variables comprise individual characteristics and environmental factors.

Work stress is a complex phenomenon. As Holt (1982) states:

Work takes place in a multilayered social and cultural context in which many important and often conflicting values interact; workers are also members of families, and of social, religious, recreational, political, educational, and other institutions, from which they derive a mixture of costs and benefits, of stress and support, interacting with their work lives in highly variable ways depending on the person, the occupation, and other factors; health and illness are extraordinarily complex states that resist reduction to sociological, psychological, or biological terms alone. (p. 436)

The environmental context of stress is gaining increasing attention in the stress research arena (Stokols, 1985). Inter-setting components (i.e., factors outside the work environment) and the temporal context of stress (e.g., perceptions of past experiences, the present situation, and future expectations) are now being examined. These aspects, in addition to the frequently studied intra-setting components (i.e., elements within the work setting), are enhancing the conceptualization of occupational stress. The analysis of various life domains (e.g., nonwork stressors) might aid in the prediction of individual health effects.

Hirsch and David (1983) emphasize that "Conceptualizing work stress within a quality of life orientation suggests the need for programs and policies that would both reduce negative aspects of the work and provide increased opportunities for rewarding experiences" (p. 496).

Occupational stress has been implicated in the etiology of a variety of physical and mental health problems (House, Strecher, Metzner, & Robbins, 1986). The empirical evidence in support of this conclusion is varied, not easily replicated, and subject to various interpretations. Research in this field is constrained by several limitations including:

1. Confounding due to self-report and inadequate instrumentation (i.e., lack of valid and reliable tools).
2. Lack of confirmatory biomedical examination data on health.
3. Cross-sectional or retrospective research designs.
4. Small, non-representative samples (i.e., organizationally or occupationally specific).
5. Men, much more frequently than women, are studied.

Managerial Stress

A great source of stress for health care executives is embedded in the complexity of health care organizations (Cooper & Marshall, 1978). These authors propose a model depicting the sources of managerial stress (see Figure 2.3). The fulcrum of the paradigm is the individual manager and

includes individual behavior, motivation, personality, and adaptability.

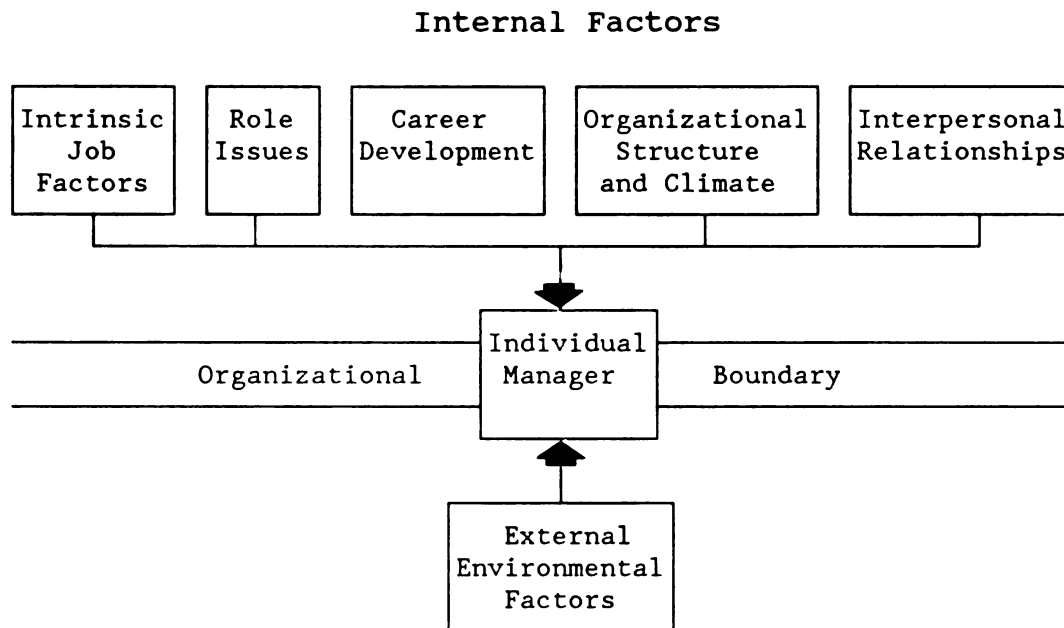


Figure 2.3. Adaptation of the Sources of Managerial Stress Model. From Cooper, C.L., & Marshall, J. (1978). Stress at work (Figure 3.1). New York: Wiley.

Five major sources of stress within the organizational boundary include:

1. Factors intrinsic to the job (e.g., quantity of work, time pressure, and decision making).
2. Role-related issues (e.g., conflict, ambiguity, and responsibility for others).

3. Career development (e.g., opportunities and constraints).

4. Organizational structure and climate.

5. Relationships within the organization.

Juxtaposed to the organizational boundary are all of the external environmental factors. Sources of stress which interface with the organization and life outside include family problems, life crises, financial concerns, and manager/organization value conflicts.

Executive Stress

The costs and effects of executive stress are numerous for the individual, the organization, and society (Greenwood & Greenwood, 1979). Psychological and physiological consequences of excessive stress negatively impact physical and mental well-being, life span, and quality of life. The executive enmeshed in organizational life is not only the recipient of stressors, but is also an initiator of stressors. By the nature of the complexity of interrelationships with many individuals within the organization, a highly stressed administrator negatively affects the entire system.

The target population for my dissertation research is community-based nurse executives. After a thorough literature search directed at accessing empirical work incorporating stress and this specific population proved futile, the search was broadened. Included in the present

review are studies in five general areas. These include (a) executives in any field and occupational stress, (b) the differences between male and female executives and occupational stress, (c) female executives and stress, (d) health care administrators and stress, and (e) directors of nursing and stress. All of the directors of nursing worked in acute-care institutions. Although differences are probably evident between community-based nurse executives (e.g., existence within a governmental bureaucracy) and any of the other executive groups, one can imply similarities.

Empirical Evidence

Executive Stress

Cooper and Melhuish (1980) examined the relationship between potential causes or sources of stress and manifestations of ill-health in a sample of 196 male, senior managers in England. Theoretical issues raised by these authors included (a) the complexity of organizational life as a source of stress, (b) the physical and psychological illnesses occurring in managers, (c) the costs to both the organization and family life in response to stressors, and (d) the study of personality and job factors are important factors to consider when examining the stress-illness relationship.

Methodology was cross-sectional and consisted of several components--medical examinations, clinical

interviews, and questionnaires. The mean age of the sample was 41 years, and level in organization was boardroom ($n = 14$), senior managers ($n = 61$), and middle managers ($n = 77$).

Instruments included (a) physical assessment and laboratory tests to assess physical health, (b) psychological health assessed by a mental health questionnaire containing four subscales: anxiety, obsessiveness, somatic symptoms, and depression, (c) a personality factor questionnaire and a Type A behavior questionnaire, and (d) work stress measured by Marshall and Cooper's Job Pressures and Satisfaction Questionnaire.

The dependent variables were mental ill-health status, hypertension, and lack of physical fitness. Independent variables included the personality factors, Type A behavior score, and the job stressors. Separate stepwise multiple regressions were conducted for each of the three health measures. The first regression related personality factors and work stressors to hypertension. Personality factors accounted for 24.7% of the variance; low social support from work and family accounted for 5.9%; value conflicts between self and work, 4%; and poor relations with other workers, 3.6%. Decreased physical fitness was predicted by demands from other people and the organization, 16.9%; Type A behavior pattern, 8.4%; value conflicts, 5.1%; and poor organizational climate, 2.7%. Mental ill-health was

determined by a tense, apprehensive personality, 39.2%, and job insecurity, 8.2%.

The study yielded rich data for male administrators and executives. Whether it is generalizable to females is open to interpretation. Important implications include the negative impact of personality factors and organizational demands perceived as excessive.

The state of mind and feelings of individual workers, and the nature of the activity of work operationally define quality of working life (QWL). This notion provided the theoretical background for a study by Kobasa and Hilker (1982). Their hypothesis was that the interaction of powerlessness, high stress levels at work and home, recent illness experiences, and management level will create negative work perceptions and a diminished level of QWL. The study purpose was to determine ways of improving the QWL.

Sample characteristics included an all male, executive population ($N = 259$), with age ranging from 40 to 49 years. Work perception was measured by the Moos Work Environment Scale (Moos, Insel, & Humphrey, 1974) assessing three areas: (a) interpersonal, (b) personal, and (c) system. Stress was measured by adapted versions of the Schedule of Recent Life Events tool and the Social Readjustment Rating Scale (Holmes & Rahe, 1967). Illness items were taken from the Seriousness of Illness Survey (Wyler, Masuda, & Holmes,

1968), and a subscale of the Alienation Test (Maddi, Kobasa, & Hoover, 1979), Powerlessness vs. Personal Control, was used to assess the general attitude of powerlessness.

Half of the respondents were asked to respond to the instruments based on their reality, and the remainder asked to respond based on their perception of the ideal. The reliability of this methodology is unknown. Major findings included (a) work perceptions of involvement, peer cohesion, staff support, autonomy, task orientation, work pressure, clarity, and control were near the sample mean, and negatively skewed (i.e., this sample tended to provide negative evaluations of work), (b) the major stressor was work pressure, (c) an attitude of powerlessness was the strongest and most consistent predictor of less involvement, autonomy, and clarity, and (d) the degree of stressful life events encountered at work was associated with the amount of perceived work pressure. Improving QWL is certainly a worthwhile organizational pursuit. Interventions directed toward replacing the sense of powerlessness with that of control is complicated at best. Although the sample was entirely male and not engaged in human service organization work, this notion of powerlessness potentially exists in other executive groups.

Management and organizations are going through rapid change. The costs both in dollars to institutions and the toll on individual well-being are great. With these notions

as background, Edwards (1982), using Selye's stress framework, studied the relationship between occupational stressors and demographic variables, and stress diseases (i.e., physical disease and/or psychological symptoms). Physical stress diseases included high blood sugar, high blood pressure, arteriosclerosis, hypercholesteremia, and peptic ulcer. Numerous research questions were proposed.

A cross-sectional mailed survey was conducted with 14 male bank executives. Ninety-four percent were under 45 years old, all were college graduates, and salaries exceeded \$25,000. The instrument designed to measure work stress was researcher developed and was reported to include items from R. L. Kahn's (1974) conflict, ambiguity, and overload tool and C. G. Weiman's (1977) tool assessing occupational stressors. No psychometric data were provided for the reader.

Major stressors identified included: (a) lack of authority to carry out responsibilities, (b) role ambiguity, (c) lack of necessary qualifications to fulfill roles, (d) inadequate dissemination of information, (e) uncertainty regarding evaluation by superiors, and (f) inability to influence superiors.

Study limitations were numerous. Tiny sample size, all one gender, no control for age, one institution, self-report, cross-sectional data collection, lack of provision for health assessments, and limited information on

measurement devices all served to greatly weaken the significance of the study. The intent was admirable: to plan interventions by occupational health nurses based on study results, but the results were confusing and not useful.

Work and family life can be thought of as separate domains, yet they do affect one another. Concerns about this quality of life issue prompted a research project by Burke (1982). Occupational demands were hypothesized to have a negative effect on nonwork experiences and satisfaction. In a cross-sectional, quantitative project, 72 senior administrators in Canada's prison/parole system served as subjects. Age ranged from under 30 to over 60; educational level ranged from high school graduate to master's preparation; and tenure in position from under one year to over 20. There were 3 females and 69 males.

Measurement included (a) physical assessment and laboratory tests, (b) occupational demands: 11 from R. D. Caplan's et al. (1975) Job Demands and Worker Health instrument and 7 designed by the researcher relevant to the corrections milieu, (c) life demands, (d) life concerns, (e) stressful life events (adapted from Holmes and Rahe, 1967), (f) affective states (19 states measured with 90 items), (g) life satisfaction (12 items), (h) impact of job demands on home and family life (50 items), (i) marital satisfaction (12 items), (j) psychosomatic symptoms (19 items developed

by Gurin et al., 1960), (k) social participation (Bradburn, 1969), (l) social support (43 items), and (m) coping behaviors (38 items).

Analysis involved simple correlations between the 18 occupational demands and the measures of nonwork experiences and satisfactions, and stepwise multiple regressions in which the occupational demands were regressed on the measures of nonwork experiences. Greater occupational demands were related to negative nonwork experiences. Subjects with greater occupational demands had less social support. Respondents with greater occupational demands participated less in social relationships. Subjects reporting greater occupational demands were more likely to use particular coping responses. These coping categories included positive (e.g., problem solving and prayer) and negative (e.g., alcohol and explosive outbursts) strategies.

Study limitations included a small sample size, too many instruments and too many total variables for the sample size, a cross-sectional design, and conflicting findings. This study examined work life impacting on nonwork life. The effects of nonwork demands on work life were neglected.

To examine the generalizability of positive relationships between job stress and physical and psychological strain symptoms Orpen and King (1986) studied 56 administrators from five Australian universities. The following questionnaires were administered: (a) The Work

Stress Scale (Arsenault and Dolan, 1983) measured eight work-related stressors (job insecurity, work overload, role ambiguity, skill underutilization, role conflict, career ambiguity, pay inequity, and work instability), (b) physical strain measured by asking subjects to note the frequency of occurrence (on single five-point scales) of headaches, dizziness, shortage of breath, nausea, and fatigue, and (c) psychological strain assessed with an 18-item version of the French and Caplan (1972) tool which tapped anxiety, resentment, and depression.

Separate physical and psychological strain scores were obtained. Physical strain and career ambiguity ($r = .30$) and work instability ($r = .29$) were the only significant correlations ($p < .05$). The only correlation between psychological strain and a work stressor was with skill underutilization ($r = .28$). Findings suggest that strain is only weakly associated with work stress.

Flaws in the project include: (a) failure to report any demographic characteristics of the sample, (b) psychometric properties of the instruments were not described, (c) the physical symptoms chosen were too restrictive, (d) failure to report on the tenure-status of the sample, which potentially skewed the results, (e) small sample size, and (f) uncontrolled studywise alpha.

Executive Stress Research: Summary

This collection of studies was plagued with numerous problems. Because the vast majority of the subjects were male, generalizing the findings to females seems inappropriate. Yet female executives are subject to many of the same work stressors as their male counterparts and might have analogous personality styles. Cross-sectional methodologies and the utilization of adapted versions of valid and reliable tools (and researcher developed instruments) without delineating the psychometric properties, make interpretation futile. Occupational stress, although operationally defined differently across studies, was uniformly presented as the independent variable and accounted for most of the explained variance. Dependent variables focused on either physical or psychological symptomatology or both. Cooper and Melhuish (1980) was the only credible study. To date, research focused on executives and stress is poorly developed.

Gender Differences in Executive Stress

Individual differences generally affect the magnitude of perceived stress. Stress reactions will vary in part on the basis of gender, however a larger portion of explained variance is often attributed to the function of sex roles (i.e., masculinity, femininity, and androgyny). A recurrent methodological flaw centers around a sampling problem in which workers at the same organizational level are

predominantly either men or women. This makes comparisons extremely difficult (Jick & Mitz, 1985).

Stress-related symptomatology for women is associated with higher rates of psychological and emotional discomfort, and higher rates of minor physical illness in comparison to men. At the same time, mortality rates among women are lower than men. Several theories are offered to explain these differences: (a) genetic/biological, (b) structuralist--emphasizing role overload and role conflict, and (c) the social/psychological hypothesis emphasizing cognitive appraisal and coping strategies.

In a study to compare gender differences in stressors, stress levels, and stress responses, Staats and Staats (1983) studied 82 female and 113 male managers, executives, and professionals. Measurement was accomplished by a 467-item computer-scored instrument, the Stress Vector Analysis-Research Edition (SVA-R). The tool was designed to assess 110 stressors in three domains (environmental, physical, and psychological). The SVA-R contains seven components: (a) the Life Stressor Scale, (b) the Somatogenic Stressor Scale, (c) the Type A Behavior Scale, (d) the Health Scale, (e) the Schedule of Recent Experience, (f) the MMPI-168, a personality trait measure, and (g) the SCL-90-R, a state personality and psychopathological symptom tool.

Analysis of variance was used to determine the sex differences among the subscales. The total test score was

greater for women ($M = 601.50$) than for men ($M = 522.58$), $p = .026$. Women reported greater life stressors including marital dissatisfaction, interpersonal conflicts at home, and decreased time for recreation. Females also reported higher illness scale scores (e.g., more illnesses, more visits to physicians, greater medication usage, more headaches, and "nervous diarrhea"). Men reported more Type A behavioral traits, had more hypertension, and consumed more alcohol than women. The work stressor items failed to demonstrate statistically significant sex differences.

The sample was not adequately described. The groups were not operationally defined nor were sample characteristics delineated. Results were pooled only by gender, rather than by gender and work group. Psychometric data were not provided for the instrument. Summing the instrument's items was inappropriate and led to the confounding of the stressors and outcome measures. In addition, although total stress scores were reported, ranges were not provided. Traditionally women are less defensive and less self-protective in self-reporting. This might have skewed the results. What is essential to note is that the work stressor items failed to demonstrate gender differences.

Cooper and Melhuish (1984) extended their previous study (Cooper & Melhuish, 1980) by determining the relationship between stressors and health in both men ($n =$

311) and women ($n = 171$). The entire sample included senior executives in England. Their mean age was 42 years. The instruments and methodology replicated the first study (see pp. 22-24 for review). Stepwise multiple regression analysis was used to analyze the relationship between the dependent variables (hypertension, poor health risk, mental ill-health, and poor physical fitness) and the independent variables (demographic characteristics, organizational and work stressors). Regressions were run separately for men and women.

For hypertension, increased alcohol consumption and lack of physical exercise accounted for 10% of the variance for males. In women, 21% of the variance was attributed to work in a large organization, job changes, and increased work stress. In men, 12% of the variance for poor health risk was accounted for by smokers with Type A behavioral patterns. Responsibility for large numbers of people, work travel, Type A behavioral pattern, little exercise, smoking, and alcohol use accounted for 29% of the variance in women.

Type A behavior, major work stressors, and adverse life events accounted for 33% of the variance in males for mental ill-health. Fifty percent of the variance for females was attributed to Type A behavior, increased number of stressors, increased number of life events, and responsibility of large numbers of people. Twenty-five percent of the variance for poor physical fitness in males

was accounted for by smoking, little exercise, and decreased social support from work and family. Thirty-one percent of the variance was explained by Type A behavior, increased responsibility for others at work, smoking, lack of exercise, and decreased social support from others for the female group.

Male executives were at risk for poor physical health and poor physical fitness. Female executives were vulnerable to poor mental health. Type A behavior, as a risk-factor, emerged for both men and women, but was somewhat more predictive for women. This in conjunction with responsibility for large numbers of people, places female executives in a vulnerable position for strain and illness.

Zappert and Weinstein (1985) examined the relationship between work stressors (inequalities in pay, status, and opportunity, role ambiguity, and interpersonal conflict) and strain, operationalized as anxiety, depression, somatic complaints, and drug/alcohol use. The study was based on Moos' social-ecological model which conceives health status as a result of the complex interaction of organization, person, cognitive appraisal, arousal, and coping style. The researchers hypothesized that men and women differ in the way stress is perceived and in their psychological and physiological responses to the stressors.

The study sample consisted of 73 women and 50 men in business and management. Instruments were investigator designed and included: (a) a Job Tension Index which assessed time pressure, boredom, autonomy, and interpersonal relationships with superiors and co-workers, (b) a Coping Style Index, (c) a Coping Strain Index which included items related to problems controlling emotions or temper, impatience, acute sensitivity to criticism, self-doubt, self-blame, and inaction when confronting problems, (d) a Role Conflict Index, and (e) a Health Status Index.

Statistically significant ($p < .05$) results revealed women reporting higher levels of job tension, increased coping strain, increased role conflict, and poorer health than men. Coping styles were similar across gender.

Regression analyses revealed that coping strain accounted for 35%, role conflict 8%, and income 3% of the variance for men. Coping strain for women accounted for 14% of the variance, followed by job level 9%, and role conflict 5%. A great deal of unexplained variance remained particularly for women.

Study limitations center around two issues. No data were provided regarding psychometric properties of the newly developed instruments. On what basis can one judge the validity and reliability of the findings without knowing whether the tools actually measured the variables?

In addition, the sample and subsequent analyses were divided by gender only, rather than by management level. Although the study's purpose was to identify sex differences, further stratifying the sample by management level would have added a great deal to the findings in terms of being able to focus intervention strategies. The project did demonstrate differences between men and women in relation to work stress and strain.

Gender Differences in Executive

Stress Research: Summary

This small cluster of studies demonstrated several distinctions between male and female executives. In general, women reported greater work and nonwork stress than men. Regarding symptomatology, the female executives exhibited greater psychological complaints, while the males reported more physical symptoms. Males also had higher Type A behavior scores and more hypertension than the females. Only one study, Cooper and Melhuish (1984), utilized instruments with adequate psychometric properties. In the Staats and Staats (1983) study, the independent and dependent variables were confounded within their newly developed instrument. A new tool with no psychometric data was also used in the Zappert and Weinstein (1985) project. Again, in this group, the Cooper and Melhuish (1984) study was the only credible inquiry. Work stress accounted for substantial amounts of the explained variance for each

dependent variable. Type A behavioral traits, number of life events, and decreased social support also helped to explain the variance in scores between men and women.

Female executives reported more occupational stress than the males. Managerial and business women are disadvantaged in the corporate world. As health care institutions take on corporate characteristics, nurse executives are at great risk for work stress and strain stimulated by the changing environment.

Executive Stress Among Women

Professional women competing in a predominantly male environment are at great risk from the negative consequences of stress (Nelson & Quick, 1985). Common occupational stressors for men and women are classified as:

1. Role demands (e.g., role conflict, overload, and ambiguity and responsibility for people).
2. Work demands (i.e., too much work, decision making responsibilities, managing the internal-external environmental boundary).
3. Environmental demands (i.e., organizational structure and climate).
4. Interpersonal demands (e.g., relationships with superiors, subordinates, and peers).
5. Extraorganizational demands (i.e., nonwork stressors).

Based on theoretical literature, stressors unique to women include discrimination regarding advancement opportunities and salary, sexual harassment, sex-role stereotyping, conflicting demands of career and family, and social isolation. Empirical investigation aimed at examining these potential stressors will aid in theory development and subsequent intervention strategies. Type A behavior (enhanced and rewarded by the work environment), physiological and psychological diseases, and substance abuse are major negative consequences of stress. Proposed moderator variables influencing the stress-illness relationship for women include mentoring, internal locus of control, improved self-confidence, self-awareness, coping strategies, and social support.

In a research project conducted in England to determine the relationships among Type A behavior patterns, stressors, coping strategies, age, and psychological symptomatology, Davidson, Cooper, and Chamberlain (1980) surveyed 148 women in top management and the professions. Type A behavior has been shown to be related to cardiovascular diseases in the general population and has been associated with increased occupational levels. As more women enter management level jobs, one might assume that they will be at greater risk for cardiovascular diseases. Part of this risk may be related to Type A behavior patterns.

Sample characteristics included (a) age, $\bar{M} = 40$; (b) number of subordinates, $\bar{M} = 547$; (c) tenure in present position, $\bar{M} =$ nine years; and (d) educational level, B.S., 48%; M.S., 22%; and Doctorates, 3%.

Instrumentation included all researcher-developed tools including: (a) a stress measure, (b) a coping tool, (c) a single item to assess the subject's perception of herself as a stressor for subordinates, (d) a 10-item list of psychological symptoms, and (e) a Type A behavior measure adapted from Bortner and Rosenman (1967).

Stepwise multiple regression was used to analyze the relationship between the dependent variable (the Type A behavior score) and the independent variables. Ten factors accounted for 67% of the variance in predicting Type A behavior. Level of stress in comparison to female peers accounted for the largest proportion of the variance--18%. Anxiety, frustration, and irritation together accounted for another 18% of the variance.

Psychological symptoms were reported extensively (fatigue 68.2%, irritation 58.1%, anxiety 47.3%, tension in the neck or back 43.2%, dissatisfaction with life on job 36.5%, frustration 34.5%, anger 33.8%, sleeplessness 31.8%, depression 24.3%, and low self-esteem 24.3%). Fifty-nine percent of the sample was classified as Type A and 41% Type B. This represents a 9% increase in relation to general population rates of 50% for each category.

Study limitations include self-report, cross-sectional design, and no description of the validity and reliability of the instruments. An issue which might have confounded the findings is that Type A women might self-select themselves into stressful work environments (viz., managerial positions). Higher Type A behavior potentially leads to decreased supportive relationships with others at work. Female executives are already at risk and this adds an additional burden.

McEntee and Rankin (1983) studied the relationship among multiple role demands, mind-body distress, and illness-related absenteeism in a group of 103 business and professional women. The integration of multiple tasks from many roles is dependent on role complementarity (the similarity that exists between the tasks within a role and across roles). This provided the theoretical basis for the study. The researchers hypothesized that marital status affects the number of reported illnesses, illness-related absenteeism, and number of days in bed.

Sample characteristics were (a) age, $M = 37$, (b) educational level, high school graduate to graduate degrees, and (c) marital status, single, $n = 23$, married, $n = 60$, and separated/widowed/divorced, $n = 20$, and number of children, 0 to 4.

Measurement included a demographic data sheet, items addressing the utilization of health care providers, number

of days absent from work due to illness, and number of days in bed due to illness. A 26-item tool assessed the frequency of occurrence of mind-body distress. Major categories included gastrointestinal, sleep/rest, mood/affect, headache, musculoskeletal, reproductive, cardiorespiratory, skin, and urinary tract items. Data were analyzed according to marital status.

Twenty-seven percent of the entire sample reported gastrointestinal disturbances, difficulty with sleep/rest 14%, mood/affect alterations 13%, and headaches 12%. There were no differences among the three marital status groups related to any of the dependent variables. The hypothesis, a rather weak one chosen for this target population, was not supported by this study.

Limitations included the retrospective design, lack of validity and reliability data for the instruments, and the convenience sample. The bias created by obtaining the sample at a stress conference further negated the study's findings.

Lawler, Rixse, and Allen (1983) examined psychological stressors and Type A/B behavior patterns in relation to physiological responses in women. Type A behavior as a predictor of cardiovascular diseases has focused on male samples, with minimal attention to females. In addition, little is known about the differences between employed and unemployed women. The hypothesis was Type A behavior will

lead to cardiovascular diseases in response to daily stressors.

Twenty-one professional women (attorneys, physicians, and executives) and 20 unemployed women were sample subjects. Mean ages were 33.5 years and 40.1 years respectively. Educational level for the unemployed group ranged from some college work to Master's degrees.

Instrumentation included: (a) The Jenkins Activity Survey measuring Type A behavior, speed and impatience, job involvement, hard-driving, and competitiveness, (b) a Health Survey, and (c) physiological measures (heart rate, blood pressure, and skin conductance). Questionnaires were completed and several tasks (math problems and visual puzzles) were performed by the subjects under researcher control.

All of the employed women were Type A, and the unemployed women divided into Type A and Type B patterns. Analysis of variance was used to compare the three groups: employed Type A (EA), unemployed Type A (UA), and unemployed Type B (UB). EA and UA women's scores on speed, job involvement, and hard-driving were similar, and higher than UB women. No differences were determined for all three groups on the health survey and skin conductance. Heart rate was higher for the EA group both at rest and during the activities than for the UA and UB groups. Blood pressure

was higher for the EA women at rest only. During the tasks, blood pressure was higher for the UA group.

The small sample size limited the statistical power of this study. Also, with a larger sample size, Type B employed women would also be included. In cross-sectional designs causal inferences cannot be drawn, therefore the hypothesis was not confirmed. Subjects were exposed to Hawthorne and experimenter effects which threatened the external validity of the study.

Executive Stress Among Women: Summary

This group of studies used all female subjects. Although professional and managerial women were pooled, the findings had the potential for generalizing to women executives. This potential was negated by numerous flaws including sample selection, small samples, and researcher-developed instruments which failed to address psychometric issues. Type A behavior patterns emerged as a relatively important variable. If Type A is definitively associated with an increased risk of cardiovascular diseases in the future, morbidity and mortality rates for women will increase as this group rises in the corporate world.

Occupational Stress Among Health

Care Administrators

In a national survey Numerof, Hendin, and Cramer (1984) explored occupational stressors, coping strategies, and demographic characteristics in relation to stress-related

symptomatology in health administrators. Stressors were identified as (a) stress in relation to time demands, (b) responsibility for persons, (c) high self-expectations, (d) dependence on others to accomplish goals, (e) balancing demands of work and home, and (f) internal and external politics.

Structured telephone interviews were conducted and content analyzed and the results converted into a questionnaire. Only the stressors will be reported. The most commonly mentioned stress producing situations were utilized in the instrument. Stress scores were calculated by summing the frequency of occurrence times the degree of stress. This total stress score was validated by correlation ($r = .437$; $p = \leq .0001$) with a global measure of stress (a single item in which respondents were asked to rate the amount of stress they generally experience on a scale of 1 to 5).

Other sections of the questionnaire included demographic and professional data and a stress symptom measure. The stress symptom measure was factor analyzed into Emotional, Internalized Minor Somatic, External Behavior, Interpersonal, and Depressive scales. High internal reliability (coefficient alpha = .87-.94) was reported.

The final questionnaire was mailed to health care administrators, directors of nursing (DONs), and medical

directors of urban hospitals in three regions of the United States. Data reported by the DONs will be extracted from this study.

Out of the entire sample of 143, DONs accounted for 44% ($n = 63$). Mean age was 45, 63% were married, education level varied from diploma graduate to master's preparation, mean tenure in position was seven years, and average number of hours worked in a day was 11.

Major stressors identified by the DONs included (a) decreasing resources to meet needs, (b) getting others to carry out their job responsibilities, and (c) time demands. Among the three groups, the DONs reported the highest total stress score. The medical directors reported the lowest score. The three highest stress symptom scores were Emotional, Interpersonal, and Internalized Minor Somatic scales. The total stress symptom score for the DONs was 86.87 (possible range from 1 to 168; sample ranged between 77.82 and 126.12). The medical director group reported the lowest and the Chief Executive Officer group reported the highest scores.

It is of interest to note that even though the DONs reported the highest stress scores, their stress symptom scores were at the lower end of the range. The use of appropriate coping strategies, demographic differences, years of experience, tenure in position, and supportive

relationships might have mediated the stress-strain relationship.

Study flaws included a poor response rate (25%), cross-sectional design, and self-report. Due to these factors, no causal relationship can be established. Based on the identified stressors, implications for intervention include formulating strategies for improved time management and team building techniques for DONs. Additional research to explore the coping strategies that appear to be effective in this group is also needed.

Mullen's (1985) survey asked nursing home administrators first to identify and then to rank stressors according to the degree of negative emotion elicited by the description of the stressor. The study was based on the assumption that negative emotion leads to stress-related negative behavior and illness. This project did not attempt to measure stress directly. Methodology included the Nominal Group and Delphi techniques which generated the initial and subsequent list of stressors.

Study findings reported the most stressful issue involved boundary-spanning with outside people and agencies. The second major stressor was employee relations. The highest stressors in general were those that are outside of the executive's control (e.g., inconsistencies among inspectors' interpretation of rules and regulations, inspectors' negative attitude and affect, and the attitudes

and conduct of legislators). Other important stressors included poor image issues, client/family relations (viz., unrealistic expectations of family members), and acquisition and retention of qualified employees.

Study limitations included failure to report data regarding sample characteristics, small sample size, and collection of data in one urban, geographic area. Changing American demographics, namely increasing numbers of elders, will potentially create new institutions to aid in their care. Administrators, in charge of these facilities, who perceive numerous stressors will potentially impact client care in a negative manner.

Although the identified stressors were not linked to outcomes, Mullen's (1985) study helped to validate my assumption that many of the stressors impacting administrators in health care today are beyond personal control. They involve boundary spanning between the internal and external environments. Due to the turbulence in the external milieu, strategies aimed at coping with such stressors are difficult to plan.

Occupational Stress Among Health

Care Administrators: Summary

Changing structure, power, and values in health care delivery systems is creating intense stressors for the top administrators responsible for managing these organizations. What is not clear from existing research is whether

stressors increase or decrease as a function of hierarchical position. Due to differences found among people in different work roles, interventions aimed at stress reduction must be targeted at specific groups within the institutional hierarchy. Effective coping strategies specifically targeted at the identified stressors need further exploration. Methods which potentially aid executives in dealing with work issues that seem beyond control need formulation.

Work Stress Among Nurse Executives

In a study designed to determine whether DONs exist within a diversified role set and if so to explore its relationships to role strain, Arndt and Laeger (1970a) administered questionnaires during personal interviews with 46 females and one male acute care hospital nursing director. The authors' contention was that the DON is at greater risk for severe stressors leading to work strain based on the theoretical notion of divergent roles. Existence within the health care environment leads to emotional tension and role strain. They operationally defined role strain as interaction with a myriad of people in different positions, role expansion, and role ambiguity. It is suggested that role strain may be caused by conflicting role relationships. Two hypotheses guided the study. The DON role set is diversified, and role strain is related to organizational size, tenure in position, age, and

educational level. In addition, they explored the relationship between role set diversification and role strain.

The sample was randomly selected from small (under 250 beds) and large (over 251 beds) hospitals to maximize differences due to organizational size and structure. Instrumentation included (a) an investigator-designed measure to determine the percentage of time the DON interacts with members of the work role set (viz., superiors, subordinates, other department members, and individuals external to the organization), (b) a list of role senders within each role set formulated by the subjects, (c) the Job Related Tension Index developed at the University of Michigan's Survey Research Center and designed to measure tension from common work-related problems. The reliability coefficient was reported to be 0.85 for this 18-item instrument; and (d) a demographic information sheet.

The analyses demonstrated that the DON exists within a highly diversified role set due to daily frequency of interaction with four classes of role senders. A great deal of the time was spent with members of the nursing department, but the largest number of individual role senders were outside of the department. In addition, the number of role senders increases with organizational size. Mean tension scores were 2.16 for small hospital DONs and 2.30 for DONs from large institutions (range 1 to 5).

Differences between the two groups were not statistically significant. Demographic variables (i.e., age, educational level, and tenure) in relation to job tension scores failed to reach statistical significance. The study design did not permit establishing a causal relationship between role set diversity and role strain.

Part II of the Arndt and Laeger (1970b) study was based on the same data described in Part I but the analysis was extended. The hypothesis for this component was that DON strain within the hospital's internal environment is influenced by (a) a diversified role set often antagonistic yet assumed to be congenial, (b) role set pressures, (c) strain from these pressures, and (d) personal perceptions of the role. Major findings included the identification of common stressors determined by the Job Related Tension instrument. Intra- and inter-role conflict, role overload, person-role conflicts (i.e., conflict between role demands and personal needs and values), and role ambiguity were major sources of stress for the sample. Over 60% of the respondents reported that work role strain interfered with family life.

Study limitations included (a) lack of validity and reliability data on the investigator-developed instruments, (b) small sample size, (c) one occupational group, (d) arbitrary sample divisions based on organizational size, and (e) arbitrary role classification groups (e.g., significant

others included physicians and patients). The importance of this study for nursing rests on the confirmation that the DON exists within a highly diversified role, one which can potentially create negative consequences for the focal person. Although this study is almost 20 years old, findings are relevant today.

Kovner and Oliver (1977) determined the factors which led to job satisfaction and dissatisfaction in a group of 26 DONs. The sample was obtained from acute care settings. Ninety-two percent of the respondents were female. Herzberg's motivation-hygiene theory served as the framework for the project.

Important theoretical considerations which served to stimulate the study included (a) the notion that DONs are involved in the management, planning, and coordination of client care and their performance directly and indirectly influences the quality of care and (b) the changing nature of the DON work role in which administrative tasks are increasing at the same time as client care responsibilities are reduced. The hypothesis was that work changes will lead to new kinds of satisfaction and dissatisfaction.

This qualitative study involved structured interviews in which half of the sample was asked to describe a situation at work in which they felt exceptionally good and half were asked to describe a work situation in which they felt exceptionally bad. Hygiene factors, which are thought

to lead to job dissatisfaction, included interpersonal relations, 57%; supervision-technical (operationally defined as either the competence or fairness of the DONs' superiors, or the DONs' willingness to delegate responsibility), 50%; hospital policy, 43%; and job security, 21%. Motivators, those factors thought to lead to job satisfaction, were mentioned in both the positive and negative stories, therefore Herzberg's theory was not supported by these findings. Major stressors identified in this study included lack of achievement, lack of recognition, the work itself, hospital policies, philosophy/value conflicts, role conflict, and interpersonal relations.

Limitations included a small sample with its selection processes not delineated, demographic variables such as age and marital status not described, and the restriction imposed on the respondents limiting the description of a work situation to one, either positive or negative. Richer data might have been gathered if subjects enumerated several stories. Achievement was mentioned in all satisfying experiences described. Performance of the DON based on level of achievement related to personal goals and objectives seems an appropriate method of evaluation for this group based on study results.

In a descriptive study, Johnson (1986) explored the relationship between work values and level of role strain. Work values were defined as the meaning individuals attach

to their work role. Role strain was operationalized as the subjective state of distress experienced by the role occupant when exposed to role stress. Role stress was defined as societal/structural conditions in which role obligations may be difficult, conflicting, or impossible to meet. Propositions included (a) the interaction of roles with conflicting values and beliefs can create role stress and strain, and (b) role stress adversely affects the efficiency, productivity, quality, and effectiveness of role performance.

Questionnaires were mailed to 113 top nursing administrators in various acute care institutions. Model age of the sample ranged between 41-45 years and tenure in executive positions from two to five years. Instruments included a biographical data sheet, the Survey of Work Values instrument, and components from the Job Demands and Worker Health instrument (Caplan, Cobb, French, Harrison, & Pinneau, 1975). The psychometric properties of the instruments were not reported.

Descriptive statistics were used to delineate demographic characteristics, and rank work values and levels of role strain of the sample. The mean scores for the six subcategories of work values ranged from 20 to 41 (possible range 9 to 45). Mean scores for the seven role strain categories ranged from 1.82 to 4.30 (1 to 5 possible). The subjects rated two of the role strain subcategories,

quantitative workload and responsibility for persons, as intense sources of stress (4.30 for each, out of the possible 5).

Limitations included failure to adequately describe all variables and demographic characteristics (e.g., educational level and marital status). The study identified two major sources of stress for this nurse executive sample. To aid in the mediation of the stressors, the findings can be used to modify the work situation in order to reduce work-related strain. In addition, the knowledge of personal values can help the administrator select a compatible work environment.

Scalzi (1988) surveyed 75 top level nurse executives from acute care hospitals in an urban area to determine the prevalence of role conflict and ambiguity, and to assess depressive symptoms. Indepth taped interviews were held with a subset of 30 randomly selected nurse executive respondents to the original survey. The interviews explored perceived work stressors and coping strategies among the sample.

Respondent demographic characteristics were summarized in a "composite." The executive was typically a married, Caucasian female, 40 to 49 years of age. Formal educational degree was beyond basic nursing training. Tenure in the present position exceeded three years, but few had previous experience as a nursing director.

The impetus for the study focused on the awareness that contemporary nurse executives make management decisions within a highly complex and stressful environment. A better understanding of role stress at the executive level might benefit occupants of this role by increasing their awareness of stress components and to help develop strategies which might be useful in coping with the identified stressors.

Instruments included a questionnaire to measure role conflict and role ambiguity (Rizzo, House, & Lirtzman, 1970) and The Center for Epidemiologic Studies-Depression (CES-D) scale to assess depression (Radloff, 1977). Psychometric data were not reported. Interview data were content analyzed.

The major work stressors identified by this sample included: (a) overload, conflicting or too many expectations, and a large span of control; (b) quality of care concerns, competence of nurses and physicians, and quality of overall patient care; (c) role conflict; and (d) role ambiguity.

The top ten coping strategies delineated by the nurse executives included:

1. Spending time on interests unrelated to work (90%).
2. Use of a personal support network (87%).
3. Broadening scope of professional concerns (63%).
4. Identification of problem-solving resources (i.e., uses consultants) (53%).

5. Somatization (33%).
6. Distancing (33%).
7. Feeling security within the corporation (30%).
8. Considering resigning (30%).
9. Psychologically dropping out (27%).
10. Dysfunctional competition (17%).

Although valuable information was gained by these findings, several limitations were present. Somatization was included as a coping strategy, rather than a stress response. Levels of depressive symptoms were not reported. The interview format was not discussed, nor the strategies employed for its analysis. Except for percentages of the coping strategies, statistical analyses, if conducted, were not reported.

Utilizing both quantitative and qualitative components in the research design added to the project's significance. Different data were obtained from each component. The study's findings might have been less comprehensive if only one strategy was employed.

Nurse Executives Work Stress

Research: Summary

The Arndt and Laeger (1970a & b) studies, although dated, help to point out the complexity of the relationship between membership within an internal environment and the external environment. This boundary spanning role is even more complex in our contemporary health care milieu. In

addition, common stressors mentioned across this compilation of investigations focused on role overload and ambiguity. These stressors potentially strain the nurse executive, ultimately negatively impacting on physical and psychological well-being. The process by which this occurs is yet to be determined.

Knowledge gained from the empirical work in the executive occupational stress arena is quite limited. Study variables differ, operational definitions of the variables are diverse, and theoretical underpinnings diverge.

A major reason there is not more empirically based knowledge about the stress process is that the range of issues usually encompassed by single investigations is too truncated to observe the extended web of relationships that give shape and substance to process. (Pearlin, Lieberman, Menaghan, & Mullan, 1981, p. 337).

Summary of Empirical Evidence

Although operationally defined differently across studies, occupational stress was the independent variable of interest, and accounted for the largest proportion of explained variance. In general, males were studied most frequently. Design strategies were predominantly cross-sectioned and either adapted versions of valid and reliable instruments, or researcher-developed tools were utilized. The variety of dependent variables (e.g., physical and/or

psychological symptoms, job satisfaction, Type A behavior, and role strain) and their operational definitions, make comparison across all studies even more difficult.

What is known from examining this body of literature includes: (a) women reported higher amounts of work and nonwork stress than men; (b) women reported more psychological symptoms than men; (c) men reported more physical symptoms, including hypertension, and had higher Type A behavior scores than women; (d) Type A behavior emerged as a personality trait for women; (e) differences in roles created unique stressors; and (f) boundary spanning (i.e., managing the relationship between the internal and the external environment), and role conflict and ambiguity were major occupational stressors.

Many gaps exist in this knowledge base. Consensus has not been reached regarding the critical variables to be studied. In addition, the chosen variables lack operational definition. Several hierarchical levels have been examined, yet few studies have compared across levels. Poor instrumentation undermined most projects. Due to the methodological strategies (viz., cross-sectional) causal inferences cannot as yet be drawn. In general, findings across studies are at best quite fragmented.

Study Constructs

Resistance Resources

The nature of a stressor is not its objective characteristics, but more importantly the subjective perception of its meaning. An individual's social environment is a source of stress and yet concurrently provides the context from which one draws upon for various resources (Lazarus & Folkman, 1984). Social relationships can provide support but the process by which this works remains unclear. Antonovsky (1974) proposed the term "resistance resources" as a set of moderating variables between stressful life events and health. These psychological, social, and cultural resources are at the disposal of the individual to resolve tension, thereby promoting homeostasis. An environmental resistance resource social support and two personal resistance resources coping and optimism have been chosen as study constructs.

Social Support

Contemporary Issues. House (1981) categorized social support into emotional, appraisal, informational, and instrumental support. He identified nine sources of support from spouse/significant other to health/welfare professional. Types of social support can be general versus problem-centered, or objective versus subjective. This author pointed out that social support is a rubric, a construct generally understood by most, but when

specification is attempted, conflicting conceptualizations emerge.

Most theoreticians and researchers state this problem in their opening remarks. Another concern is the measurement issue. This rests on the first concern. Norbeck (1981) emphasizes the need for consensus on the conceptual definition and measurement of social support. Each instrument developed must adequately measure the domain. If the domain is vague, how can the instrument items validly measure the construct? The result of this confusion is the development of many instruments each assessing different subdomains or components of the construct. The myriad of unique instruments makes comparison across studies almost impossible.

Tardy (1985) identified several major conceptual issues in order to help organize the different approaches taken by social support researchers. The predominant aspects addressed include:

1. Direction of social support (i.e., received or provided).
2. Disposition of support (i.e., availability versus actual utilization).
3. Description and evaluation of social support (i.e., how one describes social support or the nature of one's satisfaction with their support).

4. Content (i.e., components of the construct such as emotional, instrumental, informational, and/or appraisal).

5. Network properties.

Tardy (1985) states that "these five issues encompass the primary elements of social support . . . and additionally, must be viewed as interdependent" (p. 190). Measurement instruments are designed to assess one or more of the components. The aspects delineated above do help to clarify the subdomains of the social support construct. The intent of specifying the components is to aid the researcher in explicating the research questions and associated assumptions. In turn, this helps one choose the most appropriate instrument for measuring the elements of interest. No available instrument attempts to assess the entire construct. Considering the lack of consensus regarding the operational definition of social support, instrumentation must be specific to the aspect(s) under consideration.

Rook and Dooley (1985) enumerated several assumptions regarding the stress-coping-symptom model in relation to social support. These assumptions, although implicit, are carefully delineated to help raise the consciousness of social support researchers and those who potentially plan interventions. The assumptions are as follows:

1. "Social support is independent of other variables in the pathology process.

2. Social support substantially reduces physical and psychological symptoms (although a review of 18 studies found social support accounting for between 2% and 17% of the variance).

3. Evidence that naturally occurring social support is effective constitutes evidence that artificially induced support will be effective.

4. Social support refers only to helpful social transactions that make people feel better.

5. Actions by others that are intended to be supportive are beneficial.

6. It is more cost effective to modify social support than other variables in the pathology process.

7. The provision of social support has little effect on the helper" (pp. 7-12).

These assumptions are important to consider, and as Rook and Dooley (1985) point out, several merit additional consideration and must be challenged. Social support is not independent of other variables in the stress-illness relationship. Other environmental and personal resources warrant attention. Judging by the percent of explained variance regarding social support, one cannot assume that this resource significantly reduces pathology. The issue of perception by the receiver of social support is paramount. This refutes the assumptions that social transactions make one feel better and are always beneficial. It is imperative

to examine the foregoing assumptions underlying any social support model, for they will potentially influence effective intervention strategies by drawing attention to rival hypotheses.

Another contemporary topic is the controversy related to social support as a main or buffering agent in the stress-illness relationship. Thoits (1982) raises this point as she addresses some major confounding issues in present research designs. She asserts that evidence in support of the buffering hypothesis is weak at best. Important considerations include (a) the initial inadequate conceptualization of the social support construct, (b) studies have confounded life events direct effect on social support with the interactive effects of life events with support, and (c) in focusing on potential buffering effects, researchers have neglected possible main effects of social support.

Relevant Research. A strategy for moderating occupational stress that has been identified for empirical examination is the utilization of social support. It is thought to have two potential effects: (a) a main effect on health outcomes and (b) a buffering effect--one that moderates the stress-health relationship. Social support advocates suggest that main and buffering effects can be demonstrated on the stress-health relationship in certain situations for specific populations.

Most of the existing studies on occupational stress and social support focus on certain occupations, and the subjects are typically men (Kasl & Wells, 1985). Evidence on work stress, social support, and women is so sparse that adequate review is very difficult. The present review focuses on managers, administrators, and executives in relation to work stress and social support.

Differences in psychological stressors in the work environment and the impact of stressors on psychological and physiological strain and illness were studied in 23 occupations (Caplan, Cobb, French, Harrison, and Pinneau, 1975). The sample was entirely male and included a subsample of management occupations ($n = 253$) such as general foreman, manager, superintendent, vice president, division president, and executive. These titles were not operationally defined. A questionnaire was administered to the entire sample of over 2000 subjects containing items to assess the objective environment, the subjective environment, individual traits, person-environment fit, social support (tangible and emotional components), responses (psychological, physiological, and behavioral), and health-illness states. A subset of 390 respondents (62 managers) was used to collect physiological data.

A subscale of the instrument measuring the subjective environment assessed social support. This is a 12-item measure to determine social support from supervisor, social

support from others at work, and social support from wife, friends, and relatives. Internal consistency ranged from .73 to .83 for the items. No numerical data is provided regarding the validity of the subscale. The questions for "others at work" and "wife, friends, and relatives" are too global for detailed analysis. The authors report that social support is an important variable in relation to psychological well-being (i.e., offers some support for main and buffering effects). Low support from supervisor and from others at work is associated with job dissatisfaction and depression. The authors maintain that social support findings can be used as a basis for primary prevention programs focused on work strain as job stressors are not easily attenuated.

LaRocco, House, and French (1980) reanalyzed the data from the Caplan et al. (1975) study to determine whether and when social support buffers the impact of occupational stress on job-related strain and health. In their literature review, they found substantial evidence for a main effect (i.e., social support does decrease job stress and job-related strain, and improve health). However, regarding the buffering issue, results were inconsistent. They hypothesized that previous findings were dissimilar due to differences in subject populations, underlying assumptions for relationship selection are divergent, and

the fact that support might buffer certain stress-health relationships but not others.

Study findings demonstrated that social support appears to buffer the effects of job stress and job strain on overall mental health, but does not clearly buffer the impact of job stress on job-related strain. In addition, co-worker support was more effective in buffering as compared to supervisor and home support. The buffering hypothesis indicates that social support has a greater beneficial effect on mental health when stress and strain levels are high. In summary, indicators of job-related stress and strain were primarily affected by job-related sources of support, and the effects are largely main, rather than buffering. General health outcomes are affected by a broader range of support sources with effects more likely to be buffering.

Cooper and Melhuish (1980) examined the relationship between sources of stress and subsequent manifestations of ill-health. Thirty-one percent ($n = 61$) of the all-male sample ($N = 196$) were classified as senior level managers. It was hypothesized that the complexity of organizational life is a major source of stress which creates subsequent physical and psychological impairment for managers. This negatively impacts family life and has major costs for the organization. These authors proposed that the combination of job and personality factors should be studied in relation

to the stress-illness connection. For a detailed description of the study, please review pages 22-24.

The Job Pressures and Satisfaction Questionnaire (Marshall & Cooper, 1979) utilized to determine work environment characteristics (stressors and sources of satisfaction) was factor analyzed. Although social support was not assessed by a specific instrument, the factor analysis of the work stressors produced significant results regarding social support. The largest factor consisting of 44 out of the 89 possible items was social support from work and home. This factor accounted for 32% of the variance. Factor 2, including 23 items, spouse-work interface, accounted for 7.5% of the variance. Relationships with subordinates and colleagues, Factor 3 (8 items), accounted for 4.4% of the variance. Factor 4 (9 items), relationship with boss and company, accounted for 3.6% of the variance.

Stepwise multiple regression was used to determine the relationship between the independent variables (work stressors and personality variables) and the dependent measures (hypertension, mental ill-health, and poor physical fitness). Poor relationships with subordinates and colleagues accounted for 3.6% of the R^2 change and little social support from home and work accounted for 5.9% of the R^2 changes in either poor mental health or poor physical fitness.

The data suggested that the personality style, Type A behavior, and value conflict between the managers and their organizations were associated with the two physical health criteria, hypertension and poor physical fitness. Social support was significant only in relation to one physical health criterion, hypertension. The study sample was exclusively male. This limitation constrains the finding's generalizability. Implications for interventions for this group include Type A behavior modification, values clarification, and the enhancement of social support.

The evidence of buffering effects on the impact of work stressors on manifestations of strain is equivocal. The presence of buffering may rely on the stressors, strains, sources of support, and the population of interest. In addition, methodological limitations might undermine potential insight. Ganster, Fusilier, and Mayes (1986) examined the (a) main effects of social support on strain, (b) the buffering effect of social support in relation to work stressors, and (c) three-way interactions including social support, stressors, and demographic and work variables.

The sample consisted of 326 subjects. Eighty-four percent were male ($n = 274$) and 16% female ($n = 52$). Sixty percent included various blue collar occupations ($n = 196$), and most of the remainder were professionals and managers ($n = 130$). Several job stressors were measured. Role conflict

and ambiguity were measured with the Rizzo, House, and Lirtzman (1970) scales. Quantitative work underload, lack of variability, skill underutilization, and responsibility for others were assessed by the Caplan et al. (1975) survey subscales.

Social support was assessed by three subscales utilized by Caplan et al. (1975) including support from supervisor, co-workers, and family/friends. The outcome variables included: (a) depression measured by the Caplan et al. (1975) subscale, (b) job dissatisfaction assessed by the sexless form of the "faces" scale (Kunin, 1955), (c) general life dissatisfaction with Quinn and Shepard's (1974) scale, and (d) somatic symptoms with a list of 17 common complaints. Coefficient alpha of the last measure was reported for this sample at .87 ($p < .05$).

The task and role stressor and social support scales were administered in one questionnaire, and the outcome measure scales were given several days later. It was the researchers' assumption that this temporal separation would yield more accurate correlations between stressors and strain due to reduced common method variance, response consistency effects, and fatigue from lengthy questionnaire administrations.

Both the stressor and strain variables were intercorrelated. Canonical analysis was performed to determine the combined main effects of the stressors on the

outcome variables. A total of 13% of the variance of the dependent variables was explained by the stressors. The main effects of social support on strain accounted for 6% of the variance, with support from supervisor as the dominant factor, followed by co-worker support. Four regressions were conducted to assess the buffering effects of social support. Each regression used all the stressors and social support scores and one strain outcome. No significant interactions were found between the stressors and social support. The buffering hypothesis was not supported in this study.

Subsample analyses were conducted on blue and white collar groups, group differences based on education, and gender. Although some coefficients were significant in one group and not the other, they were not significantly different from each other as determined by 95% confidence intervals. Hierarchical regressions were performed to validate these results.

Abdel-Halim (1982) examined the buffering effects of supervisor and work group support on the relationship between role conflict and ambiguity and job satisfaction, job involvement, and job anxiety. It was hypothesized that managers working in a nonsupportive climate (i.e., lack of supervisor and colleague support) would have lower job satisfaction, less job involvement, and higher work anxiety

in relation to role conflict and ambiguity than those who worked in a supportive climate.

Data were collected from 89 Caucasian, male middle managers. Their mean age was 45 and 52% had at least a baccalaureate degree. Role conflict and role ambiguity were assessed by Rizzo's et al. (1970) instrument. The outcome variables were measured by the following tools: (a) job satisfaction by a four-item index of Hackman and Oldham's (1975) Job Diagnostic Survey; internal consistency, $r = .78$, (b) job involvement by a short version of Lodahl and Kejner's (1965) job involvement scale; internal consistency, $r = .57$, and (c) job anxiety by Spielberger's et al. (1970) State-Trait Anxiety Inventory; internal consistency $r = .90$. Reliabilities were obtained by applying the Spearman-Brown formula to the mean inter-item correlations for each scale.

Work-group support was assessed by an eight-item subscale of the Psychological Climate Inventory (Gavin, 1975). Emotional and tangible support were tapped by this index and internal consistency was reported to be .82. Leader support was measured by the 10-item consideration scale included in the Leader Behavior Description Questionnaire (Stogdill, 1963).

The negative effects of work stressors and positive effects of social support on manager's affective responses were validated by the correlations among the variables. Multiple regression analyses demonstrated the following

significant results: (a) role conflict and ambiguity accounted for 32% of the variance for job satisfaction; the addition of work-group support accounted for an additional 10%; leader consideration added 3% of the explained variance; the interaction effect of role conflict x work supported contributed 5% to the variance; and the interaction effect of role ambiguity x work support explained 2% of the variance, (b) role conflict and ambiguity accounted for 14% of the explained variance for job involvement; the addition of work-group support and leader consideration added nothing to the explained variance; the interaction of role conflict x work-group support added 4%; the interaction of role ambiguity x work-group support added 2%; and the interaction of role ambiguity x leader consideration added 6% to the explained variance, and (c) role conflict and ambiguity explained 12% of the variance for job anxiety; the addition of work-group support added 8% to the explained variance; the interaction of role conflict x work-group support explained an additional 6% of the variance; and the interaction of role conflict x leader consideration explained 5% of the variance.

Study limitations included (a) a cross-sectional design, (b) the utilization of only self-report measures, (c) a homogeneous sample from one organization, (d) limiting social support measurement by including only work-related

persons, and (e) failure to examine the potential joint effects of personality and social support variables. However, this study is central to this review because the sample was entirely composed of managers, and it provided evidence that social support has significant main and buffering effects.

Work-group and leader support tended to buffer job dissatisfaction and lack of job involvement associated with the work stressors, but did not significantly moderate the relationship between role conflict and job anxiety. In addition, a main effect was noted for work-group support. This study helped to demonstrate how interpersonal relationships at work are unique for managers.

Summary. In all of the studies reviewed, social support accounted for rather small percentages of the explained variance. The important issue, however, is that social support did impact the subjects' perception. For example, low social support from supervisors and others at work decreased job satisfaction and increased depression in the Caplan et al. (1975) study. Social support reduced job stress and improved health in several studies. Co-worker support was more effective than support from supervisor or from home in LaRocco's et al. (1980) findings regarding mental health. Most of the studies found that either support from supervisor or from co-workers affected the health status of the subjects. This is a difficult issue

when considering the constraints imposed by the holder of an executive position. Exactly where do nurse executives find the support needed or desired?

Despite numerous studies on the impact of social support on health, the processes by which this relationship operates remain unclear (Heller, 1986). Social support is a rubric of component processes. As the components are identified in conjunction with their concurrent functions, appropriate intervention strategies can be planned and implemented. An integrant feature of explicating social support processes is sorting the positive and negative features. Not all aspects of social support are helpful. In fact, several studies have demonstrated that key support providers can be sources of interpersonal stress (Coyne & DeLongis, 1986; Vaugh & Leff, 1976).

Aside from the psychiatric literature, the negative side of social relationships is often neglected. The distressed individual may make deliberate efforts to retreat from and avoid social involvements. Rather than perceiving support as nurturant, potential sources of support may be demanding and draining. Failure to utilize support is an effective coping strategy in certain situations. Moderate levels of involvement might provide the most pragmatic solution regarding both the quantity and quality of support.

Lieberman (1986) critiques the status of current social support research. The utilization of cross-sectional

designs, which assesses variables at one point in time, is inappropriate for studying the changing nature of relationships. One must study the meaning of social transactions (i.e., the functional perspectives rather than structural components). The character of the relationship between the supporter and the distressed individual is the essence of understanding. The type of support is less important than specification of the problem matched with the appropriate supporter.

The comprehensiveness of the social support construct impedes the pursuit of the exact mechanisms of its action (Monroe & Steiner, 1986). Without specification, social support remains too broad to be meaningful. The facilitation of research is arduous and subsequent interventions potentially inane. These authors discussed the confounding of social support with preexisting psychological disorders, life stressors, and personality characteristics. The relationship between support and disorder might result from any of the following issues: (a) measurement redundancy, (b) methodological limitations, and (c) lack of conceptual distinctions. Further research must be specifically designed to eliminate the inherent confounding among the variables.

Norbeck (1988) emphasizes that "social support is a field of inquiry very central to the goals of nursing" (p. 104). She contends that nurse scientists must attend to

important measurement and design issues, and that the research focus should move away from descriptive studies, and begin to use those findings to plan important interventions. The identification of specific types and sources of support will help to determine the key features of social support necessary for buffering the negative effects of stressors.

Although numerous difficulties exist in relation to both theory development and research issues regarding social support, the quest for knowledge continues. Stressors embedded in the context of work are evident. Although these stressors will be unique depending on the level within an organization, all people who work are impacted to a greater or lesser degree.

Research to date focused on occupational stress, social support, and nurse executives is completely absent from the literature. Social support in relation to managerial work stress in general has received some attention. However, social support as a unitary construct remains well hidden in the analysis of the study findings involving executives.

Understanding how social support might interface with commonly perceived executive stressors or influence the stress-health relationship will help in the planning of intervention strategies. As these strategies enhance the effectiveness of the nurse executive, this in turn will

affect the entire nursing organization, specifically professional nursing practice.

Optimism

The Concept in General. The way in which individuals view their world differs greatly. Some people expect negative events to occur (the pessimists), while others are inclined to anticipate positive outcomes (the optimists). This personality trait tends to be relatively stable, both across time and context, according to Scheier and Carver (1985). The level of optimism may affect an individual's behavior (i.e., "the manner in which people regulate their actions" p. 220). These authors propose that the optimistic trait may have several consequences including a relationship to health.

The theoretical foundation underlying these propositions rests on a model of behavioral self-regulation. Goal-directed behavior engages more fully when one focuses attention inward. Self-focus serves to alter behavior in order to reduce perceived discrepancies between current behavior and the goal. The discrepancy stimulates an interruption of usual behavior and initiates an assessment process, yielding an outcome expectancy. The goal is to reduce the discrepancy. Effort is renewed if expectancies are perceived as beneficial, or reduced when expectancies are unfavorable.

An individual's positive or negative outcome expectancies are excellent predictors of behavior (i.e., the way in which people regulate their actions). Two mechanisms of action underlying just how the optimistic trait mediates outcomes are proposed by Scheier and Carver (1985): (a) a favorable outcome expectancy provokes greater persistence towards goal attainment leading to more effective planning, or (b) taking steps sooner to deal with presenting problems (i.e., stressors).

In their later work, Scheier and Carver (1987) theorize about the potential mechanism of actions regarding why optimists seem to have higher levels of physical well-being. The way in which people select and use general coping strategies (i.e., problem versus emotion-focused) provides one explanation. More explicitly, optimists use more problem-focused approaches, positive striving, and make the best of whatever situation is confronted. Secondly, they have found that optimists utilize different health habits (e.g., they tend to follow a medical regimen more carefully, they alter behaviors perceived as negatively affecting health, and believe that they will benefit from the changes).

Research Evidence. Several studies have provided evidence that differences in expectancy produce unique responses to self-focus. One project demonstrated that individuals with enduring expectancies of being able to cope

with a powerful fear related with self-focused attention to predict behavior (Carver, Blaney, & Scheier, 1979a). In another study, Carver, Blaney, & Scheier (1979b) expectancies were manipulated in order to overcome previous poor performance on a cognitive task. Interacting these expectancies with self-focus influenced persistence; among the optimistic subjects, self-focus enhanced persistence.

Scheier and Carver (1985) studied a group of college undergraduates ($N = 141$) to measure their self-reported physical symptoms during a stressful period in their lives (i.e., the 4-week period preceding final exams). They hypothesized that the optimistic subjects would cope more effectively with the stressor and, therefore, experience and report fewer symptoms. Their measure of optimism, the Life Orientation Test (LOT), administered 4 weeks before and the day before final exams correlated significantly with the physical symptom checklist (Cohen & Hoberman, 1983) both at Time 1, $r = -.22$, $p < .01$, and at Time 2, $r = -.31$, $p < .001$. To assess whether or not optimism was related to symptom reporting prospectively, LOT at Time 1 was correlated with symptoms at Time 2. This relationship was significant, $r = -.27$, $p < .001$. In addition, they calculated a partial correlation by computing optimism at Time 1 with symptoms at Time 2, by partialing out symptom reporting at Time 1. This was also significant, $r = -.18$, $p < .05$, but of low magnitude. The findings concluded that

optimism was a significant prospective predictor of self-report physical symptoms.

To explore the relationship between optimists and the strategies they use to cope with stress Scheier, Weintraub, and Carver (1986) assessed 291 undergraduates with the LOT and modified version of the Ways of Coping checklist (Folkman & Lazarus, 1980). Optimism correlated positively with problem-focused coping ($r = .17, p < .01$), positive reinterpretation ($r = .23, p < .001$), and acceptance/resignation ($r = .13, p < .05$). Optimism was associated with seeking social support, but only for men ($r = .15, p < .05$). It was inversely related to the use of denial/distancing ($r = -.12, p < .05$). In general, with situations perceived as controllable, optimism was positively associated with problem-focused coping.

Their next study incorporated qualitative and quantitative components (i.e., instead of using the Ways of Coping checklist, the students were required to write in a free-format manner what they would do when faced with five stressful vignettes; the responses were coded and quantified). Optimism positively correlated with problem-focused coping ($r = .14, p < .05$), the suppression of competing activities ($r = .21, p < .01$), and with seeking social support ($r = .20, p < .01$). Optimism was inversely correlated with focusing on/expressing feelings ($r = -.21, p < .01$), and with disengagement ($r = -.30, p < .01$).

The findings from both studies were similar despite methodological differences. Optimists and pessimists differ in the coping strategies they utilize when faced with stressors. The research did not identify the mechanism by which optimists might achieve better outcomes. Addressing this issue would require a longitudinal design, as well as additional variables.

Humphries (1986) assessed optimism and depressive symptoms in a group of office workers facing major reorganization of their office procedures. Optimism and depressive symptoms were assessed prior to the change, and depression was reevaluated after the reorganization. Optimism was inversely correlated with depression at Time 1 and Time 2. The relationship remained stable even when initial levels of depression were statistically controlled.

In a study of optimism and postpartum depression Carver and Gaines (1987) hypothesized that optimism would provide resistance to depression. The findings demonstrated that optimism was associated with lower depression scores after delivery, after initial levels of depression were partialled out. These authors contend that optimism seems to function as a buffer against adverse effects occurring during stressful periods.

Tennen and Affleck (1987) in their critique of research studies on optimism point out several concerns. One assumption guiding current research is that "people ascribe

bad outcomes to sufficient causes" (p. 378). It is assumed that the outcome would not occur if the attributed factor was absent. They contend that negative events are typically caused by several factors; no single factor is sufficient to be causal.

They also emphasize that relationships among variables can be attributed to method variance, and suggest multimethod assessment. The third concern relates to situations in which control is limited. They note that internal variable-specific attributions may impair, instead of foster, positive health outcomes. There might be potential costs for individuals who hold the belief that they have control over important outcomes. "Even if one is an optimist, every silver lining has a cloud" (p. 382).

Research on optimism is in its infancy. There are few studies in general and only two which measure a psychological outcome variable (i.e., depression). Most use physical symptomatology as the dependent variable. The relationships reported between dispositional optimism and physical symptomatology are modest, but statistically significant. Further work is needed in refining the psychometric properties of the Life Orientation Test, including establishing norms for other populations. In addition, methodological strategies need refinement (e.g., prospective designs). Additional variables must be added to the models. In particular, examining psychological

symptomatology along with physical parameters would provide a more comprehensive view of health.

Coping

An Overview. Coping is a process (Lazarus & Folkman, 1984). It is the way in which each individual manages the demands of the person-environmental relationship. This relationship is first appraised by the individual as stressful. The cognitive appraisal process commences when an individual feels that personal resources are taxed or exceeded in some way. This appraisal process has two interdependent stages.

Primary appraisal, the first stage, allows the person to assess the event as irrelevant, benign positive, or stressful. If it is assessed as stressful, the individual determines if they are facing harm/loss, threat, or a challenge. After the initial appraisal is formulated, one uses secondary appraisal to determine what can be done to manage the stressor. During this time an outcome expectancy is conceived (i.e., the person's evaluation that a certain behavior will lead to a desired outcome). In addition, one forms an efficacy expectation--an individual's conviction that one can successfully execute the behavior necessary to produce the desired outcome.

The nature of appraisal is cyclic. Reappraisal can occur during both primary and secondary appraisal. The importance of reappraisal is that it can provide new

information which changes the original appraisals of the stressor. This allows the individual to utilize new coping strategies matched to new perceptions of the stressor.

Although the coping construct lacks clarity, Lazarus and Folkman (1984) defined it comprehensively as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). It is a process-oriented concept and is a function of continuous appraisals and reappraisals of the interaction between person and environment. It is best understood within a specific context.

Lazarus and Folkman (1984) categorize coping into two groups. Emotion-focused strategies are directed at regulating one's emotional responses to a stressor (e.g., avoidance, distancing, and selective attention). Problem-focused strategies are directed at managing or altering the stressors which are creating distress (e.g., defining the problem, generating alternative solutions, and choosing and carrying out a solution).

They describe coping resources as available personal assets including energy, health, positive beliefs (e.g., hope), locus of control, efficacy, commitments, problem-solving skills, social skills, social support, and material resources. Coping constraints are categorized as (a) personal (e.g., cultural values and beliefs that serve to

direct action or feeling, and psychological deficits--guilt, lack of tolerance for ambiguity, and fear of failure or success), (b) environmental (e.g., competing demands for the same resources), and (c) level of threat (i.e., appraisals of which can vary from minimal to extreme).

In their most recent work, Folkman and Lazarus (1988) maintain that coping is a mediator of emotion. The conceptual schema includes the person-environment encounter stimulating primary and secondary appraisal which produces emotion. Problem and emotion-focused coping strategies are then employed. These strategies lead to reappraisal and again to emotion (p. 467).

Due to the complexity of the coping construct, measurement poses a problem (viz., there is a lack of consensus on how to measure it). Cohen (1987) addresses this concern by carefully delineating the general conceptual and measurement issues. In addition, she provides a comprehensive review of trait and episodic coping tools used in the assessment of individual coping strategies derived from self-report measures and interviews.

There is a range of coping strategies used by an individual at any given time in dealing with a stressor. In addition, one has a great deal of flexibility in choosing the same strategy or a set of strategies when confronting unique situations. Coping effectiveness is based on two functions. Emotion-regulation strategies utilized in the

regulation of distress and problem-solving strategies mobilized to directly manage the stressor (Cohen, 1987). It is the balance of both emotion and problem-focused strategies which potentially facilitate the best outcomes.

Pearlin and Schooler (1978) demonstrated that the personal coping efforts examined in their research were least effective in the occupational role area. The regression coefficient of stress on strain ($r = .47, p < .05$) was unaffected by individual coping responses in a sample of 2300 urban adults. They maintained that this was due to the impersonal organization of work and that the forces which affect individuals are beyond the types of personal coping strategies that they investigated (i.e., substitution of rewards, positive comparisons, optimistic actions, and selective ignoring). Coping efficacy relates to what people do and where they do it (i.e., the specific role area). "If psychological coping mechanisms are of limited effectiveness in occupational settings then it seems important that social resources are mobilized for the prevention and treatment of occupational stress" (Payne, 1980, p. 279).

Coping, Social Support, and Optimism. In a general theory of stress-buffering, Thoits (1986) integrated coping and support as coping assistance. Problem-focused coping and instrumental support are directed at managing or altering a stressful situation. Emotion-focused coping and

emotional support each endeavor to alter the emotional reaction to the stressor. Perception-focused coping and informational support are attempts to change the meaning of the stressor. The coping methods used by the stressed individual are the same strategies utilized by the supporters in their helping role.

Social support viewed as coping assistance by Thoits (1986) is

the active participation of significant others in an individual's stress-management efforts . . . social support might work like coping by assisting the person to change the situation, to change the meaning of the situation, to change one's emotional reaction to the situation, or change all three. (p. 417)

Optimism appears to mesh well with both coping and social support theories. Outcome expectancy assessment is similar to the secondary appraisal process in which people perceive that their personal repertoire of resources will help them cope with stressors. Elements of social support fall within the realm of these resources. In Scheier and Carver's (1987) study, optimism was positively correlated with the use of problem-focused coping and seeking social support assessed by the Ways of Coping tool (Lazarus & Folkman, 1984).

The Outcome Variable

Defining Health. The definition of health eludes consensus. The Social Policy Statement formulated by the American Nurses' Association (1980) proposed the following definition:

Health is a dynamic state of being in which the developmental and behavioral potential of an individual is realized to the fullest extent possible. Each human being possesses various strengths and limitations resulting from the interaction of environmental and hereditary factors. The relative dominance of the strengths and limitations determines an individual's place on the health continuum; it determines the person's biological and behavioral integrity, his wholeness. (p. 5)

The basic meaning of health as a concept lacks clarity (Keller, 1981), however, it is usually equated with wellness. Health dimensions include physical, psychological, social, environmental, and spiritual components. The World Health Organization (1948) defines health as a state of complete physical, mental, and social well-being, not just the absence of disease and disability. There are few individuals who can attain this level of health. It is more accurately described as relative placement on a continuum.

The complexity of the health construct creates measurement difficulties. A tool has yet to be developed which possesses adequate psychometric properties to tap this robust concept. Assessing all components of health was beyond the scope of this research project.

Psychological Well-Being. The underlying structure of psychological well-being was examined by Bryant and Veroff (1982). Eighteen categories were formulated from measuring psychological adjustment within six domains: (a) attitudes toward self, (b) marital adjustment, (c) parental adjustment, (d) job dissatisfaction, (e) psychophysical symptomatology, and (f) general feelings of well-being. The data were reduced by factor analytic strategies. Three final factors emerged from their study. Unhappiness, the first factor, included general and marital unhappiness, and low future morale. The second factor, strain, comprised psychological anxiety, physical ill-health, immobilization, feelings of nervous breakdown, and worrying. Personal inadequacy, the third factor, included cognitive appraisal of role functioning and of the self. These authors maintain that the three factors may be fundamental aspects of psychological well-being (p. 661).

Psychological well-being was chosen as the outcome measure for this study because little is known about the effects of stress on mental health among nurse executives. Psychological well-being was defined as a psychological

state perceived on a continuum from complete wellness to serious illness. It was assessed by a multidimensional tool of symptoms of psychological distress.

Research Questions

The intent of this inquiry was to identify specific factors affecting the practice of community nurse executives functioning in contemporary health care environments. Specifically, the objectives of this study were to determine the effects of occupational and nonwork stress on nurse executives' psychological well-being and to examine the effects of social support, coping strategies, and level of optimism on nurse executives' psychological health. The following research questions were explored and analyzed based on the qualitative data:

1. What are the contemporary occupational stressors of the nurse executives?
2. What coping strategies are the subjects utilizing for specific types of stressors?
3. What are the sources and types of social support described by these subjects?

The following research questions were explored and analyzed based on the quantitative data:

4. How does the level of psychological symptomatology of this sample compare with norms?

5. What are the relationships among demographic characteristics, the identified work and nonwork stressors (hassles), social support, optimism, and psychological symptoms?

6. What proportion of variance does stress (work and nonwork hassles), social support, and level of optimism account for in predicting psychological well-being?

CHAPTER THREE

METHODOLOGY

Research Design

Bargagliotti and Trygstad (1987) believe that the merits of the either/or debate regarding qualitative and quantitative methodology are no longer appropriate for research centered on work-related stress. They maintain that multiple problems exist in single research designs utilized for complex phenomena. Differences in study results might be attributed to disparate methodological strategies. Research questions addressed by combined quantitative/qualitative methodology potentially yield more robust data.

A descriptive, correlational design was utilized to examine the research questions. It encompassed both qualitative and quantitative components to explore relationships among occupational stress, nonwork stress, social support, coping strategies, level of optimism, and psychological well-being. A mailed survey was used to collect data from the entire pool of subjects. An interview, conducted at the subjects' work setting, was employed with a subset of respondents.

Description of the Research Setting

In order to have an adequate number of subjects from which data could be collected, and to ensure that organizational philosophy was relatively similar, Public Health Departments in the State of California were chosen as the research setting. These County Health Departments were located throughout every rural, suburban, and urban region in the state.

Sample

Human Subjects Assurance

The protection of human rights was assured. Written, informed consent was obtained from all subjects. Study results are reported for the aggregate. The study protocol was approved by the University of California, San Francisco, Committee on Human Research.

Criteria for Sample Selection

The target population consisted of all County Public Health Directors of Nursing (DONs) in California. There are 57 county (two counties have a joint director) and 3 city DONs in this state. Of these, ten counties contract with other counties for all services including their DONs. The remaining 50 counties provided a total population of 50 DONs. All 50 individuals in County Public Health DON positions in California were invited to participate. The

sample was comprised of those individuals who agreed to participate.

Nature and Size of the Sample

Of the 50 DONs who were invited to participate, 44 (88%) agreed to complete the questionnaires. Questionnaires were actually returned by 43 individuals which represented 97.7% of those who agreed to participate and 86% of all possible responses. All questionnaire analyses are based on 43 subjects. Of the 43 respondents, 11 (26.6%) refused to be interviewed, 5 (11.6%) had a conflict with scheduling, and 6 (14%) were in areas too remote to reach within the study's time frame. In total, 21 subjects (48.8%) were interviewed.

The average age of the 43 DONs was 48.49. Women comprised 98% of this sample, and most respondents were Caucasian (86%). Just under two-thirds of the sample were married, and over three-quarters were parents. Mean tenure in present position was 7.22 years. The number of staff supervised, ranged from 3 to 175. A comprehensive overview of the demographic characteristics is portrayed in Table 3.1.

Table 3.1

Demographic Characteristics of the Nurse ExecutiveParticipants (N = 43)

Characteristics	Mean	Standard Deviation	Range	Number	Percent
<u>Age</u>	48.49	8.34	26-66	41	
<u>Gender</u>					
Female				42	97.67
Male				1	2.33
<u>Ethnicity</u>					
Black				5	11.63
Caucasian				37	86.05
Hispanic				1	2.33
<u>Marital Status</u>					
Single				3	6.98
Married				27	62.79
Separated/Divorced				11	25.58
Widowed				2	4.65
<u>Number of Children</u>	1.84	1.29	0-4		
0				10	23.26
1				4	9.30
2				17	39.53
3				7	16.28
4				5	11.63
<u>Education Background (Highest Degree)</u>					
Baccalaureate				17	39.53
Master's in Nursing				10	23.26
Master's in Other				15	34.88
Other (not specified)				1	2.33
<u>Student (Currently Enrolled)</u>					
No				40	93.02
Yes				3	6.98
<u>Tenure</u>					
Years in Present Position	7.22	6.08	1-26		
<u>Number of Staff Supervised</u>	49.86	44.30	3-175		

Table 3.1 (continued)

Demographic Characteristics of the Nurse ExecutiveParticipants (N = 43)

Characteristics	Mean	Standard Deviation	Range	Number	Percent
<u>Total Number of Years as Director</u>	9.64	6.61	1-27		
<u>Total Number of Years in Nursing</u>	25.23	8.62	5-42		
<u>Number of Hours Worked Per Week</u>	47.74	5.16	40-60		
<u>Number of Hours Leisure per Week</u>	14.16	9.13	1-52		

Data Collection Methods

Techniques

Data were collected by using a mailed questionnaire booklet. The booklets, comprised of four preexisting standardized instruments and a demographic survey, were sent to those DONs who consented to participate. Additional data were obtained during face-to-face, taped interviews on a subset of the sample.

Procedure

Recruitment

An introductory recruitment letter explaining the study in accordance with the requirements of the University of California, San Francisco, Committee on Human Research and a preaddressed, prestamped postcard, the return of which represented implied consent to participate, was mailed to the target population.

Upon receiving the postcard implying voluntary agreement to participate in the project, the investigator mailed a questionnaire booklet to the DON respondent. An addressed, prestamped return envelope was included. No identifying information, other than code numbers which were necessary for data analysis and follow-up, was included on the booklets.

Upon receipt of the completed questionnaire booklet, the investigator telephoned the subjects to schedule an appointment for the interview. Due to travel distances and

scheduling conflicts 11 subjects (including the one male DON) were not interviewed. For subjects who agreed to the interview, the meetings took place at the subjects' work setting or at an alternative setting of their choice. Open-ended, probe, and rating questions were asked during face-to-face, taped interviews.

Maximizing Response Rate

Achieving a high response rate was an important objective of the study in order to meet the underlying assumptions of the statistical tests. The recruitment letters were individually addressed on letterhead specifically designed to be visually appealing to the population. The questionnaires were compiled into an attractive booklet. Response rate was further maximized by sending a second recruitment letter at the end of the third week. In addition, the investigator attended a leadership conference one month after the second letter, at which many of the DONs were present. The first letter yielded 31 subjects. Follow-up letters added 8 subjects. Meeting several DONs at the conference yielded an additional 4 subjects. This brought the total sample size to 43.

Instruments

The instruments for this study included one investigator-developed and the four standardized tools:

1. Demographic Data Tool (Appendix A).
2. Hassles and Uplifts Scales.

3. People Around You.

4. Personal Attitude Inventory (i.e., the Life Orientation Test).

5. Brief Symptom Inventory.

These self-administered questionnaires assessed demographic characteristics, work and nonwork stressors (hassles), social support focused on work, level of optimism, and psychological symptoms.

The interview schedule was developed by the investigator to elicit data regarding nurse executive work stress, coping strategies, and social support dimensions (Appendix B). Open-ended, probe, and rating questions were asked during face-to-face, taped interviews.

Table 3.2 depicts the study variables, the measurement strategies, number of items, and the amount of time each component required of the subjects.

Demographic Data Tool

This tool developed by the investigator elicited information on age, gender, ethnicity, marital status, and number and ages of children. In addition, questions regarding educational background, tenure in position, and the number of work and leisure hours per week were asked. (See Appendix A.)

Hassles and Uplifts Scale

Daily hassles may be a more useful way of measuring stress than assessing major life events (Lazarus & Folkman,

Table 3.2

Data Collection Strategies

Variable	Measure	Number of Items	Time ^a
<u>Instruments</u>			
Demographic Characteristics	Demographic Data Tool	17	5
Work and Non- work Stressors	Hassles and Uplifts Scale	53	15
Social Support	People Around You	12	5
Optimism	Personal Attitude Inventory (i.e., Life Orientation Test	12	5
Psychological Well-Being	Brief Symptom Inventory	53	10
	Total	147	40
<u>Interview Protocol</u>			
Occupational Stressors	5 open-ended, 1-5 probes 2-7 rating question		20
Coping	6 open-ended questions and 2 sets of 7 probes		20
Social Support	10 open-ended and 8 rating questions		20
	Total		60

^aTime represents the approximate number of minutes necessary to complete the measure.

1984). Major life events are generally unequally distributed in any given population. Hassles are microstressors which irritate and distress people. The repetitive nature of these microevents and/or their accumulation are perceived as stressors. DeLongis, Coyne, Dakof, Folkman, and Lazarus (1982) found hassles more strongly related to somatic health than were major life events. Correlations between major life events and illness are frequently below .30 (Rabkin & Struening, 1976). In addition, Kanner, Coyne, Schaefer, and Lazarus (1981) and Monroe (1983) reported that psychological symptoms were best predicted by hassles.

The revised Hassles and Uplifts scale (DeLongis, Folkman, & Lazarus, 1988) is a 53-item tool assessing the following life domains: (a) family; (b) marriage; (c) work; (d) finances; (e) health; (f) environment; (g) household; (h) community; and (i) social life. Respondents are asked to indicate on a 4-point scale "how much of a hassle?" and "how much of an uplift?" each item is during a specified time period. The responses range from "none or not applicable," to "a great deal." Little psychometric data is available for the revised tool. DeLongis (1985) reported high internal reliabilities for the eight factor scales in her study (.80 to .93). The original tool is highly consistent across time. Month-to-month, test-retest

correlations averaging .79 across 9 consecutive monthly administrations are reported by Kanner et al. (1981).

The original scale consisted of a list of 117 hassles and 135 uplifts. Redundant items and items that suggested psychological and somatic symptoms were deleted in the revised scale. The format was changed so that respondents could rate each item on how much of a hassle and uplift that item was, based on a 4-point scale. The tool was revised in order to eliminate potential confounding with symptomatology and to shorten the instrument.

The revised instrument yields three scores: (a) a hassles total score sums the four-point ratings for each item (thus there is a potential range of 0 to 159). This score indicates the total amount of everyday stress experienced during a set time period; (b) a hassles frequency score is a simple count of the number of hassles checked (range 0 to 53); and (c) the hassles mean severity score indexes how severe each hassle is and is computed by dividing total hassles scores by frequency scores (range 1 to 3). Items 11 through 17 were analyzed as a separate cluster of total work hassles (range 0-21). All other items (i.e., 1-10 and 18-53) constituted the nonwork hassles total score (range 0-138). The total work and total nonwork scores were those used in the analyses. Uplifts were not examined in this study.

People Around You

People Around You (PAY), a social support tool incorporated in several studies investigating social support at work, measures predominantly emotional and tangible support (R. D. Caplan et al., 1975). The instrument's four items, each with the same three subscales, are workplace-specific. The subject's perception of support from three sources (immediate supervisor, other people at work, and spouse, friends, and relatives comprising nonwork sources) are evaluated on a 5-point Likert scale. Cronbach's alpha was calculated between .73 and .83, demonstrating adequate internal consistency. Psychometric data regarding validity issues were not provided by the authors.

Life Orientation Test

The Life Orientation Test (LOT) is a 12-item self-administered questionnaire designed to assess dispositional optimism (Scheier & Carver, 1985). The LOT comprises eight items, with four filler items included to disguise the intent of the tool. Subjects are asked to respond to each item based on extent of agreement, from strongly disagree to strongly agree on a 5-point Likert scale (a 1 to 5 format was used in this study; the original tool used a 0-4 format). Cronbach's alpha for the eight-item scale was .76. Test-retest reliability measured with a 4-week interval was .79. The means for men were 29.03, and for women, 29.41

(converted to the 1 to 5 format). These norms were based on a college student sample.

Scheier and Carver (1985) report the results of a principal-factors factor analysis of the LOT. A final solution of two factors emerged. The first factor defined the items worded in a negative direction and the items worded in a positive direction loaded on the second factor. Assessment of the convergent and discriminant validity of this tool is ongoing. It has been evaluated against several other instruments. For example, persons reporting higher optimism also have a more internal locus of control and higher self-esteem. They score lower on hopelessness, depression, and perceived stress instruments. In the current study this tool was renamed the Personal Attitude Inventory to further disguise the instrument's intent.

Brief Symptom Inventory

The Brief Symptom Inventory (BSI) is the abbreviated version of the Hopkins Symptom Checklist SCL-90 form assessing psychological symptoms (Derogatis & Spencer, 1982). The tool's 53 items, rated on a five-point Likert scale, measure nine major symptom categories including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. In addition, three global indices can be computed: (a) a global severity index (GSI); (b) a positive symptom distress index; and (c) a

positive symptom total. The number of symptoms, combined with intensity of distress of each symptom, yields the GSI score. This global index served as the outcome measure for the study.

Psychometric characteristics have been meticulously delineated. Each subscale's Cronbach's alpha demonstrated reliability from .71 to .85. Test-retest reliability coefficients for non-patients ranged from .68 to .91. Construct validity was ascertained through convergence with the SCL-90 and the MMPI. Normative data is available for diverse groups, according to gender.

Interview Schedule

The structured interview (Appendix B) with open-ended, specific probe, and rating questions was designed by the investigator to elicit data in three major domains including (a) work stressors, (b) coping, and (c) social support. An independent rater coded 20% of the interviews to check reliability. Interrater reliability was considered adequate when both coders achieved a greater than 75 percent agreement. Work stressor codes ranged from 76%, 77%, 77%, to 82%. Coping codes ranged from 75%, 75%, 77%, to 81%. Social support code agreement ranged from 74%, 75%, 79%, to 82%.

The work stressor category included open-ended questions related to major and minor stressors perceived by the subjects and the problems that these stressors create.

If not specifically mentioned by the subject, the interviewer probed with questions about specific major work stressors including (a) lack of funding, (b) program changes, (c) understaffing, (d) workload, and (e) quality of care concerns. They were asked to rate all of their major stressors (including the probes) on a 10-point scale. The last question in this section asked the respondent to rate their overall work stress on a 10-point scale.

The coping section included open-ended questions that asked respondents to describe specific coping strategies utilized based on their two highest ranked work stressors. These strategies were coded by the researcher into categories based on the subscales of the Ways of Coping (Lazarus and Folkman, 1984) tool. These include (a) confrontive coping, (b) distancing, (c) self-controlling, (d) seeking social support, (e) accepting responsibility, (f) escape-avoidance, (g) planful problem-solving, and (h) positive reappraisal.

Probe questions, based on these eight coding categories (except for seeking social support), were asked for each of the two highest ranked major work stressors. There was one probe question for each coping category. Subjects were probed with this question, "Now I am going to ask some specific questions about things that you might or might not have done in dealing with this situation. They were

specifically asked for a YES or NO response for the following questions:

1. Did you ever try to confront the situation (person) directly, even if it was unpleasant?
2. Did you find yourself trying to put it out of your mind?
3. Did you ever try to keep your feelings to yourself or not act on your feelings right away?
4. Did you ever try to blame or criticize yourself?
5. Did you ever wish that the situation would go away, or try to distract yourself in any way?
6. Did you find yourself making a plan of action and working extra hard to carry it out?
7. As a result of this situation, did you change or grow as a person in a positive way?

All 21 interviewees received the same probes for each of their top two work stressors.

The last two questions in the coping section were general in nature. Subjects were asked what they did to make themselves feel better when they did everything they could to solve a problem but were unsuccessful. The last question in the coping section asked which of the strategies utilized by the subject were most useful personally.

The social support section asked subjects to specify who, both at work and outside, were supportive. They were asked how these people provide support. Subjects were also

asked about specific types of support (emotional, validation, informational, and practical), based on House (1981). Questions included how others offered these types of support, how important that type was, and how satisfied they were with the specific type. The subjects rated importance and satisfaction for each of the four types of support based on a 10-point scale. The last three questions asked about negative aspects and lack of support.

The tape-recorded interviews were transcribed verbatim and formatted for coding. Although a preliminary coding scheme for this study was established based on existing literature, additional codes which emerged from the data were added and other codes were collapsed. Thirty-three code words were included in the final analysis.

Major categories that were examined under the work stressor rubric included:

1. Communication problems. [New code]
2. Environment (physical). [New code]
3. Ethical concerns. [New code]
4. Funding (lack of). [Original code]
5. Legal issues. [Original code]
6. Personnel issues. [Original code]
7. Political issues (bureaucracy). [Original code]
8. Power (lack of). [New code]
9. Program changes. [Original code]
10. Quality of care concerns. [Original code]

11. Regulation (documentation). [Original code]
12. Role stress. [Collapsed from role conflict and role ambiguity]
13. Superior (relationship with). [New code]
14. Understaffing (position freezes). [Original code]
15. Workload (overload). [Original code]

Work Stressors: Definitions of Codes

Communication. Problems concerning the communication process.

Environment. Difficulties associated with the physical environment of the work setting.

Ethical. Issues which addressed morals, values, and principles.

Funding. Problems associated with the lack of, or a reduction in financial resources.

Legal. Issues which conflicted with the law. Specifically, the scope of nursing practice, mandated by state law.

Personnel. Problems with staff relationships, productivity, and major performance problems.

Political. Difficulties related to the bureaucratic organization of the health department, and relationships with local and state government.

Power. Issues concerned with lack of power and control.

Program Changes. Problems associated with changing services and the increasing acuity of clients.

Quality of Care. Issues related to quality of client care and staff competence.

Regulation. Problems concerning the imposition of governmental mandates for new and complex documentation.

Role Stress. Difficulties associated with role conflict (i.e., the incongruity of expectations) and role ambiguity (i.e., lack of clarity and uncertainty regarding the outcomes of one's performance).

Superior; Relationships With. Concerns regarding the executives' relationship with the direct superior (boss).

Understaffing. Problems associated with recruitment problems and position freezes.

Workload. Issues concerned with the overwhelming amount of work.

Subjects were asked, "What are the major stressors that occur in your work as a nursing director?" They listed all that came to mind. They were probed with, "Are there any other major stressors?" If not previously mentioned, respondents were specifically asked about the following stressors: (a) lack of funding; (b) program changes; (c) understaffing; (d) the amount of work; and (e) quality of care concerns. The open-ended and probe responses were considered together in coding. They were asked to rate

their major stressors (including the probes) on a 10-point scale.

Coping responses were classified into the eight categories described earlier:

1. Accepting responsibility.
2. Confrontive strategies.
3. Distancing.
4. Escape-avoidance.
5. Planful problem-solving.
6. Positive reappraisal.
7. Seeking social support.
8. Self-controlling.

Two new codes were added:

9. Health promotion activities.
10. Hobbies.

Coping Strategies: Definitions of Codes

Accepting Responsibility. Included blaming or criticizing self and the feeling that the problem was created by the subject.

Confrontive Coping. Comprised of risk taking, letting feelings out, standing ground, and the expression of anger.

Distancing. Included making light of a situation, ignoring, trying to forget, and procrastination.

Escape-Avoidance. Included wishing situation would go away, hoping for a miracle, and refusing to believe.

Health Promotion. Comprised of nutritional strategies, exercise, and relaxation techniques.

Hobbies. Included gardening, cooking, playing instruments, reading, and handiwork.

Positive Reappraisal. Comprised of the use of prayer, the feeling that one grew as a person in a positive way, or changed in some way.

Planful Problem-Solving. Focused on making a plan of action, working hard to carry the plan out, and drawing on past experiences.

Seeking Social Support. Incorporated sharing feelings, asking for advice and help, talking with others to gather information, and delegation.

Self-Controlling. Included keeping one's feelings in, and not acting on feelings right away.

Subjects were asked to pick their two highest ranked stressors. They were first asked to describe the kinds of things they did to try to deal with each of the two specific stressors. Their responses were coded according to the definitions and analyzed.

Social support responses were categorized by utilizing House's (1981) framework. Sources of support were identified and coded, and the content of supportive acts were subsumed under types of support. These include:

1. Emotional support (esteem, affect, trust, concern, and listening).

2. Appraisal support (affirmation, feedback, and social comparison).

3. Informational support (advice, suggestion, directives, and information).

4. Instrumental support (aid in kind, money, labor, time, and modifying the environment).

In addition, responses were coded under negative social support, and lack of social support.

Types of Social Support: Definitions of Codes

Appraisal Support. Focuses on affirmation, feedback, and validation.

Emotional Support. Incorporates caring, trust, concern, and listening.

Informational Support. Includes information, advice, and suggestions.

Instrumental Support. Focuses on practical and tangible helping activities.

Negative Social Support. Addresses lack of reciprocity, guilt, and the excessive amount of time utilized in participating in supportive relationships.

Lack of Social Support. Incorporates lack of support from superiors, others at work, and the lack of validation of their work.

CHAPTER FOUR

RESULTS

Analyses of the Research Questions

Based on the Qualitative Data

The qualitative responses to Questions 1-3 (p. 90) were coded, retrieved, and analyzed by the researcher aided by the Ethnograph (Seidel, Kjolseth, and Seymour, 1988) software program. Descriptive statistics (i.e., percentages for each category) were calculated.

1. What are the contemporary occupational stressors of the nurse executive?

Table 4.1 shows the rank-ordered occupational stressors identified during the interviews.

Ranked Occupational Stressors:Category SummariesFunding (Lack of) (Mentioned by 81% of the subjects)

Lack of funding was viewed by almost every nurse executive as a major stressor. Decreased financial resources was seen as the direct cause of lack of funded positions which led to understaffing and finally to decreased services to clients. The problem is amplified in relation to increasing client acuity. Reduced funding was connected to poor working conditions, possible layoffs, and a decrease in quality assurance programs. This forced the executives to seek outside funding (e.g., grant writing) and

Table 4.1

Major Occupational Stressors

	Rank Order	Number of Subjects	Percent of Subjects	Mean Stress Rating*
Funding (lack of)	1	17	81%	7.13
Workload (overload)	1	17	81%	7.64
Understaffing (recruitment/position freezes)	2	14	67%	7.33
Role Stress (conflict & ambiguity)	3	12	57%	6.30
Personnel (problems)	4	11	52%	6.55
Environment	5	9	43%	--
Political	6	7	33%	7.00
Program Changes	6	7	33%	5.20
Quality of Care Concerns	6	7	33%	7.29
Power (lack of)	7	5	24%	7.00
Ethical (concerns)	8	4	19%	--
Superior (relationship with)	8	4	19%	7.60
Regulation	9	3	14%	--
Communication	10	2	10%	--
Legal	10	2	10%	--

Note. The number and percent of subjects is the times the stressor was identified by the entire pool of 21 subjects. Mean represents the mean score reported by the number of subjects mentioning the stressor. *Ratings were obtained for each subject's five top stressors; therefore some items were not rated.

the administration of and regulations attached to the funding negatively impacted their workload. Few had any discretionary funds.

"Our budgets are so tight, we're counting stamps."

Workload (Overload) (Mentioned by 81% of the subjects)

This work stressor category dealt with the tremendous amount of work that the executives were required to accomplish. Some felt that exemplary performance was punishing, in that more and more work was then expected. The concern was voiced that there was too much work responsibility, without having the necessary support staff to facilitate its completion. The directors had huge program responsibilities without the necessary time to monitor them. They were concerned that the overwhelming volume of work negatively impacted their productivity. There was a sense of being on a treadmill that rarely slowed down.

"Needing to be more than one person. Needing to be in 15 places at once."

"The reason I know that is because once I took six weeks off and when I came back to work, I couldn't deal with my own workload. It took me a while to readjust to it. Because I'm so used to just going through things and scanning things and I either deal with it right now or I know what to do with that. And when I came back to work, I needed a clone."

"I have an excellent assistant, and when I didn't definitely the workload was ridiculous."

"So you feel like you rarely have the opportunity to be real creative and thinking of new ways of doing things. It gets to be a real frustration, I think. I kid with my assistant, and he says, 'Oh it's too bad you didn't go to conference. You always come back with all these great ideas.' I said, 'Yes, but I've been so busy, I haven't even carried out last year's ideas, so at least I won't have any new ones to put stress on me that I haven't been able to work on. Maybe this year I'll work on the ones that I didn't get to work on last year.'"

"There's never a time when I don't have way more than enough work to do and there's never a time when I put in only eight hours a day. Never. My work is never all done. Ever. A certain feeling that we shouldn't have to work this hard. It shouldn't be this way."

Understaffing (Mentioned by 67% of the subjects)

Understaffing is a major, chronic stressor. It includes recruiting problems and position freezes. Programs have been added and/or expanded, without additional staff allocation. Staffing is frequently planned at the bare minimum, so when one person is out, services can be curtailed. Occasionally, someone is pulled from another area, but that impacts staffing as well. Referrals and clients must be turned away. The lack of funding limits the ability to hire, which creates some of the understaffing. The other concern is the tedious process of recruitment. It is long, complicated, and at times there is no one to hire. Salaries are frequently lower than competing health care organizations. Almost every director expressed the need for more funded positions. These executives must frequently justify the positions that they do have in order not to lose them. Understaffing seriously affects operations.

"I will overload myself to the 'crump' level, but I really try to be a little more protective of the people under me. I don't want to lose them."

"In the last few years, we have had increasing demands for services, with less people to do the work."

Role Stress (Mentioned by 57% of the subjects)

Role stress subsumes role ambiguity and role conflict. Many different concerns were addressed in this category. The feeling of 'being all things to all people' exemplifies role stress for these executives. Conflict over priorities, emphasis, and focus, being pulled in many directions, leaping from task to task without completion, and lack of clarity regarding assignments were several mentioned stressors. Unexpected demands interrupting the regular work, with short turnaround times, and unanticipated deadlines was a major concern for the group. Several directors felt a lack of preparation (formal and/or informal) for managing various portions of their jobs. Many voiced concern over the need to be fragmented in order to accomplish the required daily problem-solving.

". . . when I think I have that five minutes to sit down and concentrate on something and then another thing comes in."

"Everything has a 'right now' quality to it and you can't do everything right now."

"The picking and choosing is tricky."

"I see so many things that need to be done. It's like stepping into the middle of the road. Where do you start first?"

"I think often there's a sense of jumping from one thing to the other without really being able to totally complete a task and feel that you've really given it a good effort. Really considered all aspects. Unfortunately, a certain element of marginality in it."

Personnel (Mentioned by 52% of the subjects)

Personnel issues were perceived as stressful by many of the executives. The inability of staff to 'get along,' personality conflicts, moodiness, and bringing personnel problems to work were frequently mentioned. Lack of professionalism including inappropriate attire, wasting time socializing, spreading rumors, and showing a lack of respect for each other's contributions were a concern for the group. Major performance problems, handling grievances, and working with unions were considered major stressors.

"Personnel problems are daily, ongoing . . . people are in your office all the time. It's hard to work when your own staff is banging down your door to complain about something that they could easily handle."

Environment (Physical) (Mentioned by 43% of the subjects)

The inadequacy of physical working space and conditions centered around expansion of client services without the expansion of physical space to perform the services. Buildings, office space, and clinic areas were antiquated, overcrowded, and noisy. The poor regulation of building temperature, lack of windows, inadequate parking, lack of computerization, and mediocre telephone systems were mentioned not only as stressors for the executives, but seriously affecting staff morale.

"So it's musical chairs trying to fit additional people into a building that has a finite amount of space."

Political (Mentioned by 33% of the subjects)

State and local political changes have caused a lack of clarity and some uncertainty regarding the mission and goals of the county health departments. The State has shifted responsibilities to the counties to take care of new groups of clients. Political concerns centered around system issues. Working with various Boards, the way in which the actual system is set up in the health department, the time it takes to make change, recruitment and procurement procedures were several bureaucratic concerns mentioned as stressors. The major stressor was the perception that the leaders of the 'political' system do not choose health as a priority (i.e., county government looks at Public Health from an administrative, financial viewpoint rather than from a medical/nursing health care perspective).

"The kind of things that happen in a lot of bureaucracies, unclear messages from my bosses or the administrators, hidden agendas, that kind of thing."

"It's not the people at all, it's the way our system is set up."

"The fact that it's a political system, and public health nursing is not recognized for its value, and therefore, is not (at least in the county structure) seen as a high priority."

Program Changes (Mentioned by 33% of the subjects)

This work stressor focused on the ever increasing demands for services, with less money to fund those services, and the lack of staff to perform the care. The

acuity of clients has increased tremendously over the last several years. Substance-abusing clients and substance-exposed babies now account for almost 20% of some caseloads. In every program, most clients are classified as high-risk. Public health nursing has been forced, by societal changes, from providing primary prevention to the provision of secondary and tertiary services.

"We've had to completely delete taking care of other groups of clients . . . it's been very stressful for everyone, because what's left in the nurse's caseload is extremely difficult cases with not a lot of cases that makes them feel good. The normals just aren't part of the caseload anymore. A normal mom, pregnant and needing education, are the ones that we don't handle anymore. Which is really very sad, because those are the kinds of cases that gave us all satisfaction. We don't get that anymore. Public health nursing is really changing."

Quality of Care (Mentioned by 33% of the subjects)

The concern regarding quality of client care and staff competence was considered as a stressor for many of the nurse executives. They mentioned lack of qualified staff to deal with the needs of the new high-risk clients, inconsistent inservice programs, and inadequate quality assurance programs. Some mentioned that they did not have the time to even address the issue due to the amount of crisis intervention in which they were frequently engaged. Their awareness that staff were only able to do the minimum for clients was a source of frustration. The chronic understaffing, in part due to lack of funding, seemed to account for at least a component of this issue.

"You're spread so thin that you really can't do the kind of quality care that you'd like to do."

". . . increasing demands for services, which creates stress for our staff with little ability to provide them with the extra staff support training, due to budget constraints."

". . . due to the many demands placed on staff, it gets down to the point where the client is the person who suffers and quality of care suffers . . ."

Power (Lack of) (Mentioned by 24% of the subjects)

This stressor dealt with the executives' feelings of a lack of control over their departments. Some of it related to the old "Nurse-Physician game" of "who is the real boss here?" Another issue was the lack of control over financial resources. Without access to the money and its allocation, power was perceived as minimal. The feeling of powerlessness was common in regard to the directors' desire to make changes, to make a difference for their departments, staff, and clients.

"At times I feel like I don't have a whole lot of control."

"The difference is between the nurses' and the physicians' viewpoint of where the money should go . . . and of course the physician carries more weight."

"The use of power or abuse of power stemming from status, gender, profession, make the difference. Nursing lacks power in this system."

Ethical (Mentioned by 19% of the subjects)

The predominant ethical issue was rationing client care. The problem of rationing seemed to be embedded in our

contemporary political system in which health is not perceived as a high priority concern. Members of the political system make all decisions regarding funding health programs. These executives expressed a great deal of anger about this issue. They were concerned about eliminating services deemed as critical, the difficulties imposed on staff to prioritize care to the point where only very high-risk clients can be maintained, and in turning away clients. These issues are the antithesis of the mission and goals of public health nursing.

"So therefore, the client, in the long run, is the person who loses. And that creates a great deal of stress for me, because I don't want to see that happen. I don't want the public sector to be perceived as second-rate care. I don't want people to think that they can't come to us and get quality care and they can't come to us and be treated as worthwhile human beings."

Superior (Relationship With) (Mentioned by 19% of the subjects)

The nurse executives' relationship with the superior (boss) was a critical factor for many in that it was either the source of great stress or an excellent support. Few voiced the middle road on this issue. Common complaints focused on the superiors' lack of understanding and sensitivity, weak leadership (i.e., lack of administrative ability), frequent conflict, and communication problems. The majority of the directors felt unsupported by their boss

in general, but more specifically, the yearning for honest validation.

"It's like being a wife and being taken for granted."

"We had a Health Officer at one time that was extremely difficult to get along with and I had thought that I would quit the job and go someplace else. And I thought, 'No, that's not right.' I enjoyed my job. There wasn't anything wrong with the job. It was a problem with the relationship."

Regulation (Mentioned by 14% of the subjects)

Many state and federal programs which fund health department programs have placed tremendous demands upon the health departments for documentation. The requirements for the documentation have become overwhelming and unrealistic in relation to the current lack of staffing which makes compliance almost impossible.

"We're at the point where we have to say to the State that we can't meet the requirements for a contract or spread ourselves so thin to try to meet them, or refuse the contract."

Communication (Difficulties) (Mentioned by 10% of the subjects)

The large number and diversity of people that the nurse executives communicated with regularly created several problems. A lack of understanding by other program directors regarding Public Health Nursing as a program area including client and nursing staff needs, was a major concern. Feeling misinterpreted, receiving unclear

messages, lack of feedback, and staff negativity were frequently mentioned stressors.

"I think miscommunication. It is always there. Giving and receiving clear messages. And all of the ramifications of that. One thing gets miscommunicated or misinterpreted or misperceived, then it's like a snowball effect. And it takes so much longer to get that cleared away than it did to make the snowball. To melt it is something else."

Legal (Mentioned by 10% of the subjects)

Legal concerns focused on the scope of practice for public health nurses. Lack of physician coverage, public health nurses making medical decisions, and lack of standardized procedures were issues addressed by the executives. Anger was expressed when others, outside of nursing, told the nursing directors what the nurses could and should be doing.

"There are a lot of gray zones in Public Health Nursing . . . we're very independent agents, but sometimes I feel like we're out on a limb."

Overall Occupational Stress

Subjects were asked:

"As you think about your work life in general how stressed do you really feel?"

On a scale of 1 to 10, please rate your overall stress.

not at all

extremely

x

1 2 3 4 5 6 7 8 9 10

The mean score reported by 21 (100%) of the subjects was 6.6.

2. What coping strategies are the subjects utilizing for specific types of stressors?

The paragraphs and quotes which follow synthesize the responses to the open-ended coping questions. The coping strategies are rank ordered in Table 4.2.

Table 4.2

Coping Strategies Utilized for the Major Occupational Stressors

	Rank Order	Number of Coping Strategies	Percent of Coping Strategies
Planful Problem-Solving	1	41	98%
Confrontive	2	39	93%
Positive Reappraisal	2	39	93%
Self-Controlling	3	35	83%
Escape/Avoidance	4	33	79%
Distancing	5	20	48%
Accepting Responsibility	6	17	40%

Note. The number and percent of coping strategies is the times the strategy was utilized by the entire pool of 21 subjects for the 42 mentioned stressors (elicited during the probe questions).

Table 4.3 presents a comprehensive overview of the coping strategies utilized for specific occupational

Table 4.3

Coping Strategies for Specific Occupational Stressors

Occupational Stressors	Coping Strategies						Planful Problem Solving	Self-Controlling
	Accepting Responsibility	Confrontive	Distancing	Escape/Avoidance	Positive Reappraisal			
Workload (11)	2 [18]	10 [91]	6 [55]	9 [82]	11 [100]	11 [100]	9 [82]	
Funding (7)	1 [14]	7 [100]	3 [43]	6 [86]	6 [86]	7 [100]	4 [57]	
Understaffing (6)	4 [67]	5 [83]	1 [17]	5 [83]	6 [100]	6 [100]	5 [83]	
Role Stress (4)	2 [50]	4 [100]	4 [100]	2 [50]	3 [75]	4 [100]	4 [100]	
Communication (3)	1 [33]	3 [100]	0	1 [33]	3 [100]	3 [100]	3 [100]	
Personnel (3)	2 [67]	3 [100]	2 [67]	3 [100]	3 [100]	2 [67]	3 [100]	
Superior (relationship with) (3)	1 [33]	3 [100]	2 [67]	2 [67]	3 [100]	3 [100]	2 [67]	
Political (2)	2 [100]	2 [100]	0	2 [100]	2 [100]	2 [100]	2 [100]	
Program Changes (2)	1 [50]	2 [100]	1 [50]	2 [100]	2 [100]	2 [100]	2 [100]	
Quality of Care (1)	1 [100]	0	1 [100]	1 [100]	0	1 [100]	1 [100]	
Total:	17	39	20	33	39	41	35	

Note. Occupational stressors are rank ordered. Numbers in parentheses represent the frequencies of the stressor. Numbers in brackets represent percentages.

stressors elicited during the probe questions. The category summaries that follow include additional codes that were derived from the open-ended questions (viz., health promotion activities, hobbies, and seeking social support).

Coping Strategies: Category Summaries

Planful Problem-Solving (Utilized by 98% of the subjects)

Problem-solving as a coping strategy included drawing on past experiences, changing things, making plans of action, and working extra hard to carry out the plan. All of the nursing directors utilized this strategy regardless of the problem or situation. Carefully defining the problem, taking the time to think about it, gathering appropriate data, working with others to seek input, and delineating alternative strategies for the solution were frequently mentioned techniques. The overall goal was to create an action plan and follow it through in a timely manner. Time management skills were critical. Being able to prioritize and delegate effectively enhanced the problem-solving process.

"The key to it to me is how I manage my time."

"I've figured out what time of day I work best and try to make use of that."

"We recently took out each of our Board of Supervisors on a public health nurse home visit, as well as our agency director and our health officer, and some key people, and that has opened their eyes tremendously to what we do."

"Problem-solving theory is really true in practice, if you remember to use it."

"I believe in taking time to think about the problem and then writing it down, trying to define the problem on paper."

"I try to step back and look at what I can do first. Take everything a bite at a time and deal with each thing."

Confrontive Coping (Utilized by 93% of the subjects)

This strategy included risk-taking behaviors, letting feelings out, anger, and standing one's ground. The nurse executives seemed to be well-skilled using this coping style. Many accounts were described. Not being afraid to deal with issues head-on, standing firm, speaking up, and taking risks were common strategies. Yelling, getting angry, 'verbal combat,' and putting issues out on the table were also mentioned. The overall feeling among the subjects was that there was no other choice.

"I'm not afraid to deal head-on with the issues."

"Although I'm not a great confronter, I do try."

"I got over the hump with sheer gut and perseverance, I guess. Realizing that I was not willing to bail out and realizing that I was confident and that I would probably outlast some of the people that were around here. And I have."

"I become embroiled in hot and heavy discussions with the people who cause me the anxiety."

"That goes with the territory. I don't think there's any option."

"You make the decision to stay with it and not let it kill you or drive you crazy, or get out. I wasn't about to get out, so I stayed."

"I think confrontation is something that we're not taught very well. Nobody likes it. Even under the best of circumstances, confrontation with somebody is not a pretty thing. I still don't

like it, but it doesn't rip my guts out quite as bad as it used to."

Positive Reappraisal (Utilized by 93% of the subjects)

This coping technique focused on personal growth and change. The vast majority of the nurse executives felt that they had changed or grown as a person in a positive way. They became more creative, aware, increased their knowledge, became more patient, and felt more confident. Many learned unique ways of handling a problem or a difficult person. Many new management skills were acquired, they were better able to delegate, became more objective over time, and learned to not get too personally involved (i.e., they tried and were successful at keeping things in perspective). Some learned not to worry, others became more assertive, but moreover they realized that everything is not that critical.

"I've been able to develop personally and professionally in this job . . . even though it's been a difficult job."

"When I took this position I was much more likely to get personally involved rather than being able to step back and try to look at what's really happening. I've become more objective."

"I pray at the beginning and pray at the end."

"I try to put things in perspective . . . a tragedy or crisis today . . . ten days or years from now . . . nobody's going to know or care, so I don't utilize an undue amount of energy."

"I've brought along a lot of people with me too. I feel good about that."

"My philosophy is that work is not the single most important thing in life. I do the best I can, and then let it go."

Self-Controlling (Utilized by 83% of the subjects)

This coping strategy focused on keeping feelings contained, not acting on feelings too hastily, and planning mentally. This technique seemed to develop over time; executives with longer tenure in their positions were more comfortable with these behaviors. Descriptions included stepping back to take a look, postponement of action, having a cooling-off period, and holding in feelings. Several thought that they skirted around the issues when necessary, backed off and proceeded on another day or in another way, and held their tongues. Overall, this strategy dealt with the executives' consciously containing their feelings while simultaneously utilizing rational/logical coping techniques.

"Sometimes I leave the situation or I write a memo and don't send it."

"I just hold it in."

"I've learned not to react quickly. I've learned to be more precise and rational . . . to get rid of the feelings. I've become more logical in my approach."

"I put a filter in front of feelings and the filter gets thicker or thinner depending on who I'm with."

"I step back from it and try to take a look at it and see what really is going on."

"Holding my tongue. Thinking it through."

Escape-Avoidance (Utilized by 79% of the subjects)

This technique incorporated wishful thinking, hoping for a miracle, avoiding others, and trying to make oneself

feel better by eating, drinking, and/or smoking. Many of the subjects wished that the situation would go away or that it would be different. Other responses included taking a break, walking around, closing the office door, and turning off the phones. There were quite a few coffee drinkers, gum chewers, and chocolate eaters. Several directors read, listened to music, or focused on something pleasurable planned in the near future (e.g., exercise class or a play). Two mentioned crying and several described shutting down.

"What I have been thinking a lot about is whether I'm going to stay in this type of work."

"I wish it was different."

"Sure I wish it would go away. I'm not that masochistic."

"No, I don't wish it would go away. I wish it would be dealt with at every level with more fervor."

"I'm a shop until you drop person."

"I can go to bed and cover up my head and get up in the morning and maybe it will be different."

"Well I wish it would go away. Absolutely. I just know we could accomplish so much more."

"I love it and I hate it. I thrive on it and I love it, and I hate it, if that means anything to you. If I didn't have this place to come to everyday, I'd probably go crazy. It's a big part of my life. Probably too much so."

Distancing (Utilized by 48% of the subjects)

This coping technique comprised ignoring, making light of a situation, and putting things out of one's mind (i.e., purposeful forgetting). Respondents were able to go on to

other things, leave work at work, physically remove themselves, and to pretend the problem was not happening. Some described this strategy by writing down their thoughts about the issue and then putting the notes aside, by trying to keep a sense of humor, and by procrastination. The feeling of a lack of control over an issue seemed to give them the justification to utilize distancing as a legitimate strategy.

"Sometimes I am able to go on to my other life . . . my personal life . . . and I just don't think about work."

"If I've done everything that I can do to relieve the situation and I don't get it resolved, yes. I have to go on to other things."

"No matter how you try to sublimate those so that you can work on another matter, it just comes back to haunt you."

"This one I do. I can't make a difference completely on this one because I don't have total control over the situation."

"I think I do put that out of my mind and try to spend more time in something that I can actually make a difference in."

"It's the only way I get to sleep."

Accepting Responsibility (Utilized by 40% of the subjects)

This coping strategy incorporated blaming and criticizing the self, and the realization that the subject might have created the problem. Responses focused on the possibility that "yes, maybe I did have a part in it," "was it a lack of knowledge or expertise," "perhaps that could have been done better," and "maybe I did contribute to the

problem." Having second thoughts was expressed as well. Subjects tended to be somewhat self-critical. When they tried to analyze a situation, self-blame was incorporated in the description.

". . . when I first became the nursing director, I really felt it was my lack of knowledge or expertise that was causing this problem."

"I sometimes wonder if there was something that I could have done better, but I don't think that I spend a lot of time on this."

"Many times I think, well if I'd approached it in a different way or if I had seen it coming, I could have been prepared for it."

"I critique myself to see what I could have done differently. Did I make a mistake? Maybe I did."

"Oh yes, I'm very self-critical. Really high standards."

Health Promotion Activities

This coping strategy included all types of physical exercise (e.g., walking, running, swimming, bike riding, playing sports, and aerobic workouts). It also covered nutrition, weight reduction, and relaxation strategies. The majority of the executives were engaged in some form of physical activity. The consistency of the exercise varied from person to person. Several were quite concerned with nutritional issues. All subjects were aware of the benefits of health promotion activities.

"I've found that aerobics can help me. When I don't do it, I tend to get more stressed out, whereas if I get back into a regular pattern of doing it--of either walking or aerobics--that it really helps me to have more energy to deal with the problems. In the last year I think I've

proven it to myself that it really is a helpful thing to exercise at some point or another. I can see the energy level coming down and the inability to deal with the stress. And then I start doing it and feel better."

"I'm careful about how much I eat. Less and less. Very selective on the kinds of things I eat."

"Probably the physical exercise program that I'm on, because it has other benefits than stress reduction. It helps you control your weight. It helps you have a sense of well-being."

"Probably walking is the most therapeutic and consistent thing that I do."

"We know what works for us and then it's a matter of picking it back up. That was part of the problem, is finding something that you can do on a regular basis."

Hobbies

Having a hobby was an important coping strategy for many of the directors. They ranged from hiking, riding horses, and gardening to cooking and baking. Reading was common. Others enjoyed the theatre and travel. Several played a musical instrument or did needlework. It was clear that they each enjoyed their hobbies, and viewed them as important stress reducers.

"I go on trips with friends. I tease one friend and tell her I love to go with her because she's the organizer and the planner. She just gives me a list of what I'm supposed to do. I don't think about it. I just do it."

"I try to always be thinking of something fun that I'm going to do down the road. Either a trip, a dance, or a football game. Something that's going to be relaxing."

"I try to do whatever I can do outside because I enjoy being outdoors."

Seeking Social Support

Talking with others, receiving tangible help, soliciting advice, and sharing feelings are subsumed under this coping technique. The nurse executives felt quite comfortable with this strategy. Many subjects described talking with others about difficult matters, seeking advice, information, feedback, and consultation, and the ability to vent in a safe environment as examples of seeking social support. Listening, sharing, seeking staff input, and having excellent clerical support were important elements of supportive relationships. Others sought and received support from religious affiliations. Several respondents felt that the statewide Director of Nursing group provided tremendous support.

"Once a year I try to take every staff member out for coffee or lunch individually, just to find out what's going on for that person. They seem to open up and offer suggestions."

"I'm not afraid to reach out and get as much support as I can. That's probably how I cope because I do open up and bring other people in to help me solve a problem."

"Picking up the phone and calling up somebody where it's safe to vent."

"Although we're removed by distance, the group of Nursing Directors are a real supportive bunch."

"You tend to think you can wander alone. I don't believe that you can."

"If I didn't have it, the stress would be much worse."

3. What are the sources and types of social support described by these subjects?

Table 4.4 portrays the sources of support for the sample.

Table 4.4

Sources of Support of the Nurse Executive Participants

Sources of Support	Rank	Number of Subjects Listing Source	Percentage of Subjects Listing Source
Associate/Assistant Directors/Supervisors	1	14	67%
Mate	1	14	67%
Division Chiefs	2	9	43%
Friends	3	7	33%
State Director of Nursing Group	4	6	29%
Superior (Boss)	4	6	29%
Administrative Assistant/Secretary	5	5	24%
Family	5	5	24%
Staff Nurses	6	3	14%
Adult Children	7	2	10%

Note. Numbers and percentages are derived from the total sample of interviewees, n = 21.

Social Support: Category Summaries

The support categories are not rank ordered. All subjects addressed each dimension.

Appraisal Support (affirmation, feedback, validation). Subjects were asked how others offered them validation (e.g., feedback, affirmation, and appraisal). Many positive responses were elicited. The positive things that people say, having similar problems and sharing, the offer of constructive criticism, and a trust in their judgment were frequently mentioned. Showing respect and support for decisions, offering reassurance and encouragement, and the provision of accurate feedback. They also felt validated when others told them when they thought the director was 'all wet' too. Many of the nursing directors felt that appraisal support was essential, but not always freely given.

"You tend to think you can wander alone. I don't believe that you can. I would never ask for it. If I would tell them that I need it, they would give it to me and I might not believe it. The fact that it was spontaneous is more valuable."

"I would like to be strong enough not to need it."

"As far as some of the appreciation and respect it comes through loud and strong. And that's really important."

Emotional Support (caring, trust, concern, and listening). The study participants were asked how others supported them emotionally. Most of the subjects mentioned listening, being able to ventilate, and the feeling of

comfort in being with members in their support networks. They also described feeling trust, feeling cared for, and feeling liked by others. Several mentioned that others were genuinely concerned for them both as fellow workers and human beings. This was a rich category and is exemplified in the following quotes:

"They listen and give me time. I'm able to ventilate. I feel very comfortable with them."

"He always says, 'That's great.' He backs me up on what I do. He trusts my judgment."

"My sibs, husband, and children and everybody says, 'I love you.' They're very affectionate physically. Hugs. Lots of hugs."

"They listen and don't judge and I think have an understanding of what I do, so I don't have to be interpreting. They have a basic understanding of the nature of the work and have affection for me, which helps."

"I feel that they care for me. I feel that trust very strongly."

Informational Support (information, advice, and suggestions). Respondents were asked how others go about offering information, advice, and suggestions. This type of support came in various forms. It was offered spontaneously, but more frequently, was requested by the executive. These supportive acts came in the form of memos, phone calls, hallway discussions, and during meetings. One director stated, "They march right in and tell me." Opinions were offered, without the expectation that they would be followed. Supportive people helped the directors

explore alternatives, think, and talk through various situations and problems, by not withholding information, and kept them aware of 'grapevine' news. A few mentioned that they tried to give their supporters the freedom to be able to say anything without repercussion.

"I don't mind advice, but I like it from somebody that understands your situation or would say-- instead of saying, 'Why don't you do this,' ask you, 'Do you do any of these things?'"

"'Why don't you try this instead of doing it that way?' And they're willing. They're not 'yes' people. They're the people who work with me."

"And we complement each other because she's much more creative and has much better cognitive thinking than I do. I'm a very practical, organized, traditional tasky kind of person. And she's my thinker. And it's good."

"And a lot of the reason is because with wonderful people around me, they have become so creative in obtaining funds and trying new things and working hard, that we've become quite successful at what we do."

Instrumental Support (practical, tangible aid). The nurse executives were asked how others offered help in dealing with their specific work tasks and demands. Supportive others helped by writing, making phone calls, investigating a problem, doing groundwork, and gathering data. Others volunteered to perform tasks and pitched in spontaneously. The subjects were skilled at delegation. Several mentioned that having their staffs getting their own work done, without having to bring it back up to the executive level, demonstrated support. Having excellent

clerical support was a critical factor in these executives' work lives. Those without an exemplary secretary felt unsupported.

"I'm able to ask for the help that I need with limits. Because I realize that their time is limited. I know who to ask and when to ask and how to ask it and who can best do what kind of an assignment."

"I don't believe an executive can make it without the most competent secretary, and I've been very fortunate to have an excellent one."

"They pitch in and get the work done. They take initiative."

"I couldn't work without it."

Subjects were asked how important and how satisfied they were with each type of support based on a 10-point scale (1 = not at all to 10 = extremely). Table 4.5 portrays the difference scores values of importance and satisfaction with appraisal, emotional, informational, and instrumental support. The difference between satisfaction and importance was significant for appraisal and instrumental support.

Negative Social Support. The nursing directors were asked if they had experienced any negative aspects of support. Several mentioned that people in their support networks were worried that they were working too hard and had too much stress to deal with. This was perceived by the respondents as negative social support. Others said that they felt guilt in trying to compensate others for the

Table 4.5

Difference Scores Values of Importance and Satisfaction
in Regard to Types of Social Support

Type of Social Support	Importance	Satisfaction	t	p
Appraisal Support	<u>M</u> = 7.57 <u>SD</u> = 2.09	<u>M</u> = 6.67 <u>SD</u> = 2.63	2.16	.04
Emotional Support	<u>M</u> = 8.19 <u>SD</u> = 1.72	<u>M</u> = 8.00 <u>SD</u> = 1.79	0.40	.69
Information Support	<u>M</u> = 8.00 <u>SD</u> = 1.18	<u>M</u> = 7.43 <u>SD</u> = 1.72	1.61	.12
Instrumental Support	<u>M</u> = 8.76 <u>SD</u> = 1.26	<u>M</u> = 7.10 <u>SD</u> = 2.45	3.34	.00

Note. Matched-pair t-tests. Mean scores represent the sample of interviewees (n = 21).

support offered to them. Some felt smothered by the received support. Others were angered by unsolicited negative advice and information, and 'butting in.' The majority of responses focused on the time it takes to be supportive, being supportive can be exhausting, and giving more than getting (i.e., the lack of reciprocity) was perceived as negative.

"It is negative. Giving more than getting. I think it just comes with the territory."

"But there are occasional individuals who they feel like they give all this and then they expect special treatment, and I think that can become a problem."

". . . in the relationships to me that have negatives, then I no longer give and I withdraw from that situation. I will use it the way it has to be used, but I don't invest myself."

"I think sometimes, I feel a little smothered if somebody is trying to offer too much support."

"The negative aspects are that it does take a lot of time and you have to be sure that you dedicate yourself to provide that kind. That you think of it. That you don't forget. It's another one of those things that dips into your time."

Lack of Social Support. The nurse executives were asked where in their work life did they feel a real lack of support. Many of the responses addressed the lack of validation from their superiors for their work. Lack of program staff support (e.g., Personnel and Accounting) and lack of clerical support or having no secretary was viewed as a serious lack of support. Aside from the lack of validation from superiors, many of these directors mentioned a general lack of support from their superiors. Lack of support from physicians was a common sentiment. The feeling of being 'alone at the top' was a representative response.

"See I've lived through times when I didn't have it, so I think I've learned to cope. And support myself more."

"If I waited for that, I'd drop dead. It's a real lack. I think it's a weakness on his part. It's not my problem; it's his. To me, it shows a weak leader, and I try to, in turn, tell the nurses when I feel they do a good job."

"That hasn't always been a real big issue with me, but when you've worked really hard and you don't get any, then you begin to wonder if anybody notices what you do."

"I'm alone at my level and that's beginning to be a problem in my life."

"They won't pass on any kudos if their life depended on it."

"Like no news is good news."

Analyses of the Research Questions Based on
the Quantitative Data
The Instruments

Study specific descriptive statistics are shown in Table 4.6.

Table 4.6

Descriptive Statistics for the Instruments

Variable	N	Mean	Standard Deviation	Minimum	Maximum
Hassles					
Total	43	45.07	15.28	14.0	76.0
Work	43	9.95	3.84	0.0	17.0
Nonwork	43	35.12	13.40	14.0	66.0
Work-Specific					
Social Support					
Total	43	36.91	5.66	20.0	48.0
Supervisor	43	10.40	3.77	0.0	16.0
Co-worker	43	12.79	2.39	6.0	16.0
Others	43	13.72	2.26	8.0	16.0
Optimism	43	31.98	3.67	20.0	39.0
Psychological					
Well-Being	43	.32	.21	.04	1.08

Reliability

Reliability coefficients to establish internal consistency were assessed for each instrument, specific to the study sample. Cronbach's alpha is the reliability measurement reported in Table 4.7 for the four instruments--the Hassles, Life Orientation Test, Caplan's work social support, and BSI measures.

Table 4.7

Study Specific Instrument Analysis Including Reliability Coefficients

Study Concept	Instrument	Number of Items	Reliability Coefficient	N
Stress	Hassles: Total	53	.86	43
Occupational Stress	Hassles: Work	7	.78	43
Nonwork Stress	Hassles: Nonwork	46	.85	43
Optimism	Life Orientation Test	8	.80	43
Work-Specific Social Support	Caplan Total	12	.72	43
	<u>Subscales</u>			
	Supervisor	4	.89	43
	Co-workers	4	.75	43
	Others	4	.55	43
Psychological Well-Being	BSI Total	53	.91	43

Research Questions

4. How does the level of psychological symptomatology of this sample compare with norms?

The mean raw score of this sample of nurse executives ($N = 43$) was 0.319. The hypothesized population mean for female non-patients was 0.24. A 1-sample t-test ($df = 42$) revealed a significant difference ($t = 2.39, p < .05$). In addition, a 95% confidence interval was calculated, and found to be $.2521 < \mu < .3859$. Thus the population of individuals that this sample represents does not have a mean of .24 (i.e., because .24 is not within the 95% CI, this measure provides additional data confirming that the sample's mean score is significantly different than the established norm for female non-patients).

The psychological well-being for this sample of nurse executives is somewhat impaired. They are experiencing some psychological distress. This distress is not at dysfunctional levels. The hypothesized population mean for female psychiatric outpatients was 1.37. A 1-sample t-test ($df = 42$) revealed a significant difference ($t = -31.75, p < .000$).

5. What are the relationships among demographic characteristics, work and nonwork stressors (hassles), social support, optimism, and psychological symptoms?

The correlations among total hassles, work hassles, nonwork hassles, total work social support, supervisor

social support, co-worker social support, social support from others, optimism, and GSI (psychological symptoms) are portrayed in Table 4.8.

The dichotomized, categorical demographic variables (gender, student status, and position title) were to be analyzed with 2 sample t-tests. Unfortunately, because the male group ($n = 1$), the student group ($n = 3$), and the position title groups were too small, this analysis could not be performed.

Two of the categorical demographic variables with greater than 2 categories, ethnicity and marital status, originally intended to be analyzed using 1-way ANOVA, were altered to create 2 categories. This was due to small group sizes. Differences were examined based on 2-sample t-tests.

Ethnicity was originally categorized as raw data into 6 groups including (a) Asian, (b) Black, (c) Caucasian, (d) Hispanic, (e) Native American, and (f) other. There were no Asian or Native American subjects. The Black and Caucasian groups were large enough to analyze with this strategy, yet failed to yield any significant differences on hassles, social support, optimism, or GSI.

Marital status was originally categorized into 4 groups including (a) single, (b) married, (c) separated/divorced, and (d) widowed. The raw data produced groups too small for

Table 4.8

Correlations of the Demographic, Predictor, and Outcome Variables

Demographic Variables	Total Hassles	Work Hassles	Nonwork Hassles	superior social support	Co-worker social support	Other social support	Total social support	Optimism	Global severity Index
Age	-.15 (41)	-.15	-.13	-.28	.25	-.16	-.17	.20	-.31*
Number of Children	.00 (43)	-.32*	.10	-.15	.01	-.02	-.10	.10	-.04
Tenure in Position	-.07 (41)	-.02	-.08	-.18	.35*	-.03	.01	.06	-.19
Number of FTE Supervised	.03 (42)	-.03	.04	.34*	.03	.03	.25	-.05	.09
Total Years as Director of Nursing	-.01 (42)	-.03	-.00	-.12	.20	.04	.01	-.08	-.08
Years in Nursing	-.18 (43)	-.17	-.16	-.14	.36**	-.00	.05	.17	-.38**
Work Hours Per Week	-.29 (43)	-.13	-.29*	.08	-.12	.14	.06	.05	.02
Leisure Hours Per Week	-.24 (43)	-.20	-.21	-.02	-.09	.01	-.01	-.11	.01

Note. The p-values shown are 2-tailed values. Sample size ranges from 41 to 43 depending on missing data. Number of subjects are in parentheses. *p < .05, **p < .01.

analysis. In this instance, the groups were collapsed into Non-married and Married. Four significant differences emerged. The non-married executives had lower total hassles, lower nonwork hassles, were more optimistic, and had lower GSI scores (Table 4.9).

Table 4.9

Relationship Between Marital Status and Select Variables

	Non-Married $n = 16$	Married $n = 27$	t	p
<u>Variables</u>				
Total Hassles	$M = 37.63$ $SD = 13.18$	$M = 49.48$ $SD = 14.93$	-2.63	.01
Nonwork Hassles	$M = 27.63$ $SD = 9.93$	$M = 39.56$ $SD = 13.35$	-3.10	.00
Optimism	$M = 33.31$ $SD = 2.41$	$M = 31.19$ $SD = 4.08$	2.15	.03
GSI	$M = 0.21$ $SD = 0.15$	$M = .38$ $SD = .23$	-2.60	.01

Note. Independent groups t-tests.

Educational level, a categorical demographic variable with sufficient groups and group sizes, was analyzed by analysis of variance. The three groups included (a) Baccalaureate, (b) Master's in Nursing, and (c) Master's in another discipline. Significant relationships included:

(a) executives with a Baccalaureate had greater total hassles than those with a Master's in another field; (b) bachelor's-prepared nursing directors were less optimistic than those with any Master's degree; and (c) those executives with a Bachelor's degree had higher GSI scores than those with a Master's in nursing.

6. What proportion of variance does stress (work and nonwork stressors hassles), social support, and level of optimism account for in predicting psychological well-being?

This research question was analyzed by stepwise multiple regression. Based on significant correlations (see Table 4.8, p. 148 and Table 4.10), the following choices were made: (a) total number of years in nursing was entered first as a control variable (age and total number of years in nursing were highly correlated; total number of years in nursing was more highly correlated than age with GSI scores), (b) optimism scores were entered in the second step, and (c) total hassles and co-worker social support were entered as a set in the third and last step. A model of the proposed relationships among these variables is presented in Figure 4.1.

The entire model predicted 51.18% of the variance in GSI scores. Total years in nursing accounted for 14.8% of the unique variance. Optimism accounted for an additional

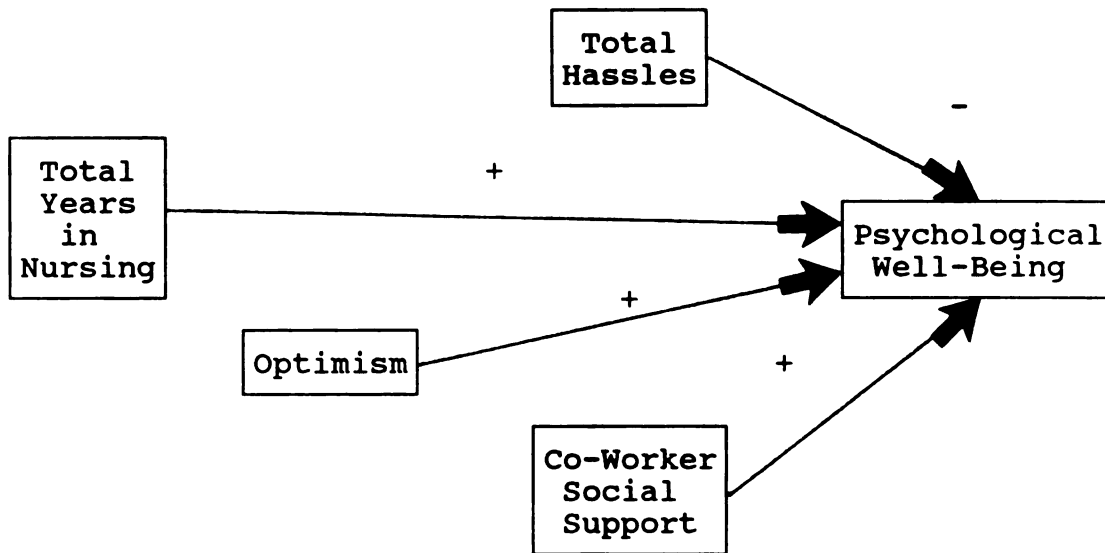


Figure 4.1. Analytic model of the relationship between the independent variables and the outcome measure conceptualized for regression analysis.

29.8% of variance after the effects of total number of years in nursing was taken into account. Total hassles and co-worker social support accounted for 6.57% of variance after total number of years in nursing and optimism were taken into account. Their percentage as a set and their unique variance of total hassles and co-worker social support does not sum to 6.57% due to the existence of shared variance between the set of variables (Cohen & Cohen, 1983). Table 4.11 portrays the analysis.

Table 4.10

Correlations of the Predictor and Outcome Variables

Variables	2	3	4	5	6	7	8	9
1. Total Hassles	.59***	.97***	-.11	-.25	.00	-.18	-.42**	.49***
2. Work Hassles	--	.38*	-.32*	-.39**	.06	-.35*	-.27	.31*
3. Nonwork Hassles	--	--	-.04	-.17	-.00	-.10	-.40**	.47**
4. Superior Social Support	--	.23	.08	.79***	.12	-.09		
5. Co-worker Social Support	--	.13	.63***	.30*	-.40**			
6. Others Social Support	--	.51***	.18	-.04				
7. Total Social Support	--	.28	-.25					
8. Optimism	--	-.60***						
9. Global Severity Index	--	--						

Note. All correlations have 41 degrees of freedom. *p < .05, ** p < .01, *** p < .001, all two-tailed.

Table 4.11

Multiple Regression Summary Table: Test of the Effects of Optimism, Stress, and Social Support on Nurse Executives' Psychological Well-Being with Total Years in Nursing Controlled (N = 43)

Step	Source	df	Percent of Unique Variance	Step Change in R^2	F	P
1	<u>Demographic</u> Total Years in Nursing	1		14.81	11.53	.00
2	<u>Trait</u> Optimism	1		29.80	23.20	.00
3	<u>Predictors</u>	2		6.57	2.56	.09
	Total Hassles	1	4.58		3.57	.06
	Co-worker Social Support	1	1.39		1.07	.30
Total		4		51.18	9.96	.00

CHAPTER FIVE

DISCUSSION

Findings

This study's conclusions are drawn from a synthesis of findings from both the qualitative and quantitative data. Work-related stress, considered a complex phenomenon, was best examined by combining methodological strategies. Based on the quantitative analysis (i.e., the multiple regression analysis), the conceptual framework guiding this study was supported only in part. Figure 5.1 portrays the empirically substantiated relationships.

The qualitative data provided different results. In part this was due to the way in which the research questions were intended to be analyzed (i.e., either by qualitative or quantitative means). Yet, what emerged were some differences in findings based on methodological strategies even when the same concept was examined.

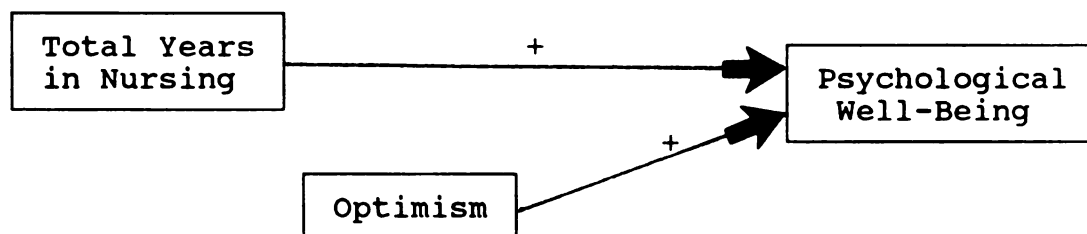


Figure 5.1. The modified conceptual model based on empirically substantiated relationships.

Total Years in Nursing

Total years in nursing, the control variable, accounted for a substantial main effect on psychological well-being (14.8%). Although this demographic variable was the most highly correlated with GSI score ($r = -.38$, $p < .01$), age was also correlated with GSI score ($r = -.31$, $p < .05$). Total years in nursing and age were highly correlated ($r = .88$, $p < .001$). Similarly, tenure in present position correlated with total years in nursing ($r = .51$, $p < .001$), and with age ($r = .54$, $p < .001$). Consequently, total years in nursing is in fact subsuming age and tenure in present position.

A nurse's attainment of an executive position often takes many years. The skills, knowledge, and experience necessary to perform successfully at the highest level in nursing are in part time dependent. Age as it relates to experience might be an important factor. However, it is the years of experience as a professional nurse, and experience within the current position that are critical to psychological well-being. Chronological age is embedded in experience.

Optimism

Level of optimism, the trait variable, accounted for the largest percent of explained variance (29.8%). It is not surprising that those DONs who are more optimistic perceive less psychological distress. The way in which

optimists view the world is generally quite positive. This finding supports Scheier and Carver's (1985, 1987) previous results. The relationship between optimism and psychological well-being may reflect a generalized perspective on life or may result from optimists' greater persistence towards goal attainment (i.e., use more effective planning), or greater use of problem-focused coping strategies.

Total Hassles and Occupational Stress

Total hassles failed to reach statistical significance in the regression analysis. Data from the interviews portrayed moderately stressed nurse executives. When asked to rate their overall work stress on a 10-point scale (1 = not at all to 10 = extremely) the mean score was 6.6.

The number and intensity of the occupational stressors experienced by these nurse executives are formidable. Several are directly related to the bureaucratic organizational structure in which the directors exist. These included (a) lack of funding, (b) understaffing due to government mandated position freezes, (c) environment--physical (i.e., inadequate physical working space and conditions), and (d) political issues. These stressors, in addition to the immense workloads, personnel problems, program changes, quality of care concerns, and lack of power contributed to the executives' perceived stress.

At first, this may seem incongruent with the regression findings. However, because most of the directors were moderately stressed, there may not be enough variance to yield a good prediction. Further, just because subjects report many stressors does not mean that that variable will covary with psychological symptoms; other factors could be more potent predictors. Secondly, the individual work-related items on the Hassles Scale did not address the nature and scope of the work stressors faced by this executive group (see Appendix B, items 11-27).

Social Support

Co-worker social support was the only source of support that correlated with the dependent variable ($r = -.40$, $p < .01$). Yet when this variable entered the regression equation it accounted for only 1.4% of the explained variance and was not statistically significant. Neither support from one's superior nor support from partner, friends, and relatives correlated with the outcome measure and were therefore excluded from the regression analysis.

Although support from others was not associated with psychological symptoms, this does not mean that subjects did not feel strong support from others. When asked, "Thinking about people both at work and outside, who would you say are the most supportive to you in relation to your work life?", the subjects' partners (mates) were listed by as many subjects as co-workers were. These were the two highest

listed sources ($n = 14$). The differences found between the quantitative and qualitative data are due in part to the structure of the Caplan social support measure. This tool embeds spouse (mate) in one category with friends and relatives. It is not a specific test of spouse effects.

The content of supportive acts was described in detail by the subjects. Validation from superiors was seen as essential, but infrequently offered. Emotional support from family and co-workers was very important to the nurse executives and they reported high satisfaction with the amount they received.

Information support (advice and suggestions) was considered quite important by the group. However, they were not completely satisfied with the amount of information they received. Instrumental (tangible) support was considered extremely important, yet the pool of respondents was somewhat dissatisfied with the amount received. Many felt their acceptance of tangible support burdened other people, especially co-workers. Different aspects of negative social support (e.g., feelings of guilt in trying to compensate for the received support and unsolicited 'butting in') were carefully described by the group. However, the negative aspects of social support were not viewed as a major problem by these nursing directors.

On the contrary, the lack of social support was a major issue. Many of the descriptions focused on the lack of

support from the nurse executives' superior, especially in the area of validation. Feeling 'alone at the top' was a common sentiment. The nurse executives who expressed satisfaction both with their support persons and with the amount of different types of received support, reported that they were better able to cope with their stressful roles. Those who had difficulty identifying significant supportive others and who perceived inadequate support revealed greater difficulties in dealing with their work stressors.

Coping

In general, subjects utilized a variety of coping strategies, yet planful problem-solving was the most frequently used strategy. Their first responses to the open-ended question, "What kinds of things do you do to try to deal with this specific stressor?" elicited detailed explanations of their problem-solving strategies. Executives are problem-solvers. They spend a great deal of time anticipating potential problems and solving current problematic situations. This finding was expected. In fact, if planful problem-solving was not the most frequently utilized strategy, one would be quite concerned about the subjects' management skills.

Confrontive coping, the second most commonly mentioned strategy, was utilized extensively. They felt secure enough in their roles to use confrontation in dealing with both co-workers and superiors. It is not surprising that they used

confrontation, but the frequency of its use was unanticipated. Traditionally women have more difficulty than men in using confrontation (i.e., many women have been socialized to use different strategies--confrontation has not been a highly rewarded behavior).

The use of confrontation was difficult for many of the directors, especially when they were new in their positions. However, as the subjects began to feel comfortable in their roles, they reported that although using confrontation was not easy, it was frequently the strategy of choice.

A great deal of the groups' strength relied on their ability to use positive reappraisal. Almost all of the directors felt that they grew or changed as a person in a positive way. Although they faced numerous intense stressors at work, something positive was gained in the end. The use of this strategy might be a reflection of the high level of optimism that the group exhibited.

Psychological Well-Being

The Brief Symptom Inventory which measured psychological well-being was able to detect a significantly higher level of psychological symptoms than the published norm. Psychological well-being for the aggregate of nurse executives was somewhat impaired, although not at all dysfunctional. The interview data augmented this quantitative finding. Subjects reported physical symptoms which they attributed to stress at work. Sleep disturbances

were reported most commonly. Gastrointestinal symptoms, overeating, muscle tightness in the jaw and neck, and headaches were fairly common. Least commonly reported were feeling anxious, physical exhaustion, and heart palpitations.

Health promotion activities were incorporated into the lifestyles of many of the executives. This coping strategy may have been important in the prevention and alleviation of some of the physical and psychological symptoms reported by the subjects.

Significance

The importance of this investigation can be expressed in several ways. First, because there have been no previous studies of nurse executives' psychological well-being and therefore no scientific understanding of mental health for this group, this study provided descriptive data documenting their level of psychological well-being. Secondly, it represented a first effort in model testing. The formulated model accounted for a highly reputable 51.2% of the variance in nurse executives' psychological well-being. The research also provided insights into other potential instruments which could be substituted in the model and retested (e.g., a different stress measure).

The significance of the demographic variable, total years in nursing, in predicting the group's mental health

has implications for individual subjects' choice regarding employment opportunities. One could potentially base a personal decision to take an executive position with the knowledge that comfort within the role might be partly dependent on years as a professional nurse.

Level of optimism, a personality trait, was the most critical factor associated with psychological well-being. For this sample, the optimistic trait seemed in some way to attenuate the effects of perceived stress and/or diminish psychological symptoms. This is consistent with earlier work (Scheier & Carver, 1985) reporting negative correlations between optimism and measures of perceived stress and depression. These associations may reflect operation of a generalized world view that results in positive viewpoints about life and thus fewer reports of negative symptoms. Nevertheless, it is impressive how important optimism was in this highly professional, stressed sample, accounting for almost 30% of the variance in predicting psychological well-being. Furthermore, it is striking that these predictions were found from a tool containing only eight items. Intervention strategies aimed at the facilitation of an optimistic attitude might be a worthwhile endeavor.

The identification of the groups' major occupational stressors was important for two reasons. It provides knowledge for the subjects, regarding previously unknown

mutual concerns. Secondly, based on this knowledge, individuals and/or the group in concert, may be better able to facilitate planned change in order to diminish and/or alleviate at least several of the stressors (e.g., lack of funding and quality of care concerns).

The combination of the occupational stressor, problematic relationships with superiors, and the lack of appraisal (validation) support from superiors was another significant study finding. Team-building strategies and techniques to enhance support between the DONs and their superiors are certainly plausible.

The extensive use of health promotion activities as a coping strategy was an important finding in that it reflects our nation's changing values regarding personal responsibility for health.

Furthermore, the utilization of triangulated research strategies significantly enhanced the study's findings by offering a more comprehensive understanding of the phenomena under investigation. Due to the small sample size the quantitative findings do not definitively rule out the importance of some variables that were important in the qualitative data. Further, the qualitative data lends specificity to the correlational data.

Limitations

The limitations to this study include design issues, sampling, validity concerns, and data collection strategies. The cross-sectional, nonlongitudinal design employed in this study is the antithesis to the study of humans and processes. Dependent on the research questions, stress, coping strategies, and social support are variables best studied over time.

The choice of the sampling procedure was purposeful, yet might be open to critique. All subjects were Directors of Nursing in Public Health Departments in one state. This was a convenience sample. Yet because this investigator wanted a homogeneous community-based group, going to another state or recruiting subjects from other community-based organizations would have defeated that purpose. Whether the study's findings are generalizable to other nurse executives in public health departments in other regions of the United States, in other community-based settings, or to those in acute care settings, will depend on similarities on demographic characteristics, work stressors, and other factors. It must be pointed out that California is one of the largest and most diverse states in the nation. Selecting a sample from this state can, in fact, enhance generalizability. Nevertheless, any potential differences can pose a threat to external validity.

The last limitation addresses the data collection strategy which incorporated several self-report measures. The most valid and reliable tools were chosen. However, it is possible that demand characteristics of the situation influenced the subjects' responses. Yet, they did not appear to misrepresent their thoughts or feelings (although it is impossible to test this assumption further).

Implications for Nursing

Nurse executives, as members of the organization's top management team, are responsible for the leadership of the nursing division including the clinical practice of nursing throughout the institution. Highly stressed executives directing health care for the public can pose a problem. Not only may they be personally affected both psychologically and physically, but the problems associated with the inability to cope effectively with their stressors might directly affect others.

It is possible that a 'trickle down' effect may be operating. That is, the stressed nurse executive perhaps could negatively affect the supervisors working at one level below. These supervisors in turn could possibly negatively influence the staff nurses. And lastly, the staff nurses responsible for providing direct client care, might provide that care in a less than optimal manner. In addition, negative outcomes from stress at work usually permeate

nonwork life. The correlation between work and nonwork stress was .38 ($p < .05$). Furthermore, the stressed executive not only negatively affects the entire nursing division, but can influence the total organization.

The contemporary United States' health care system exists within a very turbulent environment. The societal and political forces currently affecting this system foster a great deal of uncertainty. The combination of stressed nurse executives and the uncertain, tumultuous environment in which they must work can be addressed through intervention strategies.

Education focused on enhancing effective coping strategies could be developed. Consultation services offered for time management, management skill development, and health promotion activities would be easily implemented. Building on the strategies that the group presently use successfully might be the optimal starting point. Employing techniques which foster attitude change, in regard to enhancing one's level of optimism, perhaps can be formulated and offered to this group. Of course this might be quite difficult because optimism may be largely biologically based and therefore not easily changed. Intervention strategies which concentrate on the enhancement of social support from co-workers, and on the facilitation of support from superiors, would be beneficial to the group. Within each organization, development of resource support groups to

facilitate group problem-solving, participatory decision-making, and the provision of emotional support might be instituted (Hirsch & David, 1983).

Future Research

Future research would be served well by conducting a similar study with a longitudinal, rather than cross-sectional, design. The static view offered by a cross-sectional method is not the optimal approach. Repeated measures of the variables of interest might be a better way to examine the processes known to change over time (e.g., stress, coping, and social support).

Replicating this study with another population of nurse executives has great merit. In fact, simultaneously studying two populations of nurse executives (e.g., another community-based group and an acute care cohort) with a longitudinal design would be ideal. This strategy would address the generalizability of this study's findings.

An additional suggestion for future research includes the examination of other tools to measure the concepts included in this project. For example, another tool could be chosen to measure social support modeled from House's (1981) framework. This would incorporate appraisal and informational support, and one that taps nonwork sources more adequately, the three missing components in the Caplan (1975) tool. Tool development would be another option.

The deletion of variables which served as poor predictors of psychological well-being should be considered carefully. Substitution of variables which could have better predictive power might be employed (e.g., role conflict and role ambiguity, powerlessness, and a stress measure specifically assessing administrative stressors). Premature rejection of variables used in this study should be avoided because of the limited power to detect significance with 43 subjects.

An important study which would augment the present project could examine the same concepts at different management levels (e.g., supervisors in county Public Health Departments). There is still a lack of definitive evidence regarding levels of stress at different levels in the management hierarchy. At the conclusion of that study, findings could be compared with this research for similarities and differences.

The idea of future research is an endless, although very exciting, topic to consider. New information always leads to new questions.

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Nurse Executive Study

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Demographic Data

1. Age: _____
2. Gender: Male (1) Female (2)
3. Ethnic Background:
- Asian (1) Black (2) Caucasian (3) Hispanic (4)
- Native American Indian (5) Other (6)
4. Marital Status:
- Single (1) Married (2) Separated/
Divorced (3) Widowed (4)
5. Number of children: _____; Ages: _____
6. Educational Background:
- a. Highest degree completed: _____
- b. Field of study: _____
- c. Are you currently enrolled in an academic program leading to a degree?
- No Yes If yes, please describe: _____
-
7. Position title: _____
8. Tenure in present position: _____
9. How many staff members (FTE) do you supervise? _____
10. Total number of years in directorship positions: _____
11. Total number of years in nursing: _____
12. On the average, how many hours do you work each week?

13. On the average, how many hours do you spend in leisure activities each week? _____

ID # _____

DATE: _____

NURSE EXECUTIVE HEALTH PROJECT

Interview Protocol

The purpose of this study is to find out what the stressors are in your work life and the ways in which you deal with them. A stressor is something that is difficult for you, or upsets or worries you in some way. I am going to ask you questions about these issues.

[Have consent signed and give copy.]

Work Stressors

1. What are the major stressors that occur in your work as a nursing director?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

2. Are there any other major stressors?

[If not previously mentioned]

3. Do(es) (a) lack of funding
(b) program changes (e.g., AIDS, homeless)
(c) understaffing (e.g., position freezes)
(d) the amount of work
(e) quality of care concerns (e.g., staff competence, quality of overall client care)

create a problem for you?

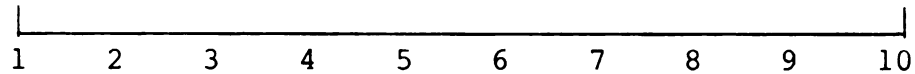
4. Specifically what problems do these major stressors create for you? (How do they affect you or your work in a negative way?)

Work Stressors (Continued)

["Look at this rating scale"]

5. Please rate how stressful _____ is based on this scale. Please choose one number.

not at all extremely



a. _____

b. _____

[Matched to the stressors in
Question 1, Interviewer places
number here.]

c. _____

d. _____

e. _____

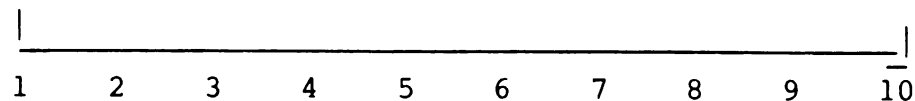
6. What are the more minor stressors (hassles) that occur at work?

7. What difficulties do these stressors create for you?

8. As you think about your work life in general how stressed do you really feel?

On a scale of 1 to 10, please rate your overall stress.

not at all extremely



Coping

"Now I would like to talk with you about how you deal with your stress at work"

"You mentioned _____ as one major stressor."

1. What kinds of things do you do to try to deal with it?

2. Do you do anything else?

"Now I am going to ask some specific questions about things that you might or might not have done in dealing with this situation. If yes, ask second question in parenthesis.]

- a. Did you ever try to confront the situation (person) directly, even if it was unpleasant?
Yes No (How did you do this?)
- b. Did you find yourself trying to put it out of your mind?
Yes No (How did you do this?)
- c. Did you ever try to keep your feelings to yourself or not act on your feelings right away?
Yes No (How were you able to do this?)
- d. Did you ever try to blame or criticize yourself?
Yes No (In what way?)
- e. Did you ever wish that the situation would go away, or try to distract yourself in anyway?
Yes No (Tell me about it.)
- f. Did you find yourself making a plan of action and working extra hard to carry it out?
Yes No (How did you do this?)
- g. As a result of this situation, did you change or grow as a person in a positive way?
Yes No (In what way?)

Coping (Continued)

What about quality of care concerns (workload, lack of funding, major program changes)?

3. What do you do to try to deal with this stressor?

4. Do you do anything else?

- a. Did you ever try to confront the situation (person) directly, even if it was unpleasant?
Yes No (How did you do this?)
- b. Did you find yourself trying to put it out of your mind?
Yes No (How did you do this?)
- c. Did you ever try to keep your feelings to yourself or not act on your feelings right away?
Yes No (How were you able to do this?)
- d. Did you ever try to blame or criticize yourself?
Yes No (In what way?)
- e. Did you ever wish that the situation would go away, or try to distract yourself in anyway?
Yes No (Tell me about it.)
- f. Did you find yourself making a plan of action and working extra hard to carry it out?
Yes No (How did you do this?)
- g. As a result of this situation, did you change or grow as a person in a positive way?
Yes No (In what way?)

5. When you do everything you can to solve a problem, and it does not work, is there anything else that you do to make yourself feel better?

Coping (Continued)

6. Which of the strategies that you use in dealing with your stress at work are most useful for you personally?

Social Support

1. Thinking about people both at work and outside, who would you say is the most supportive to you in relation to your work life?

[List up to three people and include their roles]

2. Are there any others who are very supportive?

[Ask only if original list consists of less than three people]

3. How are these people supportive for you?

- 4a. "What about emotional support?" (trust, concern, listening, caring)

How do others support you emotionally?

How important is this to you?

How satisfied are you with this type of support?

not at all

extremely

|_____|

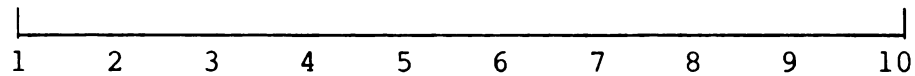
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Social Support (Continued)

- b. "Another type of support is validation (endorsement, reinforcement, positive reinforcement)."

How do others offer this validation?
 How important is this to you?
 How satisfied are you with the validation?

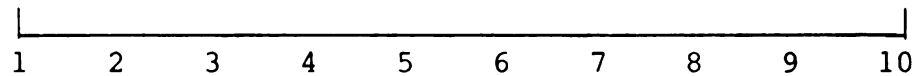
not at all extremely



- c. "What about information, advice, and suggestions?"

How do others go about offering information and advice?
 How important is this to you?
 How satisfied are you with the information and advice?

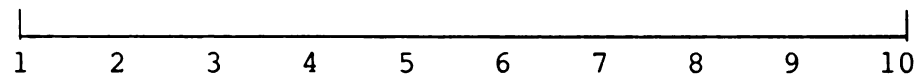
not at all extremely



- d. "What about practical or tangible help in dealing with your work demands?" (Specific tasks done by others to help you.)

How do others help you?
 How important is this to you?
 How satisfied are you with the help?

not at all extremely



Social Support (Continued)

"As one thinks about support, often positive things come to mind. Yet for some there may be negative aspects of support." (e.g., reciprocity)

5. Have you experienced any negative aspects of support? [If yes, ask Question 6.]

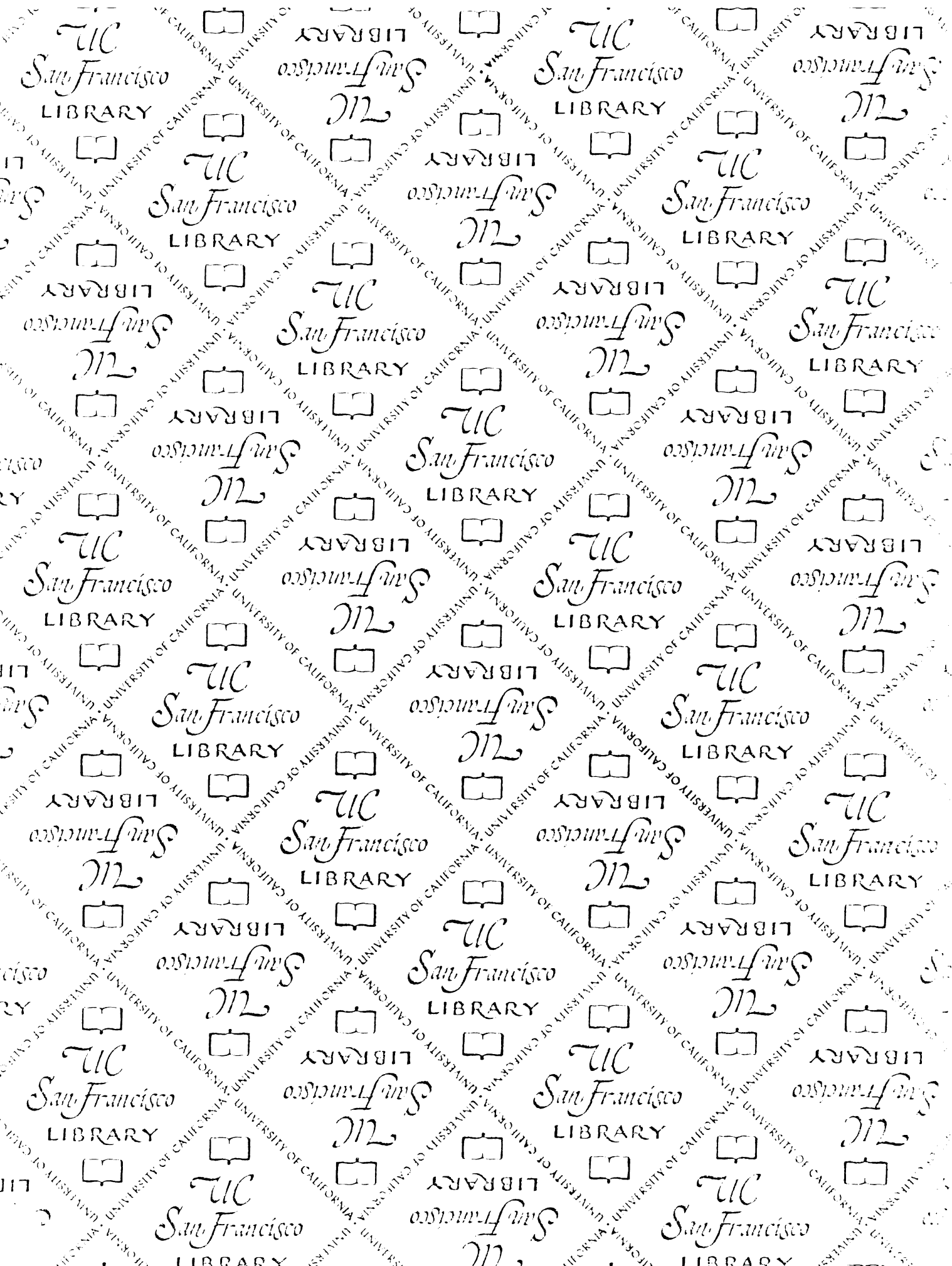
6. What did you do as a result?

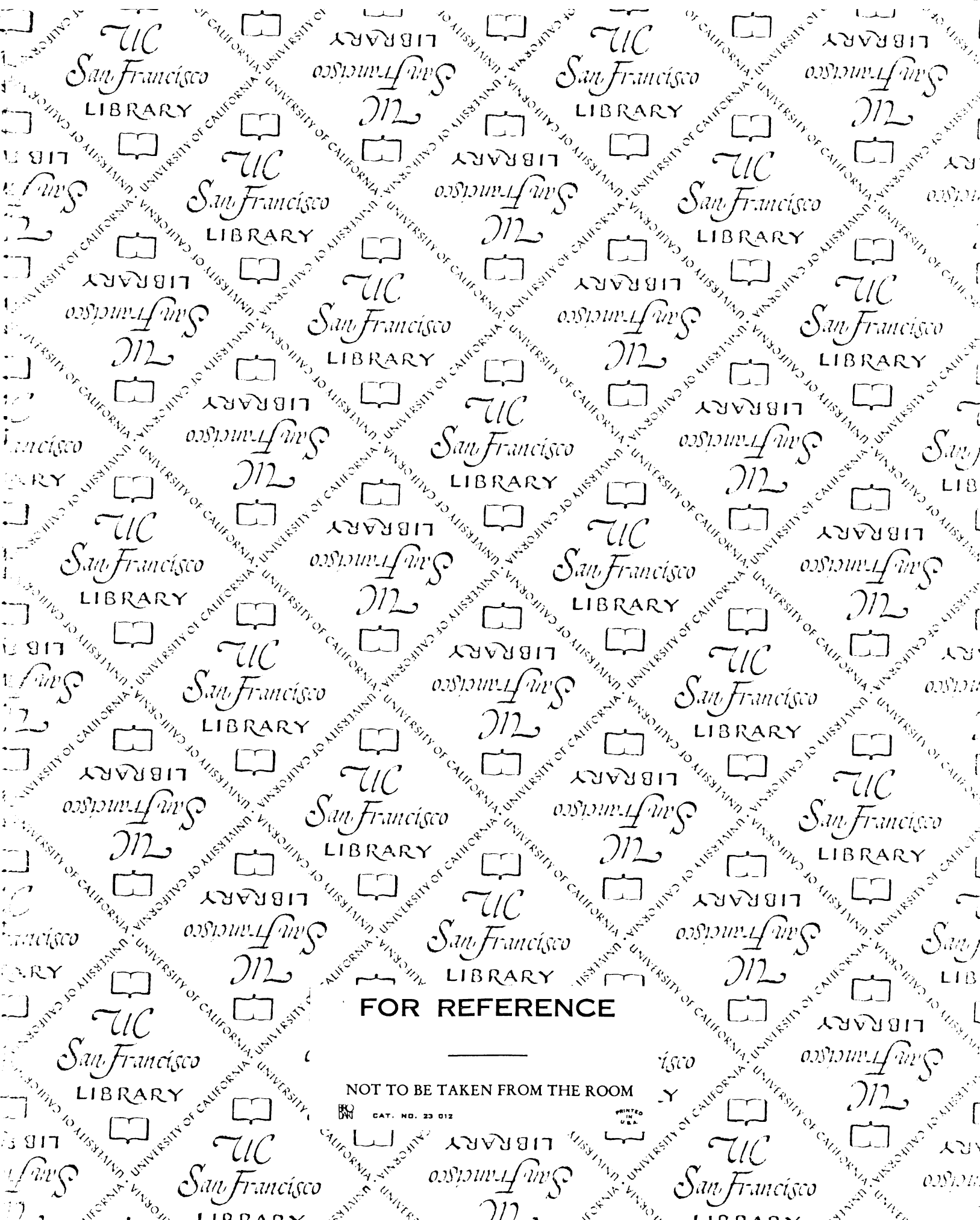
7. In what areas of your worklife do you feel a real lack of support?

Closure

Today we talked about work stress, your coping strategies and support. Thinking about your job, is there anything else I did not ask you about that you feel is important?

Thank You Very Much





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