HARDINESS, STRESS, AND COPING STRATEGIES

AMONG MID-LEVEL NURSE MANAGERS:

IMPLICATIONS FOR CONTINUING HIGHER EDUCATION

Sharon Kay Judkins BSN, MS, RN

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APPROVED:

D. Barry Lumsden, Major Professor and Chair
Al Bavon, Minor Professor
Ronald W. Newsom, Committee Member and
Coordinator of the Higher Education Program
Michael K. Altekruse, Chair of the Department of
Counseling, Development, and Higher Education
M. Jean Keller, Dean of the College of Education
C. Neal Tate, Dean of the Robert B. Toulouse School of
Graduate Studies

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This study investigated relationships among hardiness, stress, and coping strategies among mid-level nurse managers in hospitals. Coping strategies were hypothesized to be positively related to stress. In addition, hardiness and its components were hypothesized to be positively related to stress and coping strategies. Demographics were hypothesized to be unrelated to stress, hardiness, and coping strategies. Both hardiness and coping strategies were hypothesized to be predictors of stress. Pearson correlation coefficients, multiple regression, and linear regression were used in data analysis.

Stress was associated with specific coping strategies viz., confrontation, self-controlling, accepting responsibility, and escape-avoidance. High hardiness, particularly commitment and challenge, was associated with low levels of stress and with problem-focused coping strategies. By contrast, low hardiness was associated with high stress and use of emotion-focused strategies. Significant demographics, when compared to study variables, included age, experience, time with supervisors, number of direct reports, highest degrees obtained, and formal or informal higher education in management. Young nurse managers who were less experienced in nursing and management, and who had fewer direct reports, reported the highest stress levels among nurse managers. High

hardiness, particularly commitment, was a strong predictor of low levels of stress; use of escape-avoidance was a significant predictor of occupational stress.

This study supported the theoretical suppositions of lower stress if hardiness and specific coping strategies are high among mid-level nurse managers. Potential exists for work-related stress to be reduced by increasing hardiness and adaptive coping strategies. Implications for higher education research and practice are discussed.

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CHAPTER I

INTRODUCTION

The rapid changing health care environment has put enormous strain on health care workers at all levels. Downsizing, restructuring, and right sizing have become popular words in most health care organizations. This has been especially true in hospitals, where a crushing push toward economic viability and survival has occurred. During these organizational changes, the role of the mid-level manager was either eliminated or reduced; this was especially true in nursing departments. Chief Nursing Officers (CNOs) found themselves struggling to maintain quality patient care while dealing with large numbers of people reporting directly to them. Today, with the knowledge that administrative competencies have a significant impact on patient care outcomes, customer relations, productivity, and regulatory compliance, the role of the mid-level nurse manager has returned and is more critical than ever (Ridenour, 1996).

With decreasing time and energy of administrators, little time is possible for helping or mentoring those new and unfamiliar with the role of manager. Many nurses come to the role of manager with little or no managerial skills; the vast majorities are not prepared for the demands on time, energy, and inner resources called for in these roles (Keane, DuCette, & Adler, 1985).

Ehrat (1990) describes management competencies critical for the 1990s which focus on motivating followers, mastering uncertainty, inspiring confidence, shouldering

criticism, responding nonjudgmentally, creating a sense of unity, listening with empathy, and facilitating consensus among groups. The American Organization of Nurse Executives reports comparable competencies of planning, directing, controlling, motivating, facilitating, mentoring, problem solving, and strong communication proficiencies (Nurse, 1994). All are high-level management skills and seldom learned in the role of staff nurse or caregiver. With taxing job requirements and little time for mentoring by their superiors, many mid-level nurse managers (MLNM) suffer stress and have difficulty coping.

Stress at work is an increasingly common feature of American life. Occupational stress among managers has been studied by many in the field of business (Mathis and Lecci, 1999; Quick, Quick, Nelson, & Hurrell, 1997; Spielberger, Reheiser, Reheiser, & Vagg, 1998; Vagg & Spielberger, 1998). Interest in the consequences of job stress for both employees and organizations is increasing as stress is linked to poor work performance, acute and chronic health problems, and employee burnout (Williams & Cooper, 1998). Occupational stress adversely affects performance, productivity, job satisfaction, and health of professionals (Gmelch, Lovrich, & Wilkie, 1984). The total costs of stress to American organizations assessed by absenteeism, reduced productivity, compensation claims, health insurance, and direct medical expenses add up to more than $150 billion a year (Karasek & Theorell, 1990). Stress can have a dysfunctional impact on both organizations and individuals (Cooper & Cartwright, 1994).

When determining levels of stress and coping, individual characteristics such as personality style, support systems, coping mechanisms, and exercise habits influence the

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individual's reaction to occupational stressors (Cooper & Marshall, 1978). Additionally, personality variables are important factors in mediating the effects of stress and coping in the role of nurse manager. In one of the most in-depth studies to examine personality and stress, Kobasa, Maddi, and Kahn (1982), found that individuals high in hardiness tended to experience less stress. Studies have shown that hardy individuals have the ability to behave in an adaptive manner when stress is perceived or experienced.

Current literature on occupational stress addresses varying resources for coping with stress. However, few, if any, have evaluated the relationships between hardiness, stress, and coping strategies among MLNMs.

Theoretical Framework

The Cognitive Theory of Stress and Coping developed by Lazarus and Folkman (1984) was used as the theoretical framework for this study. According to Lazarus and Folkman, stress involves transactional relationships between individuals and their environment, which are appraised as taxing or exceeding their resources and endangering their well-being. This theoretical position emphasizes cognitive appraisal, not only of the demands of situations but also of the person's ability and resources for coping. This contrasts with Selye's (1965) perspective of stress as a response, which depicts stress to be internal to the individual, or with the work by Holmes and Rahe (1967), which considers stress as a stimulus and external to the person.

Using the Lazarus/Folkman framework, researchers such as Thompson (1992) point out that stress is not an object in the world; it is the reaction of an organism to events in the world. Stressors are objects and events; stress reactions are a variety of

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responses both physiological (rapid heart rate and breathing, increased blood pressure) and psychological (anger, fear, guilt, sadness) that occur when confronted with a stressor.

The appraisal or evaluation of stressors rests heavily on their personal meaning, which is strongly influenced by a succession of past environments and dispositions that have been internalized (Hamburg & Adams, 1967). Lazarus (1990) describes stress appraisal in three ways: primary, secondary, and coping behaviors. Primary appraisal involves the individual's perception of the stressor as harmful, threatening, or challenging. Secondary appraisal is the assessment of the person's own coping resources available for dealing with the stressor. Coping behaviors are the specific cognitive and behavioral strategies that individuals use to deal with the stressor. It is the perception of demand and coping capacity which determines stress levels (Lazarus & Folkman, 1984). Stress appraisal requires mobilization of coping efforts (Gass & Chang, 1989).

Coping consists of both cognitive and behavioral efforts aimed at managing specific external and /or internal demands appraised as taxing or exceeding the resources of the person (Monat & Lazarus, 1988). "These cognitive and behavioral efforts are constantly changing as functions of continuous appraisals and reappraisals of the person-environment relationship, which is also always changing" (Folkman & Lazarus, 1988, p. 310). Coping is flexible, goal-oriented, and responds to needs of the present as well as the future. It is a multidimensional process (Folkman & Lazarus, 1988). Coping efforts can be focused upon managing or altering a problem causing distress (problem-focused) or regulating unpleasant emotions (emotion-focused) that are aroused because of the problem (Gass & Chang, 1989). According to Lazarus (1993), "The function of problem-

focused coping is to change the troubled person-environment relationship by acting on the environment or oneself. The function of emotion-focused coping is to change either the way the stressful relationship with the environment is attended to or the relational meaning of what is happening" (p. 238).

Lazarus and Folkman (1984) have defined stress-coping resources as the personal factors, characteristics, or assets that one draws upon in order to cope. When the resources are within the individual, they are considered internal; when outside, they are external. These resources are viewed primarily as mediators that can increase a person's resistance to stress. One internal resource that has been studied with great interest is personal hardiness.

Initially developed by Kobasa (1979b), and later refined by Maddi & Kobasa (1984), hardiness is often viewed as a mediating factor in the stress-coping framework (Williams, Wiebe, & Smith, 1992). It is a three-dimensional construct composed of commitment, control, and challenge. It was particularly useful for the purposes of this study in that cognitive coping strategies can transform a stressor into a challenge, or reframe or reinterpret stressful experiences in such a way that stress is actually reduced (Williams, et al., 1992). Thus, hardiness can change the stressful event into a positive reappraisal and reduce emotions such as anger and sadness (Gentry & Kobasa, 1984). High-hardy individuals engage in more adaptive coping strategies and less maladaptive coping than do low-hardy individuals (Williams, et. al., 1992; Wiebe & McCallum, 1986; Blaney & Ganellen, 1990). Theoretically then, if hardiness and adaptive coping strategies are increased, stress will decrease. Inasmuch as hardiness can be learned (Maddi &

Kobasa, 1984), having knowledge of the interaction between stress, coping strategies and levels of hardiness may provide valuable information to employers in assisting MLNMs to be better prepared to handle occupational stress in hospitals.

Statement of the Problem

What is the association between hardiness and coping strategies in managing occupational stress among mid-level nurse managers in hospitals?

Purposes of the Study

The purposes of the study were:

1. To describe perceived stress among mid-level nurse managers;

2. To determine the degree of hardiness among mid-level nurse managers;

3. To describe coping strategies used by mid-level nurse managers in managing perceived stress;

4. To determine the association between hardiness, perceived stress, and coping strategies among mid-level nurse managers;

5. To determine the extent to which specific demographic variables such as age, years as a manager, and basic and advanced degrees in higher education are associated with hardiness and coping strategies in managing perceived stress among mid-level nurse managers.

Hypotheses

Based on the conceptual framework, the following hypotheses were tested in this study:

1. There is a positive relationship between perceived stress and coping strategies among mid-level nurse managers in hospitals.

2. Low-hardy mid-level nurse managers have higher levels of perceived stress than high-hardy mid-level nurse managers.

3. High-hardy mid-level nurse managers use different coping strategies than low-hardy mid-level nurse managers.

4. There is no significant relationship between specific demographic variables of mid-level nurse managers and hardiness, coping strategies, and stress;

5. Both hardiness and coping strategies predict perceived stress.

Definition of Terms

The following terms had restricted meaning in the study and are defined below:

Stress: Defined as "a transactional relationship between the person and the environment appraised by the person as taxing or exceeding his or her resources and endangering his/her well-being" (Lazarus & Folkman, 1984, p. 33). Occupational stress refers to a large number of work-related environmental conditions or specific events perceived by MLNMs to impact their health and well-being (Hurrell, Nelson, and Simmons, 1998).

Coping: Defined as "ongoing cognitive and behavioral efforts to manage specific external and or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus, 1993, p. 237).

Coping strategies: "Thoughts and actions individuals use to change the perceived experience of a stressful event so as to master, reduce, or tolerate the demand created by that event" (Folkman & Lazarus, 1980, p. 36).

Hardiness: "A constellation of personality characteristics that function as a resistance resource in the encounter with stressful life events" (Kobasa, 1979a, p. 414). This construct is composed of three basic, interrelated elements: commitment, control, and challenge (Kobasa, et. al., 1982).

Mid-level Nurse Managers: Persons in some type of full-time or part-time middle management position in hospitals. For this study MLNMs included, but were not limited to, head nurse or assistant head nurse, nurse manager, director, supervisor, or coordinator. The only job position excluded was the chief nursing officer who has responsibility for the entire nursing department.

Assumptions

The following assumptions undergirded the study:

1. Mid-level nurse managers experience occupational stress and use various coping strategies to reduce or alleviate the stress.

2. Mid-level nurse managers in hospitals in the Dallas/Fort Worth, Texas area experience similar occupational stress as other nurse managers across the United States.

3. Effectiveness of a coping strategy depends on the extent to which it is appropriate to the internal/external demands of the situation (Lazarus, 1993).

4. One experiences both positive and negative emotions whether appraisal is a threat or challenge (Lazarus, 1999).

5. Stress is present in all coping situations and can be reduced or managed.

Limitations

The limitations of the study are based on the use of mailout questionnaires. The response rate is often low. Forced-choice responses may leave insufficient room for variation in choice, and there is an inability to interact with the participants in relation to their responses. Respondents to mailed questionnaires may not represent a normal sampling of the population under study.

Delimitations

This study was limited to mid-level nurse managers serving in hospitals in the Dallas/Fort Worth, Texas area.

Significance of the Study

With few studies concerning hardiness, stress, and coping among MLNMs, a study concerning association of relationships between these variables is important for several reasons. First, the study may provide information to MLNMs regarding the association between improved coping abilities and hardiness levels. This is especially important when coupled with the knowledge that hardiness can be learned. The same understanding could benefit those desiring to become MLNMs, but are doubtful of their ability to cope with occupational stress. Second, evaluation of perceived stress and hardiness may offer opportunities for employers to assist MLNMs in developing effective

stress reducing coping strategies. Third, educators who provide continuing education in hospitals may find this study significant as they seek to understand the association of these variables and assist MLNMs to learn hardiness skills and thereby reduce stress (Tierney & Lavelle, 1997).

Lastly, understanding the association among hardiness, stress, and coping strategies could prove beneficial to nursing faculty who prepare graduates to be nurse managers. Many undergraduate and graduate nursing students are placed in management positions within a short time after graduation. Increasing hardiness levels and enhancing coping abilities of nursing students would benefit both students as well as those employing students after graduation (Collins, 1996; Cox, 1995; Patton & Goldenburg, 1999; Rich & Rich, 1987)

CHAPTER II

REVIEW OF THE LITERATURE

Much information exists on the subject of hardiness, stress, and coping (Folkman, 1984; Folkman & Lazarus, 1980; Kobasa, 1979a, 1979b; Maddi & Kobasa, 1982; Pollock, 1989). Prior studies have been reported with hardiness and health care professionals such as nurses (Keane, DuCette, & Adler, 1985; Rowe, 1998; Williams, 1990), but few studies have focused on the relationship of these variables among mid-level nurse managers. Further, little or no information exists on the use of these variable relationships to assist MLNMs or their employers in evaluating needs for personal development such as mentoring or continuing higher education.

Stress

"Never before has there been so much interest in stress world-wide, among social and biological scientists, and on the part of the general public. …Stress has become a household word, and we are flooded with messages about how it can be prevented, eliminated, managed, or just lived with" (Lazarus, 1999, p. 27).

The term "stress" came into vogue during and following World War II. Health care professionals were concerned with failures of adaptation in combat conditions under which men would fail to fire their weapons, show serious impairment of vital perceptual and motor skills, give themselves up unnecessarily to the enemy, or develop neurotic-

psychotic symptoms associated with combat. These disorders were attributed to stress, as well as to predisposing factors in the personality resulting from vulnerability to stress (Lazarus, 1966). Terms for stress and/or its associated symptoms proliferated in the intervening years as notables such as Grinker and Spiegel (1945), Selye (1956), Janis (1958), Epstein (1962), and Lazarus (1966) studied stress among animals and humans.

Selye (1976), considered the father of stress research, regarded stress as positive when it energized people and brought them to heightened awareness and performance capabilities. Selye considered positive stress or "eustress" as a necessary part of life that could bring about planned change, increased productivity, and personal growth. Negative stress or "distress" occurs when a person's capacity to use stress positively is overwhelmed. Selye viewed distress as negative because it depleted ones energy reserves and taxed the maintenance and defense of the bodily systems potentially causing harm to both physical and psychological health.

Today, stress continues to have many definitions, but for purposes of this study was taken from the theoretical framework offered by Lazarus and Folkman (1984). These authors define stress as "a transactional relationship between the person and the environment appraised by the person as taxing or exceeding his or her resources and endangering his/her well being" (p. 33). The emphasis is on cognitive appraisal, not only of the demands of a situation but also of the person's ability and resources for coping.

Stress is not an object in the world; it is the reaction of an organism to events in the world. Stressors are defined as "things which can cause harm to an organism…to include psychological concepts such as well-being and self-esteem" (Thompson, 1992,

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p.148). Stress reactions are responses both physiological (increased pulse, respirations, blood pressure) and psychological (anger, anxiety, fear, guilt, depression) that occur when confronted with a stressor and can set up demands which can emotionally drain the individual (Glass & Singer, 1972). Cohen (1980) submits that stressors create conditions of information overload because they force people to pay special attention. This results in cognitive fatigue and saps energy needed for task performance. "Individuals experiencing stress become less sensitive to others, show a decrease in helping or recognition of individual differences, and an increase in aggression" (p. 95). Similar findings (Aderman, 1972; Rosenhan, Salovey, & Hargis, 1981; Rule & Nesdale, 1976) are particularly significant when realizing these behaviors are the antithesis of traits looked-for in successful managers (Dubnicki & Williams, 1991).

Stress, is to some degree, determined by one's perception or appraisal of its importance. Stress occurs in situations appraised as taxing or exceeding one's resources and endangering one's well being (Cohen et al., 1983; Lazarus & Folkman, 1984; McDonald & Korabik, 1991). Appraisal of stressors rests heavily on their personal meaning, which is strongly influenced by a succession of past environments and dispositions that have been internalized (Hamburg & Adams, 1967). Folkman and Lazarus (1980) described stress appraisal in three ways: primary, secondary, and coping behaviors or strategies. Primary appraising has to do with whether or not what is happening is relevant to one's values, goal commitments, beliefs about self and world, and situational intentions. It also has to do with whether or not the individual perceives the stressor as harmful (referring to damage that has already occurred), threatening

(meaning harm or loss that is anticipated), or challenging (referring to an anticipated opportunity for mastery or gain). The difference between threat and challenge is one of emotionality. Negative emotions such as fear, anxiety, and anger are characteristics of threat; positive emotions associated with challenge are excitement, eagerness, and exhilaration.

Secondary appraisal refers to a cognitive-evaluative process focused on what can be done about a stressful person-environment relationship. It is the assessment of the person's own coping resources available for dealing with the stressor. Because threat and challenge (primary appraisal) can both occur in the same situation, the more confident the individual of the capacity to overcome obstacles and dangers, the more likely the person is to be challenged rather than threatened (Folkman and Lazarus, 1980). Conversely, a sense of inadequacy promotes threat (Lazarus, 1999).

Stress can have a positive influence by providing useful lessons in adaptation. Furthermore, emotional states such as hope, relief, and happiness are often derived from stress, and, as Lazarus (1999) points out, "too little stress is tantamount to boredom" (p. 655). However, a growing interest in the negative influence of stress, especially its affect on job performance in the work environment, provided a focus for this study.

Studies by those in the field of business (Mathis and Lecci, 1999; Quick, et al., 1997; Spielberger, et al., 1998; Vagg & Spielberger, 1998) indicate that job related stress has affected productivity and absenteeism, and health-related problems have increased dramatically during the past decade. Reactions to stress at work include fatigue, anxiety, depression, high turnover, absenteeism, lowered performance, and alcohol and drug

abuse (London & Mone, 1987). Stress at work, termed occupational stress, refers to "a large number of work-related environmental conditions or specific events thought to impact the health and well being of the worker" (Hurrell, Nelson, and Simmons, 1998, p. 368). Work-related conditions are described as work overload, job insecurity, poor worker-job match, role ambiguity, antiquated equipment, administrative demands, and lack of control or participation in decisions that affect the worker's environment (Calhoun & Calhoun, 1983; Haynes, 1978; Trojanowicz, 1980). Interest in the consequences of job stress for both employees and organizations is growing since stress can adversely affect performance, productivity, job satisfaction, and health of professionals. Unrelenting stress can have serious and harmful effects on an individual's physical and psychological health (Gmelch, Lovrich, & Wilkie, 1984). A survey of over 28,000 employees in the United States linked occupational stress to poor work performance, acute and chronic health problems, and employee burnout (Ivancevich, Matteson, Freedman, & Phillips, 1990). Kahill (1988) describes personal costs of job stress to include divorce, substance abuse, emotional disruption, and loss of health.

Numerous studies report higher levels of occupational strain resulting from higher occupational stress and lower coping resources (Edwards, 1988; Karasek & Theorell, 1990; Osipow & Davis, 1988; Osipow & Spokane, 1987). Gray-Toft & Anderson (1981) using hospital nurses, and Koch, Tung, Gmelch, & Swent (1982) using school administrators, found stress was attributed to the frequency of stressful events and the intensity for the individual. Motowidlo, Packard, & Manning, (1986) reported similar findings in their hospital nurse sample. Nurses perceived stress relative to certain events

such as work overload and lack of support from supervisors, and relative to their experienced fear, anxiety and depression. However, frequency and intensity covaried among participants. The authors concluded, "stressful events are more frequent in some job situations than others and people with certain characteristics are more likely than other people to behave in ways that increase or decrease the frequency with which such events occur" (p. 619).

Because nursing continues to be a predominantly female profession (Rapson & Rice, 1999), and consequently nurse managers are mostly female, studies relational to stress and gender seemed important. In studies by Jick and Mitz (1985) and Powell (1988) among male and female managers, women were found subject to more work-related stressors than men in comparable positions. Similar findings were reported by McDonald and Korabik (1991) among male and female managers in a large utility company. These authors found men more often than women reported problems with interpersonal relationship. Women more often than men described discrimination and higher stress from the interface between work and home. Findings were consistent with those discovered by Nelson and Quick (1985), "Stressors … especially applicable to managerial women included: prejudice and discrimination, social isolation, stereotyping, and work-family interface" (p. 215). Interfaces between life outside the organization and inside the organization include family obligations, day-care arrangements, and conflicting demands by work and family (McDonald & Korabik, 1991). Typical of many women workers, balancing multiple responsibilities such as home, children, career, and

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community activities, can create ambiguities and overloads that can negatively affect both physical and mental health (London & Mone, 1987).

Occupational stress and its consequences among nurses have been the focus of several studies. For example, investigators have discovered several job stressors that nurses typically encounter: death and dying, emotional demands of patients and their families, inadequate staffing, work overload, and conflicts with administrators, physicians, and other nurses (Gray-Toft & Anderson, 1981; Marshall, 1980; McCranie, Lambert & Lambert, 1987). Furthermore, work performance issues such as job satisfaction and burnout were found to be significantly related to increased levels of comparable stressors (Marsh, Beard, & Adams, 1997; McCranie, et al., 1987; Simoni & Paterson, 1997). However, mediating effects such as hardiness and coping strategies have been found to reduce or neutralize stressors among nurses (Collins, 1996; Rich & Rich, 1987; Marsh, et al., 1997; Simoni & Paterson, 1997) and consequently, were the topic of this study. These findings support the theory that stress is experienced in work situations and appraisal of stress is dependent on a variety of factors including individual perceptions.

Coping Strategies

"In recent years conviction has grown that it is how individuals cope with stress, not stress per se, that influences their psychological well-being, social functioning, and somatic health", (Folkman and Lazarus, 1988, p 5). "Effective adaptation to stressful events entails the complex interplay of several different factors. These include the nature of the event itself, the individual's cognitive appraisal of the event, personal and social

coping resources available to the individual, and the actual coping strategies that the person employs" (Forsythe & Compas, 1987, p. 473.).

Coping is viewed in terms of defensive processes, traits, or the cognitive-transactional theory of stress developed by Folkman and Lazarus (1984). Studies viewing coping as defensive processes (Haan, 1977; Phillips, 1966) organize coping hierarchically from more primitive to sophisticated coping efforts, based on how well a person is functioning. However, this approach may confuse the process of coping with the outcomes of the process, and it is difficult for raters to agree where along the hierarchical continuum a particular coping strategy belongs (Folkman & Lazarus, 1980).

Trait approaches to coping view people's coping attempts as personality dispositions that do not change over time or across situations. Most trait measures evaluate coping along single dimensions that address confronting-avoiding or defensive styles (Byrne, 1964; Gleser & Ihilevich, 1969; Goldstein, 1973). The assessment of coping traits has had only modest predictive value in regard to coping processes (Cohen & Lazarus, 1973; Kaluopek, White, & Wong, 1984).

The cognitive-transactional theory by Folkman and Lazarus (1984) purports that coping cannot be defined as effective or ineffective independent of the context in which it is used. Individuals and their environments reciprocally affect each other. In the face of a potentially stressful event, individuals appraise to determine if an event has personal relevance. During primary appraisal, where one evaluates the significance of what is happening, the situation is determined to be potentially harmful or affects them in a significant manner. In secondary appraisal, individuals assess if they can do anything to

reduce the chances of harm. If so, individuals assess what can be done to change the

situation, use a problem solving approach to alter or manage the source of the problem, or

use emotion-focused coping to reduce or manage the physical and psychological

components of stress so that destruction of morale or social functioning does not occur

(Folkman & Lazarus, 1988a)

Within this framework, coping is defined as "cognitive and behavioral efforts to

manage specific external and/or internal demands that are appraised as taxing or

exceeding the resources of the persons " (Folkman & Lazarus, 1988a, p. 310). Coping is

the means by which we think, feel, and act to advance our cause (Lazarus, 1999). Coping

helps advance a sense of increased control over the situation and is characterized by

dynamics and changes that are a function of continuous appraisals and reappraisals of the

shifting person-environment relationship (Folkman, et al., 1986). Coping effectiveness is

dependent on the match between coping efforts and other variables in the stress-coping

process, including one's values, beliefs, and commitments (Folkman, Schaefer, &

Lazarus, 1979).

Coping is a multidimensional process depending on the nature of the stressful

event (Pearlin & Schooler, 1978). Coping behaviors are the specific cognitive and

behavioral strategies that individuals use to deal the stressful event (Werner & Frost,

2000). Coping strategies involve what the person actually thinks and does within the

context of a specific encounter and how these thoughts and actions change as the

encounter unfolds. They are also efforts to change the perceived experience of stress as it

unfolds during an episode or across episodes (Folkman & Lazarus, 1980). Using

information from previous studies (Folkman & Lazarus, 1985; Folkman, et al., 1986; Folkman, et al., 1987), Folkman and Lazarus (1988a) identified eight categories of coping strategies that depict a broad range of cognitive and behavioral strategies people used to manage the demands of stressful encounters. These categories were further grouped into two forms: problem-focused and emotion-focused coping. Problem-focused strategies include categories of confrontive coping and planful problem solving. The remaining six categories are emotion-focused strategies including distancing, accepting responsibility, escape-avoidance, seeking social support, and positive reappraisal. Problem solving approaches might take the form of seeking information, trying to get help, inhibiting action, and taking direct action. Examples of emotion-focused approaches include trying to see humor in the situation, avoidance, detachment, and assignment of blame to self and others.

Problem- and emotion-focus strategies have been used as the focal point in numerous populations including children and adults. Two examples of studies among children were by Hogan and DeSantis (1994) and Grey, Cameron, and Thurber, (1991). Hogan and DeSantis (1994) found effective strategies among children who had lost siblings to be emotion-focused: seeking social support and a personal belief system. Grey, Cameron, and Thurber (1991), reported good diabetic control among children was associated with seeking professional support and use of humor (emotion-focused). An example of using coping among adults was a study focused on life-threatening events such as multiple sclerosis. Wineman, Durand, and Steiner (1994) determined that when a situation was appraised as dangerous, emotion-focused coping was used more often

among multiple sclerosis and spinal cord injury patients. Conversely, problem-focused coping was used more often when a situation was appraised as an opportunity. Among a sample of neonatal intensive care nurses, Rosenthal et al., (1989) found nurses viewed problem-solving strategies as helpful, but those using emotion-focused strategies rarely found them useful.

When evaluating problem- and emotion-focused coping, value judgments associated with use of emotion-focused coping have been unfavorable toward women (Sherif, 1987). Women have been described as reporting more distress, using more emotion responses, and engaging in fewer problem-solving coping strategies (Pearlin & Schooler, 1978; Moos & Billings, 1982). Consistent with these findings, Folkman and Lazarus (1980) reported women used less problem-focused coping strategies work than men. Further, a study among young women aged 20 to 35 (Grambling, Lambert, & Pursley-Crotteau, 1998) determined a variety of coping strategies were used simultaneously, yet emotion-focused strategies such as escape and daydreaming were used more often. However, in contrast, Dewe (1989) found that male managers experiencing high stress used emotion-focused strategies more often than those experiencing low stress.

In regard to evaluation as to which coping strategy should be used, Grambling et al., (1998) determined coping strategies are not inherently good or bad but should be assessed in context of stressful events. This is consistent with Folkman and Lazarus' (1988a) contention that both emotion- and problem-focused strategies should be used and that every stressful encounter is usually complex, containing multiple facets and

implications for well-being. As an example, stress management techniques which promote a healthy life-style as in jogging and relaxation, would be regarded as avoidance or ways of getting away from the stress. In this example, use of avoidance would be considered appropriate and justifiable. However, Folkman and Lazarus also point out that some emotion-focused strategies such as distancing and avoidance may have value for only limited periods of time, may be associated with increased distress because of need for resolution, or considered maladaptive if they draw the person's attention away from a problem that needs to be addressed. In a study by Aldwin and Revenson (1987) among community adults, high use of emotion-focused strategies, escapism and self-blame, actually caused emotional distress rather than resolve or relieve stress.

These findings support the theory that a variety of coping strategies are used by individuals. In addition, stress appraisal and the type of coping strategies used affects resolution or reduction of stress in the individual.

Hardiness

The previously described need to combat occupational stress has spurred investigation into factors that serve as resources to increase stress resistance or buffer stressful events. This line of inquiry derives from Antonovsky's (1987) investigation into resistance resources which may buffer or neutralize the otherwise debilitating effects of stressful life events. Resistance resources are considered any characteristic of a person, group, or environment that facilitates tension management. Cultural context, social support, physiological adaptability, and personality are stress-buffering resources found to affect occupational stress (Topf, 1989).

Hardiness has been found to be a major personality factor found to serve as a resistance resource for stress. From a theoretical perspective, hardiness is a constellation of personality characteristics functioning as a resistance resource when encountering stressful life events (Kobasa, Maddi, & Kahn, 1982). Introduced by Kobasa in 1979, hardiness has been determined to be a general quality emerging from rich, varied, and rewarding childhood experiences (Maddi & Kobasa, 1984). Hardiness manifests itself in feelings and behaviors characterized as commitment, control, and challenge. According to Funk (1992), by possessing these characteristics the hardy individual is able to remain healthy under stress. Hardy individuals are active, goal-oriented people who are committed to themselves and the world around them. They see themselves, not as victims of threatening changes, but as persons who are active determinants of the consequences brought about by change (Kobasa, 1979b). Kobasa, et al. (1982) found that people possessing hardiness traits became ill less often and had the ability to turn stressful life events into opportunities for personal growth and development. As an example, in a study comparing hardiness and stress among highway patrol officers, Hills and Norvel (1991) reported that the presence of high of hardiness exerted clear main effects in the prediction of reduced stress, burnout, and illness. Maddi and Kobasa (1984) found hardy individuals have the ability to transform distress into eustress (Selye, 1976).

In the hardy individual, commitment is expressed as a tendency to involve oneself in (as opposed to alienation from) the activities of life whether work, family, self, or hobbies (Nowack, 1991). Committed persons have a generalized sense of purpose that allows them to identify with and find meaningful events, things, and persons in their

environment. They are invested in themselves and their relationship to the social context. Committed persons do not give up easily under pressure and their involvement takes an active approach rather than passivity and avoidance (Kobasa, et al., 1982).

Control is expressed as a tendency to feel and act as if one is influential (rather than helpless) in the face of the varied contingencies of life (Averill, 1973; Phares, 1976; Seligmen, 1975), giving a sense of autonomy and effect on one's future (Bartone. Ursano, Wright, & Ingraham, 1989). This notion implies a perception of oneself as having influence through the exercise of imagination, knowledge, skill, and choice. Control enhances stress resistance perceptually by increasing the likelihood that events will be experienced as a result of one's actions, not as unexpected and overwhelming. Control appears responsible for the development of a broad and varied repertory of responses to stress, which can be drawn on even in the most threatening of circumstances. In terms of coping, a sense of control leads to actions aimed at transforming events into something consistent with an ongoing life plan and thus less jarring (Kobasa, et al., 1982).

The third component of hardiness, challenge, is expressed as the belief that change rather than stability is normal in life and the anticipation of change is an incentive for growth rather than a threat to security. Challenge defines events as stimulating rather than threatening, specifically because they are changes requiring readjustment. In coping behaviors, challenge will lead to attempts to transform oneself and thereby grow, rather then conserve and protect, the former existence (Kobasa, et al., 1982). By fostering

openness and flexibility, challenge should also allow the integration and effective

appraisal of exceedingly incongruent events (Moss, 1973).

Gentry and Kobasa (1984) discovered the buffering effect among hardy persons

occurs through active, transformational coping, which transforms stress into a benign

experience by means of problem-focused strategies. Transformational coping is defined

as "optimistic appraisals by which the stressful events tend to be perceived as natural

changes, meaningful, and interesting despite their stressfulness" (Kobasa, et al., 1985, p

525). Through transformational coping, stressors are rendered more meaningful, less

overwhelming, and less desirable (Kobasa, et al., 1982). Among professionals who

participated in a military air disaster, Bartone, et al., (1989) concluded that disaster events

were perceived less overwhelming when hardiness levels were high. In a study among

male and female undergraduates, Banks and Gannon (1988), discovered individuals

reported fewer life events and hassles than did those lower in hardiness. Further, hardy

individuals tended to rate hassles, but not life events, as less severe than did low hardy

individuals, suggesting that hardy individuals may be less inclined to notice troublesome

situation or difficulties at work. In contrast, persons low in hardiness may prefer to use

regressive coping strategies such as cognitive and behavioral withdrawal and denial,

which neither transform the situation nor solve the problem. Low hardiness may even

enhance emotional problems and maladjustment such as that found by Blaney and

Ganelen (1990) who reported high use of behavioral withdrawal among persons with low

hardiness.

As previously pointed out, Kobasa (1979b) found that hardy persons use transformational coping while persons with few hardy characteristics tend to use regressive coping such as denial or avoidance. The relationship between hardiness and coping strategies was investigated by Wiebe and McCallum (1986) and Kobasa (1982) who found that emotion-focused coping was negatively correlated to hardiness or some component of hardiness. Similarly, Boyle, Grap, Younger, & Thornby (1991) found the use of emotion-focused coping was negatively related to hardiness and positively related to burnout among nurses. Fusco's (1994) study among hospital nurses reported hardiness was positively related to coping styles, which attempted to solve or alter the stressful situation (problem-focused coping). Further, coping styles attempting to minimize the stressful situation without actually resolving it (emotion-focused) were negatively related to hardiness.

Relative to problem-focused coping, Allred and Smith (1989) found that high hardy male students immersed themselves in positive thinking more often than did low hardy students of which both groups were involved in high stress. Moreover, as conditions became more stressful, the hardy students engaged in even more positive thinking while low hardy students did not. Physiologically, the high hardy students had higher systolic blood pressure responses to tasks than did low-hardy students. The authors submitted that the increased blood pressures may have reflected problem-focused coping rather than distress. Conversely, in an all nurse sample, Boyle et al., (1991) concluded, hardiness was unrelated to problem-solving coping.

Consistent with previous hardiness studies (Rhodewalt & Agustsdottir, 1984; Rhodewalt & Zone, 1984; Roth, Wiebe, Fillingim, & Shay, 1989), Wiebe (1991) described moderation of stress in the relationship between hardiness and appraisal of life events. High hardy subjects rated objective stressors as less threatening than did low hardy subjects, and high hardy subjects reported more control than did low hardy subjects. Hardiness was also associated with less adverse affective and psychophysiological stress responses. Similarly, when studying loss of a spouse among women, Campbell, Swank, and Vincent (1991) report that levels of grief decreased when hardiness increased.

In a sample of undergraduates (Hull, Van Treuren, & Virnelli, 1987), described that hardiness moderates the stress-strain relationship because hardy persons experience fewer stressful events. Furthermore, in a similar study, Hull, Van Treuren, & Propsom (1988) found high-hardy subjects rated stressful events as positive and low-hardy individuals rated stressful events as negative. In other words, both high-hardy and low hardy individuals experience stressful events, but high-hardy individuals appraise their life as less stressful and stressful events as generally positive. Weibe (1991) provides additional evidence that hardiness moderates stress in her study among male and female undergraduates. High-hardy participants displayed higher frustration tolerance, appraised the same stressor as less threatening, and responded to the stressor with more positive and less negative affect then did low hardy subjects. Weibe concluded that hardiness affected cognitive appraisal in such a way that stressfulness of the event was reduced and psychological arousal was altered.

In the nursing literature, hardiness research was found mostly associated mostly with staff nurses in relation to variables of burnout and stress (Fusco, 1994; McCranie, Lambert, & Lambert, 1987; Rowe, 1998; Toscano & Ponterdolph, 1998), job satisfaction (Littell, 1995; Tierney & Lavelle, 1997); and issues related to retention, turnover, and absenteeism (Martin, 1995; Noble, 1993). In a study of critical nurses, Boyle, et al., (1991) found a negative correlation to exist between hardiness and emotion-focused coping but no relationship between hardiness and problem-focused coping. Through their research with staff nurses in hospitals, Rich and Rich (1987), Collins (1996), and Simoni and Paterson (1997), concluded that hardy nurses are more resistant to stress, strain, and burnout. Further studies have discovered significant relationships with spirituality (March, Beard, & Adams, 1999), health status (Cox, 1995; Williams, 1990) and academic performance (Cox, 1995). Patton and Goldenberg, (1999) describe decreased anxiety (stress) among high hardy RN students enrolled in a BSN completion program. Virgin (1994) discovered a strong relationship between hardiness and job satisfaction among deans of schools of nursing. In nurse managers, results from a study by Drayton-Hargrove (1993) indicate a significant relationship between certain leadership styles and hardiness. Most results have found some degree of relationship between one or all elements of hardiness. These findings support the theory that hardiness is a mediator for both stress appraisal and responses to stress by individuals.

The three elements of hardiness have generated some criticism and controversy with varying results. For example, Topf (1989) reported little significance between hardiness, occupational stress, and burnout among critical care nurses. Littell's (1995)

study among nurse managers, reports that hardiness and job satisfaction were moderately

correlated, but found conflicting results with perception of organizational climate

influencing job satisfaction more than hardiness. Low (1996) presents a critical

commentary of hardiness challenging the causal sequence of hardiness and stress. With

the initial work of hardiness coming from studies among male executives (Kobasa,

1979b), Low as well as Lambert and Lambert (1987) recommend more studies using the

construct among women and women managers. Low also suggests obtaining data that

teases out a greater understanding of specific perceptions of stress and hardiness.

Mid-level Nurse Middle Managers

Due to recent trends of leaner organizations and fewer managers, Brandt, Sayles,

Frohman, & Steinberg (1994) believe the role of the mid-level manager is more important

than ever. "Middle management is where the action will be, and more will be required of

them as their span of control and responsibility increases" (p. 30). Companies are now

viewing their middle managers as the stabilizers who make enduring change possible,

linking corporate strategy to action. Middle managers are the only ones who know what

is occurring in the marketplace and are able to meet new developments quickly (Who's

Minding, 1996). The role of middle managers in health care markets is no different.

Studies by Patz, Biordi, and Holm, (1991), Freund (1985), and Moore, Biordi, &

Holm (1988), identified the major criteria for effectiveness of middle nurse managers as

human management, flexibility, negotiation, and compromise. In a nationwide study by

Dubnicki and Williams (1991), nine competencies were determined as essential for nurse

managers: directing others, self-confidence, use of influence, interpersonal sensitivity,

initiative**,** group management, achievement orientation, direct persuasion, and analytical

thinking. Ehrat (1990) describes critical management competencies as motivating

followers, mastering uncertainty, inspiring confidence, shouldering criticism, responding

nonjudgmentally, creating a sense of unity, listening with empathy, and facilitating

consensus among groups. These competencies are congruent with similar findings in

work by Flarey (1991), Loveridge (1991), and Sorrentino (1992). Ridenour (1996)

reports that MLNM competencies have an impact on patient outcomes, use of resources,

and cultivate an environment for continuous learning and their understanding is required

to be successful in a changing health care environment.

However, despite the high levels of personal achievement required for the MLNM

position, when nurse managers are typically promoted from bedside nursing positions

having little or no management preparation (Rotkovich, 1983), disparities ensue. In a

study by Ernst (1985), nurses in mid-level management roles were oriented primarily

through on-the-job training and sporadic inservices or occasional continuing education

management workshops. In other words, promotion to a management position occurred

because of exemplary nursing skills, not because of management expertise. This

incongruity is a potential source of occupational stress.

Job-related stress of nurse managers was found to involve role conflict, role

ambiguity, and lack of authority over those affecting their roles, interdepartmental

conflicts, and interpersonal relationships (Alderman, 1985). Munchauer (1983) reports

that nurse managers often experience a sense of loss, guilt, and decreased self-esteem as

more managerial responsibilities are assumed with less direct patient care. These negative

emotions are also likely sources of stress in the managerial role. As an example, Bunsey, DeFazio, Pierce, & Jones, (1991) found higher stress and lower job satisfaction occurred in nurse managers when physicians and staff believed more of the nurse manager's time should be spent in patient care. Another source of stress for nurses and nurse managers in hospitals surrounds care that must be delivered around the clock necessitating nurses doing shift work. Shift work has been demonstrated to impose excessive physical and psychological costs on workers ranging from physical complaints to marital discord (Jacobson, 1983). The interface between home and work is a source of stress experienced by female worker including nurses. McCormick and Korabik's (1991) study of male and female middle managers found that women more often than men describe a significant source of stress to be the responsibilities of their dual roles. However, excessive demands due to workload and time pressures were problems shared by male and female managers. These findings suggest that many factors affect occupational stress and support the exploration of variables specific to the nurse managers' methods of coping with stress.

Coping and demographic variables

In their early research on coping, Folkman and Lazarus (1980) found no difference between age and coping strategies. Further, McCrae (1982) found that when stress type was controlled no differences in coping methods were used by older and younger participants. However, Rosenthal, et al. (1989) reported that age among nurses demonstrated an inverse influence with overall stress while experience plays a far less important role. Further, these authors found that among age, experience, and educational rankings, only age and use of problem solving reached significance. In contrast,

Alderman (1985) reported more years of experience significantly influenced role ambiguity among nurse managers with resultant decrease in stress.

Gender is a consideration in regard to choice of coping styles and levels of stress. Folkman and Lazarus (1980) found that men prefer problem-focused coping, such as problem solving and confrontation, versus emotion-focused coping, which includes avoidance and distancing. Ptacek (1992) and Williams, et al. (1992) report that men are more likely to cope with stress by using problem-focused strategies whereas women are more likely to use emotion-oriented coping strategies. In contrast to these findings, McCormick and Korabik (1991) found male managers used avoidance/withdrawal as their main strategy while women used talking with others or seeking social support.

Hardiness and demographic variables

The original hardiness research was conducted with white, male, middle class professionals such as executives, lawyers, and army officers (Kobasa, 1979a, 1979b; Kobasa, 1982). Kobasa et al., (1982) found no relationship between hardiness and age, education, and job level. Williams (1990) found few published studies dealing with gender and hardiness. Others such as Haw (1982) found a small number of hardiness and coping studies that included women but which employed either nonmanagerial samples or samples with men and women in noncomparable positions. A 1997 study by Benishek and Lopez describes significant male and female differences in hardiness levels and found that perceptions of stress versus frequency played a more important role in coping processes. Berwick 's (1992) study among male and female student affairs administrators concluded that increased stress levels among females could be predicted by low levels of

hardiness and other variables such as job satisfaction and work-family obligations. Few, if any, studies reported having correlated hardiness with experience in nursing or in management. Studies describing positive correlations between age and hardiness (Nowack, 1986; Rich & Rich, 1987; Schmeid & Lawler, 1986) found high hardiness among older individuals. Age was also found to be significant in association with organizational commitment in a study by Smith (1995) among nurses and managers. Older nurses had higher levels of commitment to the organization than younger, yet education was not a significant variable.

These studies suggest the association between coping, hardiness and demographics may vary with the composition of the sample. Therefore, a study related to demographics, hardiness, stress, and coping among nurse managers could be both informational and useful.

<p style="text-align:center">Summary</p>

A review of the literature presents three major concepts: stress, coping strategies, and hardiness. A conceptual framework illustrates the interrelatedness of these three concepts. Empirical evidence from the review of literature supports this conceptual proposition. Hardiness is a mediating factor of stress and a link between stress and coping strategies. This premise assumes that hardiness increases the individual's ability to deal with perceived stressors and thus mediates the effects of occupational stress.

Currently, empirical evidence examined stress and hardiness among nurses and managers in general. Yet little empirical research has examined the mediating effects of hardiness and occupational stress among the MLNM population. Theoretically, a

predictive relationship exists between reduced stress and higher levels of hardiness as well as the impact of high-hardiness on more adaptive coping strategies. Clearly a need exists to study the predictive relationship between these variables among mid-level nurse managers.

CHAPTER III

PROCEDURES FOR THE COLLECTION AND ANALYSIS OF DATA

Research Design

This nonexperimental study was exploratory in nature and involved a survey of mid-level nurse managers. The dependent variable in the study was stress. Predictor variables in the study were hardiness and coping strategies.

The design involved an investigation of the relationships among hardiness, coping strategies, and stress through the use of a mail-out questionnaire to all mid-level nurse managers in hospitals in the Dallas/Fort Worth, Texas area.

Population

The population for this study included nurses in mid-level management positions in hospitals in the Dallas/Fort Worth, Texas area (DFW).

Sample

A purposive sample was obtained from the mid-level nurse manager population in the DFW area. Purposive sampling involves the selection of cases or subjects that are likely to be information-rich with respect to the purposes of the research (Burns & Grove, 1993). From a list of hospitals in the DFW area, the CNO was contacted to obtain a list of MLNMs in the facility. A list of hospitals used for this study is found in Appendix G.

A table of necessary sample sizes for correlational research created by Olejnik

(1984) was used to determine a minimum number of participants for this study. Olejnik has computed the necessary sample sizes involving statistical power analysis and effect size. Sixty-six is the designated sample size for a correlation coefficient indicated at the .05 level. Therefore, a sample size of 66 MLNMs was targeted for this study.

<div align="center">Data Collection Procedures</div>

Having requested a list of MLNMs from forty CNOs in the DFW area, twenty-seven CNOs responded with a total of over 500 MLNM names. Talbot (1995) reports an adequate response rate of 60 percent when using mailed questionnaires in research. Hence, to obtain an adequate response rate, 200 MLNM names were randomly selected using a table of random numbers.

The survey packet consisted of a cover letter, demographic information, Bartone, et al.'s Hardiness Scale (1989), Folkman and Lazarus' Ways of Coping Questionnaire (1988), and Cohen, Kamarck, and Mermelstein's Perceived Stress Scale (1983). Dillman's (1978) Total Design Method for questionnaire mailing was used. The response rate for use of this design averages 77 percent.

First, a cover letter (Appendix A), the questionnaire (Appendices B-E), and stamped self-addressed return envelope were mailed to study participants. Three weeks after the first mailing, a follow-up postcard was sent to all participants. Five weeks after the original mail-out a second follow-up packet was sent to all nonrespondents. The packet consisted of a cover letter stating their questionnaire had not been received, a replacement questionnaire, and a stamped self-addressed return envelope. The final

follow-up was mailed 7 weeks after the original mail-out. It consisted of a follow-up postcard mailed to all participants who had not responded.

Anonymity of respondents was assured by using a unique control number to which only the principle investigator had access. Use of the control number enabled the principle investigator to identify which questionnaires had and had not been returned.

Data Analysis Procedures

The data obtained from questionnaires were analyzed by the use of the Statistical Package for the Social Sciences (Norusis, 1999). Parametric statistical procedures were used based on the level of measurement. Hardiness, Ways of Coping Questionnaire, and Perceived Stress Scale are Likert-format scales. Data collected from these scales are both ordinal and interval in nature. The values of each item of a Likert scale are ordinal level data: summed scores represent interval data. Use of summed scores allows for more sophisticated analyses (Burns & Grove, 1993). The significance level was set at .05.

The sample was described by age, gender, ethnicity, marital status, income level, basic and highest degree, continuing education hours in nursing management, years in nursing, years in nursing management, years in present position, years of management outside of nursing, number of people directly reporting to manager, average number of contact hours per week with immediate supervisor, perceived support by immediate supervisor, employment status, type and size of institution. A total score was tabulated for each instrument. Scores were reported descriptively using means, frequencies, and standard deviations.

A correlation matrix on all data was generated using multiple R-squared for each independent variable (hardiness and coping strategies) against the predicted variable (stress). A structure coefficient was used to assess the relative importance of the demographic data, hardiness, stress, and coping strategies. Stepwise multiple regression was used to determine predictability among significantly correlated variables. A one-way multiple analysis of variance was computed to examine effects of high and low hardiness scores against coping strategies. Univariate analysis was also calculated to determine significances among predictor variables and stress.

Instruments

The <u>Hardiness Scale</u> (HS) is a 45-item instrument designed to measure dispositional resilience. It is based on a four point Likert format scale. The responses range from 0 to 3 with zero = not at all true, 1= a little true, 2 = quite true, and 3 = completely true. Due to the length of the three questionnaires, a shortened version of the HS of 30 items was used which has demonstrated strong correlation with scores on the 45-item version (Bartone, et al., 1989). The HS is composed of three subscales: commitment, control, and challenge. Associations can be computed with subscale individually and/or collectively. Reliability alpha coefficients have been demonstrated by Bartone, et al. (1989) at .62, .66, and .82 for the challenge, control, and commitment subscales, respectively. As a total summated scale, Bartone, et al. (1989) reports HS has an alpha of .85. Internal consistency of the 30-item form ranged from .56 to .82 for the subscales. Internal consistency of the summated 30-item form was .83 (Bartone, et al., 1989). In terms of validity, the 45-item form was developed by Bartone, et al., (1989)

from a pool of 76 items. Scale scores correlated .93 with total scores on the 76-item version. Principal component factor analysis supported the three subscales. Scores are sensitive to measuring change due to levels of stressful events (Bartone, et al., 1989).

The Ways of Coping Questionnaire (WCQ) measures how people cope with the stresses of everyday life (Folkman & Lazarus, 1988). Response is to a 4 point Likert scale. Raw scores were computed for each scale. Raw scores are the sum of the subject's response to the items that comprise a given scale (Folkman and Lazarus, 1988). WCQ consists of 66 items in a four point Likert format. The responses range from 0 to 3 with zero = does not apply or not used, 1 = used somewhat, 2 = used quite a bit, and 3 = used a great deal. Scores indicate a profile of methods used to cope with occupational stress based on the following eight subscales:

1. Confrontation which explains aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking

2. Distancing which describes cognitive efforts to detach oneself and to minimize the significance of the situation

3. Self-controlling which depicts endeavors by individuals to regulate one's feelings and actions

4. Seeking social support which describes efforts to seek informational, tangible, and emotional support

5. Accepting responsibility (or blame) which acknowledges one's own role in the problem with a concomitant theme of trying to put things right

6. Escape-avoidance which describes wishful thinking and behavioral efforts to escape or avoid the problem

7. Planful problem solving which portrays deliberate problem-focused efforts to alter the situation, coupled with an analytical approach to solving the problem

8. Positive reappraisal that describes attempts to create positive meaning by focusing on personal growth.

Reliability alpha coefficients for the eight scales range from .61 to .79. Correlation between successive pair of scores on each scale range from very low (.17) to low (.47).

The Perceived Stress Scale (PSS) is a 14-item measure of the degree to which situations in one's life are appraised as stressful. PSS items were designed to tap the degree to which respondents find their lives unpredictable, uncontrollable, and overloaded (Cohen, et al., 1983). These three factors have been repeatedly found to be central components of the experience of stress (Averill, 1973; Cohen, 1978; Glass & Singer, 1972; Lazarus, 1966, 1977; Seligmen, 1975). The scale also queries current levels of experienced stress. Response is to a five-point Likert scale ranging from 0-4 with zero = never, 1 = almost never, 2 = sometimes, 3 = fairly often, and 4 = very often. The average coefficient alpha reliability for three samples was .85. Reliability was found to be consistent between male and female respondents and age with levels of significance at .05 and .01 levels (Cohen, et al., 1983). There is substantial content validity between the PSS and other similar measures of stress: Number of Life Events and Impact of Life Events (Cohen & Hoberman, 1983), with levels of significance at .001 for all

correlations. Separate sex-analysis of the PSS supported the reliability and validity across gender (Kohn & MacDonald, 1992).

Protection of Human Subjects

To protect human subjects in research, permission was obtained prior to mailing the questionnaires from the University of North Texas Institutional Review Board. The cover letter provided participants the information necessary for informed consent (Appendix A). Participants received an explanation of the study and risks and benefits associated with the study. It was explained to participants that their identity was not linked to individual responses. Confidentiality of the data collected from the participants was maintained by use of a unique control number for each participant. Only group data have been reported. Consent to participate was indicated by returning the questionnaire.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

A nonexperimental descriptive study was conducted to determine the

interrelatedness among perceived stress, coping strategies, and hardiness among mid-

level nurse managers. In this chapter, descriptive characteristics of participants are

reported, the results of hypothesis testing are presented, and findings are summarized.

Of the 200 surveys distributed, 153 mid-level nurse managers from hospitals in

the Dallas Fort/Worth area responded, thereby yielding a response rate of 77 percent.

Eight surveys were eliminated due to problems with missing data for a final N of 145

(72%).

Findings

Description of Participants

Demographic data for age, gender, ethnicity, and marital status are in Table 1.

Ages ranged from 24 to 64 years with a mean of 45 (SD = 11.7). Females constituted

90% of the sample with majority of respondents being married (66%). Ethnic background

was predominantly white (83%)

Table 1. Participants' Characteristics

Variable	Frequency	Percent
Age		
24-34	15	9.4
35-44	51	36.3
45-54	51	37.6
56-65	23	15.4
Missing data	2	1.4
Totals	145	100
Gender		
Male	12	8.3
Female	131	90.3
Missing data	2	1.4
Totals	145	100
Marital Status		
Single	17	11.7
Married	95	65.6
Divorced	23	15.9
Widowed	6	4.1
Separated	3	2.1
Missing data	1	0.7
Totals	145	100
Ethnicity		
White	121	83.4
Black	12	8.3
Hispanic	1	0.7
Asian	7	4.8
American Indian	3	2.1
Missing data	1	0.7
Totals	145	100

Nursing Management Profile

Most respondents (99%) were employed on a full-time basis with 53% having a bachelor of science in nursing (BSN) as their basic degree in nursing. As shown in Table 2, 18% of the MLNMs held master's degrees as their highest level of educational attainment (10% in nursing; 8% in other fields). Academic hours in management beyond highest degree spanned 0 to 600 with a mean of 23.8 (SD = 77.6). Monthly continuing

education hours in management over the last three years ranged from 0 to 23 with a mean

of 2.4 (SD = 3.4) and average yearly hours were 0 to 90 with a mean of 19.3 (SD = 16.3).

Table 2. Nurse Managers' Education

Variable	Frequency	Percent
Basic Degree		
Diploma	23	15.9
AD	44	30.3
BSN	76	52.4
Missing data	2	1.4
Totals	145	100
Highest Degree		
Diploma	15	10.3
AD	29	20.0
BSN	62	40.8
Other bachelors	11	7.6
MSN	14	9.7
Other masters	12	8.3
Missing data	2	1.4
Totals	145	100
Hours Beyond Highest Degree		
0-20	107	73.8
21-40	19	6.8
41-60	4	2.8
61-80	4	2.8
81-600	8	5.6
Missing data	13	9.0
Totals	145	100
CE in Management:		
Monthly		
0-5	95	65.5
6-15	8	5.6
16-23	2	1.4
Missing data	40	27.6
Totals	145	100
Yearly		
0-20	101	69.0
21-40	26	18.0
41-60	13	9.0
61-90	2	1.4
Missing data	3	2.1
Totals	145	100

Work experience, depicted in Table 3, shows total years in nursing ranged from 1 to 44 years with a mean of 20.4 years (SD = 8.9). Total years in nursing management ranged from less than a year to 33 with a mean of 9.1 (SD = 7.2) and mode of 1. Range of years in management outside of nursing, were 0 to 16 with a mean of less than one (.75) (SD = 2.3). Years in present position ranged from 1 to 31 with a mean of 5.8 (SD = 5.5) and mode of 16.

Table 3. Nurse Managers' Work Experience

Variable	Frequency	Percent
Years in nursing		
1-11	26	18.0
12-22	60	41.4
23-32	45	30.9
33-44	14	9.8
Totals	145	100
Years in nursing management		
0-9	80	55.2
10-19	51	35.2
20-33	13	9.1
Missing data	1	0.7
Totals	145	100
Years in non-nursing management		
0-3	126	86.8
4-9	6	4.2
10-16	3	2.1
Missing data	6	6.9
Totals	145	100
Years in present position		
1-6	100	69.0
7-12	24	16.1
13-18	13	9.1
20-31	4	2.8
Missing data	4	2.8
Totals	145	100

The number of people reporting directly to respondents ranged from 1 to 115 with a mean of 35.6 (SD = 23.3) and mode of 30. Salaries ranged from $20,000 to > $70,000 with most (79%) receiving $50,000 to $70,000 annually. In Table 4 is a summary for findings of salaries and direct reports.

Table 4. Nurse Managers' Direct Reports and Salaries

Variable	Frequency	Percent
Direct reports		
4 -30	67	45.2
31-60	51	34.6
61-95	16	12.2
96-115	1	0.7
Missing data	10	6.9
Totals	145	100
Annual salary		
$20-$39,999	3	2.1
$40-$49,999	22	15.2
$50-$59,999	42	29.0
$60-$69,999	50	34.5
>$70,000	23	15.9
Missing data	5	3.4
Totals	145	100

Information pertaining to nurse managers' contacts with supervisors is presented in Table 5. Average weekly hours with supervisors varied from 0 to 52 with a mean of 6.3 (SD = 8.8). Average weekly contact hours with CNOs ranged from 0 to 24 with a mean of 1.8 (SD = 2.8). The majority of respondents (70%) denied needing additional time with their supervisors or needing additional time with their CNOs (77%).

Table 5. Nurse Managers' Contact With Supervisor

Variable	Frequency	Percent
Hours/week contact:		
With supervisor		
0-10	125	86.3
11-20	8	5.5
21-30	3	2.1
31-52	5	3.5
Missing data	4	2.8
Totals	145	100
With CNO		
0-3	120	82.6
4-7	15	10.8
8-24	6	3.4
Missing data	4	2.7
Totals	145	100
Additional time needed:		
With supervisor		
No	102	70.3
Yes	43	29.7
Totals	145	100
With CNO		
No	111	76.6
Yes	31	21.4
Missing data	3	2.1
Totals	145	100

Information about respondents' workplaces is presented in Table 6. The size of

each hospital, represented by number of beds, was predominantly in two ranges: 101-200

(24%) and 201-300 (29%). The majority of respondents (64%) worked in non-profit

hospitals.

Table 6. Hospital Characteristics

Variable	Frequency	Percent
Hospital size		
50-100	5	3.4
101-200	35	24.1
201-300	43	29.7
301-400	19	13.1
401-500	16	11.0
>500	25	17.2
Missing data	2	1.4
Totals	145	100
Hospital status		
Public	21	14.5
Non-Profit	93	64.1
For-Profit	22	15.2
Missing data	9	6.2
Totals	145	100

Description of Variables

Table 7 represents descriptive statistics and alpha coefficients obtained for perceived stress (PSS) and predictor variables, hardiness (HS) and coping strategies (WCQ).

Table 7. Stress, Hardiness, and Coping Strategies – Descriptive Statistics & Reliability Coefficients

Measure	Mean	SD	Alpha	No. of items
PSS	21.9	6.73	.84	14
Hardiness:				
Total	61.6	6.2	.71	30
Commitment	23.2	3.2	.70	10
Control	21.8	2.9	.46	10
Challenge	16.6	2.7	.40	10
WCQ:				
Confrontation	5.1	2.5	.47	6
Distancing	4.1	2.5	.63	6
Self-controlling	9.9	3.5	.58	7
Seeking social support	8.6	2.6	.69	6
Accepting responsibility	3.1	2.6	.71	4
Escape-avoidance	3.4	3.3	.73	8
Problem solving	9.9	3.2	.64	6
Positive reappraisal	9.1	5.0	.82	7

N=145

Mean scores for the PSS were 21.9 (SD = 7.7) Alpha coefficient was .84 indicating high reliability of this measure among MLNMs. HS scores for subscales commitment, control, and challenge ranged from 23.2 to 16.6 (SD = 2.7 to 3.2) and HS total was 61.6 (SD = 6.2). Alpha coefficients for HS ranged from .40 to .70 with HS total being .71 which indicated moderate to high reliability for HS among this sample. Mean scores for WCQ ranged from 3.1 to 9.9 (SD = 2.5 to 5.5) with means of self-controlling and problem solving being equal at 9.9 (SD = 3.5 and 5.0 respectively). Alpha coefficients for WCQ ranged from .47 to .82 indicating moderate to high reliability among MLNMs.

Results of Testing of Hypothesis

Hypothesis 1

Hypothesis 1 stated: There is a positive relationship between perceived stress and coping strategies among mid-level nurse managers in hospitals.

A Pearson correlation was calculated for the relationship between subjects' perceived stress and coping strategies using the eight subscales of the WCQ: confrontive coping (confrontation), distancing, self-controlling (control), seeking social support (social support), accepting responsibility (responsibility), escape-avoidance (escape), planful problem-solving (problem solving), and positive reappraisal (reappraisal). The results are in Table 8.

Table 8. Correlations for Stress and Coping Strategies

Coping Strategies	Perceived Stress	
	r	p
Confront	.236	.002**
Distancing	.057	.248
Self-Control	.188	.012*
Social Support	.032	.345
Responsibility	.304	.001**
Escape-Avoidance	.489	.001**
Problem Solving	-.112	.089
Positive Reappraisal	-.068	.209
Dependent Variable: Perceived Stress	*$p < .05$ (one-tailed)	**$p < .01$ (one-tailed)

There was a significant positive relationship between higher levels of stress and four coping strategies: confrontive coping, self-controlling, accepting responsibility, and

escape-avoidance. These four coping strategies were used more often by participants with higher levels of stress. Therefore, hypothesis 1 was accepted.

<u>Hypothesis 2</u>

Hypothesis 2 stated: Low-hardy mid-level nurse managers have higher levels of perceived stress than high-hardy mid-level nurse managers.

The degree of personality hardiness was assessed using the Hardiness Scale (HS) developed by Bartone, et al. (1989). Using this scale, high numerical values were associated with higher levels of hardiness and low numerical values were associated with lower levels, holding true for total scores and for subscales. Categories of high and low hardiness were determined by a median split in which participants' scores were divided into high vs. low hardiness. Median for hardiness total = 46, commitment = 23, control = 22, and challenge = 16.

Levels of perceived stress were assessed using Perceived Stress Scale (PSS) by Cohen, et al., (1983). Using this scale, high numerical values were associated with higher levels of stress. To determine the association between levels of hardiness and perceived stress, an independent samples *t* test was used comparing levels of stress among high and low levels of hardiness. Results are shown in Table 9.

Table 9. Independent Samples t test for Stress and Hardiness

			Hardiness	
			Mean (SD)	t
Perceived stress		Total		
	High		20.1 (6.8)	
				3.18**
	Low		23.5 (6.5)	
Perceived stress		Commitment		
	High		19.2 (6.0)	
				5.01**
	Low		24.4 (6.4)	
Perceived stress		Control		
	High		21.5 (6.6)	
				.541
	Low		22.1 (6.9)	
Perceived stress		Challenge		
	High		21.0 (6.9)	
				1.70*
	Low		22.8 (6.5)	

Dependent Variable: Perceived Stress
*$p < .05$ (one-tailed)   **$p < .01$ (one-tailed)

When total hardiness mean scores were used, low and high hardy individuals

differed significantly in perceived stress; low hardy participants perceived greater stress

than did high hardy participants. Using the three concomitant hardiness subscales,

commitment and challenge were found to be significantly different between low and high

hardy participants and perceived stress. Consequently, hypothesis 2 was accepted.

Hypothesis 3

Hypothesis 3 stated: High-hardy mid-level nurse managers use different coping

strategies than low-hardy mid-level nurse managers.

A one-way MANOVA was used to examine participant differences in use of hardiness and coping strategies. Levels of coping strategies were assessed using Ways of Coping Questionnaire by Folkman and Lazarus (1988). In this scale, high numerical values were associated with higher levels of coping. The degree of personality hardiness was assessed using the Hardiness Scale (HS) developed by Bartone, et al. (1989). Using this scale, high numerical values were associated with higher levels of hardiness and low numerical values were associated with lower levels.

A significant overall effect was found between HS total and coping strategies ($Lambda$(8,136) = 4.67, $p < .001$). Table 10 contains a summary of the results for HS total.

Table 10. Multivariate Analysis of Variance for Hardiness Total and Coping Strategies

Coping Strategies		Hardiness Total	
		Mean (SD)	F (8, 136)
Confront	High	5.2 (2.3)	0.84
	Low	4.9 (2.7)	
Distancing	High	4.4 (2.3)	1.40
	Low	3.9 (2.6)	
Control	High	10.4 (3.6)	3.12*
	Low	9.4 (3.5)	
Social support	High	9.5 (3.4)	15.40***
	Low	7.3 (3.3)	
Responsibility	High	3.3 (2.8)	0.89
	Low	2.9 (2.5)	
Escape	High	2.8 (2.8)	4.92**
	Low	4.0 (3.6)	
Problem solving	High	11.1 (8.7)	21.00***
	Low	8.9 (3.1)	
Reappraisal	High	10.2 (4.8)	6.78**
	Low	8.1 (5.0)	

*$p < .05$ level (one-tailed) **$p < .01$ (one-tailed) ***$p < .001$ (one-tailed)

Follow-up univariate ANOVAs indicated that use of coping strategies self-controlling, social support, problem solving, and positive reappraisal were significantly influenced by high levels of hardiness. Further, use of escape-avoidance was significantly associated with low levels of hardiness.

A one-way MANOVA was also used to examine participant differences in use of the hardiness subscales and coping strategies. (See Table 11). Levels of coping strategies were assessed using WCQ by Folkman and Lazarus (1988). In this scale, high numerical values were associated with higher levels of coping. The degree of hardiness was assessed using the HS developed by Bartone, et al., (1989). Using this scale, high numerical values were associated with higher levels of hardiness subscales and low numerical values were associated with lower levels. A significant difference in coping strategies was found only when HS commitment was used to define high and low groups (*Lambda*(8,136) = .808, $p < .001$).

Table 11. Multivariate Analysis of Variance for Commitment and Coping Strategies

| | | Commitment | |
		Mean (SD)	*F*
Coping Strategies			
Confront	High	5.0 (2.1)	0.18
	Low	5.1 (2.8)	
Distancing	High	4.1 (2.6)	0.02
	Low	4.1 (2.6)	
Control	High	10.3 (3.4)	2.12
	Low	9.5 (3.5)	
Social support	High	9.1 (3.4)	5.83**
	Low	7.7 (3.5)	
Responsibility	High	2.9 (2.6)	0.36
	Low	3.2 (2.7)	
Escape	High	2.5 (2.5)	11.60***
	Low	4.3 (3.7)	
Problem solving	High	10.8 (3.2)	11.80***
	Low	9.0 (3.0)	
Reappraisal	High	10.1 (4.9)	6.51**
	Low	8.0 (4.9)	

*p < .05 level (one-tailed)   **p < .01 (one-tailed)   ***p < .001 (one-tailed)

Follow-up univariate ANOVAs indicated that high and low commitment groups differed on social support, problem solving, escape, and reappraisal. Use of seeking social support, problem solving, and positive reappraisal were significantly influenced by

high commitment. Use of escape-avoidance was significantly influenced by low commitment. Therefore, hypothesis 3 was accepted.

Hypothesis 4

Hypothesis 4 stated: There is no significant relationship between specific demographic variables of mid-level nurse managers and hardiness, coping strategies, and perceived stress.

Pearson correlation coefficients, multiple regression, and structure coefficients were used to test hypothesis 4. Pearson correlation results are presented first.

Pearson Correlation Coefficients for Stress and Demographics

A Pearson correlation coefficient was obtained for the relationship between perceived stress and predictor variables: age, marital status, ethnicity, years in nursing (YIN), years in nursing management (YNM), years as a manager outside of nursing (YMON), years in present position (YPP), basic degree in nursing (BD), highest degree obtained (HD), academic hours in management beyond highest degree (additional academic hours), number of persons reporting to the manager (direct reports), weekly contact hours with a supervisor or CNO (contact w/svr; contact w/CNO), monthly and yearly continuing education hours in management (CE monthly; CE yearly), and need for additional time with a supervisor or the CNO (time w/svr; time w/CNO). With the majority of MLNMs making up 90% of the sample, gender was eliminated as a predictor variable. Table 12 includes only correlations with r significance at .05 or less.

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Table 12. Pearson Correlation Coefficients for Demographics and Stress

Variable	*r*
Age	-.255**
Time w/svr	.251**
Time w/CNO	.247**
YIN	-.185*
Direct reports	-.176*
YNM	-.168*

Dependent Variable: Perceived Stress   *p* < .05 (two-tailed)   **p* <. 01 level (two-tailed)

Positive correlations were found between stress and time w/svr and time w/CNO. Needing more time with supervisors or CNOs was significantly influenced by higher levels of stress.

Negative correlations were found between stress and four variables: age, YIN, direct reports, and YNM. Higher stress levels were significantly influenced by lower ages, less years in nursing and nursing management, and fewer numbers of direct reports.

Pearson Correlation Coefficients for Demographics and Hardiness and Coping

Hardiness

A Pearson correlation was calculated for the relationship between hardiness and age, marital status, ethnicity, YIN, YNM, YMON, YPP, BD, HD, additional academic hours, direct reports, contact w/svr, contact w/CNO, CE monthly, CE yearly, time w/svr, and time w/CNO. Calculated separately, hardiness total and subscales, commitment, control, and challenge were used as dependent variables. Only correlations significant at

p < .05 are reported. Pearson correlation coefficients between demographics and

hardiness are in Table 13.

Table 13. Pearson Correlation Coefficients for Demographics and Hardiness

Variable	r
HS total	
Age	.173*
HD	.183*
YIN	.172*
HS commitment	
Age	.216**
YIN	.210*
HS challenge	
HD	.220**
Additional academic hours	.196*
YNM	-.174*

Criterion Variable: Hardiness
*p < .05 (two-tailed)   **p < .01 (two-tailed)

A significant positive correlation was found between total hardiness, age, highest

degree obtained, and years in nursing. A positive correlation was found significant

between HS commitment and age and years in nursing. A positive correlation was found

significant between HS challenge and HD and additional academic hours. A negative

correlation was found significant between HS challenge and years in nursing

management.

Coping Strategies

A Pearson correlation coefficient was obtained for the relationship between

coping strategies and age, marital status, ethnicity, YNI, YNM, YMON, YPP, BD, HD,

additional academic hours, direct reports, contact w/svr, contact w/CNO, CE monthly,

CE yearly, time w/svr, and time w/CNO. Only variables significant at $p < .05$ are

reported in Table 14.

Table 14. Pearson Correlation Coefficients for Demographics and Coping Strategies

Variable	r
Confront	
CE yearly	.222**
Control	
CE yearly	.265***
Responsibility	
Age	-.165*
CE yearly	.222**
Escape	
Age	-.202*
Marital status	.203*
YIN	-.166*
Direct reports	-.215*
Time w/CNO	.296***
Problem solving	
YIN	.186*
Additional academic hours	.227**
Reappraisal	
Contact w/CNO	.207*

Criterion Variable: Coping Strategies
*$p < .05$ (two-tailed)   **$p < .01$ (two-tailed)   ***$p < .001$ (two-tailed)

     Positive correlations were found significant between CE yearly and three coping

strategies: confront, control, and responsibility.

     Negative correlations were found significant between age and responsibility, as

were escape and age, years in nursing, and direct reports. Escape was also found to have

moderate positive significance with time w/CNO.

Positive correlations were found significant between problem solving and years in nursing and additional academic hours. A positive correlation was found significant between contact w/CNO and reappraisal.

Multiple Regression for Demographics and Stress

The stepwise method of multiple regression was employed using predictor demographic variables shown to be significantly correlated with the criterion variable perceived stress: age, YIN, YMN, direct reports, time w/svr, and time w/CNO. Findings are presented in Table 15.

Table 15. Stepwise Multiple Regression Analysis for Demographics and Stress

Variable	R^2	F	B	beta	t	p
Time w/svr	.08	11.02	4.01	.283	3.32	.001

Using the stepwise method (PIN = .0500; POUT = .1000), time w/svr was entered into the equation. The R^2 indicates that 8% of the variance in perceived stress was accounted for by the predictor variable. Therefore, need for additional time with supervisors was a significant predictor of stress among MLNMs.

Multiple Regression for Demographics and Hardiness, and Coping

Hardiness

The stepwise method of multiple regression was employed using demographic variables shown to be significantly correlated with criterion variables of hardiness total, commitment, and challenge. Only demographic variables significant at $p < .05$ are reported. Findings are presented in Table 16.

Table 16. Stepwise Multiple Regression Analysis for Demographics and Hardiness

Variable	R^2	F	B	beta	t	p
HS total						
Age	.04	5.75	.150	.199	2.40	.018
HD	.09	6.72	.990	.215	2.62	.010
HS commitment						
Age	.05	6.92	.008	.216	2.63	.009
HS challenge						
YNM	.05	6.58	.008	.219	2.56	.011
Direct report	.09	6.25	.008	.200	2.59	.019
HD	.12	5.78	.353	.180	2.12	.036

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000) was employed for criterion variable hardiness total. The R^2 indicates that 4% of the variance in hardiness was accounted for by age. With 9% of the variance accounted for by age and highest degree obtained, these criterion variables were significant predictors of hardiness total.

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000), was employed for HS commitment. The R^2 indicates that 5% of the variance was accounted for by age and was a significant predictor of commitment.

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000) was employed for HS challenge and YNM, direct reports, and HD. The R^2 indicates that 5% of the variance in challenge was accounted for by YNM. All three criterion variables (YNM, direct reports, and HD) account for 12% of the variance in HS challenge. Therefore, years as a nurse manager, number of direct reports, and having a BSN were significant predictors for HS challenge.

<u>Coping Strategies</u>

The stepwise method of multiple regression was calculated using criterion

variables confront, control, responsibility, escape, problem solving, and reappraisal. Only

demographic variables significant at $p < .05$ are reported. Findings are presented in Table

17.

Table 17. Stepwise Multiple Regression Analysis for Demographics and Coping
Strategies

Variable	R^2	F	B	beta	t	p
Coping Strategies:						
Confront						
CE yearly	.05	7.23	.003	.222	2.69	.008
Control						
CE yearly	.07	10.57	.005	.265	3.25	.001
Responsibility						
CE yearly	.05	7.35	.004	.228	2.71	.008
Age	.08	5.74	-.005	-.166	1.99	.048
Escape						
Time w/CNO	.07	10.19	2.180	.272	3.19	.002
Direct reports	.13	9.39	-.003	-.236	-2.84	.005

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000), was

employed for confront using predictor variable, CE yearly. The R^2 indicates that yearly

continuing education in management accounted for 5% of the variance and therefore was

a significant predictor for confrontation.

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000), was

employed for control. Using predictor variable CE yearly, the R^2 indicates that 7% of the

variance was accounted for. Therefore, yearly continuing education in management was a significant predictor for self-controlling as a coping strategy.

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000), was employed for responsibility. Using significant predictor variables of CE yearly, contact w/CNO, and age, CE yearly entered the equation. The R^2 indicates that 5% of the variance in accepting responsibility was accounted for by yearly continuing education in management, and was a significant predictor for confrontation.

The stepwise method of multiple regression, (PIN = .0500; POUT = .1000), was employed for escape-avoidance and predictor variables of age, marital status, time w/CNO, YIN, and direct reports. The R^2 indicates that 7% of the variance in escape was accounted for by time w/CNO. Direct reports entered on step 2 with the R^2 indicating 13% of the variance was accounted for by time w/CNO and direct reports. Therefore, as predictors, need for additional contact with the CNO and numbers of persons reporting directly to MLNMs were significant predictors of escape-avoidance.

Structure Coefficients for Demographics, Stress, Hardiness, and Coping Strategies

Structure coefficients and percent of predictor variances were calculated for demographics and criterion variables of stress, hardiness and coping strategies. Only variables with significant predictor variances are reported.

Structure Coefficients for Demographics and Stress

Structure coefficients were calculated to examine the degree of relationship between demographics and perceived stress. Findings are presented in Table 18.

Table 18. Structure Coefficients for Demographics and Stress.

Demographic variables	Structure Coefficient	Variance %
Age	-.487**	24
YIN	-.402**	16
YNM	-.365**	13
BD	.294**	9
Direct reports	-.372**	14
CE monthly	-.253**	6
Time w/svr	.546**	30
Time w/CNO	.531**	28

Dependent Variable: Perceived Stress   ** $p < .01$ (two-tailed)

Positive structure coefficients were found significant between stress and BD, time

w/svr, and time w/CNO. Among those found significant, needing additional time with the

supervisors or CNOs had the highest degrees of predictability for stress.

Negative structure coefficients were found significant between stress and age,

YIN, YNM, direct reports, and CE monthly. Among those found significant, the highest

degrees of predictability for stress were younger years of age and fewer years in nursing.

Structure Coefficients for Demographics, Hardiness, and Coping Strategies

Structure coefficients and percent of predictor variance were calculated for

demographics, and criterion variable hardiness. In Table 19 are the findings.

Table 19. Structure Coefficients Variance for Demographics and Hardiness

Variable	Structure Coefficient	Variance %
HS Total		
Age	.359**	13
YIN	.325**	12
HD	.376**	14
Additional academic hours	.318**	10
HS Commit		
Age	.542**	29
YIN	.523**	27
YNM	.393**	16
Time w/CNO	-.379**	14
HS Control		
HD	-.380**	14
YPP	.361**	13
Contact w/CNO	-.412**	17
HS Challenge		
YNM	.355**	13
HD	.448**	20
Direct reports	.434**	19
Additional academic hours	.404**	16

Criterion variable: Hardiness   **$p <. 01$ (two-tailed)

Hardiness

Structure coefficients were found significant between HS total and age, YIN, and

YNM. However, the degree of predictability for hardiness total by these demographic

variables was low.

Structure coefficients were found significant between HS commitment and age,

YIN, YNM, and time w/CNO. Being older and having more years in nursing had the

highest degrees of predictability for commitment.

Structure coefficients were found significant between HS control and HD, contact w/CNO, and YPP. Having less contact with CNOs had the highest degree of predictability for control.

Structure coefficients were found significant between YNM, HD, additional academic hours, and direct reports. Highest degree obtained, additional academic hours in management, and having more direct reports were highest degrees of predictability for challenge.

<u>Coping strategies</u>

Structure coefficients and percent of predictor variance were calculated for demographics and criterion variables coping strategies. The findings are in Table 20.

Table 20. Structure Coefficients for Demographics and Coping Strategies

Variable	Structure Coefficient	Variance %
Confrontation:		
Direct reports	-.331**	11
CE yearly	.642**	41
Additional academic hours	.374**	14
Distancing:		
Ethnicity	-.351**	12
Direct reports	-.400**	16
CE yearly	.360**	13
Additional academic hours	.381**	15
Control:		
CE yearly	.584**	34
Responsibility:		
Age	-.373**	14
Ethnicity	-.373**	14
CE yearly	.602**	36
Additional academic hours	.362**	13
Time w/CNO	.367**	13
Social support:		
YMON	.382**	15
HD	-.332**	11
Time w/svr	.339**	12
Time w/CNO	.309**	10
Escape:		
Age	-.417**	17
Marital status	.420**	18
YIN	-.341	12
Direct reports	-.440**	19
Time w/CNO	.598**	36
Problem solving:		
YIN	.455**	21
YPP	.334**	11
Additional academic hours	.572**	33
Reappraisal:		
Ethnicity	-.330**	11
Contact w/CNO .	.521**	27
CE monthly	.416**	17
CE yearly	.433**	19
Time w/svr	.400**	16

Criterion variable: Coping Strategies   **$p < .01$ (two-tailed)

Positive structure coefficients were found significant between confrontation and direct reports, CE yearly, and additional academic hours. Attending more continuing education in management yearly had the highest degree of predictability for use of confrontive coping.

Positive structure coefficients were found significant between distancing and CE yearly, and additional academic hours. Further, significant negative structure coefficients were found between distancing and ethnicity and direct reports. Having fewer numbers of direct reports had the highest degree of predictability for use of distancing.

A significant structure coefficient was found between control and CE yearly. Attending continuing education in management yearly had the highest degree of predictability for use of self-controlling.

A significant structure coefficient was found between responsibility and age, ethnicity CE yearly, additional academic hours, and time w/CNO. Attending continuing education in management yearly had the highest degree of predictability for use of accepting responsibility.

Positive structure coefficients were found significant between escape and marital status, YIN, and time w/CNO. Being married and needing additional time with the CNO had the highest degree of predictability for use of escape-avoidance. Significant negative structure coefficients were found between escape and age and direct reports. Being younger and having less number of direct reports had the highest degrees of predictability for use of escape-avoidance.

Significant structure coefficients were found between problem solving and YIN, YPP, and additional academic hours. Having more years in nursing and attaining additional academic hours in management had the highest degree of predictability for use of problem solving.

Structure coefficients were found significant between reappraisal and ethnicity, contact w/CNO, CE monthly and yearly, and time w svr. Having more contact with the CNO, attending monthly and yearly continuing education in management, and needing additional time with supervisors had the highest degree of predictability for use of positive reappraisal.

Hypothesis 4 was rejected. There were significant relationships between perceived stress and various demographics. There were also significant relationships between hardiness and coping strategies and various demographics.

<u>Hypothesis 5</u>

Hypothesis 5 stated: Both hardiness and coping strategies are predictors of perceived stress.

Multiple regression and structure coefficients were was used to calculate the predictive relationships of hardiness and coping strategies with perceived stress. Significant variables of hardiness and coping strategies are reported in Table 21.

Table 21. Multiple Regression Analysis of Perceived Stress, Hardiness, and Coping Strategies

Variable	R^2	F	B	beta	p
Hardiness:					
HS Commitment	.236	44.17	-1.022	-.486	.001
Coping Strategy:					
Escape	.239	44.99	.997	.489	.001

Dependent Variable: Perceived Stress

Hardiness

The stepwise method of multiple regression (PIN = .0500; POUT = .001) was employed for criterion variable hardiness and related subscales. The R^2 indicates that 24% of the variance in stress can be accounted for by hardiness commitment. Both beta weights and standardized betas are negative indicating an inverse relationship between HS commitment and perceived stress. HS commitment was a significant predictor for low levels of stress.

Coping Strategies

The stepwise method of multiple regression (PIN = .0500; POUT = .001) was employed for criterion variable coping strategies. The R^2 indicates that 24% of the variance in stress can be accounted for by escape-avoidance. Use of escape-avoidance was a significant predictor for high levels of stress.

Structure Coefficients for Hardiness and Perceived Stress

Structure coefficients were calculated for hardiness and hardiness subscales: commitment, control, and challenge and dependent variable: perceived stress. See Table 22 for findings.

Table 22. Structure Coefficients for Hardiness and Perceived Stress

Variable	Structure Coefficient	Variance %
HS Total	-.621***	39
HS Commit	-.755***	57
HS Control	-.274**	8
HS Challenge	-.258**	8

Dependent variable: Perceived Stress	** $p < .01$ (two-tailed)	*** $p < .001$ (two-tailed)

Hardiness

Negative structure coefficients were found significant between HS total and its subscales, commitment, control, and challenge. Lower levels of hardiness total and commitment were highest degrees of predictability for high stress.

Coping Strategies

Structure coefficients were calculated for perceived stress and coping strategies. Only variables with significance of $p < .05$ are reported. See Table 23 for findings.

Table 23. Structure Coefficients for Coping Strategies and Stress

Variable	Structural Coefficient	Variance %
Confront	.367**	14
Control	.292**	9
Responsibility	.472**	22
Escape	.760**	58
Problem solving	-.175*	3

Dependent Variable: Perceived Stress   * $p < .05$ (two-tailed)   *** $p < .01$ (two-tailed)

Significant structure coefficients were found between confront, control, responsibility, escape and problem solving. Use of accepting responsibility and escape-avoidance had highest degrees of predictability for stress.

Hypothesis 5 was accepted for significant relationships between perceived stress and hardiness and coping strategies.

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS,

DISCUSSION, AND RECOMMENDATIONS

A nonexperimental descriptive study was conducted to determine the association between hardiness, perceived stress, and coping strategies among mid-level nurse managers. A summary of the study and a discussion of the findings are presented. Conclusions, implications, and recommendations for further research and practice are included.

Summary of Findings

Hypothesis 1

As hypothesized, perceived stress was significantly related to coping strategies. Specific coping strategies viz., confrontation, self-controlling, accepting responsibility, and escape-avoidance were significantly associated with higher levels of stress among MLNMs.

Hypothesis 2

As hypothesized, perceived stress levels differed significantly among MLNMs with high and low hardiness (total and commitment and challenge). Low hardiness was significantly associated with high stress, and high hardiness was significantly associated with low stress.

<u>Hypothesis 3</u>

As hypothesized, MLNMs high in hardiness engaged in coping strategies different from low hardy MLNMs. Those with high hardiness used coping strategies that involved seeking social support, planful problem solving, and positive reappraisal while those low hardy used escape-avoidance.

<u>Hypothesis 4</u>

This hypothesis was rejected given that significant relationships existed among demographics, perceived stress, hardiness, and coping strategies with the following findings:

1. Higher stress was reported among MLNMs who were younger, had fewer years in nursing and nursing management, and had fewer numbers of direct reports.

2. High hardiness and commitment were associated with MLNMs who were older and had more years in nursing. Further, high hardiness was associated with those who had attained a higher degree.

3. High hardiness challenge was associated with MLNMs who have attained higher degrees, acquired additional academic hours in management, and had more years in nursing management.

4. Coping strategies confrontation, self-controlling, and accepting responsibility were used more frequently by MLNMs who attended more yearly continuing education in management. Further, accepting responsibility was used more often by younger MLNMs.

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5. Escape-avoidance was used more frequently by MLNMs who were married, younger, had fewer years in nursing, had fewer direct reports, and needed more time with their CNOs.

6. Planful problem solving was used more frequently by MLNMs who had more years in nursing and attained academic hours beyond their highest degree.

7. Positive reappraisal was used more frequently by MLNMs who had more contact hours with their CNOs, attended more monthly and yearly continuing education in management, and needed more time with their supervisors.

<u>Hypothesis 5</u>

As hypothesized, high hardiness and commitment had high degrees of predictability for low levels of stress. Further, a high degree of predictability was found between high stress and use of coping strategies escape-avoidance and accepting responsibility.

<p align="center">Discussion of Findings</p>

The hypotheses guiding this research provided the framework for the discussion of the findings of the study. Responses from 145 mid-level nurse managers were the basis for the following findings.

<u>Hypothesis 1</u>

The results of this study support the hypothesis that there is a positive relationship between perceived stress and coping strategies among mid-level nurse managers in hospitals. Results suggest that MLNMs experienced stress at work and coped by using strategies that either reduced (self-controlling, accepting responsibility, escape-

avoidance) or resolved (confrontive) stress. Of the four coping strategies used, escape-avoidance was the primary strategy. Findings were consistent with previous studies concerning work related stress among managers (McDonald & Korabik, 1991) which found managers used a variety of coping strategies depending on levels of perceived stress. Similar results occurred among hospital nurses, yet escape-avoidance was used more often during times of high work-related stress (Rosenthal, et al., 1989). Other studies among nurses (Simoni & Paterson, 1997; Tyler & Cushway, 1992) discovered significance between occupational stress and escape-avoidance, and between anxiety, burnout, and job dissatisfaction (Collins, 1996; London & More, 1987). Considering the nature of the diverse health care environment, use of a variety of coping strategies seemed realistic. However, findings of primary use of escape-avoidance among nurse managers were striking. When addressing sources of stress among MLNMs, there may have been stressors that cannot be reduced or eliminated such as the complexity of interactions among patients, staff, and physicians in health care organizations. Use of escape-avoidance as a coping strategy may have been an appropriate response if related to those which have known health-promoting outcomes such as exercise, meditation, and reading. However, when manifested by behaviors such as overeating, drinking, and smoking, escape-avoidance would be considered maladaptive.

Individuals who use escape-avoidance may find a brief respite from stressful situations, but Folkman and Lazarus (1982) reported continued use to be associated with depression, anxiety, and distress. Unresolved stress among nurse managers becomes a concern when studies have documented related negative outcomes such as anxiety,

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burnout, and job dissatisfaction (Collins, 1996; London & More, 1987; McDonald & Korabik, 1991). Further, Nowack's studies (1988, 1991) of 400 professional men and women discovered a positive association between high stress and use of avoidance leading to both mental and physical ill health.

Primary use of escape-avoidance by nurse managers may be a reflection of gender. Women are more apt to use escape-avoidance under stress, while men use problem solving (Grambling, et al., 1998). Therefore, the predominately female sample may account for the present study findings. Studies are lacking as to why women more than men use escape-avoidance. One speculation may be developmental differences between men and women. Women's development is a relatively new area of research with current evidence supporting the idea that development may influence how women approach stressful situations (Gilligan, 1982).

Interest in ways to eliminate or reduce stressors begins with appraisals of stress as threatening or challenging. Demonstrating an association between stress and escape-avoidance serves as a springboard for exploration of specific sources of stressors among nurse managers ultimately leading to methods to reduce or even eliminate work-related stress. Moreover, advancing opportunities for nurse managers to develop higher use of coping strategies may aid in resolution of stressful events thus evidencing lower productivity, increased job satisfaction, and a healthier workforce.

Present study findings may be useful to higher education in nursing. Baccalaureate nursing students spend didactic and clinical time on management content as preparation to assume basic managerial roles soon after graduation. Content that

includes stress and coping strategies may create higher self-awareness of coping

strategies among nursing students, thus aiding new graduates to develop strategies that

may eliminate, not merely, reduce, stress.

<u>Hypothesis 2</u>

The results of this study support the hypothesis that low-hardy mid-level nurse

managers have higher levels of perceived stress than high-hardy mid-level nurse

managers. Study findings were consistent with previous studies that examined

relationships between hardiness and stress in management-like positions (Berwick, 1992;

Kobasa, 1979; Maddi & Kobasa, 1984; Nowack, 1989, 1991) and concluded an inverse

relationship exists between hardiness and stress. Present study findings are also consistent

with reports that hardiness acts as a resistance resource for stress (Hills & Norvell, 1991;

Kobasa, et al., 1982; Topf, 1989). High stress was concluded to be significant in low

hardy persons among military personnel (Bartone, et al., 1989), nurses (Keane, et al.,

1985; Lawler & Schmied, 1992; Rich & Rich, 1987), lawyers (Kobasa, 1982), and

evening school students (Lang & Markowitz, 1986).

Kobasa's original (1979) and follow-up (Kobasa, et al., 1982) investigations used

male executives exclusively, creating criticism as to generalities about hardiness and

stress among female populations (Low, 1996; Lambert & Lambert, 1987). However,

present study results using a primarily female sample concurred with Kobasa's

conclusions and thus contributed to reports relevant to hardiness and stress.

In the present study, high commitment and challenge demonstrated significant

associations with lower stress among MLNMs. However, no association was found

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between stress and control. In their study of male executives, Kobasa et al., (1982) described behaviors of subjects who experienced high stress and low commitment and challenge. These individuals demonstrated a lack of involvement within the work setting, a passive attitude toward personal decision-making and goal setting, and a general sense of meaninglessness, apathy, and detachment. Kobasa's results compare to a study by Hall (1992) that concluded nurses with greater commitment and challenge perceived less occupational stress than those possessing less commitment and challenge. Individuals who are high in commitment do not easily give up under pressure, those high in control feel and act influential, and those who are challenged view stressful events as stimulating rather than threatening (Kobasa, et al., 1982). Present study results also compared to investigations among nurses describing buffering effects of high hardiness on stressors associated with burnout, job satisfaction, and spiritual well-being (Marsh, et al., 1997; Rich & Rich, 1987; Simoni & Paterson, 1997). Hardiness was found to be a mediating factor of stress regardless of work situation and nurse populations.

MLNMs with high hardiness have the potential to find meaning in the events of workplace activities and can transform stress into a challenge. They are potentially invested in themselves and to their work such that they do not easily give up under pressure. Consequently, workplace stressors may be seen as non-threatening, natural, and meaningful. Hardy MLNMs may have expected, or even desired, a constantly changing work environment having viewed workplace stressors such as workload, role ambiguity, and home/work interface (Bunsey, et al., 1991) as opportunities for growth. With this

information, a reasonable expectation would be an exploration of the effects of hardiness training among MLNMs and any long-term benefits.

Present study findings may also be useful to higher education in nursing. Patton and Goldenberg (1999) found levels of stress to be less among RN students who were high hardy. RN and non-RN nursing students spend didactic and clinical time on management related content. Therefore, graduate and undergraduate programs that incorporate hardiness development into the curriculum may positively impact levels of hardiness and potentially decrease stress not only in student roles, but also as graduates who may assume managerial positions.

Little association was found between hardiness and control in this sample, and gives rise to speculation. High control individuals tend to feel and act as if they are influential in contingencies of life. Events are perceived as a natural outgrowth of the individual's actions and not as unexpected or overwhelming experiences. Lack of association between control and stress may imply MLNMs feel they have little influence in their workplace situations or that many events are outside their control. This study result may be plausible considering the complexity of the hospital work environment. As an example, regulatory bodies within hospitals have significant influence on patient care delivery systems. These governing regulations are not under the control of MLNMs but generally may contribute to stress in the workplace. Physician practices within hospitals are another source of work-related stress over which MLNMs have little or no control (Bunsey et al., 1999). Therefore, levels of control may have had little association with stress among this sample.

Hypothesis 3

The results of this study support the hypothesis that high-hardy mid-level nurse managers use different coping strategies than low-hardy mid-level nurse managers. MLNMs with high levels of hardiness, particularly commitment, tended to use a combination of problem-focused (problem solving) and emotion-focused (positive reappraisal, seeking social support) coping strategies more often than those who were low hardy. Effective adaptation to stressful events entails the interplay of several factors including the event itself, cognitive appraisal, coping resources, and strategies employed (Forsythe & Compas, 1987).

In line with prior studies (Fusco, 1994; Gentry & Kobasa, 1984), the present study found that choice of coping strategies was influenced by the personal resource hardiness. Further, high-hardy MLNMs used a combination of emotion- and problem focused strategies to cope with stress which contrasts with reports that hardy persons use more problem-focused and less emotion-focused coping strategies than those less hardy (Kobasa & Puccetti, 1983; Westman, 1990). Previous research investigating the relationship between hardiness and coping showed high hardiness was negatively related to emotion-focused coping and unrelated or positively related to problem-focused (Boyle, et al., 1991; Williams, et al., 1992). These authors concluded that individuals high in hardiness are more likely to engage in what are traditionally interpreted as adaptive coping strategies and less likely to engage in maladaptive coping practices. The results of this study parallel those of Boyle, Williams, and colleagues from the standpoint that

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hardiness is negatively related to coping styles which attempt to minimize the stressful situation without actually resolving it.

Folkman and Lazarus (1988a) have advocated using of both problem- and emotion-focused strategies considering the complex and multiple facets of stressful events. Yet, they also contend that emotion-focused strategies such as avoidance may have limited value and actually increase distress because of need for resolution.

The finding that hardiness related to both problem-and emotion-focused coping strategies is consistent with hardiness theory's definition of transformational coping. According to Kobasa, et al., (1985), stressful events are transformed to be less stressful by interaction with the events, by thinking about them optimistically, and acting toward them decisively, thereby changing them in a less stressful direction. Present study results not only support this conceptualization, but also enhance the understanding by providing specific coping strategies, which are positively and negatively related to hardiness.

Problem solving had the strongest association with high levels of commitment suggesting MLNMs who had high levels of hardiness and were committed to their organization used problem solving more often when coping with stress. Acting as a buffer of stress appraisal, hardiness transforms events to be less stressful by interactions with the events, by thinking about them optimistically, and acting toward them decisively, thereby changing them in a less stressful direction. Consequently, findings that an association existed between high hardiness and use of problem solving was not surprising given that problem solving entails directing attention toward the problem in an effort to prevent or control it. Further, commitment encompasses a strong investment in

the organization thus behaviors would necessitate active involvement in stressful events rather than moving away from them such as found in escape-avoidance. Therefore, MLNMs who were high in commitment could reasonably seek out stressful events to bring them to resolution and potentially feel distressed if required to leave stressful events unresolved. They actually may have found it difficult to use escape-avoidance to cope with stress.

Escape-avoidance had the strongest association with low levels of hardiness total and commitment among participants in this sample. Use of escape-avoidance is considered to be less adaptive or maladaptive often producing symptoms of depression, anxiety, and psychosomatic symptoms (Folkman & Lazarus, 1988a). MLNMs who were low hardy may have found work-related stressors more difficult and troublesome and experienced less job satisfaction (Littell, 1995) than those high hardy. Thus, escape-avoidance was used to withdraw from situations rather than actively seeking resolution.

The finding that hardiness is associated with decreased stress and increased use of problem solving among MLNMs may be valuable to nurse administrators. Promoting a work environment, which is less stressful, may evidence less cognitive fatigue and increased energy and sensitivity to others among MLNMs.

Kobasa, et al., (1982) have suggested that hardiness can be learned through a variety of experiences including… "Stimulation and support for exercising the cognitive capabilities of symbolization, imagination, and judgment; approval and admiration for doing things themselves; role models who advocate hardiness and show it in their own functioning" (p. 178). This formulation resembles that offered from Bandura's social

learning framework, which emphasized the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. Individuals are more likely to adopt modeled behavior if it is similar to the observer and has admired status (Bandura, 1965). Therefore, high hardy MLNMs may be effective as role models to others when dealing with occupational stress by using a problem solving approach. Moreover, pairing new managers with MLNMs who demonstrate high-hardy behaviors may facilitate transitions to new work environments and consequently affect more use of problem-focused coping strategies.

Hypothesis 4

The results of this study support rejection of the hypothesis that there is no significant relationship between specific demographic variables of mid-level nurse managers and hardiness, coping strategies, and stress.

Stress and Demographics

Perceived stress was greater when MLNMs needed more time with either their supervisors or their chief nursing officers. Few, if any, previous studies compared need for time with a supervisor as a variable with stress. However, need for time with a supervisor could parallel the concept of mentoring. Use of the term "mentoring" in work situations has been described as a process of guiding, cultivating, and facilitating an individual's progress toward reaching a goal (Strickland, Spanier, & Woolfe, 2000). Kram (1985) describes work-related mentors as experienced, productive managers who relate well to less-experienced employees (protégés) and facilitate their personal development. Protégés tend to seek out more experienced organizational members

(supervisors or CNOs) to help answer work-related questions and to explain formal or informal organizational norms (Noe, 1988). Kram (1983, 1985) and Burke (1984) suggested mentors may provide career and psychological benefits to protégés such as sponsorship for promotion, providing opportunities for exposure and visibility, coaching on how to achieve work objectives, and advisement in controversial or politically sensitive issues. In the psychological area, mentors may enhance a sense of competence and identity by serving as role models, and providing validation and feedback to protégés on their performance.

Among nurse managers, Barker and Ganti (1980) found high sources of stress to be discrepancies between job descriptions and actual practice. Similarly, among Canadian nurses (Leatt & Schneck, 1980) a moderately high amount of stress was reported from sources such as staff and physician contact and role ambiguity. Langenfeld (1988) asserted that nurse managers' effectiveness may decrease when role performance and expectations are not clearly recognized by staff and administrators. Beyers (1998) described successful transitioning within a new role requires mentoring and support from supervisors. These studies serve to support the need by MLNMs to spend additional time with their superiors for possible formal or informal mentoring in an effort to gain role clarity and feedback on performance.

Present study discoveries of relationships between stress and age and nursing experience are consistent with other studies (Indik, Seashore, & Slesinger, 1964; Koch, et al., 1982; Rosse & Rosse, 1981; Sheridan & Vredenburgh, 1978). These authors found that inverse relationships between stress and these two demographics may be describing

either selective withdrawal from high stress, or that senior members of organizations are more fully adapted and therefore experience less stress. Similar findings were suggested by Alderman (1985) who found nurse managers in their roles the longest experienced less role conflict, a high source of stress. MLNMs who were older and had more practice in nursing may find they are less stressed by virtue of their personal maturity and work experience.

The negative association in this study between stress and number of direct reports is an interesting one. When managers have more persons with whom they must interact, a potential exists for increased workload and stress. Such was the conclusion by Motowildo, et al., (1986) who reported workload as a contributing factor to higher ratings of stressful events among nurses. However, present study findings suggested that MLNMs with higher numbers of direct reports experienced less stress and therefore provided opportunity for speculation. Perhaps MLNM positions encompassing larger number of direct reports may provide opportunities to share workload and varying job responsibilities; therefore, less stress is perceived.

Hardiness and Demographics

The contribution of age and experience in the present study to the prediction of hardiness and commitment is consistent with earlier findings. Patton and Goldenberg (1999) investigated RN students enrolled in a BSN completion program finding significant associations between commitment and nurses who were older and more experienced. Schmied and Lawler (1986) described associations among high-hardy female secretaries who were older, more educated, and married. A study by Nowack

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(1991) among male and female professionals discovered similar findings: older adults reported significantly greater hardiness than those younger. However, present study findings contrasted with the male executives study by Kobasa, et al., (1982) which found no significant relationship between hardiness and demographics of age, education, and job level. At the authors' suggestion, the difference in findings may have been due to their all male, white, and married sample whereas the diversity among the present sample may have contributed different results. Present study findings are reasonable considering MLNMs who were older and had more years in nursing and management may have had more time to build hardiness skills, which resulted in higher levels of commitment.

Present study results relative to the inverse relationship between control and contact with CNOs are supportive of hardiness theory. Individuals with high levels of control perceive they have a definite influence over stressful events and outcomes through the exercise of imagination, knowledge, skill, and choices (Maddi & Kobasa, 1984). Consequently, MLNMs who reported high control may have had less need to meet with their CNOs to obtain affirmation of their decisions and actions.

Present study findings related to predictions of challenge by highest degree attained, obtaining additional formal hours in management, and higher numbers of direct reports parallels the previous study by Patton and Goldenberg (1999) which described high levels of challenge among RNs in a BSN completion program. Kobasa, et al., (1982) describes the disposition of challenge to be one of enjoying a changing environment and transformation and growth rather than conservation and protection of the former existence. Thus MLNMs who have sought educational offerings beyond their basic

degree would be considered to have exhibited transformational behaviors. They may be less interested in protecting the former self, and more interested in seeking opportunities for personal growth. Further, MLNMs who have more persons reporting directly to them may find challenge in the situation, or they may have chosen to have more direct reports because they enjoyed the challenge and saw it as an opportunity for growth.

Coping and demographics

MLNMs used a combination of emotion- and problem-focused strategies depending on their perceived stress in the work setting. Those managers who were younger, married, had less experience in nursing, and had fewer direct reports tended to use more emotion-focused strategies while those who had more experience in nursing and had more formal education in management tended to use more problem-focused strategies. Those MLNMs who had more continuing education in management and who had more contact with their CNOs were predicted to use both problem-solving and emotion-focused coping. These findings are congruent with results found by Vitaliano, Russo, Carr, Maiuro, and Becker (1985) who studied coping among medical students and found female students reported using more wishful thinking (escape), avoidance, social support, and self-blame (accepting responsibility) than did males. In samples of men and women community dwellers (Folkman & Lazarus, 1980; Folkman, Lazarus, Pimley, & Novacek, 1987; Laboavie-Vief, Hakin-Larson, & Hobart, 1987) women used less problem-focused coping, reported less self-control, and used more escape-avoidance and turning against self as compared to men who use more problem-focused strategies. In contrast, Grambling, et al., (1998) described a combined use of problem solving, escape-

avoidance, and distancing depending on the situation, nature of the stressor, previous

experience, and level of confidence among adult, well educated, mostly married women.

Usefulness of both emotion- and problem-focused coping strategies has been

previously discussed as have been problems that may arise when only emotion-focused

strategies are used. Use of escape-avoidance as predicted among MLNMs who are

younger and married may be related to the conflict of work/home interface found by

Berwick (1992) and Cooper and Cartwright (1994) who described increased levels of

stress among female managers trying to balance the dual roles. These dual roles have no

short-term solutions; therefore, escape-avoidance may be a reasonable approach to stress

provided it does not become maladaptive.

Studies specifically related to coping strategies and attendance at continuing

education offerings were not found. However, predictability between use of a variety of

coping strategies and CE attendance seems plausible. Stress management and coping are

often topics offered in a CE format, therefore MLNMs may have been presented a forum

to learn various strategies for stress reduction or resolution depending on the situation.

Present study findings of use of positive reappraisal by MLNMs who had more

contact with CNOs and those needing more time with their supervisors are consistent

with previous studies (Berwick, 1992; McDonald & Korabik, 1991). Positive reappraisal

is described by Folkman and Lazarus (1988a) as an emotion-focused strategy that can

diminish the negative emotional response and generate positive emotional responses. It

can transform a threat appraisal into a challenge through focusing on the possibilities for

mastery or growth. Positive reappraisal can generate beneficial emotions such as pride

and satisfaction and perhaps reduce emotions such as anger and sadness. Therefore, engaging in more time with CNOs appeared to significantly contribute to prediction of higher use of a strategy that can transform stressful events into challenge, pride, and satisfaction. Needing more time with supervisors also tended to predict use of positive reappraisal. Perhaps need for more time with supervisors may be likened to needing more support as described by LaRocco, House, and French (1980) who described support from supervisors to be a strong mediator of stress among managers. Positive reappraisal tended to be predicted among nurse managers who may have needed more social support from their supervisors.

Hypothesis 5

The present study results support the hypothesis that both hardiness and coping strategies are predictors of perceived stress. Low levels of stress appeared to be significantly predicted among MLNMs who are highly committed to their work situation. Further, use of escape-avoidance and accepting responsibility tended to predict high levels of occupational stress among MLNMs.

In this sample, perceived stress and hardiness findings are consistent with Collins (1996) and Topf (1989) who reported a negative correlation between stress and hardiness among hospital nurses. Less stress was found when high levels of hardiness were present. Findings are also congruent with a study by Berwick (1992) who reported work-related stressors among student affairs administrators decreased as commitment to the organization increased. Consistent with findings by Maddi and Kobasa (1984), hardy MLNMs tended to have less stress because they are highly committed to interpersonal

relationships and involvement in life's work. Hardy persons also have belief in, and appreciation for, their own values, skills, and personal goals.

High stress and use of escape-avoidance by MLNMs is consistent with findings by Nowack (1988) who studied 194 professional employees (male and female) attending management training workshops. Nowack found significant associations between stress and use of avoidant coping by both men and women. Also consistent with the present study are results by Dewe (1989), who found higher use of emotional relief and distraction (comparable to escape-avoidance) among male supervisors and administrators when work-related stress was high.

Accepting responsibility (or blame) as an emotion-focused strategy has been explained by Folkman & Lazarus (1982) as the individual acknowledging their own role in the problem with a concomitant theme of trying to put things right. This category is characterized by items on the Ways of Coping Questionnaire such as "I criticized or lectured myself", and "Realized I brought the problem on myself". As previously described, emotion-focused strategies are those used when situations are appraised as holding few possibilities for beneficial change and have to be accepted by individuals. Folkman and Lazarus (1986) found community residents high in depressive symptoms primarily used the emotion-focused strategy accepting responsibility, along with self-control, escape-avoidance, and confrontation. Further, Aldwin and Revenson (1987) found high use of escapism and self-blame (accepting responsibility) actually caused emotional distress among a community sample of adults. Findings from the present study are congruent in that escape-avoidance and accepting responsibility were both found to

be significant predictors for high stress. MLNMs who used these two coping strategies may believe work stressors have to be accepted because they hold few possibilities for change and thus may be candidates for negative outcomes such as anxiety, depression, and burnout (Bunsey, et al., 1991; Marsh, et al., 1997).

Conclusions and Implications

The following conclusions have been generated from the discussion of findings. These are presented along with their associated implications.

<u>Hypothesis 1</u>

The correlation between occupational stress and coping strategies is in agreement with previous research. It is also consistent with the theoretical model proposed for this study. Nurse managers experience work-related stress and use various coping strategies in an attempt to reduce or resolve their stress. Implications from this conclusion include an in-depth examination by health care organizations of causes of occupational stress among managers in an attempt to reduce stressors. Increasingly, the workplace is seen as an appropriate setting for developing and sustaining positive physical and mental health practices rather than engendering an environment which contributes to less healthy behavior among employees. Organizations that can eliminate or reduce workplace stressors have evidenced greater organizational commitment, higher job satisfaction, and a healthier workforce. Therefore, organizations, which cultivate a work environment that is less stress producing may find, decreased stress and greater positive physical and mental health among nurse managers.

Further implications relate to higher education in nursing. Nursing students, both non-RN and RN, are being prepared for roles in management. Increasing awareness of stress would assist in preparing these future nurse managers for possible sources of stressors and how specific coping strategies may diminish negative effects benefiting both students and their future employers.

Hypothesis 2

The association between occupational stress and hardiness found in the present study is in agreement with previous research. Study findings are also consistent with the theoretical model proposed for the study. Clearly, lower stress is perceived by nurse managers who are high-hardy particularly in commitment and challenge. Implications for this conclusion center around decreasing stress through increasing hardiness, thereby providing individual and organizational benefits such as decreased burnout and increased job satisfaction and well-being. Inversely, nurse managers who are low commitment and challenge may be less likely to involve themselves in the work setting, may be inflexible and intolerant, and perceive change as problematic and threatening. These behaviors are less than desirable when job responsibilities necessitate tolerance, flexibility, and adaptability to change. Moreover, those low in commitment and challenge may negatively impact their work environments with subsequent effects on patient outcomes and use of resources. As hardiness is a quality which can be learned, potential exists for nurse managers to learn how to increase hardiness and predictably increase resistance to stress. With increased resistance to stress, nurse manager employers could enjoy a

healthier work force with increased performance, job satisfaction, and positive impacts on patient outcomes.

Hypothesis 3

Findings of associations between high and low hardiness and use of different coping strategies among nurse managers are in agreement with previous research. Planful problem solving, positive reappraisal, seeking social support, and self-controlling are the coping strategies used more often by nurse managers who are high in hardiness. Nurse managers, who are low in hardiness, use escape-avoidance more often.

Implications for this conclusion focus on increasing hardiness which tends to foster use of coping strategies that change stress into a challenge (positive reappraisal), or effect resolution of (problem solving) rather than moving away from stress (escape-avoidance). Using social learning theory, modeling verbal and nonverbal behaviors by those supervising nurse managers would be one form of fostering or promoting hardiness. Attending continuing higher education programs, whether formal or informal, on topics related to hardiness may also effect hardiness development among nurse managers. Another implication includes measurement for hardiness among those being selected or who are presently in nurse manager positions thus aiding nurse administrators in identifying managers at risk for use of less adaptive coping strategies such as escape-avoidance.

Hypothesis 4

The associations found in the present study between demographics, stress, coping strategies, and hardiness are in agreement with previous research.

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Stress and Demographics

Younger nurse managers who have less nursing experience and desire more time with either their supervisors or chief nursing officers are more apt to feel higher levels of occupational stress than those older and more seasoned in nursing. Implications for this conclusion involve examination as to why younger nurse managers want more time with supervisors. Speculation includes nurse managers' needs for mentoring, clarification of role ambiguity, and validation that work tasks and decision-making are correct and appropriate. Determining associations between high stress and specific demographics such as age and experience could assist chief nursing officers to identify those who may be at risk for high stress and would benefit from additional time with supervisors.

The inverse association between stress and direct reports suggests that having more direct reports is not perceived as taxing or exceeding resources. Implications for this conclusion include evaluation of the number and types of direct reports among nurse managers and whether larger numbers of direct reports provides opportunities to share workload and varying job responsibilities, thereby, reducing stress.

Hardiness and Demographics

Older nurse managers who have more experience in nursing and management are more likely to possess higher levels of commitment in their workplaces. Further, nurse managers who need less contact with their CNOs tend to report a greater sense of control and autonomy in their work setting. A strong sense of challenge among nurse managers who have more direct reports and additional higher education supports the hardiness theory that stressors created by higher workloads or attendance at higher education

classes are viewed as stimulating and opportunities for growth. Implications for these conclusions include an examination of hardiness and select demographics among nurse managers, especially those new in nursing or management. Such an evaluation may provide important information to nurse administrators who, by appropriate selection and placement of individuals in managerial roles, seek to advance commitment and autonomy within the organization and the individual. Nurse administrators may find high challenge nurse managers are better candidates for larger spans of control (direct reports). Further, nurse managers who seek to build hardiness may find that attending higher education programs increases their disposition for challenge.

Coping Strategies and Demographics

Nurse managers who experience high stress tend to use a combination of coping strategies depending on the stressful encounter. Those younger and needing more time with supervisors tend to use less adaptive strategies of escape and distancing. However, more adaptive strategies such as problem solving are likely to be used by nurse managers who spend more time with CNOs, need additional time with supervisors, and obtain more formal or informal educational hours in management. Implications for this conclusion involve evaluation of demographics in conjunction with stress and coping strategies among nurse managers, especially those new to management, thus providing valuable information to nurse administrators who seek to advance higher use of problem-focused strategies among their managers. Another implication would entail encouraging nurse managers to obtain additional formal hours in management. This might encompass support by nurse administrators through providing financial assistance programs and

allowing time off for class attendance. Potential benefits to both the individual and the organization might be increased use of resolution producing strategies versus those that temporarily reduce or lead to distress.

An additional implication includes the information that nurse managers attending continuing education (CE) in management tend to use a combination of coping strategies. Incorporation of CE content for nurse managers which focuses on stress and coping strategies may advance knowledge about adaptive and maladaptive strategies, thereby increasing problem-focused strategies among this group.

Hypothesis 5

Findings of associations between stress and hardiness and coping strategies are consistent with previous studies.

Low levels of occupational stress are more likely to be experienced by nurse managers who are hardier and highly committed to their work. Implications for this conclusion come from the fact that hardy individuals are more inclined to succeed because they are highly committed to interpersonal relationships and involvement in life's work. Thus, high commitment among nurse managers may evidence less stress and greater involvement in the workplace and increased interpersonal relationships with employees benefiting both individuals and organizations. Nurse educators and administrators may find value in assessing hardiness levels when interviewing potential nurse managers to determine those high in hardiness and those possibly at risk for high stress. As previously mentioned, organizations that cultivate work environments

supportive of hardiness behavior may find decreased job related stress with related positive outcomes such as job satisfaction and physical and mental health.

High occupational stress is more likely among nurse managers who primarily use escape-avoidance and accepting responsibility as coping strategies. Implications for this conclusion concerns high use of strategies that may be less apt to bring about resolution of stress or lead to emotional distress. It is important for educators and administrators to become aware that nurse managers are experiencing stress, and support development of strategies that might resolve stress-producing events. Attendance at continuing higher education (formal or informal) classes on topics relative to problem-focused strategies could advance their use by nurse managers. Further, nurse managers could benefit from guidance and active support from their CNOs and supervisors whether formal one-on-one meetings or informal use of feedback to discuss development of use of problem-focused strategies. Promoting a work environment that encourages use of problem-focused strategies, can also serve as an example for nurse managers to resolve stressors rather than escaping or distancing themselves from the problem. Nurse managers who use problem-focused strategies may then serve as role models for their staffs to use the same.

Recommendations

This study focused on stress, hardiness, and coping strategies among nurse managers. The following recommendations for are based on the study's findings, conclusions, and implications:

Recommendations for Research

1. Compare specific academic degrees, both basic and higher, among nurse managers and the association between hardiness and various coping strategies.

2. Explore the specific sources of occupational stress and their relationship to hardiness and coping strategies among nurse managers.

3. Compare uses of specific coping strategies before and after classes highlighting development of problem-focused strategies.

4. Conduct a longitudinal study to follow continued use of problem-focused strategies among those attending classes on coping strategies.

5. Conduct a longitudinal study among nursing students comparing those entering nursing school and those graduating relational to stress, hardiness, and coping strategies.

6. Investigate stress, hardiness, and coping strategies among nursing education faculty.

7. Using a pretest posttest design, conduct a study to determine levels of hardiness among nurses and nurse managers who attend classes focused on development of hardiness.

8. Conduct a longitudinal study to follow continued development of hardiness among those attending hardiness training.

9. Explore the interaction of stress and hardiness with work-related concerns such as job satisfaction, physical and mental health, and patient outcomes among nurse managers.

10. Conduct a study to determine if environments supportive of hardiness characteristics attract hardy individuals.

11. Conduct a study using a weighted sample of male and female nurse managers relational to stress, hardiness, and coping strategies.

Recommendations for Practice

1. Agencies employing nurses should consider assessing hardiness and coping strategies of those seeking managerial positions to identify those at risk for stress and stress related concerns.

2. Nurse administrators should attempt to identify work stressors among nurse managers and develop interventions toward reducing these stressors by promoting hardiness and problem-focused coping strategies among nurse managers and those who supervise them.

3. Nurse administrators should implement mentor programs aimed at new nurse managers and those identified as high risk for stress.

4. Nurse managers experiencing high stress should seek opportunities to develop personal hardiness and develop coping strategies that can resolve stress, not just reduce it.

5. Nursing faculty should consider including hardiness training in curriculum content in an effort to prepare graduates for the rigors of work-related stressors.

6. Staff development educators should consider providing hardiness, stress, and coping programs in their health care settings to all staff.

APPENDIX A

COVER LETTER

My name is Sharon Judkins and I am a doctoral student at The University of North Texas (UNT). I am conducting a study titled: Hardiness, Stress, and Coping Strategies: Implications for Continuing Higher Education.

The study is being conducted in the Dallas/Fort Worth area to gain a better understanding of hardiness, stress, and coping among mid-level nurse managers. Being a nurse manager, you are in a unique position to contribute valuable information to the nursing leadership community. I am seeking your voluntary participation in an investigation whose purpose is to explore ways nurse managers cope with stress. Participants benefit by helping understand the relationship between hardiness, coping, and stress among nurse managers. Results may aid nurse administrators in identifying those managers who need additional training to gain skills for their positions. Thus, study results may influence nurse administrators to provide increased educational benefits to nurse managers whether formal or informal such as continuing education programs, certificate programs, or inservice programs.

Please respond to the enclosed questionnaire, which will take approximately 20 minutes to complete. Participation is voluntary, confidential, and you may withdraw at any time without penalty, prejudice, or loss of benefits. There are no known risks to participate in this study.

Your consent to participate will be indicated by your return of the questionnaire. Information will be reported in the aggregate and by composite groups, not by individual responses. You may keep this letter for your records to indicate your participation in the study.

To complete the study in a timely manner, please return the completed questionnaire in the stamped envelope within the next two weeks.

Thank you in advance for your participation. If you have any questions, please call me at 817-272-2291 or email judkins@uta.edu. You may also contact my faculty sponsor, Dr. D. Barry Lumsden, Dept. of Higher Education Administration, UNT at 940-565-4074. Or you may contact the UNT Institutional Review Board at 940/565-3940. I look forward to receiving your information.

Sincerely,

Sharon Judkins

APPROVED BY THE UNT IRB
FROM 10/3/00 TO 10/2/01

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APPENDIX B

DEMOGRAPHIC DATA QUESTIONNAIRE

MID-LEVEL NURSE MANAGER QUESTIONNAIRE

Demographic Information

Please fill out the following: All information will remain confidential.
1. Age___
2. Gender
   -Female___
   -Male___
3. Ethnicity
   -White, Non-Hispanic_____
   -Black, Non-Hispanic_____
   -Hispanic_____
   -Asian_____
   -American Indian_____
   -Other_____
4. Marital Status
   -Married___
   -Single___
   -Divorced___
   -Widowed___
   -Separated___
5. Job status
   -Full time____
   -Part time____
6. Annual Base Salary
   <$20,000___
    $20,000-$39,999___
    $40,000-$49,999___
    $50,000-$59,999___
    $60,000-$69,999___
   >$70,000___
7. Years in nursing____
8. Years as a nurse manager____
9. Years as a manager outside of nursing___
10. Current position title_____
11. Years in present position_____
12. Basic degree in nursing
    - Diploma___
    - AD___
    - BSN___
13. Highest degree obtained
    - Diploma___
    - AD___
    - BSN___
    - Other Baccalaureate_____
    - MSN___
    - Other Masters_____

- Doctorate___
14. Certification in specialty?
   - Yes___
   - No ___
15. If yes to number 8, is it ANCC certification?
   - Yes___
   - No ___
16. Certification specialty area_____
17. Number of persons directly reporting to you_____
18. Title of your direct supervisor_____
19. Average number of contact hours (phone or in person) weekly with your immediate supervisor____
20. Average number of contact hours (phone or in person) weekly with your Chief Nursing Officer____
21. Hospital size (number of reported beds)
   - 50-100___
   - 101-200___
   - 201-300___
   - 301-400___
   - 401-500___
   - >500___
22. Hospital status
   - Public___
   - Non-profit___
   - For-profit___
23. Within the last 3 years, estimate the average continuing education (CEU) hours in management you have attended
   - Monthly average_____
   - Yearly average_____
24. Beyond your highest formal degree, enter the number of management related academic credit hours you have accumulated: _____
25. Do you have a need for additional contact with your supervisor to help you in your present position?
   -No___
   -Yes___
26. Do you have a need for additional contact with your Chief Nursing Officer to help you in your present position?
   -No___
   -Yes___

APPENDIX C

PERCEIVED STRESS SCALE

PERCEIVED STRESS SCALE

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question circle the number which applies:

		NEVER	ALMOST NEVER	SOME-TIMES	FAIRLY OFTEN	VERY OFTEN
1.	In the last month how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2.	In the last month how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3.	In the last month how often have you felt nervous and "stressed"?	0	1	2	3	4
4.	In the last month how often have you dealt successfully with irritating life hassles?	0	1	2	3	4
5.	In the last month how often have you felt that you were effectively coping with important changes that were occurring in your life?	0	1	2	3	4
6.	In the last month how often have you felt confident about your your ability to handle your personal problems?	0	1	2	3	4

		NEVER	ALMOST NEVER	SOME-TIMES	FAIRLY OFTEN	VERY OFTEN
7.	In the last month how often have you felt that things were going your way?	0	1	2	3	4
8.	In the last month how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
9.	In the last month how often have you been able to control irritations in your life?	0	1	2	3	4
10.	In the last month how often have you felt that you were on top of things?	0	1	2	3	4
11.	In the last month how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
12.	In the last month how often have you found yourself thinking about things that you have to accomplish?	0	1	2	3	4
13.	In the last month how often have you been able to control the way you spend your time?	0	1	2	3	4
14.	In the last month how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

APPENDIX D

HARDINESS SCALE

HARDINESS SCALE (HS)

Below are statements about life that people often feel differently about. Circle a number to show how you feel about each one. Read the items carefully, and indicate how much you think each one is true in general. There are no right or wrong answers; just give your own honest opinions.

	Not at all true	**A little true**	**Quite true**	**Completely true**
	0	**1**	**2**	**3**

1.	Most of my life gets spent doing things that are worthwhile.	0 1 2 3
2.	Planning ahead can help avoid most future problems.	0 1 2 3
3.	No matter how hard I try, my efforts usually accomplish nothing.	0 1 2 3
4.	I don't like to make changes in my everyday schedule.	0 1 2 3
5.	The "tried and true" ways are always best.	0 1 2 3
6.	Working hard doesn't matter, since only the bosses profit by it.	0 1 2 3
7.	By working hard you can always achieve your goals.	0 1 2 3
8.	Most of what happens in life is just meant to be.	0 1 2 3
9.	When I make plans, I'm certain I can make them work.	0 1 2 3
10.	It's exciting to learn something about myself.	0 1 2 3
11.	I really look forward to my work.	0 1 2 3
12.	If I'm working on a difficult task, I know when to seek help.	0 1 2 3
13.	I won't answer a question until I'm really sure I understand it.	0 1 2 3
14.	I like a lot of variety in my work.	0 1 2 3
15.	Most of the time, people listen carefully to what I say.	0 1 2 3
16.	Thinking of yourself as a free person just leads to frustration.	0 1 2 3

17.	Trying your best at work really pays off in the end.	0 1 2 3
18.	My mistakes are usually very difficult to correct.	0 1 2 3
19.	It bothers me when my daily routine gets interrupted.	0 1 2 3
20.	Most good athletes and leaders are born, not made.	0 1 2 3
21.	I often wake up eager to take up my life wherever it left off.	0 1 2 3
22.	Lots of times, I don't really know my own mind.	0 1 2 3
23.	I respect rules because they guide me.	0 1 2 3
24.	I like it when things are uncertain or unpredictable.	0 1 2 3
25.	I can't do much to prevent it if someone wants to harm me.	0 1 2 3
26.	Changes in routine are interesting to me.	0 1 2 3
27.	Most days, life is really interesting and exciting to me.	0 1 2 3
28.	It's hard to imagine anyone getting excited about working.	0 1 2 3
29.	What happens to me tomorrow depends on what I do today.	0 1 2 3
30.	Ordinary work is just too boring to be worth doing.	0 1 2 3

APPENDIX E

WAYS OF COPING QUESTIONNAIRE

WAYS OF COPING

Instructions

To respond to the statements in this questionnaire, you must have a specific stressful situation in mind. Take a few moments and think about the most stressful situation that you have experienced in the *past week.* By "stressful" we mean a situation that was difficult or troubling for you, either because you felt distressed about what happened, or because you had to use considerable effort to deal with the situation. The situation may have involved your family, your job, your friends, or something else important to you. Before responding to the statements, think about the details of this stressful situation, such as where it happened, who was involved, , how you acted, and why it was important to you. While you may still be involved in the situation, or it could have already happened, it should be the most stressful situation that you experienced during the week.

As you respond to each of the statements, please keep this stressful situation in mind.

Read each statement carefully and indicate, by circling 0, I. 2, or 3, to what extent you used it in the situation.

Key: 0 = Does not apply or not used   1 = Used somewhat
           2 = Used quite a bit   3 = Used a great deal

Please try to respond to every question.

Mind Garden.

O = Does not apply or not used 1 = Used somewhat 2 = Used quite a bit 3 = Used a great deal

1. I just concentrated on what I had to do next -the next step.   O 1 2 3

2. I tried to analyze the problem in order to understand it better.   O 1 2 3

3. I turned to work or another activity to take my mind off things.   O 1 2 3

4. I felt that time would have made a difference - the only thing was to wait.   O 1 2 3

5. I bargained or compromised to get something positive from the situation.   O 1 2 3

6. I did something that I didn't think would work, but at least I was doing something. O 1 2 3

7. I tried to get the person responsible to change his or her mind.   O 1 2 3

8. I talked to someone to find out more about the situation.   O 1 2 3

9. I criticized or lectured myself.   O 1 2 3

10. I tried not to burn my bridges, but leave things open somewhat   O 1 2 3

11. I hoped for a miracle.   O 1 2 3

12. I went along with fate; sometimes I just have bad luck.   O 1 2 3

13. I went on as if nothing had happened.   O 1 2 3

14. I tried to keep my feelings to myself.   O 1 2 3

15. I looked for the silver lining, so to speak; I tried to look on the bright side of things. O 1 2 3

16. I slept more than usual.   O 1 2 3

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

18. I accepted sympathy and understanding from someone.   O 1 2 3

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

20. I was inspired to do something creative about the problem.   O 1 2 3

21. I tried to forget the whole thing.   O 1 2 3

22. I got professional help.   O 1 2 3

Go on to next page

23. I changed or grew as a person.   O 1 2 3

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

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

26. I made a plan of action and followed it.   O 1 2 3

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

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

29. I realized that I had brought the problem on myself.   O 1 2 3

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

31. I talked to someone who could do something concrete about the problem.   O 1 2 3

32. I tried to get away from it for a while by resting or taking a vacation.   O 1 2 3

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

34. I took a big chance or did something very risky to solve the problem.   O 1 2 3

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

36. I found new faith.   O 1 2 3

37. I maintained my pride and kept a stiff upper lip.   O 1 2 3

38. I rediscovered what is important in life.   O 1 2 3

39. I changed something so things would turn out all right.   O 1 2 3

40. I generally avoided being with people.   O 1 2 3

41. I didn't let it get to me; I refused to think too much about it.   O 1 2 3

42. I asked advice from a relative or friend I respected.   O 1 2 3

43. I kept others from knowing how bad things were.   O 1 2 3

44. I made light of the situation; I refused to get too serious about it   O 1 2 3

45. I talked to someone about how I was feeling.   O 1 2 3

46. I stood my ground and fought for what I wanted.   O 1 2 3

47. I took it out on other people.   O 1 2 3

48. I drew on my past experiences; I was in a similar situation before.   O 1 2 3

49. I knew what had to be done, so I doubled my efforts to make things work.   O 1 2 3

50. I refused to believe that it had happened   O 1 2 3

51. I promised myself that things would be different next time.   O 1 2 3

Go on to next page

52. I came up with a couple of different solutions to the problem.   O 1 2 3

53. I accepted the situation, since nothing could be done.   O 1 2 3

54. I tried to keep my feeling about the problem from interfering with other things.   O 1 2 3

55. I wished that I could change what had happened or how I felt.   O 1 2 3

56. I changed something about myself.   O 1 2 3

57. I daydreamed or imagined a better time or place than the one I was in.   O 1 2 3

58. I wished that the situation would go away or somehow be over with.   O 1 2 3

59. I had fantasies or wishes about how things might turn out.   O 1 2 3

60. I prayed.   O 1 2 3

61. I prepared myself for the worst.   O 1 2 3

62. I went over in my mind what I would say or do.   O 1 2 3

63. I thought about how a person I admire would handle this situation and used that   O 1 2 3
   as a model.

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

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

66. I jogged or exercised.   O 1 2 3

Stop Here.

APPENDIX F

UNIVERSITY OFNORTH TEXAS IRB APPROVAL LETTER

UNIVERSITY *of*

NORTH TEXAS

Office of Research Services

October 3, 2000

Sharon K. Judkins
950 Ottinger Rd.
Roanoke, TX 76262

RE: Human Subjects Application No. 00-130

Dear Ms. Judkins,

Your proposal titled "Hardiness, Stress, and Coping Strategies Among Mid-Level Nurse Managers: Implications For Continuing Higher Education," has been approved by the Institutional Review Board and is exempt from further review under 45 CFR 46.101.

Enclosed is the consent document with stamped IRB approval. Please copy and **use this form only** for your study subjects.

The UNT IRB must review any modification you make in the approved project. **Federal policy 21 CFR 56.109(e) stipulates that IRB approval is for one year only.**

Please contact me if you wish to make changes or need additional information.

Sincerely,

Reata Busby, Chair
Institutional Review Board

RB:sb

APPENDIX G

LIST OF PARTICIPATING HOSPITALS

LIST OF PARTICIPATING HOSPITALS

All Saints Medical Center	Medical Center of Arlington
Baylor Medical Center of Dallas	Medical City of Dallas
Baylor Medical Center of Irving	Medical Center of Mesquite
Charlton Methodist Medical Center	Mesquite Community Hospital
Children's Medical Center of Dallas	Methodist Medical Center
Cook Children's Fort Worth	Osteopathic Medical Center
DFW Medical Center	Parkland Medical Center
Harris Methodist of Fort Worth	Presbyterian Hospital of Dallas
Harris Methodist HEB	RHD Memorial Hospital
Harris Methodist Southwest	Richardson Medical Center
HCA Medical Center of Fort Worth	Scottish Rite Hospital
HCA Medical Center Plano	St. Paul Medical Center
Huguley Memorial Medical Center	Tarrant County Hospital District

Veterans Medical Center Dallas

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