STRESS IN NURSING,

AN EXAMINATION OF STRESSORS AND COPING MECHANISMS

OF NURSES IN RURAL HOSPITALS IN NORTHERN BRITISH COLUMBIA

by

CHERYL MARIE LESERGENT

BScN, University of Victoria, 1990

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTERS OF EDUCATION

in

COUNSELLING

The University of Northern British Columbia

June, 1998

Abstract

This survey study examined stress, coping and social support mechanisms in a sample of 87 nurses working in rural hospitals in northern British Columbia. Instruments included the Tension Thermometer, a control appraisal measure, the Ways of Coping Questionnaire, a social support check list and the Nursing Stress Scale. Evidence was found to support the concept that nursing is stressful. While most of the stressors identified by the nurses fell into Parkes' categories of nursing stress, the number one stressor was workload/overload as indicated by forty-six percent of the respondents. As hypothesized there was a positive relationship between nurses' appraisal of a stressful situation and the use of emotion-focused coping. In addition, general social support was positively related to nursing stress while specific measures of social support were not related to nurse stress. Implications for counselling are discussed.

Acknowledgments

In the beginning there was a desire and a belief that I could accomplish something significant to change my life. Without Colleen Haney who mentored and tolerated; Freddy who listened and persisted; Molly who gave me strength; Sharon, Larry and Mike who kept me laughing and Lucy and Sheila who kept me grounded in reality - I would be much less than I am today. I am like the earth who was able to soak up the sunshine and learn. It was not always easy. There were times when I was turned and spaded up as the soil, but this too brought about learning. It was difficult but it was achievable because of those around me.

TABLE OF CONTENTS

List of Tables

CHAPTER ONE

Introduction

It has been my experience in the past twenty years as a nurse that nursing is a very stressful job. There is evidence in the literature to support this idea (Attridge, 1996; Chapman, 1993; Dewe, 1987; Dewe, 1988; Gottlieb, Kelloway, & Matthew-Martin, 1996; Leiter, 1988; Parkes, 1985). Gottlieb et al. (1996) suggest that "hospital nurses experience higher levels of stress than other health professionals" (p. 102). Most researchers focusing on nursing stress are from urban areas (Attridge, 1996; Dewe, 1987; Gottlieb, Kelloway, & Matthew-Martin, 1996; Hartrick, & Hills, 1993;). There are not many studies carried out on nursing in rural areas, and those that are usually are of a descriptive nature (Arnotti, 1984; Bigbee, 1991; Hodgson, 1982; Scott, 1991). This is of interest to me, because as a general duty nurse from a rural area I want to know more about the stressors affecting both my practice and the practice of my colleagues. Dewe (1987) states:

> if you wanted to create the optimum environment for the manufacture of stress ... many of the factors you would include would clearly be recognized by nursing staff as events which they encounter daily; these are: an enclosed atmosphere, working against the clock, excessive noise or undue quiet, sudden swings from intense to mundane tasks, no second chance, unpleasant sights and sounds, and standing for long hours (p. 15).

As a general duty nurse I find myself in a difficult position between physicians demands and patients expectations and also between work demands and my supervisors.

Therefore the purpose of this research is to investigate nursing stress in rural communities.

In order to better evaluate stress and coping in nursing common to my area of practice (the rural hospital), Lazarus and Folkman's (1984) transactional model of stress will be used. The term transactional refers to a process oriented dynamic model concerned with what an individual actually thinks or does about an event. In the transactional model "a stressor is any potential threat in the environment" (Lazarus, 1991, p. 42). The key components of this model are appraisal, stress and coping. Lazarus and Folkman's (1984) model has been the basis for stress and coping research in: working women (Long, 1989), athletes (Haney & Long, 1995), self-efficacy in the work place (Bandura, 1986), and nursing stress (Bowman & Stern, 1996; Parkes, 1986). The focus in this research is nursing stress and coping. Lazarus and Folkman (1984) define stress as an affiliation or liaison moving back and forth between the individual and their environment. Basically a person's belief changes for different situations and the environment changes as well. Thus a key component in the Lazarus and Folkman model is appraisal.

Appraisal is defined as the individual's perception or assessment of the stressor. During appraisal the individual recognizes the imbalance between the demands and the ability to handle the demand and determine whether the stressor is threatening or harmful. This evaluation determines how one can then cope with the stressful event. "Coping is seen as the efforts made by the individual to manage" the stressor (Haney & Long, 1995, p. 1726). Coping according to Lazarus and Folkman (1984) falls into two categories. Problem-focused coping consists of concrete attempts made to alter the stressful event while emotion-focused coping consists of attempts made to alter stressful feelings. Both types of coping are used in every situation (Folkman & Lazarus, 1980) and both are deemed helpful depending on the situation.

Nursing Stress

Because nursing is a stressful profession one would expect nurses to leave the profession early (Wilson, 1987). Despite this, I see in my work environment that many nurses have remained in their career. When I look around at those with whom I work as nurses, many of them are in their mid - to late forties or fifties and have worked in the nursing profession for at least twenty years. How have they managed to cope with stress? Many studies have focused on how urban nurses cope with stress (Allanach, 1988; Bowman & Stern, 1995; Dewe, 1987; Dewe, 1988; Parkes, 1985). I am curious to know whether or not the nurses in rural communities and hospitals have similar coping skills to those in large urban centres where the majority of the studies have been completed.

A review of the literature on stress in nursing reveals that by far the majority of studies were carried out in urban centres and frequently on nursing students. Parkes (1985) studied eighty-six nursing students from a large British teaching hospital. Parkes identified six categories of stressors found by nurses in her study: a) care of the dying patient, b) interpersonal conflicts with staff, c) fear of failure/lack of professional confidence, d) interpersonal problems with patients and their families, e) workload/overload and f) concerns about adequate or appropriate nursing care.

In a later study Parkes (1986) studied nursing students from a large teaching hospital to determine how they coped with stress. Situational, personal and environmental variables were examined as direct predictors of coping. Parkes (1986) found that "substantial portions of the explained variance in the direct coping scores were due to interactions across different variables" (p. 1290) some of which were age, sex, and experience.

Gray-Toft and Anderson (1981) examined stress in nurses working in five acute care nursing units and developed a questionnaire to measure nursing stress. Studying one hundred and twenty-two nurses in a major hospital it was noted that: a) workload/overload, b) feeling inadequately prepared to meet clients emotional needs and c) death and dying were of greatest stress to nurses. In this study it was also found that stress was caused by work demands being placed on nurses from two separate sources - hospital administration and physicians. It would be interesting to determine if similar stressors are experienced by rural nurses.

Dewe (1987) studied two thousand New Zealand nurses. He identified stressors in nursing and attempted to examine multidimensionality of nursing stressors. Dewe was able to categorize nurse stressors into: a) workload/overload, b) interpersonal problems between health professionals and c) dealing with critically ill clients. It was also found that stress was physical, psychological and social thereby supporting the concept that stress is seen as "the person and environment in a dynamic, mutually reciprocal relationship" (Lazarus & Folkman, 1984, p. 293). This then brings to the forefront the concept that nurses face stress from more than one dual line of authority - hospital administration versus physicians as well as physicians versus patients.

<u>Social Support and Nurses</u>

Social support has been identified in the literature as important for helping individuals cope with stress (Lazarus & Folkman, 1984). Chapman (1993) studied perceptions of support in relation to job stress for nurses. This study included data collected from hospitals as small as thirty-three beds to as large as one thousand beds, and had as its focus the concept of perception of support. Findings indicated that nurses identified seven stressors similar to those identified in Parkes' (1985) study and that as nurses' perceived a decrease in support at work their stress levels increased.

<u>Rural Nurses</u>

It is difficult to find a concrete definition of rural in the studies involving rural nurses. Davis and Droes (1993) describe criteria that attempt to capture the rural image as having a population density of less than six people per square mile and are greater than sixty minutes to an urban centre. Bigbee (1993) admits that there is no universal definition of rural and notes that the United States Census bureau classifies rural areas as having "less than 2500 people and open country" (p. 131).

Studies from Canada's rural north also discuss stressors in nursing. Hodgson (1982) states that the vast economic, social and linguistic differences found in the north present challenges that often become stressors. Nurses are expected to make decisions beyond their normal southern nursing roles and often beyond what is commonly considered health care in the south. Arnotti (1984) discusses the isolation of nursing work in the north. She comments that despite the fact that the nurse is always in the public eye, frequently loneliness prevails as there are no persons with whom one can share feelings or professional issues. Workload is consistently mentioned as a stressor for the nurse in rural hospitals (Arnotti, 1984; Davis & Droes, 1993; Hartrick & Hills, 1993; Hodgson, 1982).

Current Health Crisis

Nurses in urban centres and rural hospitals are equally influenced by changes in health care delivery that have been brought about by economic down-sizing. Nurses in urban centres have greater access to support and help during stressful times, simply because there is a greater selection of help in an urban centre. The isolation of a rural hospital and the sparseness of skilled helpers (Scott, 1991) exacerbates difficulties in finding help. For example, counsellors, educators, mentors and speakers are often not available whether they are associated with the hospital or not. The size of rural communities also presents a separate and different view from the urban centres - everyone knows the local nurse (Scott, 1991). This can be a strength when supporting patients but can add to nurses stress when there is no private life.

Because nursing is a stressful profession (McGrath, Reid, & Boore, 1989) there is an obvious need to assure nurses have appropriate or improved coping skills. Nurses are the main care givers in the health care team and make up by far the majority of workers in acute care hospitals; consequently, the possession of skills that allow nurses to do their jobs effectively is a necessity. Nurses negatively affected by stress place a greater burden on the system (Benoliel, 1988; McLaney & Hurrell, 1988) therefore increasing the stress level in the workplace and perpetuating a vicious cycle, often at the expense of those receiving the care. In many instances unresolved stressful situations carry from one shift to the next and from one unit to another as a domino effect. Smaller (rural) hospitals seem especially susceptible to this effect not only because of their size, but because of the size of the community as well.

It may seem to some that nurses do not become involved with their patients, or that nurses frequently internalize their stress (Beaudoin, 1990). In my experience this is a common phenomenon, seen in more experienced nurses who seem to have a maturity unrelated to age (Beaton & Degner, 1990). It is felt that "learning to cope (with life and death decisions) exacts a heavy toll" (Beaton & Degner, 1990, p. 28) on nurses. This concept is not often shared or even understood by the novice nurse, consequently creating stress through increased levels of frustration. These feelings when added to the already changing situations in hospitals across Canada seem to make job stress even worse.

Background to the Question

My interest in this problem stems from a lifetime of working as a nurse and never fitting in. For many years now I have worked as a nurse in a rural hospital in British Columbia and over the years I have watched the so called improvements to health care erode away the meaningful care given by myself and my colleagues. The changes driven by economics have forced administrators to deplete the manpower to such an extent that recognition of nurse work is being denied and corrupted daily.

For most of my career I have refused to participate in the power struggle between physician, nurse and patient. I am not certain if I was stressed out because of this, or because I have always worked outside the group. In the last five years I have seen a great many nurses succumb to job stress and burnout. The stressors have always been present as this thesis will point out, but it seems they have become worse, because for nursing at least it seems as though there is no end in sight to the changes.

CHAPTER TWO

Literature Review

Nurses are stressed in their day-to-day work (Allanach, 1988; Dewe, 1987; Parkes, 1985). Acute care hospitals require nursing staff to work around the clock, creating one of the stressful situations. Further stress is created by the demands made on nurses and the situations in which these demands are made. This literature review focused upon the nature of stress in nursing in urban and rural hospitals. Perceptions of stress and the resulting coping techniques are also reviewed. Social support is also examined as a form of coping allowing nurses to perform their job and to stay in the profession of nursing.

Stress and coping are reviewed using Lazarus and Folkman's (1984) transactional model of stress and coping. The transactional model is process oriented using stress in terms of a relationship or affiliation between the individual and their environment. Lazarus and Folkman (1984) emphasize that this relationship is in constant motion meaning that an individual's belief about the stressor changes as circumstances and environments alter.

Stress

Stress is a word that is used widely in everyday language. It is common place to hear that an individual is "all stressed out", someone may "be off on stress leave from work" and more commonly that "the stress is getting to me". Employers, as well as employees are affected by stress. Morale, productivity and compensations in sick pay are all affected by stress (Motowildo, Packard, & Manning, 1986).

When considering a framework use in this paper, I followed the model presented by Lazarus and Folkman (1984). Their work using a transactional model of stress appealed to me for two reasons: it nurtured my belief that stress is a constant presence in an individual's life; and that stress is much more than a stimulus-response issue. "In contrast to the unidirectional, static, antecedent-consequent model, the transactional model views the person and the environment in a dynamic, mutually reciprocal, bidirectional relationship" (Lazarus & Folkman, 1984, p. 293). Lazarus and Folkman focus on environmental as well as individual factors when defining stress; they emphasized "the relationship between the person and the environment which takes into account the characteristics of the person on one hand and the nature of the environmental event on the other" (Lazarus & Folkman, 1984, p. 21). Lazarus and Folkman (1984) suggest that in order to understand how stress affects individuals we must consider cognitive appraisals and coping (how one handles stress).

Appraisal

Stress includes some form of appraisal by the individual to decide if the stress is a physical or psychological threat (Lazarus & Folkman, 1984). Appraisal allows the individual to recognize the imbalance between the demands of the environment and the individual's skill to handle the demands. How the individual discerns or makes sense of the stressor is critical to our understanding of stress (Lazarus & Folkman, 1984). It allows for the different responses (from person to person) to the same stressor. For example, in nursing one can note a varied set of responses during the running of cardiac resuscitation, after a cardiac arrest. There is a common management plan for all cardiac arrests. Each nurse participates according to protocol, however their responses to the common stressor is varied. As a group of workers all nurses participate in arrest procedures, but each nurse has her unique way of handling the crisis.

Lazarus and Folkman (1984) discuss two dimensions in the appraisal process. Primary appraisal is concerned with the individual's assessment of the stressor while secondary appraisal pertains to the decision dealing with what will be done to cope with the stressor. (It is important to note that the two types of appraisal interact with each other and are used simultaneously in a complex relationship, rather than using primary first and secondary next as the names might lead us to believe.)

Primary appraisal Primary appraisal includes three separate types of assessment of an encounter. The first type is irrelevant appraisal or the fact that the stressor carries little or no threat to the individual's well being even though anxiety may be present. The next is benign-positive, the type of appraisal in which the individual sees the outcome as positive for their well being. The final type is known as stressful appraisal in which the individual sees harm/loss, threat or challenge as a possible outcome in the encounter. With harm/loss the individual has already been incapacitated in some way, such as the diagnosis of a long term illness or the loss of a loved one (Lazarus & Folkman, 1984). Next, and linked to harm/loss we see that "the primary adaptational significance of threat ... is that it permits anticipatory coping" (Lazarus & Folkman, 1984, p. 33). Challenge appraisal can be likened to threat appraisal in that it too motivates anticipation. The key difference is that challenge appraisal has the capability to elicit positive feelings as well as anxiety in the encounter whereas threat appraisal is based on emotions such as fear, anger and anxiety (Lazarus & Folkman, 1984). Many of the stressors in nursing fall in to the loss/harm category (death) or threat/fear category, fearful of making the wrong decision (making a mistake).

Secondary Appraisal Secondary appraisal comes into play once the individual must do something specific to manage the encounter; it is an assessment process that intervenes between the encounter and the response of a stressor. Control beliefs are considered secondary appraisals since they influence coping behavior - individuals with strong belief in control feel their own efforts will be effective in altering the outcome of an event (Lazarus & Folkman, 1984). Secondary appraisal influences coping responses in relation to performance (Haney & Long, 1995) for example: whether or not a person feels in control will influence how they handle the stressful encounter. Secondary appraisals are complex processes as they must consider: which coping options are available to the individual, will the option selected do what it is supposed to and finally can this option can be applied (Lazarus & Folkman, 1984).

Coping

Coping is an integral part of stress as we experience it in our day to day lives. "Coping is defined as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). In the model presented by Lazarus and Folkman (1984), coping is a process in which there are three main aspects. The first being that the observations are in light of what the individual actually thinks or does in contrast to what the person might think they do. The second aspect pertains to examining what the person actually thinks about the specific circumstances of the stressful occurrence. In the third feature, changes in thoughts and actions are noted as the stressful event evolves (Lazarus & Folkman, 1984). An integral part of this model is that coping is a flowing phenomenon or process.

Lazarus and Folkman (1984) categorize coping as either emotion-focused or problem-focused coping. Emotion-focused coping happens when the individual feels nothing can be done to really change the situation. Some of the emotion-focused coping techniques are: "avoidance, minimization, distancing, selective attention and wresting positive value from negative events" (Lazarus & Folkman, 1984, p. 150). Problem-focused coping occurs when the individual recognizes the possibility of changing the situation. Problem-focused coping strategies are "defining the problem, generating alternative solutions, weighing the alternatives in terms of their costs and benefits, choosing among them and acting" (Lazarus & Folkman, 1984, p. 152). One type of coping is not necessarily superior to the other type and depends on the interaction between the person and their environment.

In a study of one hundred adult community residents Folkman and Lazarus (1980) examined coping. Initially Folkman and Lazarus (1980) reviewed previous research on stress and coping. As a result the role that coping plays in mediating relationship between stress and an individual's well being was found to be unclear. Confusion between the process of coping and the adaptational outcome (Menninger, 1963) bias on the part of the raters scoring behaviors (Vaillant, 1977) and the idea that process is used to explain outcome (Vaillant, 1977) were some of the issues discussed. Previously researchers limited coping to a personality trait (Gardener, Holzman, Klein, Linton, & Spence, 1959; Goldstein, 1959) and stated that individuals are consistent in their behavior across situations.

In the second phase of the research Folkman and Lazarus (1980) interviewed each adult every month for a year. At the interview the individuals were asked to think of one specific stressful incident that occurred recently and describe it in detail. Self report questionnaires regarding the same incident and finally the Ways of Coping Questionnaire (Lazarus & Folkman, 1980) were completed.

The study had two results. The first was a catalogue of the ways in which one hundred community residents (average individuals) coped with specific stressors of daily living. The second, presented an approach to an assessment of coping that would promote scientific research of coping in the future. The fact that Folkman and Lazarus studied specific and recent coping events gave concrete evidence to the body of research on coping and consequently conquered some of the problems of previous research.

Lazarus and Folkman's research has shown that the unidimensionality of traits does not adequately deal with coping as a process and that coping changes depending on the situation. It is also important to note that ninety-eight percent of the respondents used both emotion-focused and problem-focused coping at each event; therefore the intent of Folkman and Lazarus (1980) was not to weight either form of coping as positive or negative. Both are equally useful. The study also pointed out that most frequent subjects of stress and coping research have been those individuals found in circumstances such as individuals preparing for a doctoral exam or those who are extremely ill. As a result, moderate levels of stress in people had not been studied therefore creating a bias in the research on coping.

Nursing Stress Research

Parkes (1985) studied one hundred and fifty nursing students from two large London, England hospitals. The purpose of the study was to examine circumstances perceived by the student nurses as stressful, and to investigate the types of issues encountered. In her final analysis, Parkes suggested methods that might be used to prevent such stressors.

In this qualitative study first year nursing students were interviewed after they worked in their clinical assignments for six to seven weeks. The students were asked to report a stressful event that had occurred during their clinical placement. Ninety-seven percent of the students were able to give detailed responses. Two independent raters fit most of the stressful episodes into six main categories. These are: (a) care of the dying patient, (b) interpersonal conflicts with staff, (c) fear of failure/lack of professional confidence, (d) interpersonal problems with patients and their families, (e) work load/overload and, (f) concerns about adequate or appropriate nursing care.

The stressors included those of an interpersonal nature and those that were environmental. The interpersonal stressors focused on difficulties between student nurses, doctors and patients, and self esteem issues which perpetuate an inability to adequately care for patients. The environmental stressors focus on work overload and the hospital hierarchy.

Parkes' article provides examples and direct citations for each category and she discussed each issue in detail. I found that the stressors defined are analogous to issues I continue to identify as sources of stress even after twenty years of nursing. Nurses are often blamed when things go wrong with patient procedures. For example, if the operating room nurse does not get the next patient into the room on time, blame is placed on the nursing staff without consideration of workload. Similarly when laboratory tests are not completed, the nurse is again questioned, initially before the laboratory technicians are asked. Nurses work together in the isolation of shift work and on units closed away from the outside world, yet there is difficulty with cohesion if there are problems on the unit. Despite the fact that I can readily identify with the stressors, one drawback to the study is that it was done with nursing students and not seasoned nurses. It has been my experience that seasoned nurses do not always share the same concerns as student nurses in the realm of actual nursing care, for example in the management of a patient with chest pain. A seasoned nurse would follow a set of very direct steps - elevate the head of the bed, give oxygen through nasal cannula and possibly give Nitroglycerine 0.3 milligrams sublingually and then contact the physician. It takes the novice nurse several episodes with patients before they will have the confidence to treat the patient first and then contact the physician. However, I felt that the work clearly outlined and categorized stressors in nursing and laid the ground work for me to pursue my research.

In a further work, Parkes (1986) studied one hundred and thirty-five first year nursing students from two large training hospitals in London. Individual differences, environmental factors and situational characteristics of stressful events were the variables examined as predictors of coping. The purpose of the study was to examine the role played by these variables and to see to what extent they predicted outcomes of coping. Parkes presented both the traditional view of coping (structural model) in which relationships between measures of lifestyle outcomes are seen as being moderated by stable personality characteristics (Parkes, 1986, p. 1277) and, the transactional model created by Lazarus and Folkman (1984) in which coping is believed to be a process through which the individual manages their environment.

The students were evaluated for individual differences prior to their first clinical assignment. Knowledge about stressful episodes during the clinical work was collected via the Ways of Coping questionnaire (Lazarus and Folkman, 1984) and interviews at the end of each work experience.

Parkes (1986) work supported research by Lazarus and Folkman (1984) with regards to their transactional model of coping by finding that situational, personal and environmental variables are direct predictors of coping. Parkes addressed the limitations in her research quite clearly by stating that the work could only support the findings of Lazarus and Folkman, not extend their model.

Parkes (1986) also critically reviews her work and states specifically that it cannot fully span the multifaceted implications of a transactional model of stress simply because science has not yet developed the appropriate tools "in developing longitudinal data collection methods that can accommodate the unpredictable time course of stressful transactions and capture the fluctuating nature of emotions" (Parkes, 1986, p. 1290). Parkes found that stress and coping were not solely a cause-effect relationship, but a complex interactive relationship with other variables.

Chapman (1993), examined the relationship between staff nurses' perception of collegial support and job stressors. Chapman randomly selected two hundred staff nurses from a population of four thousand nurses working in hospitals with from thirty-five to one thousand beds in twenty-one Iowa counties. These nurses were then mailed questionnaires from which the data were collected. The questionnaires included a fifteen-item demographic survey, the Nursing Stress Scale (Gray-Toft & Anderson, 1981) and a survey designed to elicit patterns of collegial communications. One hundred ninety-eight questionnaires were returned.

Through factor analysis Chapman (1993) identified seven major stressors: (a) death and dying, (b) conflict with physicians, (c) inadequate preparation, (d) lack of support, (e) conflict with other nurses, (f) workload and, (g) uncertainty about treatment. These findings support the data presented by Parkes from the United Kingdom.

Chapman (1993) also found that as nurses perceived a decrease in the support from their colleagues they also perceived an increase in the frequency of job stressors. In her final analysis Chapman stated that management of, or eliminating stress takes a concerted effort - meaning that it must be worked at; and that collegial support may alter or reduce an individual's perception of stress.

The study interested me for two reasons. First, as I am interested in nurses and stress in smaller hospitals, I thought Chapman's work could teach me about this subject, as some of the subjects were nurses working in hospitals of thirty-five beds or less. Unfortunately these results were not separated out from all other hospitals in which research was performed. Secondly, it studied perceptions of support and found that perceptions (or appraisals) have an effect on coping; in that when nurses appraised less support from colleagues they perceived an increase in work stress. Perceptions of support are important to my research because Lazarus and Folkman suggest that appraisal influences stress.

McCranie, Lambert and Lambert (1987) examined work stress, hardiness and burnout in nurses working in a large urban hospital. Hardiness was defined as "a specific constellation of personality characteristics moderating the impact of stress" (McCranie, et al. 1987, p. 374). One hundred and seven of a possible two hundred and six staff nurses responded to a questionnaire which measured hardiness. McCranie, et al. described the consequences of exposure to chronic stress, which they report creates burnout - a form of emotional exhaustion. These researchers were interested in finding out why certain nurses seemed more susceptible to stress than others. Bigbee (1991) states that "hardiness also seems to fit well with rural culture which emphasizes independence, self-reliance and self-care" (p. 39).

In the study, hardiness "appeared to have beneficial main effects in reducing burnout, but it did not seem to prevent high levels of job stress from leading to high levels of burnout" (McCranie, et. al 1987, p. 377). One explanation for this finding was that job stressors are "more impersonal and less controllable" (McCranie, et al 1987, p. 377). This factor seems very true for occupational stress in nursing; it can be seen that stress is experienced frequently by all nurses on the job and that the stress is very impersonal, no specific nurse is singled out to experience the stress of any given situation. Similarly because of the nature of the job, the stress is not easily controlled, (Dewe, 1987). The many unknowns of nursing foster stress. Within the bounds of human nature who can predict when a patient may have a cardiac arrest and throw a calm unit into chaos.

Gray-Toft and Anderson (1981) surveyed one hundred twenty-two nurses of three different educational levels working on five separate units in a major hospital. The purpose of the study was to examine the causes and effects of nursing stress at work and to link specific sources of stress with the types of units being worked on, and the level of education and trait anxiety of the individual. They hypothesized that high levels of stress would cause a diminishment of job satisfaction and an increase in employee turnover (Gray-Toft & Anderson, 1981). The subjects completed the Nursing Stress Scale, a forty item scale to measure anxiety and the Job Description Index.

Results (factor analysis) indicated that nurses of all education levels found nursing stressful, and that the greatest stress resulted from the following: (a) workload or overload, (b) feeling inadequately prepared to meet the emotional needs of the patient or their family and, (c) death and dying (Gray-Toft & Anderson, 1981, p. 645), again partially supporting the findings of Parkes.

Gray-Toft and Anderson (1981) found that work demands were placed on nurses from two separate sources - hospital administration and physicians. This lead to the creation of "dual lines of authority which resulted in inter-role conflict and ambiguity" (Gray-Toft & Anderson, p.645). From the standpoint of an experienced nurse I heartily agree with this notion and add that often these two bosses are working against one another.

Gray-Toft and Anderson (1981) also discuss the problems found in meeting client's emotional needs. They state that the nursing role is either too goal oriented and that goal is dealing with the physical well-being of the patient; or that the physician ordering the nurse around is very task oriented and expects many superficial physical attempts at healing to be sufficient. Again, it is apparent that there is a problem with expectations of the health care team. This leads us to the third area of stress which is death and dying.

Gray-Toft and Anderson (1981) state "there is much evidence to indicate that death is a universal problem for health professionals since it threatens their role perception" (p. 646). It has been my experience that some physicians cannot let go of their dying patients and once the inevitability of death sets in they become emotionally distant, leaving close contact to the nurse. This then sets the stage for the nurse to do the emotional work for patient and family around the process of dying, and as was stated earlier by Gray-Toft and Anderson often leads to stress on the job. Management of the dying patient and their family place nurses in just such a dilemma. Gray-Toft and Anderson draw some very interesting conclusions from their research. Their discussion of the work is vital to my knowledge of stress in nursing, and I have gained greater perception into the basis of some of the stress I have experienced. These results were comprehensive and brought real meaning to some of the stressors.

Dewe (1987) surveyed two thousand five hundred nurses in New Zealand, from both general and obstetrical hospitals. The purpose of his work was to examine stressors in nursing as nurses recognized them and to explore the multidimensionality of these stressors. In this research Dewe was attempting to circumvent methodological difficulties of too small a sample size and an inadequate measurement instrument in previous studies.

Dewe's (1987) methodology involved three stages. In stage one, three hundred nurses were interviewed and surveyed in order to develop a questionnaire that applied specifically to nurses (stage two). Stage three was the delivery of this survey to nurses nation-wide. The results supported previous research on stress in nursing - issues such as work overload, interpersonal problems and dealing with the critical patient were apparent stressors. Dewe also described the phenomenon that characterizes the stressors as: physical, psychological and social which support the multidimensional concept of stress as presented by Lazarus and Folkman (1984). Dewe's findings have implications where attempts might be made to alleviate stress; if one type of stressor is relieved will another become stronger? This situation is quite often experienced by nurses in the matter of workload/overload, for example the manager may allow for extra staff to be called in to help in certain circumstances, but the nursing staff are always reminded about the budget and whether there will be money next year for the same level of staffing.

In making this comment Dewe (1987) described a unique and interesting result - that the stressors faced by nurses were interdependent of each other and multidimensional. Dewe's concept again falls back on the views of stress presented by Lazarus and Folkman (1984), in which the person and his/her environment (be it physical, psychological or social) are in a mutual relationship.

Dewe's (1987) work has another implication in the fact that he discusses the role of nurses and how it in itself is stressful. The role of the nurse "means that the multiple and often conflicting demands imposed by medical and administrative staff create dual lines of authority and hence conditions conducive to work overload and role conflict" (Dewe, 1987, p.21). I have noted from personal experience that the dual lines of authority (see Gray-Toft & Anderson, 1981) do not only arise from demands made by administration and physicians, but from physicians and patients. The physician may prescribe treatments for a client that are unacceptable to the client; although nurses are to carry out doctors orders we do have a responsibility to respect patients wishes or advocate on the patient's behalf.

Llewelyn and Fielding (1987) reported that it was imperative for a critical examination of stressors in nursing to take place in order to develop an improved education programme that would enable nurses to meet and deal with job demands. The review paper lists fourteen stressors common to nursing, again reflecting those found in Parkes' (1985) research. Some of the additional stressors reported by

Llewelyn and Fielding were: the isolation of shift work, poor communications, role duality and role conflict, and disparity between the public image of the nurse and reality. From my experience the public image of the nurse is often an individual managing the patients health needs in a caring, supportive and pleasant manner twenty-four hours a day. This concept is supported by Dewe (1987) who states nurses are "all things to all people ... and professional go betweens" (p. 18) as well.

Llewelyn and Fielding (1987) discussed future job demands that will become reality because of: changing demographics resulting in a greater ageing population, a sizeable move of health care from hospitals to homes and communities, a more educated population becoming an informed consumer and a shift from a paternalistic medical model to a more holistic approach to health care. The current education system for nurses does not seem to match this trend; I have experienced some new graduate nurses who fall short of the new demands. Llewelyn and Fielding state that nurses must be educated in an alternative manner so that the professional requirements and organizational demand make closer alignment towards the changing trends in health care.

Llewelyn and Fielding (1987) also presented some interesting discussion around poor communication skills as a key stressor in nursing. They maintained that it was typical and appropriate for managers to encourage unclear lines of communication in order to protect their place in the system and thus prevent correction of problems and lessen stress in the facility.

George and Owen (1983) compared personality attributes of forty nursing students to a sample of general female college students using a dimension of the Jackson's Personality Research Form-E. They were examining the premise that the nursing students were specific learners with unique needs. The results of the study were used to prove the need for changes in the college curriculum for nursing students. The work claimed that demographics were often used to design programmes, but personality attributes were rarely examined.

George and Owen's (1983) findings indicated that some personality characteristics of nursing students were significantly different from the general female student population. Some of the areas of difference are that nursing students are: (a) cautious, apprehensive, vigilant and not motivated to take risks, (b) those who rarely do things just for fun, (c) those who perceive themselves as controlling of people and environments and, (d) those who are persuasive, assertive and leading. These researchers claim that based on the differences of these personality dimensions, nursing faculty should alter current education programs. They also state that the new programs might be geared to helping the nursing students gain the ability to take risks and become less apprehensive and vigilant. I am inclined to believe that in doing so perhaps the graduates of an altered nursing program may be able to manage the stresses of a nursing career with more positive outcomes.

There are limitations to this study. The research was carried out on forty nursing students; an attempt to generalize these findings to all nurses will be very limited because of the small numbers. Similarly only one college programme for nursing students was examined, can we label all college nursing programmes based on the findings of this study? We are not informed about the programmes being studied by the comparison group of non-nursing female students. Would this have affected the outcome of the research?

Stressor studies specific to Canadian nurses are still commonly done in urban hospitals as seen in the work of Gottlieb et al. (1996) and Hartrick and Hills (1993). Hartrick and Hills (1993) did a qualitative study of twenty-eight nurse working in two large Victoria hospitals. They examined nurses' perceptions of work environment stressors and support needs. Organizational stressors such as workload/overload and too many demands were listed as the most common stressor. The next most frequently described stressor was that of interpersonal relations. Lack of any consultation between staff or problem solving measures were the descriptors used when describing interpersonal issues.

The major needs described by the nurses in Hartrick and Hall's (1993) study was the lack of help to complete physical tasks and being listened to and understood. These stressors are similar to those described by other researchers such as Dewe (1987), Gray-Toft and Anderson (1981) and Parkes (1986). Although this study used small numbers, Hartrick and Hills (1993) state that stressors to nurses are unique and vary depending on the circumstances or situations in which they are described consequently supporting the transactional model of stress and coping (Lazarus & Folkman, 1984). Interestingly, there seems to be a similarity of findings across countries (Dewe, 1987, New Zealand; Gray-Toft & Anderson, 1981, US; Parkes, 1986, England).

Gottlieb et al. (1996) examined predictors of conflict between work and family, stress and job satisfaction in a sample of one hundred nurses from a major hospital. It was found that "the subjective perception of having too much to do proved to be a salient precursor to stress" (Gottlieb et al., 1996, p. 113). Further to this it was found that when nurses felt they had too much to do their self worth diminished which further subscribed to stress in the workplace. In the final analysis Gottlieb et al. 1996 suggested that further research in to stress in the nurses' workplace (e.g. acute care hospitals) was called for in order to gain knowledge and help ameliorate such problems.

Perceived Control and Coping

Perceived control has been linked to a decrease in stress levels and improved worker health (Spector, 1986). Perceived control can be defined as "belief that one can influence the environment" (Ganster, 1993, p. 194). Appraisals of control have been linked to problem focused coping strategies (Bowman & Stern, 1995; Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986). For example, people who believe they can change a stressful situation are more likely to deal with the situation and engage in problem solving coping (Bowman & Stern, 1995; Folkman & Lazarus, 1984).

Bowman and Stern (1995) studied the relationship between perceived control of an event and the effectiveness of coping strategies. The subjects were one hundred and eighty-seven nurses from a large New York medical centre. The nurses were mailed a package of survey items which they were asked to complete and return to the researchers. The measures used for this study included: the Nursing Stress Scale (Gray-Toft & Anderson, 1981), the Ways of Coping Questionnaire (Lazarus & Folkman, 1984) and the Negative Emotionality Scale taken from the Multidimensional Personality Questionnaire (Tellegen, 1982).

The results of this study provide "preliminary support for the view that occupational coping effectiveness depends on the context in which specific coping strategies are used" (Bowman & Stern, 1995, p. 300). Further, it was noted that nurses think that problem solving coping is effective only for those situations seen as changeable, and that problem solving may induce "frustration when used in situations perceived as not amenable to change because of individual's failure to alter or have some impact on the source of stress in some way" (Bowman & Stern, 1995, p. 300). This concept is also supported by Lazarus and Folkman's (1984) model of stress and coping. The findings also show that increased use of emotion-focused coping was directly related to increased anxiety at work. While it is important to note that individuals tend to use both emotion-focused and problem-focused coping with every stressor (Folkman & Lazarus, 1980) Bowman and Stern (1995) suggest there is a negative relationship "between avoidance coping and psychological adjustment" (p. 301). The researchers suggest that if nurses were more aware of the intricacies of the stress appraisal and coping results identified by researchers their level of frustration may not be as high as it is on some nursing units. While the above study focused on urban nursing stress, less is known about nursing stressors in rural areas. It would be interesting to determine if control appraisal relates to problem-focused coping in rural nurses.

Research in Rural Nursing

Bigbee (1993) states that although there is no accepted definition of rural, rural nursing can be defined as "the practice of professional nursing within the physical and sociocultural context of sparsely populated communities" (p. 131). She goes on to state that rural nurses are "a unique group of specialized generalists" (p.142) who share a special relationship with the communities in which they work.

In Bigbee's (1993) report rural populations are described as being somewhat older, poorer and at greater risk for health problems than those in urban centres. It is common to see more chronic illness with this population than in the urbanized population. Bigbee states that the average infant mortality rate is higher in the rural settings than in urban areas and is seen as a problem because "approximately one third of all US births take place in rural settings" (p. 134).

One of the benefits of rural nursing is the closeness to the community in which the nurse works and its related high visibility in the community (Bigbee, 1993; Hodgson, 1982). Bigbee (1993) states that another of the unique attributes of rural nursing is the variety of skills one must possess in a generalist type of practice, which consequently leads to greater independence on the job. But one must also realize that these very attributes to rural nursing can also be seen as major stressors to the job and are valued as rewards only where practices are not burdened with nursing shortages and economic crisis.

Bigbee's (1993) study reveals that there are stressors common to rural nursing. A frequently described stressor is that of isolation in nursing - a lack of nursing mentorship, a distancing from education programmes (p. 136) and often no one with whom to share ideas and or feelings. Other stressors listed are: "the feeling of never truly getting away ... inadequate staffing and resultant workload problems" (Bigbee, 1993, p.136).

Although Bigbee's (1993) study of rural nurses includes stressors identified by other researchers in urban centres (Chapman, 1993; Dewe, 1987; Gray-Toft & Anderson, 1981; Parkes, 1986) a drawback to the study is that it is founded in a healthcare system quite different from that in Canada. For example in the U.S. the majority of clients pay for the health care they receive.

Further studies done on rural nurses by Davis and Droes (1993) use a composite set of criteria to define a rural community. According to this criteria a frontier hospital has "twenty-five beds or less and is sixty minutes from or has severe geographic or seasonal conditions that increase transport time to greater than sixty minutes" (Davis & Droes, 1993, p. 162) from a major referral center. Further to this a rural hospital is described as one having from twenty-five to one hundred beds and is thirty minutes away from a major referral centre. Using this criteria, the only areas of British Columbia not designated as rural would be Vancouver, Victoria, Kelowna and Prince George.

Davis and Droes (1993) define a rural nurse as one who has a variety of skills, is flexible and able to work in more than one area. "Scarcity of resources and isolation are defined as the most salient characteristics of community nursing practice" (Davis &

Droes, 1993, p. 162). Isolation from a continuing support network, further health care providers, education and technology (Davis & Droes, 1993, p. 163) is listed as the major stressor in the rural nurses' practice. The next major stressor listed is scarcity of human and financial resources, which places a burden on the community rural nurse because of the added non-nursing workload that arises in such circumstances.

Other stressors listed by Davis and Droes (1993) are the lack of privacy. Despite the fact that knowing the people in your community can add to your health knowledge of them, knowing them too well is a hindrance. Conversely, them knowing you can add to the stress of the job. In the rural setting Davis and Droes cite the lack of anonymity as a stressor. A nurse cannot be all things to all people - on the job and off the job.

The stressors described by Davis and Droes (1993) are similar again to some of those described by nurses in urban studies (Dew, 1987; Gray-Toft & Anderson, 1991). But because this qualitative research was done on US community health nurses the stressors better matched those of nurses working in the Canadian north outposts (Arnotti, 1984; Hodgson, 1982; Scott, 1991).

There are only a few research studies on rural nursing and most of them are descriptive (Arnotti, 1984; Bigbee, 1991; Bigbee, 1993; Davis & Droes, 1993; Hartrick & Hills, 1993; Hodgson, 1982; Scott, 1991). Hodgson (1982) discusses stress in outpost nursing in northern Canada. This descriptive study states that as the main source of health support nurses are expected to perform many tasks even those beyond that of nursing (as it is known in urban areas). These nurses "live, work and play at the nursing station" (Hodgson, 1982, p. 108) in full view of the community. Having the community close at hand can be supportive when people are needed, but by the same token having little or no privacy can be stressful.

Stressors identified from Hodgson's report include the paradoxical situation in which nurses who move to the north find themselves, living in an isolated community and yet being in the public eye twenty four hours per day. Scott (1991) adds that despite living in the public eye the life is lonely and isolated. The nurse finds she is often asked to be involved in non-nursing issues such as social aspects of life because the indigenous people see the nurses' practice as being more than medically orientated (Hodgson, 1982). Nurses heading to the north may expect to do lab work, take and read x-rays and make difficult decisions yet many find themselves in the conflict of making decisions that are normally done by physicians in urban centres. Further stressors as outlined by Arnotti (1984) include the lure of the midnight sun and long daylight hours in the summer. It is often found that the offset of having long dark days through the winter does not make an even balance but brings depression to the community and consequently stress.

Fuszard, Slocum and Wiggers (1991) review literature on expanding nurses roles focusing specifically on rural nurses. They noted that rural hospitals were affected greatly by cost containment and a nursing shortage. Bed closures were the initial mechanism of cost containment and with bed closures nurses were laid off. Many nurses left the community looking for work elsewhere. This fact consequently caused a shortage in the relief pool of nurses.

In summary the literature on rural nursing identifies stressors that differ from that of urban centres. For example major studies on stress in nursing (Chapman, 1993; Dewe, 1987; Parkes, 1985) list death and dying as a major stressor for urban nurses. Although Llewelyn and Fielding (1987) discuss the isolation of shift work, it is very different from the isolation experienced by nurses working in the Canadian north. Rural literature also focuses on experienced nurses while the urban literature tends to focus on younger nurses or nursing students. It may be that younger nurses identify stressors differently than older nurses.

Commitment and Social Support

Leiter (1988) surveyed two thousand three hundred nurses in Nova Scotia. Nine hundred and six questionnaires were returned for a response rate of thirty-nine percent. The purpose of the work was to examine commitment as a function of stress in nurses. Leiter believed that a worker's involvement with their work had "serious implications for their quality of life beyond the workplace as well as for their productivity within the workplace" (p.118).

The nurses were surveyed using the Maslach Burnout Inventory (Maslach & Jackson, 1981) and the Organizational Commitment Questionnaire (Mowday, Steers, & Porter 1979). Separate questions were asked regarding interpersonal conflict, work overload and skill utilization (Leiter, 1988). A Contact Rating Scale (Leiter & Maslach, 1988) was also used to measure instrumental and emotional support in the nurses' communication network.

Leiter's (1988) research had five significant findings. First, Leiter "established that both stressors and supports from social and non-social aspects of organizations are independently associated with the way workers evaluate their work settings" (p.123). Second, it was reported that when adequate support is not available repeated stressors will lead to emotional exhaustion, and subsequent burnout. Third, burnout and commitment are obvious psychological states concerned with one another. Fourth, nursing specialty areas showed differences in the levels of stressors and supports. Finally, results were consistent with "the general premise that emotional exhaustion resulting from various organizational stressors is more likely to contribute to the development of burnout if the worker is not receiving social support, is feeling deprived of opportunities to use or develop skills or both" (Leiter, 1988, p. 132).

Leiter's (1988) study reflects the importance of my own work. They are both done on Canadian nurses. Leiter begins by stating "health-care organizations are facing diverse management challenges. On the one hand, they are trimming their operations to ease the strain between funding and rising costs. On the other hand, they are striving to be accountable for maintaining high levels of service" (Leiter, 1988, p. 117).

Commitment to nursing has always been very important to me. I believe commitment is what keeps nursing going in light of the fact that "everyday the nurse confronts stark suffering, grief and death as few others do. Many nursing tasks are mundane and unrewarding. Many are, by normal standards, distasteful and disgusting.

Others are often degrading; some are simply frightening" (Hingley, 1984 in Dewe, 1987, p.15).

In a study by McIntosh (1991) the construct of social support was examined. In her critique she points out that social support has not been well defined which has consequently lead to empirical problems in research. Her study reports that "identification of sources of support (co-workers, family and friends, supervisors etc.) and types of support (socioemotional, instrumental and informational) as critical dimensions of the construct has not yielded sufficient conceptual clarity to guide empirical studies" (McIntosh, 1991, p. 214).

Four hundred and eighty nurses from a general hospital were surveyed by mail questionnaires. Of these, one hundred and eighty-six surveys were used to collect data. The following items were surveyed: stressors (Huckabay & Jagla, 1979), workload (Quin & Shepard, 1974), strains (Gaines, 1984), emotional exhaustion as in the nine item sub-scale of Maslach Burnout Inventory (Maslach & Jackson, 1981) and social support (Caplan, Cobbs, French, VanHarrison, & Pinneau, 1975).

McIntosh (1991) reports that "as predicted, support adequacy is the only property of social support significantly related to stressor level and number of providers has a curvilinear relationship to strain," (p. 214). It was discovered that the greatest effects on stress by social support occurred when there were a moderate number of supporters; "too few and too many people willing to provide support may increase the strain" (McIntosh, 1991, p. 216). Even though I have a personal belief that nurses employed in rural hospitals rely on social support as a perhaps unique solution to stress and strain on the job McIntosh warns "that practitioners need to avoid the temptation that social support is a cure-all" (p. 216).

To further support McIntosh's (1991) statement it can be noted that there is a lack of clear definition of social support in the literature. There is broad variation in the literature of the definition of social support (Ogus, 1990; Ray & Miller, 1994; Stewart, 1989). Less clear is the association between main and buffering effects of social support (Boumans & Landeweerde, 1992). Norbeck (1985) studying social support stated that stress was not easy to define consequently causing problems with further research in the area of social support. Kaufman and Beehr (1986) discovered counterintuitive results from their study. They found that social support could enhance or heighten stress; the supervisor who was offering support at work might be adding to the stress. Lazarus (1991) supports this concept by stating "there are different types of social support and that social support may create problems for individuals and indeed serve as sources for stress in life" (p.185). It would be interesting to determine the relationship between stress and social support in rural nurses since this has not yet been documented.

Following the initial literature review, additional inquiry uncovered four authors' (Beehr, King & King, 1990; Constable & Russell, 1986; Eastburg, Gorsuch, Williamson & Ridley, 1994; Fisher, 1985) work on social support. In general these studies clearly defined the social support each was examining. Similarly, the works stated that defining social support was difficult because it remained "conceptually ambiguous and because multiple meanings had been attributed" (Ogus, 1990, p. 268).

Eastburg, Gorsuch, Williamson and Ridley (1994) studied social support, personality traits and burnout in nurses. Members of a one hundred and fifty bed hospital in California were surveyed. The instruments used were the Work Environment Scale (Moos, 1986), the 16PF scale (Cattell, Eber, & Tatsuoka, 1970), the Professional Dynametric Program (Houston & Solomon, 1977) and PROSCAN a personality inventory consisting of sixty adjectives scored on a Likert scale.

Eastburg et al. (1994) found a strong relationship between work-related social support and burnout. This finding was similar to that of other researchers. Eastburg et al. noted that as supervisor support and employee cohesion increased burnout levels decreased. Further to this, they found that personality trait variables could explain a significant amount of variation in the level of burnout from nurse to nurse. And finally this research supported the theory that the interaction between social support at work and extraversion is significantly related to burnout (Eastburg et al., 1994, p. 1247). It was found that extraverted nurses required much more social support than those nurses who were introverted. In essence this research is stating that adequate social support is a key to coping with on the job stressors in nursing.

In a study by Constable and Russell (1986) it was found that burnout was a very real issue for workers in the helping profession. An examination of burnout and social support was carried out. Nursing staff at the centre had either a four year degree, three year diploma, two year associate degree or a license as a practical nurse. The staff were asked to complete: the Maslach Burnout Inventory (Maslach & Jackson, 1981), and the Work Environment Scale (Moos & Insel, 1974). Social support was assessed by a measure developed by House (1981) and expanded by Wells in 1982.

The results indicated that nurses were more prone to stress in areas in which there was a lack of encouragement, poorly communicated rules and policies, and tasks were not clearly understood. Supervisor support was negatively correlated with stress - high levels of support can directly decrease feelings of emotional exhaustion (Constable & Russell, 1986).

In a longitudinal study by Fisher (1985) social support was examined in the light of aiding newcomers at work. Social support is defined as "the number and quality of friendships or caring relationships which provide either emotional reassurance, needed information or help in dealing with stressful situations" (Fisher, 1985, p. 40).

Fisher (1985) details social support as having three impacts on stress. The first being a main effect on the final result - people experiencing strong social support are less likely to suffer from stress. The second impact is that there is a main effect on the perception of stress, so that environmental stressors can be reduced to a manageable state. "Finally there is a moderating effect, such that stress does not cause negative outcomes if social support is present," (Fisher, 1985, p. 40).

The study included seven hundred and twenty nursing graduates from diploma, associate and baccalaureate degree nursing schools in Texas. Data were collected at three time intervals: at the end of their education, prior to beginning their first work in nursing, and again at the end of the first three and six months of work. The study does not give details as to the questionnaires used and it is difficult to understand exactly what the participants were asked.

Fisher (1985) claims there were few significant interactions found in her study. "Social support did have important main effects in reducing the level of unmet expectations stress and also in directly facilitating the positive adjustment outcomes among newcomers" (Fisher, 1985, p. 51). Consequently it can be suggested that some sort of mentorship or support be allowed for new employees. It has been my experience that nurses coming directly from their education programs benefit from having a mentor or a buddy; their integration into the system seems smoother. From personal experience I have also noted that not every hospital uses this kind of support for its new hires.

In a study by Beehr, King and King (1990) a new approach to defining social support was examined, as well as the traditional approach in which employees were asked about their perceptions of support from supervisors in seven major Michigan hospitals. The new approach looked at in this work were the contents of talking or communications between employees and their supervisors. Four questions were addressed:

a) Are there three different affective contents of communication between potentially stressed employees and their supervisors, that is positive work-related, negative work-related, and non work-related? b) How are the different types of contents of communications (if any) between supervisors and subordinates related to functional indicators of social support? c) Are there main effects of the two types of support (functional and communications based) on individual strains? d) Which (if either) type of support is more likely to buffer or moderate the relationship between occupational stressors and individual strains and what is the nature of observed buffering effects? (Beehr et al., 1990, p.64).

Two hundred and twenty-five registered nurses participated in the research. The participants were given a list of twelve statements about topics of conversation with their supervisors. The nurses scored the list with a five point Likert scale. A functional supervisor support index, consisting of four items also rated on a five point Likert scale was scored. Two role conflict measures (Rizzo, House and Lirtzman, 1970) and a ten item nursing role conflict measure (Jackson, 1971) were also administered.

The results indicated that the three-way typology of the communications can be scientifically noted and differentiated from one another; the three types were also found not to be mutually exclusive of one another because when nurses and supervisors talk they discuss more discuss more than one of these types. The study reported that the positive work related contents of communications had main effects on stressors in nurses and that the non-work related communications had less buffering effect on stressors. Beehr, King and King (1990) interpreted this result with the idea that a supervisor might best be able to buffer the effects of high stress by using a distraction technique, in other words to discuss non-work related issues.

Beehr, King and King (1990) critique their study as being an exploration of the merits of communication. They are cautious in their summation and advise that further research should be done to extend their results. I found this work interesting because of the typology of the communications and that non-work related communications were examined. I have experienced the need to escape from a particularly stressful experience - one such as the death of a child and have often appreciated the talk about other things. From personal experience I can appreciate the deviation from the stressful event but I also have found critical incident stress debriefing and support are most helpful when dealing with stress. I have also found in the past that many nurses avoid sharing their feelings about many of the stressful events we face.

In summary the literature states that individuals all rely on social support at some point (Lazarus & Folkman, 1984) but the warning must be heard "that practitioners need to avoid the temptation that social support is a cure-all" (McIntosh, 1991, p. 216). Social support can be identified as both problem focused and emotion focused coping (Folkman & Lazarus, 1980). For example asking another nurse for advice is seen as problem focused coping while speaking to a friend about a health problem can be identified as emotion focused coping. Social support is considered as a form of coping by some researchers (Greenglass, 1993). The relationship between social support, stress and coping needs to be explored in rural nursing. I expect from my experience that social support will be related to stress.

Research Question

This study will survey nurses in rural acute care hospitals. I define a rural hospital as one of fifty acute care beds or less; that is located in a community situated more than one hours drive from a regional referral center (Davis & Droes, 1993). I have selected this size of hospital as they are predominant in the northern part of the province, and provide an important community service to the north. It is of interest as well to see that by far the vast majority of current research on stress in nursing has come from large urban hospitals for example, Attridge, (1996); Dewe, (1988); Leiter, (1988); and Parkes, (1985). It is expected that nurses in rural areas would identify similar stressors as urban nurses as suggested in the literature review. This was categorized qualitatively (see the methods section, page 47).

Hypotheses

The following hypotheses were based on Lazarus and Folkman's model of stress and coping. This model has been applied to urban nurses (Parkes, 1986; Chapman, 1993) but the relationship between stress, appraisal and coping has not yet been investigated with rural nurses.

Hypothesis # 1: There will be a positive correlation between nurses who appraise a situation as more stressful (as measured by the Nursing Stress Scale) and emotion focused coping (as measured by the emotion-focused coping subscale of the Ways of Coping Questionnaire).

Hypothesis # 2: There will be a positive correlation between nurses who feel in control of the situation (as measured by the control question) and the use of problem focused coping (as measured by the problem-focused coping subscale of the Ways of Coping Questionnaire).

Hypothesis # 3: Social support (as measured by the seven item social support scale) will be negatively correlated to stress (as measured by the Nursing Stress Scale).

Hypothesis # 4: Social support (as measured by the seven item social support scale) will be positively correlated with control (as measured by the control question).

CHAPTER THREE

Research Methodology

Survey Research

Survey research was chosen because I wanted to reach a large number of nurses and the survey method allowed me to do so at minimal cost. I wanted to survey nurses in the northern part of British Columbia because very little research is done in rural areas. “Survey research can put a problem on the map by showing it is more widespread than previously thought” (Reinharz, 1992, p. 79).

Although a significant amount of data can be collected, survey research cannot gain personal details of an event in the same way an interview could. The researcher must rely on the respondent’s accuracy in interpretation of the questions, and it is often difficult to clarify problems even if a phone number is attached to the questionnaire.

Procedure

Permission to conduct this research was granted by the University of Northern British Columbia and from the participating hospitals. Seven hospitals were approached regarding the research project. Encouragement was provided by the Registered Nurses Association of British Columbia’s (RNABC) northern regional representatives. These individuals provided me with the names of nurses at each hospital who would be interested in acting as the contact person for distributing and collecting the surveys. Cluster group sampling (Alreck, 1995; deVaus, 1995) was used to break the large geographical area into manageable sizes. The geographical area that began as northern British Columbia was divided into seven smaller areas in each of which the rural hospital was the focus.

I telephoned each contact person and discussed my research needs with them. Each individual agreed to receive my survey package, distribute the questionnaires and return them to me on the agreed upon date. The package contained an information letter (see Appendix A) about the research and the dates involved, posters for display at individual hospitals (see Appendix A) and the actual surveys in envelopes. Return Loomis labels were added to the packages in order for the contact individuals to return the surveys to me at no cost.

Each questionnaire envelope contained a letter of introduction (see Appendix A) talking about the research, and the survey itself (see Appendix B). The study was described as an opportunity for the respondents to help add to the knowledge base of all nurses. Individuals were asked not to put any identifying marks on the pages of the survey to ensure confidentiality. They were also asked to return the surveys to the contact person sealed in the envelopes to ensure privacy.

Participants

Participants in this study were nurses working in rural acute care hospitals in northern British Columbia. "Nurse" refers to any person who is a licensed graduate nurse (LGN) or registered nurse (RN) in the province of British Columbia. The LGN is an individual who has graduated from an accredited school of nursing, but has not yet received her registration from the provincial board. This category also includes nurses from outside the province of British Columbia who have applied for registration but not yet received it. An RN may also be a graduate of a university programme and then will be included as an individual with a baccalaureate in nursing (BScN).

The term "working" will include any full-time, part-time or casual/on-call nurses at the hospitals I surveyed. "Acute care" hospital refers to that part of any hospital dealing with acutely ill patients, but not the part lodging/housing long term care patients. The northern region of British Columbia is defined as the entire province north of One Hundred Mile House (including One Hundred Mile House).

Two hundred (n = 200) nurses were invited to participate in this study. Of the two hundred nurses eighty-seven returned the completed questionnaires for a return rate of 44%. The participants ranged in age from 25 to 65 years, with a mean age of 44 (SD = 8.19 years). Of the 87 respondents 84 were female and 3 were male. The educational background varied somewhat with a majority of the participants identified as RNs. The size of the hospitals in which 58% of the participants worked ranged from 20 to 35 beds and 42% worked in hospitals of 35 to 50 beds. See Table 1 for participant characteristics.

Table 1.

Subject Characteristics for all Participants (n = 87)

Demographic Variables		Percent
Sex:	Female	96.6
	Male	3.4
Employment	Full time	49.4
	Part time	23.0
	Casual	27.6
Education	LGN	1.1
	RN	71.3
	BSN	20.7
	BSN plus	6.9
No. of Acute Care Beds	20-35	57.5
	36-50	42.5
No. of Years in Nursing	1-5	20.7
	6-10	14.9
	11-15	11.5
	Over 15	52.9
Nursing Area Worked	General Med., Surg., Peds	36.8
	ER/CCU	16.1
	OR/OBS	36.8
	Psychiatry	8.0
	Other	2.3
Average Salary	< 20,000	2.3
	$20-35,000	20.7
	$35-60,000	75.9
	More than $60,000	1.1
Will you nurse until retirement?		
	Yes	81.6
	No	16.1
	Unanswered	2.3

Measures

Tension Thermometer

The tension thermometer (see Appendix B) is the opening page of the survey package. Designed by Walk (1956) it is used to measure the average tension of the participant in the week prior to the survey being taken. The scale ranges on a thermometer diagram from 0 meaning "completely relaxed" to 10 points meaning "completely tense" (not relaxed at all).

Stressor

Participants were requested to describe in their own words one work related stressful event that had happened to them in the past two weeks. They were then asked to report on a four-point Likert scale how upsetting this event was for them (0 means "not upsetting" to 3 means "very upsetting"). It has been established by Folkman and Lazarus (1980) that such a recent time frame ensures that details and feelings are fresh in the respondents memory.

Control Appraisal Measure

The final part of the page assesses how much control the subjects felt they had over the event they had described. The subjects are asked to circle on a Likert scale point where their appraised level of control fell. The Likert scale ranged from 1 meaning "no control" to 7 meaning "complete control".

Ways of Coping Questionnaire

The Ways of Coping Questionnaire (see Appendix B) developed by Folkman and Lazarus (1984) is a set of sixty-six questions categorized into seven subscales: 1) confrontive coping, 2) distancing, 3) self-controlling, 4) positive reappraisal, 5) accepting responsibility, 6) escape-avoidance and 7) planful problem solving. They are rated on a four-point Likert scale, 0 means “does not apply or is never used” to 3 “used a great deal”. This measure encompasses a broad spectrum of coping strategies. The subscales used in this study were “planful problem solving” and “confrontive coping” to represent problem-focused coping. “Escape-avoidance” and “distancing” were used to represent emotion-focused coping. Planful problem solving items (e.g., I made a plan and followed it), confrontational coping items (e.g., I stood my ground), escape-avoidance (e.g., I wished the situation would disappear) and distancing (e.g., I tried to forget the episode) are identified in the literature in relation to work stress (Folkman & Lazarus, 1980; Long, 1989).

The results of studies using this questionnaire continue to present support to the concepts of Lazarus and Folkman that coping consists of both problem-focused and emotion-focused strategies and that coping is a process. Folkman and Lazarus (1980) report internal consistencies for problem-focused coping as .80 and for emotion-focused coping as .81. This has been replicated by other researchers (Bowman & Stern, 1995; Haney & Long, 1995; Lazarus & Folkman, 1984; Parkes, 1985).

Social Support

A list of seven possible persons, such as a supervisor, friend, physician or pastor (see Appendix B) with whom nurses might associate was included in order to evaluate who gives social support. Experts in nursing were asked who they felt provided social support in order to create the list. The participants were also asked to include any other individuals they think are important. In addition, Folkman et al. (1986) subscales of social support (a general measure of support) was included in the study (see Appendix B).

Nursing Stress Scale

The Nursing Stress Scale (see Appendix B; Gray-Toft & Anderson, 1981) measures the frequency and sources of the stresses nurses experience at work. This scale consists of thirty-four potentially stressful situations. This scale is measured on a four-point Likert scale, from 0 “never” to 3 “very frequently”. Gray-Toft and Anderson (1981) provide two estimates of reliability: test-retest and internal consistency. The scale was readministered to a group of nurses two weeks later after they had completed the initial questionnaire and Cronbach's coefficient was 0.81. The scale has also been used by other researchers such as Bowman and Stern (1995), Chapman (1993) and Parkes (1986) and all had similar findings.

Gray-Toft and Anderson (1981) examined validity of the Nursing Stress Scale by looking at the results compared to other stress related criteria such as trait anxiety and state anxiety. The correlation with trait anxiety was 0.39 and the correlation with state anxiety was 0.35 ($\underline{p} \leq 0.01$).

Demographics

The demographic information collected here allows me to describe the people who participated. Alreck and Settle (1995) claim that the demographic "profiles portray the nature of the sample" (p. 168) and that this enables the reader to better compare the sample to the greater population from which it came.

The following demographic variables were used: age, sex, employment, education, number of acute care beds at the hospital, number of years worked as a nurse, area in which you nurse, which shifts usually worked, average salary and do you expect to work until retirement.

Stage One Analysis Qualitative analysis of the Stressor identified by the nurses

Data analysis began with a review of all stressors identified by the nurses in order to acquire a general meaning from them. This involved reading them through two or three times, noting key areas of emphasis in the participants descriptive section. After reading the stress response several times the key nursing stressors were identified and an attempt was made to fit the identified stressors into categories of nursing stressors previously identified by Parkes (1985). These seven categories are: 1) death and dying, 2) interpersonal conflicts with health care staff, 3) fear of failure/lack of professional confidence, 4) interpersonal problems with patients and/or their families, 5) workload/overload, 6) concerns about adequate or appropriate and 7) miscellaneous.

Interrater Reliability

A graduate student in counselling not previously involved with the study in any way sorted the descriptions of the 87 stressful events into the 7 categories identified by Parkes (1985). This coding was then compared to that of the primary researcher and 83% agreement was achieved. Where there was disagreement the two coders discussed their differences and eventually came to a consensus on how to code the data, thereby achieving 100% interrater agreement.

Preliminary analysis of the dependent measures provided descriptive data, such as means, standards deviations and determined if there were differences in relation to age of nurses in the study .

Correlational procedures "show the extent to which change in one variable is associated with another variable" (Ary, Jacobs & Razavieh, 1990, p.145). Pearson product moment correlations were used to report on relationships stated in the hypothesis. Type 1 error was controlled with the Bonferroni method to adjust alpha to .0125 (i.e., .05/4 = 0.0125). Given that $\underline{p} < .01$ is a level of significance traditionally found in the literature, an alpha of .01 will be used as it is more conservative than the Bonferroni correction.

CHAPTER FOUR

Results

In the results section, types of stressful incidents experienced by the participants are described. Ninety-seven percent of the reported stressful incidents fit into Parkes six categories of nursing stressors. These six categories are a) death and dying, b) interpersonal conflicts with staff, c) interpersonal problems with patients, d) lack of professional confidence/fear of failure, e) workload/overload and f) concerns about adequate or appropriate nursing care. Descriptions and direct participant quotations taken from the stress questionnaire are used to illustrate the categories and the stressful incidents.

In the first category, six percent of the respondents reported issues around death and dying. This category includes anxiety due to the lack of psychological preparation and experience in dealing with death. It also involves guilt and regret around the circumstances of the death, in that certain procedures or treatments might have prevented the death. In this category anxiety due to the unfairness of death is also noted. For example, a respondent reported "four and a half hours later delivered stillborn perfect formed baby", another respondent reported " a child (14 yrs old) came into ER in full arrest ...we did resusc (resuscitate) the pt. & flew him to Children's where he was later taken off life support & died from meningitis".

Twenty-three percent of the respondents reported interpersonal conflicts with health care staff as stressful. This category includes problems that arise between nurses on the same unit, and between units as well as problems arising between physicians and nurses. "Issues of control and dominance often appeared to be an underlying fact " (Parkes, 1985, p. 948). In some instances this category can be seen as 'turf wars'. One respondent reported "Two inappropriate patients were placed on my unit and through a series of mis-communications between nurses & doctors & surgeon ... doctors biting my head off for asking for orders and help"

In the third category, interpersonal problems with patients, six percent of the respondents reported problems with patients as stressful. Parkes (1985) states that problems found in this category relate to the client who for what ever reason does not comply with treatment, is far too demanding or constantly seeking attention. One respondent reported a "family of client not happy with our care of client and was very rude to staff as well as insisting on doing something against standards of practice - syringe feed". A second respondent stated "a patient accused me of influencing his wife not to take him home"

The fourth category, fear of failure/lack of professional confidence, was reported by four percent of the respondents as being stressful. This category includes fears or concerns about giving inadequate care because of a lack in knowledge; some of the issues found here relate to lack of support from either colleagues, supervisors or physicians. One respondent reported "working night shift on a busy med surg psych mat ward relatively new to my (RN rather than LPN) and this shift routine and responsibilities". A second respondent reported "I was asked to work in ER as workload and I hadn't worked there for over a year".

Forty-six percent of the respondents reported the fifth category, workload/overload, to be stressful. Workload or overload included "the physical demands of lifting ... the complexity of the work" (Parkes, 1985, p. 949). What is expected of one nurse in one shift is often insurmountable, especially when there is no one to help or not enough time. One respondent reported

> I expected to work in NICU by myself with the two babies (a 32 week gest twin and a term infant with sepsis) I arrived to find I had these 2 babies plus 2 more ... I was assigned to the nursery by myself with the labor and delivery nurse to help until any labor patients came in. Approx. 20 min later her first patient of the night came (a 32 weeker with possible ruptured membranes - I could see her delivering and the baby needing a ventilator ... I had the following things to do: 2 pts with tube feeds every 3 hours, 1 pt on an IV with IV meds and vitals every hour, who was NPO. They all had cardiac, resp and or sat monitors and were on vital signs every 1 to 3 hours.

A second respondent reported "I was on call for the OR. We were called in at 1245 PM arrived at 1300. We worked through to 2145 that night without a break for coffee or otherwise. This is not unusual on call back in the OR and no matter how long the call back no breaks are ever scheduled in. There are not enough nurses."

The sixth category, concerns adequate or appropriate nursing care, and reported twelve percent of the respondents reported this as being stressful. This category includes the fact that nursing care might have been rough, hurried, poorly planned and consequently allowing mistakes. Not doing enough for the patient can also be included here; leaving patients in pain for too long or treatments causing pain fall into this category. One respondent reported

> elderly patient with history of angina, COPD, CHD admitted with epistaxis at 0430 hours. Pt developed an active nose bleed. We (myself and a new casual orientee) tried to stop the bleeding with ice packs and pressure to bridge of nose. Took patient to treatment room in wheel chair and assisted MD to repack nose. It took 3 tries. Patient was agitated and blood pouring every where and we had to hold the patients hands down while MD packed nose.

A second respondent reported

> I was called to a code. I immediately left the care of the patients (I had been administering drugs) and was suddenly in a new situation. I continued to care for the patient who coded until the end of my shift. Plans I had made for the care of my first 12 patients would not be completed by me nor could I explain to the person taking over in that area.

Of the three responses to the stressor question that did not fit into Parkes (1985) six categories, one was blank, one seemed to be an ethical concern and the last included vandalism to a closed area of the hospital.

Hypotheses

Pearson product moment correlations were computed on all measures to assess the relationships stated in the hypotheses. Hypothesis one stated that nurses appraisal of the situation as more stressful would be correlated with use of emotion-focused coping. The results demonstrated that there was a significant positive correlation between nursing stress and emotion-focused coping, (r = .37, p < .01), indicating that as nurses felt greater stress they relied on more emotion-focused coping techniques. See Table 2 for means and standard deviations of the variables in the correlation matrix and Table 3 for the correlation matrix.

Table 2

Means and Standard Deviations of Dependent Variables for Nurses (n =87)

Measures	M	SD	Range
Tension Thermometer	6.33	1.34	0-10
Control Appraisal	2.40	1.39	0-7
Social Support	8.52	3.22	0-21
Nursing Stress Scale	48.70	5.53	0-102
Problem-Focused Coping	16.23	5.36	0-18
Emotion-Focused Coping	8.35	5.74	0-24
Social Support (Folkman & Lazarus)	8.15	3.22	0-18

Table 3

Correlations of all Dependent Measures (n=87)

Measure	Tension	Control	Socsup	NSS	Problem	Emotion	F&LSoc	Age
Tension	1.00							
Control	-.17	1.00						
Socsup	.15	-.04	1.00					
NSS	.36	.24	.14*	1.00				
Problem	.14	.12	.19	.27	1.00			
Emotion	.21	.01	.26	.37*	.42	1.00		
F&LSoc	.08	.04	.28	.25*	.51	.46	1.00	
Age	-.16	-.10	-.01	-.20	.01	-.05	.01	1.00

Note: Socsup = social support measure; F&LSoc = Folkman & Lazarus subscale of social support; NSS = Nursing Stress Scale.
* $p < .0125$

Hypothesis two stated that there would be a positive correlation between nurses who feel in control of the situation and the use of problem-focused coping. The results indicated that the relationship was not significant, $p > .05$ indicating that in this study control was not related to use of problem-focused coping.

Hypothesis three stated that social support would be negatively correlated to stress. The results indicate that there was not a significant correlation, $p > .05$ between social support and stress. However, the social support subscale from the Ways of Coping Questionnaire (Folkman and Lazarus, 1984) was positively correlated with nursing stress, ($r = .25$, $p < .05$) indicating that as nurses felt more stress they relied on more social support.

Hypothesis four stated that social support will be positively related to control. The results indicate that relationship was not significant, $p > .05$. Similarly, the social support subscale from the Ways of Coping Questionnaire was not significantly related to control.

Exploratory Analysis

In order to better understand the results two other correlations were explored. Interestingly Lazarus and Folkman's (1984) social support measure was significantly related ($r = .28$, $p < .01$) to a specific measure of social support developed for this study. In addition age was significantly negatively related to stress ($r = -.20$).

CHAPTER FIVE

Discussion

The final chapter discusses the meaning of the survey results, linking them with previous studies. First, the qualitative examination of the stress descriptions from the respondents are compared with Parkes' (1985) categories then a discussion of the hypotheses follows. The purpose of this study was to examine stress and coping mechanisms for nurses working in rural hospitals in northern British Columbia in order to understand the nature of stress in rural nurses.

Stress Categories

Interestingly, the rural nurses in the study identified stressors similar to nurses in other studies (Dewe, 1987; Gray-Toft, 1981) but the most stressful event identified in Parkes (1986), death and dying, was not identified as the most stressful for nurses in this study. Workload/overload issues were identified by 46% of the nurses in the present study. Workload issues were identified as the number one stressor by other researchers (Bigbee, 1993; Dewe, 1987; Gottlieb et al., 1996; Hartrick and Hills, 1993; Hogdson, 1982). Dewe (1987) discusses the fact that workload can be considered physically, psychologically and socially demanding and this has become more so in light of the fact that with economic changes there are fewer people to do more work. Gottlieb et al. (1996) noted that when there was too much to do self-esteem was diminished. Workload was only identified as a stressor by a few nurses in Parkes' (1985) study although some nursing students in Parkes' research reported that they were often asked to do too many things and often felt abandoned, "there just doesn't seem to be anyone around who can help you get things done" (Parkes, 1985, p. 949). Economic changes to the health care system in Canada have created a stressful work environment. Even if nurses are expected to care for the same number of patients they are often more sick and require a higher level of nursing care. The impact of this is heightened when one considers the fact that there are fewer ancillary staff on site and nurses are expected to do more non-nursing duties. These problems are often compounded in rural areas because the casual/relief staff pools are limited in the community.

The next most stressful event identified in the present research by 23% of the nurses was interpersonal conflicts between healthcare personnel. This is similar to Parkes (1985) where nursing students who felt pressured and subordinated by the Ward work environment. Once beds were closed the patient acuity rose dramatically. This in itself changed the work climate - even if nurses care for the same number of patients they are Sisters. They reported feeling wrong or stupid no matter what the issue was. Interpersonal conflict seems to be a stressor for both inexperienced and experienced nurses. This might be accounted for by the changing economic climate in health care in Canada over the past ten years. As nursing positions were deleted in a cost saving effort the supports at work were lost to nurses. "Nurses are feeling too busy and exhausted to address emerging work issues or work on collegial relationships. They are feeling so stressed that they are finding it difficult to support one another or engage in team building activities" (Cathcart, 1998, p. 87).

While Parkes (1985) cites issues around nursing care as her final category of nursing stress, 12% of the respondents in this research reported issues around nursing care as stressful events. This finding is supported by Dewe (1987) who reports that concerns about actual nursing care are found stressful to nurses in all areas. Although the nursing students in Parkes' study reported this as a concern, the low rating can perhaps be accounted for by the fact that nursing students are faced with numerous first time upsetting events, some of which take precedence over doing nursing care. For more experienced nurses practice decisions change to include the full focus of the healthcare team and consequently care issues around what physicians do to the patient come to the forefront.

Nurses in Canada's rural north find issues of nursing care stressful, simply because the meaning of nursing changes once one reaches the far north. In these instances according to Hodgson (1982) the nurses find it difficult to accept the new definition of nursing, despite having had additional education. It has been identified by Hodgson (1982) that cultural boundaries create the additional role stress of the northern nurse.

Six percent of the subjects in this research reported death and dying as a stressful event while the issue of death and dying was reported by the majority of nurses in Parkes (1985) research. The differences in reporting might be attributed to the fact that the subjects in Parkes' study were nursing students with relatively little experience in dealing with death. The subjects involved in this research were older nurses who had developed experiential knowledge of the dying process and the circumstances around it.

At the mid-way point of the category list Parkes (1985) cites interpersonal issues with patients and their families as a stressful event. Similarly this issue fell at the midway point for the subjects in this research as well. This can be possibly be accounted for because both students and experienced nurses have issues of conflict with patients. These findings were also reported by Chapman (1993) who stated that practiced nurses face these events as stressful as well.

Davis and Droes (1993) in their report on rural community health nurses found that knowing your client and their families because of the closeness to the community often lead to stress. Caring for a patient and then dealing with the family in the community and remaining professional was found to be difficult.

Three percent of the nurses reported knowledge of professional responsibility as a stressful event in this research while it was one of the top stressors in Parkes' (1985) study. This difference in the findings might be attributed to the working experience of the participants in the two studies. The practical experience of the nurses in this study has given them time to develop an understanding of their professional boundaries and limitations. Chapman (1993) found that nurses with less than one years experience scored lowest on the Nursing Stress Scale (Gray-Toft & Anderson, 1981) and felt that this might be a "honey-moon phase" (p. 54).

Nursing Stress and Emotion-Focused Coping

Bigbee (1993) states that nursing stress is unique and varies from situation to situation. Dewe (1987) reports that the nature of the job makes nursing stressful. The nurses in this study had a mean score on the nursing stress scale of 48.70. This is higher than the nurses in Chapman's (1993) study in which there was a mean of 42.36. One caveat in relation to the nurses' identification of stressors is that I only requested one stressful event and it should not be assumed that stressors such as death and dying are not stressful, rather at this time for these nurses the most stressful event was workload.

A significant relationship was found between nursing stress and emotion-focused coping. Nurses who felt more stress tended to rely on more emotion-focused coping. This result is supported in the research (Bowman & Stern, 1985; Folkman & Lazarus, 1980). Perhaps as stress levels rise nurses feel they cannot alter the situation through problem-focused coping and use more emotion-focused coping strategies. Often, after a crisis like a multiple trauma or sudden and unsuccessful cardiac arrest I have seen the nurses involved discuss the situation in a reminiscent fashion to let their feelings out.

Control and Problem-Focused Coping

The second hypothesis stated that there would be a positive relationship between nurses who feel in control and problem-focused coping. There was not a significant relationship found ($p > .05$). This is contrary to what other researchers have reported (Bowman & Stern, 1985; Folkman & Lazarus, 1980). The mean score for control was 2.4 (out of a possible 7) indicating that the nurses felt very little control over their described stressful event. This may suggest that some nurses did not attempt to use problem-focused coping because the type of stressor they identified could not be changed. It has been found that "problem-solving efforts are, in fact, perceived to be effective only for occupational situations amenable to change", (Bowman & Stern, 1995, p. 300).

Social Support and Stress

In this study the social support subscale for the Ways of Coping Questionnaire (Lazarus & Folkman, 1984) was positively correlated with nursing stress, suggesting that as nurses felt more stress they relied more on social support. Perhaps the nurses who were more stressed turned to social support to alleviate this stress. This is supported by Chapman (1993) who found that as nurses discern less support from colleagues they feel an increase in job stress (r = -.30). Constable and Russell (1986) also found that social support was negatively correlated with stress; that high levels of support could directly decrease feelings of stress. Folkman and Lazarus (1980) suggest that social support is a form of emotion-focused coping strategy.

In this study a measure was developed to identify specific social support people for nurses. This measure correlated (r = .28) with Lazarus and Folkman (1984) social support subscale but was not significantly related to stress. One reason to explain this finding might be that nurses felt they had no control over workload (which was listed as a major stressor). Had interpersonal stresses been identified by more nurses then perhaps there would have been a significant correlation between the specific social support measure and stress.

Social Support and Control

This hypothesis stated that social support will be positively related to control. The results indicated that the relationship was not significant, $p > .05$. The subscale of social support from the Ways of Coping Questionnaire was not significantly related to control. This is contrary to Folkman and Lazarus (1980) whose correlation between social support and control was .28. In this study only one item was used to measure control and perhaps the findings would have differed if more items were used.

Age and Stress

Chapman (1993) found that younger nurses reported higher levels of work place stress than did older nurses. In her study of collegial support linked to reduction of job stress, age was negatively correlated to stress ($r = -.23$). The findings in this research were similar. Age was negatively correlated with stress ($r = -.20$). Perhaps this can be accounted for by the fact that some older nurses use their life and work experiences and appraise situations differently (less stressful) than younger nurses.

Limitations

One of the limitations to the survey questionnaire method of research is the ability of respondents to accurately interpret the questions. A second limitation to the study was that the control question was limited to one item. One must also consider the completion rate. However, in the present study the return rate was 44% which is considered good for a psychological survey of this type (Alreck & Settle, 1995).

Finally these results can only be generalized to rural nurses, aged 25 years to 65 years; with a mean of 15 years experience.

Implications for Therapy

The results of this study suggest that nurses might be at risk for increased levels of stress. Given this possibility it would be of benefit to nurses to be introduced to preventative measures such as relaxation therapy or stress management techniques. Along a similar line it might be useful for managers to encourage team building and educate nurses about the stressors of the workplace, in that some stressors can be managed by the nurses but others are out of their control.

Although this study found that as stress levels increased nurses tended to use more social support, Chapman (1993) also found that as nurses felt less collegial support they experienced more stressors. This would lead managers to believe that as long as there is adequate social support stress levels would be contained. We must be reminded by McIntosh's (1991) warning that social support is not a cure-all.

It will be important for therapists to realize that nursing is a stressful job and that this stress is unique and varies with experience (Hartrick & Hills, 1993; Parkes, 1986). The therapist must also be aware that when nurses feel in control action is taken - problem-focused coping is used and, as this study showed that when the experience is of little control more emotion-focused strategies are used. Gottlieb et al. (1996) talks about self worth diminishing when nurses feel there is too much work to be done. This would be an area in which a therapist might want to build support for the nurse. I feel it would be of value to educate nurses about work related stress, so they do not have to feel responsible for those stressors over which they have no control.

Implications for Future Research

This research contributes to the knowledge about stress in nursing. The geographical area involved had not previously been included in recent research. It is apparent that there has not been much research done in rural areas in the field of nursing. More rural research is needed in Canada because over one half of the country is considered rural and a large portion of that is found in the remote north.

If nursing in urban centres is seen as stressful, how can we hope to alleviate stress from nursing in rural areas with so little background information. Bigbee (1993) states that rural areas have more chronic health problems and higher birth mortality; if these issues are to change healthy nurses must be available to help implement such changes.

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APPENDIX A

Information Letter

Poster

Letter of Introduction

From the desk of:
Cheryl Marie LeSergent
630 Centennial Drive
Williams Lake BC V2G 4B5
1-250-392-6370

January 23, 1998
ATTENTION:

Dear

Pursuant to our phone discussion, I want to thank you so much for helping me with my research work. Without the help of individuals like yourself at the various hospitals my work would be much harder.

I have included posters for you to display around the hospital; simply to catch the interest of a variety of nurses in the facility. You are free to hand out the surveys to any nurses employed in acute care; casuals, part-time or full-time staff in any of the areas found at your hospital. (I would prefer, of course - to those nurses who will complete the surveys and give them back.)

Please collect and return the surveys to me on February 15th (so that I will get them by February 20th at the latest). I have enclosed a collect LOOMIS slip, with which the package can be returned.

Please note the survey will take 20 to 30 minutes to complete. It is not an exam and there are no wrong answers. There are no trick questions. Please encourage the nurses to complete the forms and NOT to worry over them. I am trying to reduce stress not add to it! Everyone's input is of great value to me.

Yours truly

Cheryl Marie LeSergent RN

HELP

NURSING INPUT NEEDED

I AM LOOKING FOR NURSES

WHO WISH TO

COMPLETE

A RESEARCH SURVEY

ABOUT STRESS IN NURSING

CONTACT :

The survey will take about 20 to 30 minutes to complete. Do not worry about wrong answers - there are none. Please return completed questionnaires to the contact person at the hospital. Your participation will be greatly appreciated.

Dear Nursing colleague,

I am a registered nurse who is currently completing a Masters degree in Education Counselling at the University of Northern British Columbia. I have been employed as a general duty nurse in a variety of areas in a rural hospital in the British Columbia northern interior for the past twenty years.

My thesis topic is about stress in acute care nursing. I know that nursing is a stressful job and am asking you to participate in my research so that I can study stress and nursing in the northern and remote parts of British Columbia.

Please take a few minutes now to complete the questionnaire enclosed. Your responses will add to the knowledge base of all nurses in their day to day jobs. Please do not put your name or any identifying marks on these pages. I have provided an envelope in which you may return the survey. Ensure the envelope is sealed and return it to the contact person at your hospital. Confidentiality is guaranteed Your support and interest is greatly appreciated..

If you have any questions please contact me at:

Cheryl LeSergent
630 Centennial Drive
Williams Lake BC
V2G 4B5

You may also contact my thesis advisor, Colleen Haney PhD at:

Dept of Graduate Studies in Education
The University of Northern British Columbia
3333 University Way
Prince George BC
V2N 4Z9
1-250-960-5555

Yours truly

Cheryl LeSergent

APPENDIX B

Tension Thermometer

Stressor

Control Appraisal

Ways of Coping Questionnaire

Social Support

Nursing Stress Scale

Demographic Questionnaire

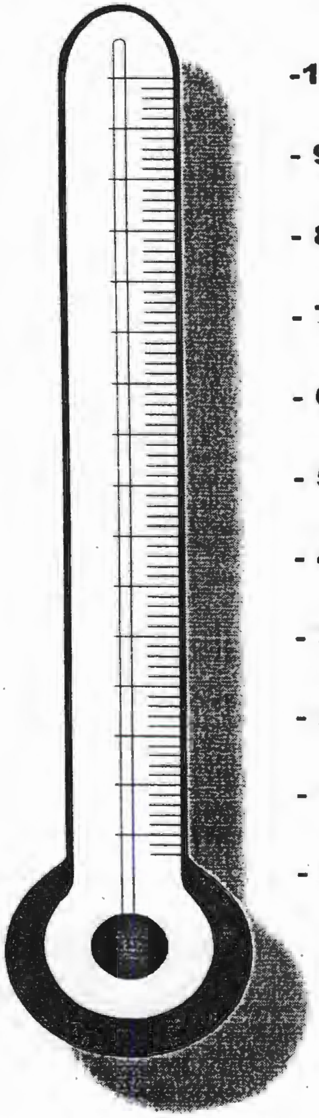
Problem-Focused Coping Item List

Emotion-Focused Coping Item List

General Social Support List

TENSION THERMOMETER

Think back over the past two weeks. Take each day separately and remember as much as you can of what you did, how the day went, and particularly the level of tension you experienced. Now use the thermometer below to rate your average level of tension for the past week. (Draw a line across the thermometer at the level of tension you experienced.)



-10 completely tense (not relaxed at all)

- 9

- 8 very tense (only slightly relaxed)

- 7

- 6 tense

- 5

- 4 relaxed

- 3

- 2 very relaxed

- 1

- 0 completely relaxed (not tense at all)

LEVEL OF CONTROL MEASURE

In your own words please describe one work related stressful event that happened to you in the past two weeks.

____

____

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____

How upsetting was this experience for you?.. 0 1 2 3
(0) not very upsetting (1) slightly upsetting (2) fairly upsetting (3) very upsetting
(please circle the most appropriate number on the right above)

How much control over this occurrence did you have?
(*please circle the most appropriate number*)

NO control **COMPLETE control**

1 2 3 4 5 6 7

The next set of statements is related to what you did in regards to one specific stressful event that happened to you at work in the past two weeks. For each item below please circle the most appropriate number in the column to the right

0= DOES NOT APPLY OR IS NEVER 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	0	1	2	3
2.	I tried to analyse the problem in order to understand it better	0	1	2	3
3.	I turned to work or another activity to take my mind off things	0	1	2	3
4.	I felt that time would have made a difference - the only thing to do was wait	0	1	2	3
5.	I bargained or compromised to get something positive from the situation	0	1	2	3
6.	I did something which I didn't think would work, but at least I was doing something	0	1	2	3
7.	Tried to get the person responsible to change his mind	0	1	2	3
8.	Talked to someone to find out more about the situation	0	1	2	3
9.	Criticized or lectured myself	0	1	2	3
10.	Tried not to burn my bridges but to leave things open somewhat	0	1	2	3
11.	Hoped a miracle would happen	0	1	2	3
12.	Went along with fate, sometimes I just have bad luck	0	1	2	3
13.	Went on as if nothing happened	0	1	2	3
14.	I tried to keep feelings to myself	0	1	2	3
15.	Looked for the silver lining, so to speak; tried to look on the bright side	0	1	2	3
16.	Slept more than usual	0	1	2	3
17.	I expressed anger to the person(s) who caused the problem	0	1	2	3
18.	I accepted sympathy and understanding from someone	0	1	2	3
19.	I told myself things that helped me feel better	0	1	2	3
20.	I was inspired to do something creative	0	1	2	3
21.	Tried to forget the whole thing	0	1	2	3
22.	I got professional help	0	1	2	3
23.	Changed or grew as a person in a good way	0	1	2	3
24.	I waited to se what would happen before doing anything	0	1	2	3
25.	I apologised or did something to make up	0	1	2	3
26.	I made a plan of action and followed it	0	1	2	3

 WAYSS Test Booklet

27. I accepted the next best thing to what I wanted ... 0 1 2 3
28. I let my feelings out somehow ... 0 1 2 3
29. Realized I brought the problem on myself ... 0 1 2 3
30. I came out of the experience better than when I went in ... 0 1 2 3
31. Talked to someone who could do something concrete about the problem ... 0 1 2 3
32. I tried to get away from it for awhile by resting or taking a vacation ... 0 1 2 3
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or other medications ... 0 1 2 3
34. Took a big chance and did something very risky ... 0 1 2 3
35. I tried not to act too hastily or follow my first hunch ... 0 1 2 3
36. Found new faith ... 0 1 2 3
37. I maintained my pride and kept a stiff upper lip ... 0 1 2 3
38. Rediscovered what is important in life ... 0 1 2 3
39. Changed something so things would turn out right ... 0 1 2 3
40. Avoided being with people in general ... 0 1 2 3
41. Didn't let it get to me; refused to think about it too much ... 0 1 2 3
42. I asked a relative or friend I respected for advice ... 0 1 2 3
43. Kept others from knowing how bad things were ... 0 1 2 3
44. Made light of the situation; refused to get too serious about it ... 0 1 2 3
45. Talked to someone about how I was feeling ... 0 1 2 3
46. Stood my ground and fought for what I wanted ... 0 1 2 3
47. Took it out on other people ... 0 1 2 3
48. Drew on my past experiences ... 0 1 2 3
49. I knew what had to be done, so I doubled my efforts to make things work ... 0 1 2 3
50. Refused to believe that it had happened ... 0 1 2 3
51. I made a promise to myself that things would be better next time 0 1 2 3
52. Came up with a couple of different solutions ... 0 1 2 3
53. I accepted the situation, since nothing could be done ... 0 1 2 3
54. I tried to keep my feelings from interfering with other things too much ... 0 1 2
55. I wished I could change what had happened or how I felt ... 0 1 2 3
56. I changed something about myself ... 0 1 2 3
57. I daydreamed and imagined a better place than the one I was in . 0 1 2 3

 WAYSS Test Booklet

58. Wished that the situation would go away	0	1	2	3
59. Had fantasies or wishes about how things might turned out	0	1	2	3
60. I prayed	0	1	2	3
61. I prepared myself for the worst	0	1	2	3
62. I went over in my mind what I would say or do	0	1	2	3
63. I thought about how a person I would admire would handle the situation and used that as a model	0	1	2	3
64. I tried to see things from the other person's point of view	0	1	2	3
65. I reminded myself how much worse things could be	0	1	2	3
66. I jogged or exercised	0	1	2	3

Below is a list of people with whom we associate on a regular basis. Keeping in mind the stressful event you described earlier, which individuals helped you the most? For each item listed below please circle the most appropriate number in the column to the ***right****.*

0= NEVER 1= OCCASIONALLY 2= FREQUENTLY 3= VERY FREQUENTLY

1. I spoke with my supervisor and felt better	0	1	2	3
2. I spoke with a colleague and felt better	0	1	2	3
3. I spoke with a physician and felt better	0	1	2	3
4. I spoke with my best friend and felt better	0	1	2	3
5. I spoke with my spouse and felt better	0	1	2	3
6. I spoke with an acquaintance and felt better	0	1	2	3
7. I spoke with my pastor and felt better	0	1	2	3

Please feel free to add any persons you think have been missed.

____

____

____

____

Below is a list of situations that commonly occur on a hospital unit. For each item please circle the most appropriate number (in the column to the rt.) reflecting how often on your present unit you have found the situation to be stressful.

0= NEVER, 1= OCCASIONALLY, 2= FREQUENTLY, 3= VERY FREQUENTLY

1. Breakdown of a computer	0	1	2	3
2. Criticism by a physician	0	1	2	3
3. Performing procedures that patients experience as painful	0	1	2	3
4. Feeling helpless in the case of a patient who fails to improve	0	1	2	3
5. Conflict with a supervisor	0	1	2	3
6. Listening or talking to a patient about his/her approaching death.	0	1	2	3
7. Lack of opportunity to talk openly with other unit personnel about problems on the unit	0	1	2	3
8. The death of a patient	0	1	2	3
9. Conflict with a physician	0	1	2	3
10. Fear of making a mistake in treating a patient	0	1	2	3
11. Lack of opportunity to share experiences and feelings with other personnel on the unit	0	1	2	3
12. The death of a patient with whom you developed a close relationship	0	1	2	3
13. The physician not being present when a patient dies	0	1	2	3
14. Disagreement concerning the treatment of a patient	0	1	2	3
15. Feeling inadequately prepared to help with the emotional needs of a patient's family	0	1	2	3
16. Lack of an opportunity to express to other personnel on the unit my negative feelings towards a patient	0	1	2	3
17. Inadequate information from a physician regarding the medical condition of a patient	0	1	2	3
18. Being asked a question by a patient for which I do not have a satisfactory answer	0	1	2	3
19. Making a decision concerning a patient when the physician is not available	0	1	2	3
20. Floating to other units that are short staffed	0	1	2	3
21. Watching a patient suffer	0	1	2	3
22. Difficulty in working with a particular nurse (or nurses) outside the unit	0	1	2	3

Gray-Toft,P. and Anderson, J.G. (1981). The Nursing Stress- Scale
The Journal of Behavioural Assessment, 3(1), 11-23.

23. Feeling inadequately prepared to help with the emotional needs of a patient	0	1	2	3
24. Criticism by a supervisor	0	1	2	3
25. Unpredictable staffing and scheduling	0	1	2	3
26. A physician ordering what appears to be inappropriate treatment of a patient	0	1	2	3
27. Too many non-nursing tasks required, such as clerical	0	1	2	3
28. Not enough time to provide emotional support to a patient	0	1	2	3
29. Difficulty in working with a particular nurse or nurses on the unit	0	1	2	3
30. Not enough time to complete all of my nursing tasks	0	1	2	3
31. A physician not being present in a medical emergency	0	1	2	3
32. Not knowing what a patient or a patient's family ought to be told about the patient's condition and his treatment	0	1	2	3
33. Uncertainty regarding the operation and functioning of specialized equipment	0	1	2	3
34. Not enough staff to adequately cover the unit	0	1	2	3

Gray-Toft,P. and Anderson, J.G. (1981). The Nursing Stress- Scale
The Journal of Behavioural Assessment, 3(1), 11-23.

Demographics

This is the area in which information about my respondents is collected. This is an important part of my research because it allows me to describe the participants in my study. For each of the items listed below please circle the most appropriate number in the column to the right, or fill in the blank as indicated.

1. Age: please state the year you were born.. [ ]
2. Sex: female (0) male (1).. 0 1
3. Employment: (0) full time (1) part time (2) casual 0 1 2
4. Education: (0) LGN (1) RN (2) BSN (3) BSN plus 0 1 2 3
5. Number of Acute Card Beds at your current hospital:
   (0) less than 10 (1) 10-20 (2) 21-35 (3) 36-50............................ 0 1 2 3
6. Number of years working in nursing:
   (0) 1-5 (1) 6-10 (2) 11-15 (3) over 15 .... 0 1 2 3
8. Please state which nursing area you work in:
   (e.g.. medicine, ICU, PAR etc.)............................... [ ]
9. Which shifts do you usually work: (0) days/nights
   (1) days only (2) nights only (3) weekend only 0 1 2 3
10. Average salary in a year: (0) less than \$20,00 (1) \$20-35,000
   (2) \$35-60,000 (3) more than \$60,000 .... 0 1 2 3
11. Do you expect to work in nursing until retirement?
   (0) yes (1) no 0 1

End

Problem-Focused Coping Item List

Subscale of the Ways of Coping Questionnaire

Folkman and Lazarus, 1988

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

2) 26. I made a plan of action and followed it.

3) 1. Just concentrated on what I had to do next - the next step.

4) 39. Changed something so things would turn out all right.

5) 48. Drew on my past experiences; I was in a similar position before.

6) 52. Came up with a couple of different solutions to the problem.

Emotion-Focused Coping Item List

Subscale of the Ways of Coping Questionnaire

Folkman and Lazarus, 1988

1) 58. Wished that the situation would go away or somehow be over with.

2) 11. Hoped a miracle would happen.

3) 59. Had fantasies or wishes about how things might turn out.

4) 33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication.

5) 40. Avoided being with people in general.

6) 50. Refused to believe that it happened.

7) 47. Took it out on other people.

8) 16. Slept more than usual.

Social Support Item List

Subscale of the Ways of Coping Questionnaire

Folkman and Lazarus, 1988

1) 8. Talked to someone to find out more about the situation.

2) 31. Talked to someone who could do something concrete about the problem.

3) 42. I asked a relative or friend I respected for advice.

4) 45. Talked to someone about how I was feeling.

5) 18. Accepted sympathy and understanding from someone.

6) 22. I got professional help.