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Is There a Link Between Hardiness and Burnout in Critical Care Nurses?

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IS THERE A LINK BETWEEN HARDINESS
AND BURNOUT IN CRITICAL CARE NURSES?

By

Cindy Bilisko

A THESIS

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ABSTRACT
IS THERE A LINK BETWEEN HARDINESS
AND BURNOUT IN CRITICAL CARE NURSES?

By
Cindy Bilisko

Hardiness is a set of personality characteristics that function as a resource in coping with stress. Hardiness has been linked with less burnout among various groups. This study was done to determine if there was a relationship between hardiness and the incidence of burnout in critical care nurses. A descriptive correlational design was used to examine this relationship. Critical care nurses at three hospitals in the Grand Rapids area were surveyed using the Staff Burnout Scale for Health Professionals, the Cognitive Hardiness Scale, and a demographics questionnaire. Data were tested using Pearson's correlation and simple regression. The hypothesis "hardiness in critical care nurses is negatively related to burnout" was supported. No demographic variables were found to have a statistically significant relationship with burnout or hardiness. Implications of the study are that the concept of hardiness should be taught to nurses and nurse managers and hardiness training should be given to support the development of a coping resource to help lessen burnout.

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CHAPTER ONE

INTRODUCTION

The nursing profession has struggled for many years with the stressful nature of the occupation (McGrath, Reid, & Boore, 1989). Burnout, a negative end-result of stress, has been a long-standing problem that continues to receive attention (Robinson et al., 1991). In fact, burnout was chosen as one of the top 15 research priorities by the AACN in 1980 because of their concern over the nursing shortage (Riegel et al., 1994). However, it seems that there hasn't been any significant decrease of the problem since it was identified. The new trends in technology and the presence of managed care in the health care arena leads one to believe that burnout will continue to be a threat to nurses.

Burnout is described by Boyle, Grap, Younger, and Thornby (1991) as a "maladaptive psycho-physiological and behavioral response to occupational stressors" (p. 850). It has also been described as a state of fatigue, or a physical and emotional exhaustion involving the development of negative attitudes and apathy (Oehler, Davidson, Starr, & Lee, 1991). Overall, burnout affects the mental and physical well-being of a person.

Burnout is characterized by emotional exhaustion, depersonalization, and low personal accomplishment (Stechmiller & Yarandi, 1993). These three characteristics occur together in the individual who is experiencing the burnout. They also can account for the signs and symptoms associated with burnout.

Emotional exhaustion is defined as "a loss of energy and debilitation" (Stechmiller & Yarandi, 1993, p. 535). Also, it is a "loss of trust and apathy, and a loss of feeling, concern and spirit" (p.535). It is seen as "the collapse of the human spirit" (Harris, 1989, p.16). This emotional exhaustion of burnout can be manifested by fatigue, crying, irritability, increased perception of stress, loss of patience, and somatic complaints.

Depersonalization can be depicted as inappropriate or disparaging responses to patients or others (Stechmiller & Yarandi, 1993) or as a loss of self in the role. This can be shown when the person experiencing burnout shows a lack of concern for others, and there is no energy or emotion left to give to anyone else. The person becomes “depersonalized,” just carrying out the motions without any psycho-social interest.

The third characteristic of burnout, low personal accomplishment, is seen by Stechmiller and Yarandi (1993) as “unfavorable responses toward oneself and one’s personal achievements” (p. 535). This can be manifested by depression, low morale, absenteeism, low productivity, high turnover rates, tardiness, and conflicts in the work environment. The person experiencing burnout has a lowered self-esteem, which can eventually lead to career separation.

There have been many inquiries as to the causes of burnout. Research has been done in areas such as social support, work stressors, coping strategies, demographics, and personality characteristics (Duquette, Kerouac, Sandhu, Ducharme, & Saulnier, 1995). It is thought that personality characteristics could be helpful in the prevention or lessening of burnout in individuals. Perhaps certain personality types are less likely to suffer from burnout.

Hardiness is a set of personality characteristics that was formulated in the early 1980’s by Kobasa to explain an individual’s resources in coping with stress (Tartasky, 1993). Hardiness is defined as “a constellation of personality characteristics that function as a resistance resource in the encounter with stressful life events” (p. 225). Hardiness is a characteristic of an individual that “acts as a buffer” (p. 226) for stressful events. A “hardy” individual is one who lessens the impact of stress on himself by using effective coping strategies.

Kobasa formed the concept of hardiness with the use of existential theory and research (as cited in Jennings & Stagers, 1994). Two premises of the existential theory, “personality is actively constructed through a dynamic process,” and “people can turn

stressful life events into opportunities for growth” (p. 274), aided Kobasa in defining hardiness using three concepts. These three interrelated concepts are commitment, control and challenge.

Commitment is defined by Tartasky (1993) as “the ability to believe in the truth, importance, and value of who one is and what one is doing, and consequently to become involved in life” (p. 225). Commitment gives the person a feeling of deep involvement in or commitment to every aspect of their lives (Wagnild & Young, 1991). Commitment gives meaning to the individual’s life, work, actions, etc., which in turn lessens the perception that stressors are threats. In fact, in a hardy person, stress can be seen as normal in life (McCranie, Lambert, & Lambert, 1987).

Control is defined as “ the tendency to believe and act as though one can influence the course of events” (Tartasky, 1993, p. 225). Control gives a person a sense of power over their own lives. An individual’s sense of control assists them in believing that the stressors in their life can be manipulated. Thus, the person actually uses their own actions and coping strategies to manipulate the stressors. Control empowers the individual to question why something is happening and what can be done about it.

Challenge is the third characteristic of hardiness (Tartasky, 1993). Challenge is “the belief that the environment is ever challenging” where an individual “can perceive a stressor as an opportunity for personal growth, rather than as a threat to security “ (p. 225). A “hardy” person anticipates change as an exciting opportunity for further development (Wagnild & Young, 1991). A “hardy” individual welcomes change as a challenge, instead of perceiving it as a threat (Boyle, Grap, Younger, & Thornby, 1991).

Commitment, control and challenge together form hardiness, and they directly effect how an individual views stressful events (Topf, 1989). Hardiness encourages the use of more effective coping strategies and resources to reduce the impact of stress. This can be very beneficial to an individual to lessen psychological and physical stress on their

self, resolve the stressful situation, and actually adapt to the stress. Thus, the question arises, is there a relationship between hardiness and the incidence of burnout in nurses?

In the last ten years, researchers have looked at the role that hardiness plays in the incidence of burnout in nurses (McCranie, Lambert, & Lambert, 1987). The purpose of this study is to continue to examine the relationship between hardiness and burnout in nurses, and to seek to support the existing research findings that hardiness does have a role in the incidence of burnout.

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

In this chapter there is a discussion of the conceptual framework and a review of the literature. The Neuman Systems Model (Neuman, 1995) provides the theoretical background for this study. Following a brief description of this model, a review of literature regarding burnout and hardiness is discussed.

Conceptual Framework

The Neuman Systems Model (Neuman, 1995) was used as the framework to shape the ideas and theories on burnout and hardiness in nurses in this study. According to Fawcett (1995), the Neuman Systems Model focuses on “the wellness of the client/client system in relation to environmental stress and reactions to stress” (p. 223). Neuman describes her model as an open systems model that views the client/client system as “arising from wholeness, dynamic freedom and creativity ... adjusting to stressors in the internal and external environment” (p. 10). To explain the relationship of the concepts of the study, a brief overview of the Neuman Systems Model will be given.

The Neuman Systems Model

Neuman views person as *the client* or *client system* (Neuman, 1995). The client can be seen as an individual person or a group of persons. The client is wholistic,

“ a composite of interacting variables - physiological, psychological, developmental, socio-cultural and spiritual that are ideally functioning harmoniously or stable in relationship to both internal or external environmental stressor influences.” (p. 22)

Neuman views the client as being in constant change, reciprocally interacting with the environment. The client is “always moving either toward a dynamic state of stability and wellness or toward one of illness in varying degrees” (p. 12). The client in this study is the critical care nurse.

Neuman (1995) describes the client or client system with a series of concentric circles surrounding the basic central core (see Figure 1). The central core is made up of the basic survival mechanisms of the client. The concentric circles surrounding the central core contain mechanisms that protect it from stress. These circles or lines of defense each contain the five client system variables and aid to protect the system and its components. Information is exchanged between these different lines of defense in order to react to change and to enhance and stabilize the system.

The first and outermost circle surrounding the central core is the flexible line of defense (Neuman, 1995). This line of defense is a buffer for the client system that protects it from invasion of any stressors. The flexible line of defense is represented as the outer circle of the client system, with broken lines that have an “accordion-like” (p. 27) function. These lines can expand away from the client system and central core in times of stress, or draw closer to the system when stress is not apparent. These lines can change their function quickly, in a short period of time. If these lines can prevent stressors from penetrating the system, they can minimize any symptoms the client may experience from the stress.

The second circle in the client system is the normal line of defense (Neuman, 1995), which is represented as a solid line encircling the central core. This defense line “represents what the client has become, the state to which the client has evolved over time, or the usual wellness level” (p. 30). This line is the result of all past behavior of the client such as “coping patterns, lifestyle factors, developmental and spiritual influences, and cultural considerations” (p. 30). This line is considered the usual wellness state for the client. It can expand and contract over time to help the system stabilize and deal with any stressors that have penetrated the flexible line of defense.

The lines of resistance (Neuman, 1995) are the innermost circles, closest to the central core. They are represented by concentric broken lines that encircle the central

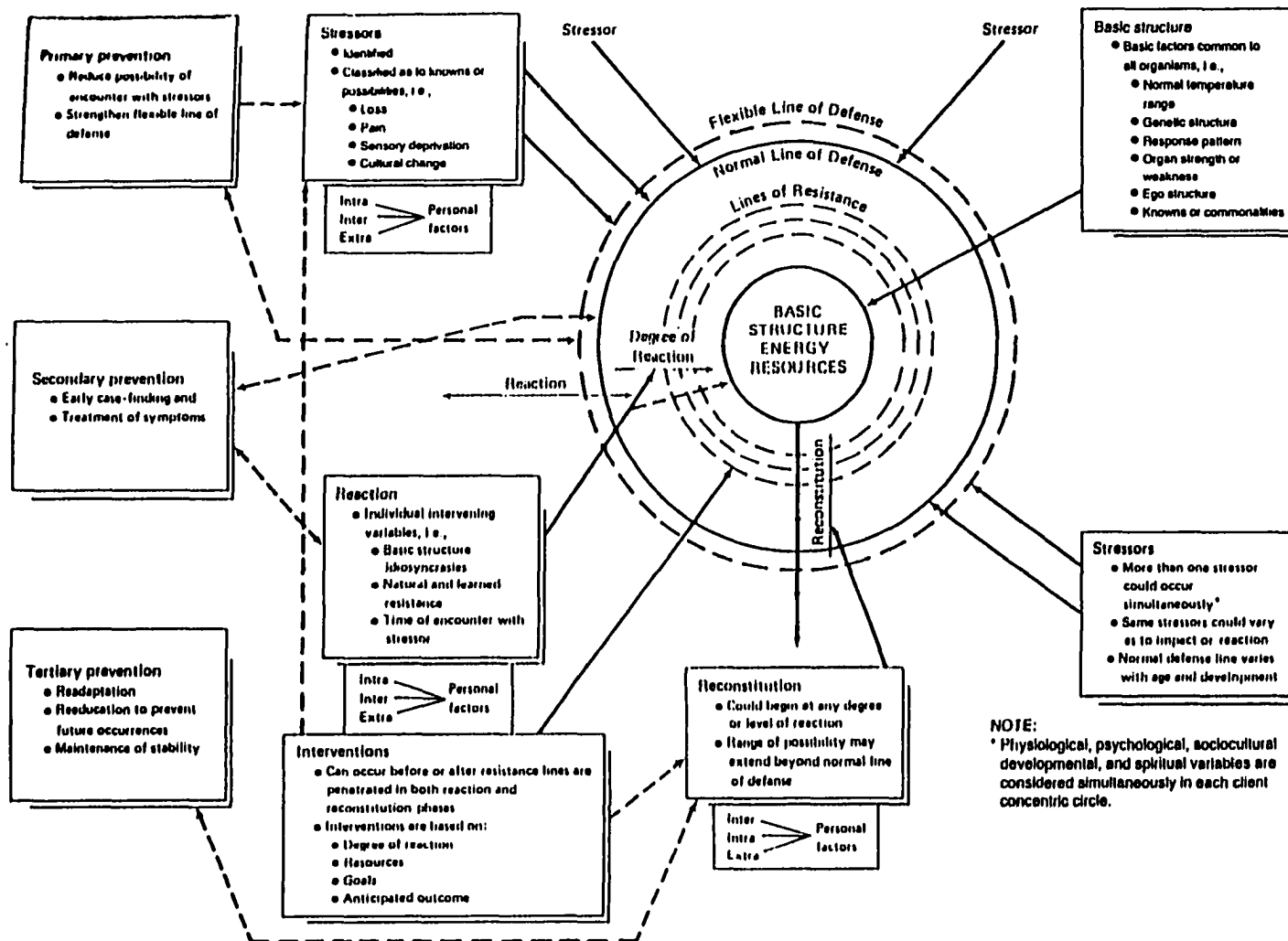


Figure 1. The Neuman Systems Model.

From "The Neuman Systems Model," 3rd edition, by Betty Neuman, 1995

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core. These lines of resistance are activated if stressors have invaded the flexible line of defense and the normal line of defense. These lines contain internal and external resources that support the client's basic structure, thereby protecting the entire client system. Reconstitution, a restorative process to restabilize the system, occurs if the lines of resistance are effective in protecting the system from the invasion of stressors. If the lines of resistance are not effective, energy depletion can occur in the client system which ultimately leads to death of the system.

Neuman (1995) defines *environment* as "all internal and external factors or influences surrounding the client or client system" (p. 30). Neuman believes that the client and the environment have a reciprocal relationship, that is a "circular nature of input, output and feedback between the client and the environment" (p. 30). The environment is made up of three types; internal, external and created. The internal environment is made up of all the forces contained within the client such as intrapersonal stressors. The external environment contains all forces existing outside the client such as interpersonal and extrapersonal stressors.

The created environment (Neuman, 1995) is an open system created by the client. The created environment constantly exchanges energy with the internal and external environments, helping to maintain the client system's integrity. This environment "represents the client's unconscious mobilization of all system variables" (p. 31) and is able to change to the client's response to environmental stressors spontaneously.

Health is defined by Neuman (1995) as "the condition or degree of system stability" (p. 12) in which all parts of the system are in balance together and all of the needs of the client system are met. Neuman also states that health is "a manifestation of living energy available to preserve and enhance system integrity" (p. 32). Health is maintained through a continuous energy flow between the client system and the environment.

Relationships Among Variables

Burnout is “a maladaptive psycho-physiological and behavioral response to occupational stressors” (Boyle, Grap, Younger & Thornby, 1991, p. 850). It is seen as a type of exhaustion that is a result of chronic or cumulative exposure to environmental stressors (Roach, 1994). This exhaustion can lead to the development of negative job attitudes, a poor self-concept, and a loss of concern for the patient (Rich & Rich, 1987). It affects the overall physical and mental well-being of a person.

Burnout results in feelings of low personal accomplishment, depersonalization and emotional exhaustion (Roach, 1994; Stechmiller & Yarandi, 1993). This can be caused by many factors. Personal factors such as a lack of support systems, a need to control others, unrealistic expectations, a low self-esteem, or being self-critical could have an effect on burnout (Ceslowitz, 1989). Also, environmental factors such as work overload, high patient acuity levels, role conflict, or lack of control over working conditions could also contribute to burnout.

This investigator believes that burnout can be seen as a result of an invasion of stressors through all lines of defense according to the Neuman Systems Model (Neuman, 1995). This results in instability of the client system so that it is unable to undergo reconstitution, leading to the “burnout” of the client. The invasion of burnout is depicted in Figure 2.

Hardiness is a personality characteristic (Tartasky, 1993) formulated by Kobasa in the 1980's to explain an individual's resources in coping with stress. It is a set of beliefs that a person is born with or develops that serve as a resistance resource to stress (Collins, 1996). The “hardy” person transforms stressful life events into less stressful forms (Lindsey & Hills, 1992) by using effective coping and adaptation. In fact, the hardiness characteristic has been linked with the incidence of less personal stress and fewer health problems (Rich & Rich, 1987; Van Servellen, Topf, & Leake, 1994).

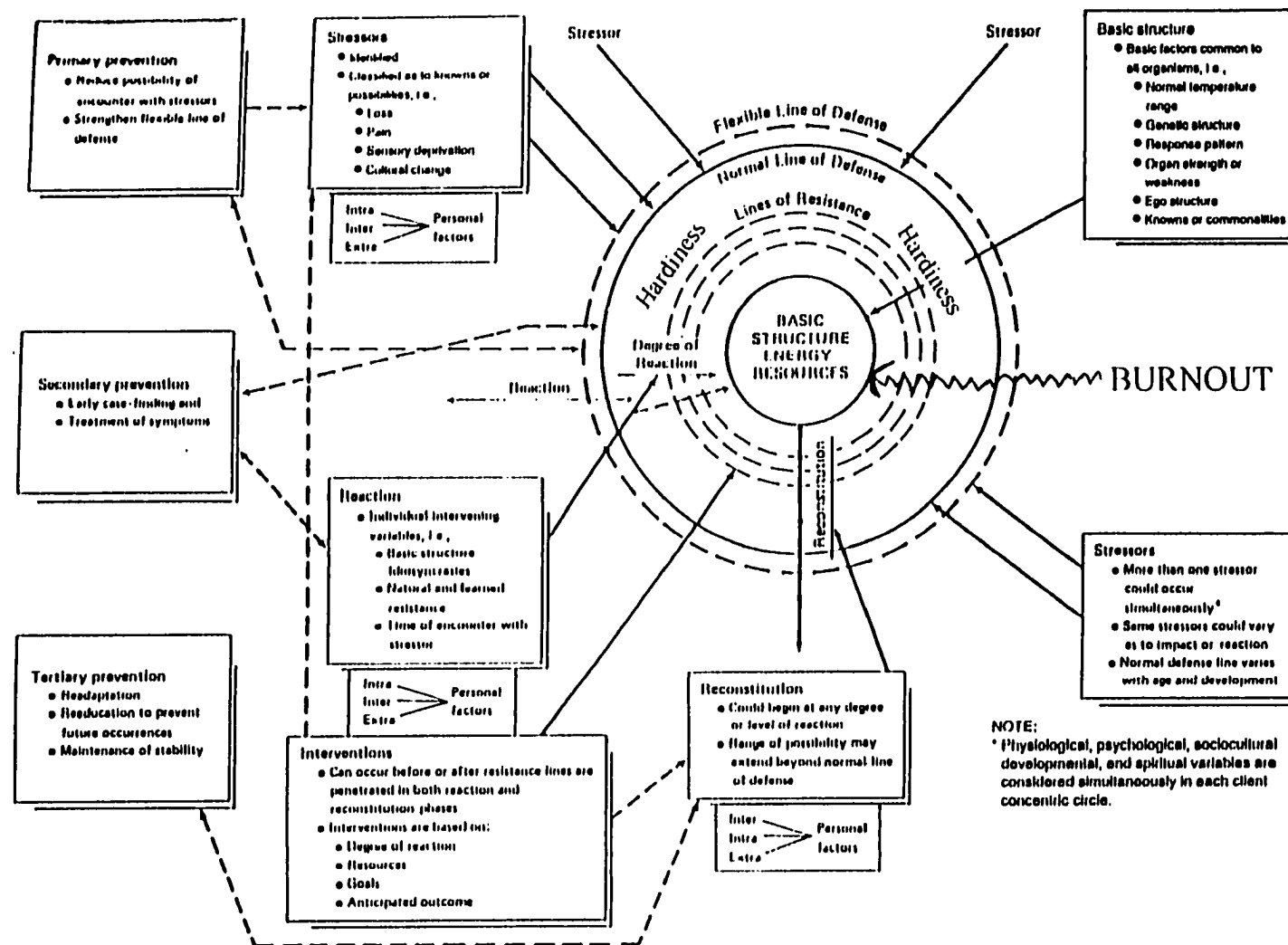


Figure 2. Burnout and hardiness applied to the Neuman Systems Model.

Adapted from "The Neuman Systems Model," 3rd edition, by Betty Neuman, 1995,

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Hardiness is made up of three personality characteristics: commitment, control, and challenge (Lindsey & Hills, 1992). Commitment is seen as a sense of motivation and active involvement in work and goal-setting (Huang, 1995). This provides a sense of purpose in a person's life work, which aids in decreasing any perception of threat from a stressor. Control in a hardy individual originates through an internal locus of control, in which the individual perceives that one can influence and modify the events and stressors in one's life. Control actually empowers a person to question why something is happening, and what can be done to modify it. Challenge enables the "hardy" individual to have a positive attitude towards change, and see it as normal in life. The "hardy" individual views stress as a challenge that provides an opportunity for growth. Thus, the "hardy" person can use these resources to help one cope with stress.

This researcher believes that hardiness can be seen as a trait of the normal line of defense in the Neuman systems model (Neuman, 1995). Hardiness is a characteristic that the client has employed to help stabilize the system. It is used to strengthen the client's coping mechanisms to shield against stressors. Hardiness is incorporated into the normal line of defense of the client system as a protective mechanism.

Review of the Literature

Burnout

Burnout has received a lot of attention in nursing studies over the recent years (Robinson et al, 1991). In fact, many studies have shown that nurses who experience more work-related stress have a higher incidence of burnout (Stechmiller & Yarandi, 1993). The focus in nursing research in recent years is on the cause of burnout. Some factors being examined are personal or home environment, work-environment and social support, as well as many others.

Work-related causes of burnout have been the subject of many studies. Stechmiller and Yarandi (1993) looked at situational stress, job stress, job satisfaction, and

job motivation in relation to burnout in 300 female critical care nurses. They used the Daily Hassles Instrument, the Psychological Hardiness Test, the Job Diagnostic Inventory and the Maslach Burnout Inventory (MBI) to obtain their results. They found that emotional exhaustion, which is a characteristic of burnout, is greatly affected by commitment to career, dealing with others at work and job satisfaction. They also found that personal health, hardiness, work load satisfaction, and job security affected levels of burnout.

Oehler, Davidson, Starr, and Lee (1991) used the MBI, the State-Trait Anxiety Inventory, and the Nursing Stress Scale to survey 49 neonatal intensive care nurses. They found that higher burnout scores were associated with higher job stress, higher anxiety, and less experience as a nurse, accounting for 51% of the variance using step-wise regression. Robinson et al (1991) also found that higher levels of burnout were associated with high work pressure, low supervisor support, and low work involvement, predicting 34% of the variance. Their study was conducted on 314 nurses using the MBI and Work Environment Scale.

A study by Van Servellen and Leake (1993) looked at burnout among different types of nursing units. Oncology units, AIDS units, Medical ICUs, special care units, and general medical units were used as sites to sample 237 nurses using the MBI and the Job Tension Index. They found no significant differences in burnout scores among the different types of nursing units. Medical ICU nurses did have slightly lower scores of accomplishment ($p < .001$) and AIDS unit and special care unit nurses had slightly higher exhaustion scores ($p < .05$).

Stress and coping have been popular topics examined as causes of burnout (Stone, Jebson, Walk, & Belsham, 1984). Stone et al used the MBI, Coping Methods Survey, and Work Environment Scale to survey 76 ICU nurses. They found that higher incidences of burnout were associated with critical care events being seen as threats and lack of opportunities for personal growth ($p < .05$). Lower levels of burnout were associated with

increased experience, enhanced sense of personal accomplishment, more education, and an endorsement of a higher number of effective coping skills ($p < .05$).

Lewis, Bonner, Campbell, Cooper and Willard (1994) surveyed 49 dialysis nurses using the Perceived and Nursing Stress Scales, Coping Resources Inventory, Myers-Briggs Type Indicator of personality, Sense of Coherence Scale and the MBI. They found that increase coping resources and sense of coherence or confidence over one's life and environment were associated with a lower incidence of burnout ($p < .005$). They also focused on emotional exhaustion, a characteristic of burnout. They found through multiple regression that low sense of coherence explained 25% of the variance of emotional exhaustion and lack of staff support, personal stress, low utilization of coping resources, and heavy workload explained 44% of the variance.

Duquette et al (1995) studied 8,066 geriatric nurses to determine the causes of burnout using the Staff-Burnout Scale for Health Professionals, the Nursing Stress Scale, the Hardiness Scale, the Work Relationship Index, and the Indices of Coping Responses. Multiple regression analysis indicated that 49% of the variance was explained by work stressors, work support, coping strategies and hardiness. They stated that work stressors and hardiness were the most important predictors of burnout.

The studies cited have shown that burnout is related to many factors. High work pressure, low supervisor support, low age, high anxiety, and low job security are all associated with higher levels of burnout. Hardiness, work satisfaction, good health, job security, higher education, effective coping skills, and a longer amount of experience were associated with lower levels of burnout.

Several of these studies had sample sizes greater than 300 persons. However, limitations are seen in the studies that had sample sizes less than 100 people. These studies may not have a large enough sample to be representative of the entire population. Also, most of these studies used the Maslach Burnout Inventory (MBI) as their instrument to study burnout in these nurses. This researcher believes that the Staff-Burnout Scale for

Health Professionals would be a more accurate tool to use on nurses because it specifically looks at burnout in health professionals. This instrument could have more consistent results in nurses than the MBI because it was designed for nurses and other health professionals. Also, a limitation to some of these studies might be that they looked only at critical care nurses, which wouldn't be representative of the entire nursing field. However, the study by Van Sevelen and Leake (1993) showed that there was not a great difference in burnout among nurses of different types of nursing units.

Hardiness

Hardiness as a personality characteristic began to be researched in the 1970's by Kobasa (1979). Through her research she proposed and tested the characteristic of hardiness and its effect on stressful life events and illness. She also developed the Composite Hardiness Score in 1982 along with Maddi and Hahn (Lindsey & Hills, 1992). She studied 161 middle and upper level male executives who had high levels of stress in their lives. Seventy-five of these subjects reported some kind of illness after a stressful event. Using the Wyler, Masuda, and Holmes Seriousness of Illness Survey and the Holmes and Rahe Schedule of Recent Life Events, Kobasa measured the levels of stress and illness in these subjects. She found that individuals with high stress but low illness scores had higher levels of hardiness than those with high levels of stress and illness.

In a later study by Kobasa, Maddi, and Kahn (1982) middle and upper levels managers were used again to look at the effects of hardiness on stress and illness. Over five years the 259 male subjects filled out surveys about stress and illness on a yearly basis. Their study supported Kobasa's earlier study showing that hardiness had the effect of decreasing the incidence of illness following stressful life events.

Numerous studies have been done in recent years to support the relationship between hardiness and stress and illness (Wagnild & Young, 1991). Also, the relationship between hardiness and other variables such as social support, adaptation, stress appraisal, and burnout on health individuals has been examined. Other studies have

been done on chronically ill patients to look at the effect of hardiness on their illness (Pollock, 1989). Pollock suggested that individuals with the hardiness characteristic engage in more health promotion activities, which leads to a lesser incidence of chronic illness.

Stechmiller and Yarandi (1992) studied job satisfaction in critical care nurses, including the effect the hardiness had on them. The subjects consisted of 300 female critical care nurses in 4 separate regions of Florida. They were administered the Daily Hassles Instrument, the Psychological Hardiness Test and the Job Diagnostic Inventory. The results showed that high levels of hardiness, along with other variables, had an indirect effect of higher job satisfaction.

Van Servellen, Topf, and Leake (1994) examined the relationship between hardiness, stress, emotional exhaustion, and health in 237 nurses. They used the Hardiness Scale by Maddi and Dane, the Lyons Tension Index, a subscale of the MBI, and the Brief Symptom Index to measure the subjects responses. They found that a higher level of hardiness is associated with less work-related stress ($r = -.25, p < .001$) and emotional exhaustion ($r = -.29, p < .001$). Also, hardiness was associated with better health in these nurses ($p < .001$). They believed that hardiness was the reason for the increased wellness, but they were unable to prove causation.

There have been several studies that looked at the relationship between burnout and hardiness. Rich and Rich (1987) found that an increased level of hardiness was associated with a decreased level of burnout in 200 nurses ($r = -.39, p < .001$). They also found that young age was a significant predictor of burnout as well ($p < .05$). Wright, Blache, Ralph, and Luterman (1993) also found an inverse relationship between hardiness and burnout in 31 nurses ($r = -.55, p < .001$). They added that there was also a strong inverse relationship between hardiness and stress ($r = -.41, p < .01$). Also, they found no correlation between hardiness and age. McCranie, Lambert, and Lambert (1987) also

found that burnout was associated with higher levels of job stress and lower levels of hardiness in 260 nurses ($p < .001$).

Collins (1996) studied the relationship of work stress, hardiness, and burnout in 113 nurses. The Personal Views Survey, Nursing Stress Scale, and Tedium Burnout Scale were used as instruments to determine scores. She found that nurses with higher levels of hardiness correlated with less work stress ($r = -.22$, $p < .01$) and less burnout ($r = -.56$, $p < .01$). Topf (1989) examined the same variables in 100 critical care nurses using the Nursing Stress Scale and the MBI. Hardiness was measured using the Alienation from Work Scale and the Alienation from Social Institutions Scale of the Alienation Test, the Locus of Control Scale, and the Security Scale of the California Life Goals Evaluation Schedules. She also found that higher levels of hardiness were seen with lower levels of work stress and burnout ($p < .05$).

Boyle, Grap, Younger, and Thornby (1991) looked at hardiness, ways of coping, social support, and burnout in their study of 103 critical care nurses. The instruments utilized were the Staff Burnout Scale for Health Professionals, the Ways of Coping Checklist, and the House and Wells Social Support Scale. Hardiness was measured using the Alienation from Work Scale, the Alienation from Self Scale, the Locus of control scale, and the Powerlessness Scale of the Alienation Test, and the Security Scale of the California Life Goals Evaluation Schedule. They found that hardiness was negatively related to the use of emotion-focused coping ($r = -.28$, $p < .01$) and positively related to social support ($r = .28$, $p < .01$). They also found that hardiness was negatively related to burnout ($r = -.43$, $p < .001$). Thus, they believe that hardiness is a significant predictor of burnout.

Marchido (1994) examined the relationship between hardiness and burnout in 40 army reserve nurses. The Hardiness Scale and the Staff Burnout for Health Professionals were used to determine scores. She found that hardiness was inversely correlated to burnout, supporting the hypothesis that hardiness can provide resistance against burnout.

Along with many other studies, this study should be reviewed and replicated to further strengthen these findings. Hardiness, like burnout, is shown to be associated with many factors. It was consistently demonstrated that although stressful life events could not be eradicated, higher levels of hardiness were associated with lower levels of illness following stressful events. Also, higher job satisfaction, less emotional exhaustion, lower levels of burnout, lower levels of stress, and higher levels of social support are related with higher levels of hardiness.

Several of these studies of hardiness had large sample sizes, but a few were limited by a sample size of less than 100 nurses. Another limitation to a few studies was that some samples consisted only of males or of females. Also, some of these studies were only conducted in one institution or one geographical area, which is not representative of all nurses. These studies were conducted at a single point in time, as well, which may make it more difficult to identify a causal relationship.

The literature that was reviewed showed a consistent inverse relationship between hardiness and burnout. Thus, it was generally supported that hardiness does have a positive effect of reducing burnout. Many different scales and instruments were used to obtain these results (See Table 1). Also, many of the authors stated that more research needed to be done to support their findings.

Research Question

The research question of this study examines the effect that hardiness has on burnout in asking: What is the relationship between hardiness and burnout in critical care nurses?

Hypothesis

Hardiness, in critical care nurses, is negatively related to burnout.

Table 1. Studies Examining Hardiness and Burnout

Study Authors	Instruments	Relationships among variables
1. Rich & Rich (1987)	Staff Burnout Scale for Health Professionals (SBS-HP), Alienation from Work and Self scales, Powerlessness scale, Locus of control scale, and Security Scale	Higher levels of hardiness associated with lower levels of burnout
2. Wright, Blache, Ralph, & Luterman (1993)	Nursing Stress Scale (NSS), the Hardiness Test, and the Tedium Scale	Inverse relationship between hardiness and burnout
3. McCranie, Lambert, & Lambert (1987)	The Tedium Scale, the NSS, and the Abridged Hardiness Scale	Lower levels of hardiness associated with higher levels of burnout
4. Collins (1996)	The Personal Views Survey, the NSS, and the Tedium Burnout Scale	Higher levels of hardiness associated with lower levels of burnout
5. Topf (1989)	The NSS, Maslach's Burnout Inventory, Alienation from Work and Social Institutions Scales, Locus of Control Scale, and the Security Scale	Higher levels of hardiness associated with lower levels of burnout
6. Boyle, Grap, Younger, and Thornby (1991)	The SBS-HP, Alienation from Work and Self Scales, Locus of Control Scale, Security Scale, and Powerlessness Scale	Hardiness is negatively related to burnout
7. Marchido (1994)	The Hardiness Scale, and the SBS-HP	An inverse relationship between hardiness and burnout

Definition of Terms

Burnout is defined as a “maladaptive psycho-physiological and behavioral response to occupational stressors” (Boyle, Grap, Younger & Thornby, 1991, p. 850) which is characterized by emotional exhaustion, depersonalization and low personal accomplishment (Stechmiller & Yarandi, 1993).

Hardiness is defined as “a constellation of personality characteristics that function as a resistance resource in the encounter with stressful life events” (Tartasky, 1993, p. 225). It is characterized by commitment, control and challenge in the individual. Commitment is defined as a sense of motivation and active involvement in work and goal-setting that provides a sense of purpose in one’s life (Huang, 1995). Control is defined as the individual’s perception that one can influence and modify the events and stressors in one’s lives. Challenge is defined as the positive attitude toward change and is seen by the “hardy” individual as an opportunity for growth.

A critical care nurse is defined as a registered nurse who is trained to manage critically ill patients who have invasive devices such as mechanical ventilators and Swan-Ganz catheters. The critical care nurse is regularly employed by a critical care unit as a staff nurse.

CHAPTER THREE

METHODOLOGY

Design

A descriptive correlational design was used for this study to examine the relationship between the variables of burnout and hardiness without any active intervention by the researcher. Advantages to this type of design were that it was straightforward, relatively inexpensive, and could be done quickly. Thus, it was feasible to complete this study with this type of design. The disadvantage to this type of design is that it cannot determine causation between hardiness and burnout, only correlation.

Threats to internal validity of this study could have been extraneous variables, such as age, gender, years of education, years of employment, marital status, outside stressors, current employment status, and social support. These variables could affect the person's perception of burnout or hardiness. Some of these variables were examined using Pearson's r and analysis of variance to determine if there were any differences among the groups related to hardiness or burnout.

Threats to external validity were the nonrandom sampling method, the setting of the study, or the possibility that subjects answered questions differently because they knew that they were participating in a study. The effect of the study setting was controlled by conducting research at three different sites around the city. The nonrandom sampling method and the possibility that subjects would answer questions differently was not controlled in this study, which is a limitation to the generalization of the results.

Sample and Setting

Subjects were recruited using a convenience sample from critical care nurses at three west Michigan teaching hospitals, labeled hospitals "A", "B", and "C". The target sample for this study was 150 nurses. The criteria for selection into the study was being an RN who met the definition of critical care nurse. A critical care nurse is a registered

nurse who is trained to manage critically ill patients who have invasive devices and is regularly employed by a critical care unit as a staff nurse.

Instruments

The instruments used in this study were the Cognitive Hardiness Scale (Nowack, 1996), the Staff Burnout Scale for Health Professionals (Jones, 1980) and a socio-demographic questionnaire (See Appendix B, C, and D). Approval was sought for the use of Cognitive Hardiness Scale and the Staff Burnout Scale in this study (See Appendix E and F). The socio-demographic questionnaire was developed by the investigator.

Cognitive Hardiness Scale (CHS)

The Cognitive Hardiness Scale was developed by Nowack (1989). This scale focused on measuring the positive aspects of the hardiness characteristic. The earlier scales developed to measure hardiness were criticized due to their measurement of negative aspects of hardiness (Rutlin, 1996). The CHS is a 30-item scale that focuses on attitudes and beliefs about work and life. Commitment was measured by involvement in life as opposed to alienation. Challenge was measured by attitudes that view life changes as challenges as opposed to threats. Control was measured by a belief that one has a sense of control over significant outcomes in life. In the questionnaire, subjects were asked to rate how strongly they agreed or disagreed with statements about their beliefs. The scale consisted of 30 items on a 5-point scale ranging from 1, "strongly agree" to 5, "strongly disagree". Questions numbered 1-5, 13, 14, 16, 18, 19, 22, and 30 were reverse scored. Subjects must have disagreed with a negatively stated question to obtain a higher score, with the total scores ranging from 30 to 150. Higher scores obtained on this scale indicate a greater level of hardiness.

Cronbach's coefficient alpha for initial internal consistency was established at .83 (Nowack, 1989). More recent evidence has shown an alpha of .84 (Rutlin, 1996).

Construct validity was originally established by Nowack by a correlation among the variables ($r = .42$, $p < .01$). According to Nowack, the scale “has demonstrated criterion-related validity with both subjective and objective health outcomes in recent studies” (As cited in Rutlin, 1996, p. 43).

Staff Burnout Scale for Health Professionals (SBS-HP)

The Staff Burnout Scale for Health Professionals was developed by Jones (1980) to measure burnout specifically in health professionals. This scale measures the psychophysiological, behavioral, cognitive and affective dimensions of burnout. According to Jones, it is a 30-item Likert-type scale, with 20 items measuring burnout while 10 items constitute a “lie” scale. The “lie” scale is a 10-item scale that looks at how truthfully the questions were answered by comparing answers to similar questions. The 30 items were numerically scored with “Disagree very much” equaling one point, and “Agree very much” equaling 7 points. Scores can range from 20 (no signs of burnout) to 140 (severe signs of burnout).

Reliability was shown through internal consistency scores (alpha) of .59 and .62 and split-half reliability of .93 (Rich & Rich, 1987). Internal consistency was reported in Boyle et al (1991) to be .82. Validity was addressed in studies of criterion-related validity in which burnout was correlated with job turnover, absenteeism, tardiness, discipline and alcohol use (Jones, 1980). The average correlation score was .71.

Socio-Demographic Questionnaire

The Socio-Demographic questionnaire was developed by the investigator to measure specific variables. It included items to measure age, gender, marital status, area of critical care, years of present employment, years as a critical care nurse, highest earned degree, hours of work, number of sick days, and ethnic background.

Procedure

Prior to proceeding with this study, approval was obtained from the Grand Valley State University human subjects review committee (See Appendix G). Approval also was

obtained from the human subjects review boards at the participating hospitals. After obtaining a list of all RNs employed on critical care units of the selected sites, a packet was placed in the employee mailboxes. Each packet contained a cover letter (Appendix H) explaining the purpose of the study, instructions about completing the questionnaire, information that their participation was voluntary, and instructions for placing the completed questionnaire in a labeled box left near the mailboxes. The Nursing Research Committee at hospital “C” requested that their completed questionnaires were returned by mail in a stamped, self-addressed envelope. This request was granted. The packet also contained the Cognitive Hardiness Scale, the Staff Burnout Scale for Health Professionals, and the socio-demographic questionnaire. Subjects were instructed to not write their names anywhere on the returned packet to assure anonymity. There were no risks in participating in this study. The subjects were given two weeks to return the survey, as stated in the cover letter.

CHAPTER FOUR

DATA ANALYSIS

For this study, the independent variable was hardiness, which was measured by the total score of the Cognitive Hardiness Scale (CHS). The dependent variable was burnout, which was measured by the total score obtained from the Staff Burnout Scale for Health Professionals (SBS-HP). The level of measurement for both of these variables was interval. Pearson's r correlation coefficient was used to evaluate the relationship between hardiness and burnout. Simple linear regression was then used to evaluate the amount of variance in which hardiness explained burnout.

Subjects

Research packets were placed in the staff mailboxes of 540 critical care RNs from three area hospitals. There were 237 returned completed questionnaires with a response rate of 43.89%. One respondent was an LPN and did not meet the criteria of the study.

The majority of the subjects were caucasian (97.9%), female (96.2%) and married (72.5%), with a mean age of 36.45 years (range of 22 to 57 years). As depicted in Table 2, the number of years as an RN ranged from less than one to 35, with a mean of 11.78. The number of years as a critical care nurse ranged from less than one to 29, with a mean of 9.46. The number of years in the current job position ranged from less than one to 26, with a mean of 7.85. Table 3 reports the level of education for the respondents. Of the 14 respondents who marked "other" for education level, 11 had earned some type of bachelors degree and three had earned some type of masters degree, not in nursing.

Table 2

RN Statistics

Category	Mean	Standard Deviation	Range
Years as an RN	11.78	7.66	<1 to 35
Years in critical care	9.46	6.42	<1 to 29
Years in current position	7.85	5.95	<1 to 26

Table 3

Education Level

Highest Degree Earned	Frequency	Percent
ADN	61	25.8
Diploma	48	20.3
BSN	109	46.2
MSN	3	1.3
Other	14	5.9
Total	235	100.0

The subjects were from three different hospitals, 49.2% from hospital A, 29.2% from hospital B, and 21.6% from hospital C. The number of hours worked every two weeks ranged from 16 to 96, with a mean of 64.64. The range of hours worked per day was 6 to

14, with a mean of 11.24. The number of sick days taken in the last year ranged from zero to 56, with a mean of 3.06. Included in these sick days were persons who took maternity leave and short term disability for long-term illness. Table 4 indicates the specific nursing units of the respondents.

Table 4

Nursing Units

Unit	Frequency	Percent
Burn Unit	12	5.1
CCU	19	8.1
MICU	32	13.6
Neonatal ICU	51	21.6
NeuroTrauma ICU	14	5.9
Pediatric ICU	26	11.0
SICU	39	16.5
Working on two or more units	43	18.2
Total	236	100.0

Data Analysis of Independent and Dependent Variables

Reliability analysis was computed on the CHS and SBS-HP using SPSS. The CHS had a coefficient alpha of .79. The SBS-HP had a coefficient alpha of .84. The “lie” score of the SBS-HP, which tested if the subjects were truthful in their answers, had a coefficient alpha of .62. These results indicated adequate internal consistency for both the CHS and SBS-HP. These reliability coefficients were similar to previously reported statistics.

Nowack (1989) established a coefficient alpha of .83 for the CHS. Rutlin (1996) established an alpha of .84 for the same tool. Boyle et al (1991) reported a coefficient alpha of .82 for the SBS-HP. There were no previous reported reliabilities of the lie score for the SBS-HP.

The scores of the CHS ranged from 71 to 136, with a mean of 110.12 and a standard deviation of 9.94. The possible score ranges from 50 to 150, with 50 being “not hardy” to 150 being “very hardy”. The scores for the SBS-HP ranged from 21 to 99, with a mean of 49.96 and a standard deviation of 15.73. The possible scores range from 20 to 140, with 20 being “no burnout” and 140 being “high burnout”.

Statistical analysis was used to test the research hypothesis: hardiness, in critical care nurses, will be negatively related to burnout. Using Pearson’s r , there was a moderately strong inverse relationship found to be statistically significant between the independent variable of hardiness and the dependent variable of burnout ($r = -.55$, $p < .001$). Next, simple regression was used to calculate the amount of variance of burnout accounted for by hardiness. Again, there was a moderately strong inverse relationship found between hardiness and burnout with hardiness accounting for 30.08% of the variance in burnout ($F = -9.82$, $p < .001$). The data analysis of this study supports the hypothesis that hardiness, in critical care nurses, is inversely related to burnout.

Other Data Analysis Findings

Socio-demographic variables were also studied in relationship to the independent and dependent variables. Using Pearson’s r , the interval level variables of age, years as an RN, years as a critical care nurse, years in current position, hours worked in a two week period, hours worked per day, and the number of sick days were correlated with hardiness and burnout. There was no relationship found with any of these variables and hardiness or burnout. Also, subjects were grouped by age, with one group’s ages ranging from 22 to 36, with the other group’s ages ranging from 37 to 57. Analysis by t-test showed that there were no differences between these groups related to hardiness or burnout.

Analysis of variance was used to look at the differences of the mean scores of burnout and hardiness in the nominal and ordinal level variables. The variables of gender and ethnic background were not studied because there were not enough subjects in the different groups to be significant. The variable of level of education was found to have no differences among the groups. The variable of type of critical care unit was found to have differences among scores of burnout ($F = 2.311$, $p .02$) and hardiness ($F = 2.63$, $p .01$) using one way analysis of variance, however these differences were found not to be statistically significant using the Scheffé test. The mean hardiness scores for the eight different types of nursing units ranged from 105.18 to 116.57. Nurses who worked two or more critical care units had the highest hardiness scores, and the nurses who worked in the Burn unit had the lowest hardiness scores. The mean burnout scores for the nursing units ranged from 46.38 to 55.92. The nurses who worked in the Pediatric ICU had the lowest burnout scores, while the nurses who worked in the Surgical ICU had the highest burnout scores. The variable of hospital site was also found to have differences among scores of burnout, however it was not statistically significant ($F = 2.64$, $p .07$). The mean burnout scores for hospitals A, B, and C were 48.38, 53.64, and 48.54 respectively. The nominal level of marital status was not looked at using analysis of variance since there were not enough subjects in the different groups to be significant. The subjects were grouped into to groups of “not married” and “married” and were found to have no differences in scores of burnout and hardiness using a t-test.

CHAPTER FIVE

DISCUSSION AND IMPLICATIONS

Discussion

This research study supported the hypothesis that hardiness is negatively related to burnout in critical care nurses. Thus, the more hardy critical care nurse will experience less burnout. Also, this supports the findings in previous studies. As with the studies conducted by Rich and Rich (1987), Wright, Blache, Ralph, and Luterman (1993), McCranie, Lambert, and Lambert (1987), Collins (1996), Topf (1989), Boyle, Grap, Younger, and Thornby (1991), and Marchido (1994), there was an inverse relationship found between hardiness and burnout.

This study also found that there was no relationship between the variables of age, marital status, unit of critical care, years of present employment, years as a critical care nurse, years as a RN, educational background, hours of work, and number of sick days with burnout or hardiness. Some of these findings are inconsistent with previous research. Rich and Rich (1987) found that young age was a predictor of burnout in 200 nurses. They also found that hardiness had a relationship with age. However, Wright, Blache, Ralph, and Luterman (1993) found no relationship between hardiness and age in 31 nurses. Neither of these two studies looked at only critical care nurses. Perhaps, this difference in findings can be explained by the type of subjects.

Another difference noted is several studies found a relationship between experience as a nurse and burnout. Oehler, Davidson, Starr, and Lee (1991) found in 49 Neonatal ICU nurses that higher levels of burnout were found in those with less experience. Stone, Jebson, Walk, and Belsham (1984) also found the same results in 76 ICU nurses. Except for the smaller number of subjects in these two studies, the difference in the findings cannot be explained. Rich and Rich (1987) also reported that higher levels

of burnout were found in nurses with less experience. Again, their study was not conducted with critical care nurses.

There was a non-statistically significant difference seen among the burnout and hardiness scores of the hospital sites in this study. This could be explained by the threat of a merger between two of the three hospital sites. The thought of a merger could have added more stress to these nurses. Also, there was a non-statistically significant difference seen among the burnout and hardiness scores of the different critical care units. The burnout and hardiness scores each varied by approximately ten points among the units. The number of nurses per unit ranged from 12 to 51. Perhaps this difference is only a variation in individuals, since there were small numbers of subjects in each group.

The Neuman Systems Model (Neuman, 1995) supports the findings that hardiness is negatively related to burnout. This model is useful in describing the relationship between hardiness and burnout. It can also add a possible inference about the relationship. The personality characteristic of hardiness, which can be seen as a client system stabilizer, was able to protect the client system from the invasion of stressors, and thus decrease the amount of burnout. Therefore, it is possible through the eyes of the Neuman Systems Model to infer that hardiness can cause an increase or decrease in burnout. However, this study did not prove causation between the two variables.

Limitations

The nonrandom sampling method was a limitation to this study. This limits the generalization of the results of the study. However, the sample size decreased the effect of this limitation. Also, the subjects could have answered questions differently knowing that they were in the study. Anonymity was assured prior to participating in the study.

Another limitation to the study was that outside stressors, social support, and level of anxiety were not measured. These variables could affect the perception of burnout and

hardiness in the individual. Also, there was not a large number of male subjects or minorities in this study, which limits the generalization of the findings.

This study was only conducted in one geographical area, which is not representative of all nurses. Also, the threat of a merger between two of the hospital sites could have skewed the results of the study. Possibly the results could have been different if the study was conducted at a different point in time. All of these limitations mentioned could limit the generalization of the results.

Implications

Since hardiness has an inverse relationship with burnout, one can look at hardiness as a possible defense against burnout. The resulting question is how can one make nurses more hardy and therefore less susceptible to burnout? Rich and Rich (1987) stated that one could learn hardiness at any time in life and that levels of hardiness can be increased in individuals through small group training. Hardiness could be a valuable resource for nurse administrators to foster as a defense against staff burnout.

Tierney and Lavelle (1997) researched hardiness training and time management training in staff nurses. They found that teaching the concept of hardiness, identification of stressors, situational reconstruction, and relaxation had a positive influence on the nurses hardiness scores. However, the scores were not maintained at a six month interval. Also, they found that teaching time management actually decreased their hardiness scores. This study promotes the teaching of hardiness and the need to reinforce this teaching at set intervals.

Pappas (1995) stated that supporting the hardiness characteristic in practitioners will help them in fulfilling their role as caregivers. She stated that by giving a clear vision of the goals and enhancing the systems of support that hardiness would be fostered. She recommended several other ways to foster hardiness. Self-scheduling and encouragement of creativity would increase a sense of control among staff. A supportive relationship

among the group, staff involvement in designing the work environment and vision, and a hope for the future would foster commitment to the job. Challenge could be enhanced by communicating any changes, understanding the staff's perception of changes, frequent staff meetings and newsletters, and recognizing and rewarding "those who challenge the status quo" (p. 117). These suggestions would be very helpful to nurse managers who want to increase the hardiness of their staff. These are not difficult ways to make an impact.

Nurse managers must be careful using this information on hardiness. It should not be used as a job prerequisite. Managers and nurses themselves need to be aware that hardiness could help them to lessen the amount of burnout that they experience. Hardiness should be promoted as a coping resource in stress reduction. Managers and educators should use hardiness training as a way to decrease burnout on their units and increase satisfaction and job retention.

Future Recommendations

Future studies of burnout and hardiness should include other variables such as social support, anxiety, adaptation, or outside stressors. This information could enhance the understanding of burnout and how to treat it. The variables of age and work experience should continue to be studied to understand their relationship with burnout and hardiness.

More research of hardiness training needs to be done. Perhaps a study analyzing burnout and hardiness and the success of hardiness training would be helpful. In the future, this investigator would like to study the effect that increasing challenge has in the nursing workplace. There needs to be a continual study of burnout and how to lessen it. The stress in the health care arena will only increase, and burnout of nurses will only increase with this trend.

APPENDICES

APPENDIX A

Permission to Use Figure 1



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Christine Dembski
Permissions Dept.

*Betty Newman
Box 488
Beverly, OH 45715*

APPENDIX A

Permission to Use Figure 1

January 10, 1997

Ms Betty Neuman
Box 488
Beverly, OH 45715


Dear Ms. Neuman:

I am a master's student in Nursing at Grand Valley State University in Allendale Michigan. I am currently working on my master's thesis. In my thesis I am studying the relationship of burnout and the hardiness characteristic in nurses. I am using the Neuman Systems Model to help describe the findings of the study.

I am writing to you to obtain permission in using a table from your book entitled "The Neuman Systems Model" (the 3rd edition, published in 1995). With your permission, I would like to copy Table 1.3 (The Neuman Systems Model) from this publication and include it in my finished thesis. Appleton and Lange has already granted permission for this table to be used.

I would appreciate it if you could send me written permission to use this table in my thesis when it is completed. Thank you

Sincerely,


Cindy Bilisko, RN
2459 Golfon Dr.
Wyoming, MI 49509
616 530 2371

The above permission is granted 1/15/97. Betty Neuman MD

APPENDIX B

The Cognitive Hardiness Scale

Below is a list of common beliefs people hold. How strongly do you agree or disagree with each statement?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. My involvement in non-work activities and hobbies provides me with a sense of meaning and purpose.	1	2	3	4	5
2. By taking an active part in political and social affairs, people can strongly influence world events and politics.	1	2	3	4	5
3. When all else appears bleak, I can always turn to my family and friends for help and support.	1	2	3	4	5
4. I prefer to do things that are risky, exciting, and adventuresome rather than adhere to the same comfortable routine and lifestyle.	1	2	3	4	5
5. Becoming a success is mostly a matter of working hard; luck plays little or no role.	1	2	3	4	5
6. There are relatively few areas about myself in which I feel insecure, highly self-conscious, or lacking in confidence.	1	2	3	4	5
7. In general, I tend to be a bit critical, pessimistic, and cynical about most things in work and life.	1	2	3	4	5
8. It would take very little change in my present circumstances at work to cause me to leave my present organization.	1	2	3	4	5
9. I do not feel satisfied with my current involvement in the day-to-day activities and well-being of my family and friends.	1	2	3	4	5
10. In general, I would prefer to have things well planned out in advance rather than deal with the unknown	1	2	3	4	5

APPENDIX B

The Cognitive Hardiness Scale

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
11. Most of life is wasted in meaningless activity.	1	2	3	4	5
12. I often feel awkward, uncomfortable, or insecure interacting with others socially.	1	2	3	4	5
13. I rarely find myself saying out loud or thinking that I'm not good enough or capable of accomplishing something.	1	2	3	4	5
14. I am committed to my job and work activities that I am currently pursuing.	1	2	3	4	5
15. I tend to view most work and life changes, disappointments, and setbacks as threatening, harmful, or stressful rather than challenging.	1	2	3	4	5
16. Just for variety's sake, I often explore new and different routes to places that I travel to regularly (e.g., home, work).	1	2	3	4	5
17. Others will act according to their own self-interests no matter what I attempt to say or do to influence them.	1	2	3	4	5
18. If I get a chance to see how others have done something or get the opportunity to be taught what to do, I am confident that I can be successful at most anything.	1	2	3	4	5
19. I expect some things to go wrong now and then, but there is little doubt in my mind that I can effectively cope with just about anything that comes my way.	1	2	3	4	5
20. Overall, most of the things that I am involved in (e.g., work, community, social relationships) are not very stimulating, enjoyable, & rewarding.	1	2	3	4	5

APPENDIX B

The Cognitive Hardiness Scale

	Strongly Agree 1	Agree 2	Neither Agree nor Disagree 3	Disagree 4	Strongly Disagree 5
21. I am likely to get frustrated and upset if my plans do not unfold as I hoped, or if things do not happen the way I really want them to.					
22. There is a direct relationship between how hard I work and the success and respect the I will have.	1	2	3	4	5
23. I don't feel that I have accomplished much lately that is really important or meaningful with respect to my future goals and objectives in life.	1	2	3	4	5
24. I often think that I am inadequate, incompetent, or less important than others with whom I work and that I know.	1	2	3	4	5
25. Many times I feel that I have little or no control and influence over things that happen to me.	1	2	3	4	5
26. If anything else changes or goes wrong in my life right now, I feel that I might not be able to effectively cope with it.	1	2	3	4	5
27. When change occurs at work or home I often find myself thinking that the worst is going to happen.	1	2	3	4	5
28. At the moment, things at work and at home are fairly predictable and any more changes would just be too much to handle.	1	2	3	4	5
29. You can't really trust that many people because most individuals are looking for ways to improve their welfare and happiness at your expense.	1	2	3	4	5
30. Most of the meaning in life comes from internal, rather than external, definitions of success, achievement, and self-satisfaction.	1	2	3	4	5

APPENDIX C

The Staff Burnout Scale for Health Professionals

For each statement check the one answer which best reflects how much you agree or disagree with each statement. Answer according to how you currently feel in each case. This is an organizational survey and should not be used for selection/placement.

	Agree Very Much	Agree Pretty Much	Agree a Little	Disagree a Little	Disagree Pretty Much	Disagree Very Much
1. I feel fatigued during the workday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Lately, I have missed work due to either colds, the flu, fever, or other illnesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Once in a while I lose my temper and get angry on the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. All my work habits are good and desirable ones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I experience headaches while on the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. After work I often feel like relaxing with a drink of alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I never gossip about other people at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I feel that the pressures of work have contributed to marital and family difficulties in my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I am never late for an appointment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I often have the desire to take medication (e.g., tranquilizers) to calm down while at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I have lost interest in my patients and I have a tendency to treat these people in a detached, almost mechanical fashion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. At work I occasionally think of things that I would not want other people to know about	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I often feel discouraged at work and often I think about quitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I frequently get angry at and irritated with patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I am sometimes irritable at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I have trouble getting along with my fellow employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I am very concerned with my own comfort and welfare at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I try to avoid my supervisor(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX C

The Staff Burnout Scale for Health Professionals

19. I truly like all my fellow employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I always do what is expected of me at work, no matter how inconvenient it might be to do so	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I am having some work performance problems lately due to uncooperative patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. All the rules and regulations at work keep me from optimally performing my job duties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Sometimes at work I put off until tomorrow what I ought to do today	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I do not always tell the truth to my supervisor or co-workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I find my work environment depressing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I feel uncreative and understimulated at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I often think about finding a new job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Worrying about my job has been interfering with my sleep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. I feel there is little room for advancement at my place of employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I avoid patient interaction when I go to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

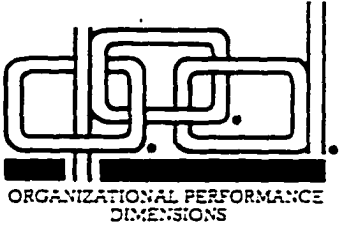
APPENDIX D

Socio-demographic Questionnaire

1. What is your age? _____
2. What is your gender?
 - (1) Male _____
 - (2) Female _____
3. What is your marital status?
 - (1) Never Married _____
 - (2) Married _____
 - (3) Divorced _____
 - (4) Widowed _____
4. In what area of critical care do you work?
 - (1) Burn Unit _____
 - (2) Cardiac _____
 - (3) Medical _____
 - (4) Neonatal _____
 - (5) Neuro-Trauma _____
 - (6) Pediatric _____
 - (7) Surgical _____
5. How many years have you been an RN? _____
6. How many years have you been an RN in critical care? _____
7. What is your highest earned educational degree?
 - (1) ADN _____
 - (2) Diploma _____
 - (3) BSN _____
 - (4) MSN _____
 - (5) Other (specify) _____
8. How many years have you been an RN in your present position? _____
9. What are the total number of hours that you work in a 2 week period? _____
10. How many hours do you work per day? _____
11. How many sick days have you taken from work in the past year? _____
12. What is your ethnic background?
 - (1) African-American _____
 - (2) Asian _____
 - (3) Caucasian _____
 - (4) Multi-ethnic _____
 - (5) Native American Indian _____
 - (6) Other (specify) _____

APPENDIX E

Permission to Use the Cognitive Hardiness Scale



18 November, 1996

RE: Stress Assessment Profile Research Scales

Thank you for your interest in my research scales. I am enclosing a copy of these scales, scoring instructions, and some information about several recent publications describing the development of the research scales.

The Cognitive Hardiness Scale (composite score) has shown construct validity with the Everly Coping Scale, optimism (LOT; Scheier & Carver, 1985) and the original Kobasa hardiness scales (correlations with optimism, overall hardiness scale, commitment, challenge, and control subscales are .74, -.46, -.42, .05, and -.58, respectively). This 30-item scale ($M=106.21$, $S.D.=12.97$) has shown adequate internal consistency reliability (alpha) of .84, a unidimensional factor structure, and has demonstrated criterion-related validity with both subjective and objective health outcomes in recent studies.

The 25-item Coping Style Scale measures is conceptually based on the work of Richard Lazarus at U.C. Berkeley and assess four coping styles including: 1) Intrusive Positive Thoughts ($M=17.17$, $S.D.=2.95$, alpha .72); 2) Intrusive Negative Thoughts ($M=13.01$, $S.D.=3.56$, alpha .79); 3) Minimization ($M=15.66$, $S.D.=2.79$, alpha .70); and 4) Problem-Focused Coping ($M=15.82$, $S.D.=2.67$, alpha .69). This scale has shown criterion-related validity with a variety of self-reported health outcomes.

The 30-item Lifestyle Habits Scale consists of four subscales: 1) Global Health Habits; 2) Exercise/Physical Activity; 3) Sleep/Relaxation; and 4) Eating/Nutrition. These scales have shown adequate internal consistency reliability (alphas) of .73, .81, .71, & .70, respectively. It has been validated in over 1,040 professional working adults (Mean for Global Health Habits= 87.28 , $S.D.=9.61$). Additional information about these scales can be found in:

*Cindy -
Best of luck with
your research. You
have my permission
to utilize + reproduce
my Cognitive Hardiness
Scale.
Ken*

137 Strand Street
Santa Monica, CA 90405
(310) 450-8397
(310) 450-0548 FAX

APPENDIX F

Permission to Use the Staff Burnout Scale for Health Professionals

Permission was granted via telephone conversation with D. Davis of London House Publishing Company in February of 1997 to use the Staff Burnout Scale for Health Professionals in my study.

APPENDIX G

Approval from Grand Valley State University's

Human Research Review Committee



1 CAMPUS DRIVE • ALLENDALE MICHIGAN 49401-9403 • 616/895-6611

May 14, 1997

Cindy Bilisko
2459 Golfton Dr.
Wyoming, MI 49509

Dear Cindy:

Your proposed project entitled "***Is There a Link Between Burnout and Hardiness in Critical Care Nurses?***" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

A black rectangular box redacting the signature of Paul Huizenga.

Paul Huizenga, Chair
Human Research Review Committee

APPENDIX H

Cover Letter

Dear Nursing Colleague,

As a master's student in nursing at Grand Valley State University, I am conducting a study of burnout in critical care nurses. A complete understanding of the stressors of nurses is essential to provide resources to aid in managing burnout.

You are invited to participate in this study of critical care nurses. Your participation is strictly voluntary. There are no risks to participating in this study. To insure that your response is anonymous, do not put your name on the questionnaire. All individual responses will be held confidential and results will be published as a group.

The questionnaire will take approximately 15 minutes to complete. If you choose to participate, please return the completed questionnaire to the labeled envelope near your mailbox. Even if you choose not to participate, return the questionnaire to the envelope provided. Please return your questionnaire by August 22, 1997.

By returning the questionnaire, your consent is implied to have the data included in the study. Thank you in advance for your participation and time in answering the survey questions. If you have any questions, please contact me at the phone number listed below. You may also contact Paul Huizenga, Chair of the Human Research Review Committee at Grand Valley State University at 895-2472 if you have any further questions.

Sincerely,

Cindy Bilisko, RN
(616) 530-2371

LIST OF REFERENCES

REFERENCES

- Boyle, A., Grap, M. J., Younger, J., & Thornby, D. (1991). Personality hardiness, ways of coping, social support and burnout in critical care nurses. Journal of Advanced Nursing, 16, 850-857.
- Ceslowitz, S. B. (1989). Burnout and coping strategies among hospital staff nurses. Journal of Advanced Nursing, 14, 553-557.
- Collins, M. A. (1996). The relation of work stress, hardiness, and burnout among full-time hospital staff nurses. Journal of Nursing Staff Development, 12, 81-85.
- Duquette, A., Kerouac, S., Sandhu, B. K., Ducharme, F., & Saulnier, P. (1995). Psychosocial determinants of burnout in geriatric nursing. International Journal of Nursing Studies, 32, 443-456.
- Fawcett, J. (1995). Neuman's systems model. In Conceptual models of nursing, (pp. 217-275). Philadelphia: F. A. Davis Company.
- Harris, R. B. (1989). Reviewing nursing stress according to a proposed coping-adaption framework. Advances in Nursing Science, 11, (2), 12-28.
- Huang, C. (1995). Hardiness and stress: A critical review. Maternal-Child Nursing Journal, 23, 82-89.
- Jennings, B. M., & Staggars, N. (1994). A critical analysis of hardiness. Nursing Research, 43, 274-281.
- Jones, J. W. (1980). The Staff Burnout Scale for Health Professionals. Park Ridge, Illinois: London House Inc.
- Lewis, S. L., Bonner, P. N., Campbell, M. A., Cooper, C. L., & Willard, A. (1994). Personality, stress, coping, and sense of coherence among nephrology nurses in dialysis settings. ANNA Journal, 21, 325-335.

Jones, J. W. (1980). The staff burnout scale: A validity study. Paper presented at the 88th Annual Convention of the American Psychological Association, Montreal, Canada.

Kobasa, S. C. (1979). Stressful life events, personality and health: An inquiry into hardiness. Journal of Personality and Social Psychology, 37, 1-11.

Kobasa, S. C., Maddi, S., & Kahn, S. (1982). Hardiness and health: A prospective inquiry. Journal of Personality and Social Psychology, 42, 168-177.

Lindsey, E. & Hills, M. (1992). An analysis of the concept of hardiness. The Canadian Journal of Nursing Research, 24, 39-50.

Marchido, N. M. (1994). What is the relationship between personality hardiness and burnout in army reserve nurses? Unpublished masters thesis, Grand Valley State University, Allendale.

McCranie, E. W., Lambert, V. A., & Lambert, C. E. (1987). Work stress, hardiness, and burnout among hospital staff nurses. Nursing Research, 36, 374-378.

McGrath, A., Reid, N., & Boore, J. (1989). Occupational stress in nursing. International Journal of Nursing Studies, 26, 343-358.

Neuman, B. (1995). The neuman systems model (3rd ed.). Norwalk: Appleton and Lange.

Nowack, K. M. (1989). Coping style, cognitive hardiness, and health status. Journal of Behavioral Medicine, 12, 145-158.

Nowack, K. M. (1996). The Cognitive Hardiness Scale. Santa Monica, California: Organizational Performance Dimensions.

Oehler, J. M., Davidson, M. G., Starr, L. E., & Lee, D. A. (1991). Burnout, job stress, anxiety, and perceived social support in neonatal nurses. Heart & Lung, 20, 500-505.

Pappas, S. H. (1995). Creating an environment to support hardiness and quality patient care. Seminars for Nurse Managers, 3, 115-118.

Pollock, S. E. (1989). The hardiness characteristic: A motivating factor in adaptation. Advances in Nursing Science, 11, 53-62.

Rich, V. L. & Rich, A. R. (1987). Personality hardiness and burnout in female staff nurses. IMAGE: Journal of Nursing Scholarship, 19, 63-66.

Riegel, B., Banasik, J. L., Barnsteiner, J., Beecroft, P., Kern, L., Lindquist, R., Prevost, S., & Titler, M. (1994). Reviews and summaries of research related to AACN 1980 research priorities: Contextual topics. American Journal of Critical Care, 3, 260-264.

Roach, B. L. (1994). Burnout and the nursing profession. The Health Care Supervisor, 12,(4), 41-47.

Robinson, S. E., Roth, S. L., Keim, J., Levenson, M., Flentje, J. R., & Bashor, K. (1991). Nurse burnout: Work related and demographic factors as culprits. Research in Nursing and Health, 14, 223-228.

Rutlin, E. C. (1996). Relationships among role strain, hardiness, and academic achievement. Unpublished master's thesis, Grand Valley State University, Allendale.

Stechmiller, J. K., & Yarandi, H. N. (1992). Job satisfaction among critical care nurses. American Journal of Critical Care, 1, (3), 37-44.

Stechmiller, J. K., & Yarandi, H. N. (1993). Predictors of burnout in critical care nurses. Heart & Lung, 22, 534-541.

Stone, G. L., Jebsen, P., Walk, P., & Belsham, R. (1984). Identification of stress and coping skills within a critical care setting. Western Journal of Nursing Research, 6, 201-211.

Tartasky, D. S. (1993). Hardiness: Conceptual and methodological issues. IMAGE: Journal of Nursing Scholarship, 25, 225-229.

Tierney, M. J., & Lavelle, M. (1997). An investigation into modification of personality hardiness in staff nurses. Journal of Nursing Staff Development, 13, 212-217.

Topf, M. (1989). Personality hardiness, occupational stress, and burnout in critical care nurses. Research in Nursing and Health, 12, 179-186.

Van Servellen, G. & Leake, B. (1993). Burnout in hospital nurses: A comparison of acquired immunodeficiency syndrome, oncology, general medical, and intensive care unit nurse samples. Journal of Professional Nursing, 9, 169-177.

Van Servellen, G., Topf, M., & Leake, B. (1994). Personality hardiness, work-related stress, and health in hospital nurses. Hospital Topics, 72, (2), 34-39.

Wagnild, G., & Young, H. M. (1991). Another look at hardiness. IMAGE: Journal of Nursing Scholarship, 23, 257-259.

Wright, T. F., Blache, C. F., Ralph, J., & Luterman, A. (1993). Hardiness, stress, and burnout among intensive care nurses. Journal of Burn Care and Rehabilitation, 14, 376-381.