STAFF NURSES' APPRAISALS AND COPING STRATEGIES IN A CRITICAL INCIDENT

by

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ABSTRACT

Although there was extensive literature pertaining to how nurses reacted to and coped with stressful encounters, there was little information about a specific kind of stress: critical incident stress (CIS). The purpose of this study was to describe how medical/surgical general duty nurses appraised, reacted to, and coped with critical incidents (CI)s.

Lazarus and Folkman's (1984) theoretical framework was used to guide this study. A descriptive research design was used to gain knowledge related to the following four research questions: 1) What events did medical/surgical staff nurses appraise as CIs? 2) What were the nurses' reactions to CIs? 3) How did the nurses cope with the CIs? 4) How had the CIs impacted on the nurses' professional and personal lives?

The investigator recruited 50 nurses and each participant completed four instruments. Quantitative data were coded and descriptive statistics were calculated. Open-ended questions were subjected to content analysis.

The staff nurses did experience CIs within their daily practice. Using content analysis the nurses' CIs were assigned to one of six categories: moral distress, lack of responsiveness by a health care professional, violence toward nurses, emergency situations, death, and contact

with infectious disease (hepatitis, acquired immuno-deficiency syndrome). The majority of the nurses recalled CIs that occurred early in their nursing careers and some included student experiences. In addition, a large majority of nurses reported that the CIs occurred on evening and night shifts.

Nurses primarily reported negative emotions one to two days following experiencing the CIs (fear, anxiety, worry, anger, disappointment, frustration, and disgust). Nurses also used a variety of strategies to cope with the CIs. However, four coping strategies were used most often: seeking out social support, self-controlling, positive reappraisal, and planful problem-solving. Despite nurses use of a variety of coping strategies, a large majority of nurses identified debriefing as one resource that would have been helpful following the CIs. Lastly, at least 18% of the nurses reported that CIs did have an impact on their professional or personal lives. The implications of the findings for nursing education, administration, and research are discussed.

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CHAPTER ONE

INTRODUCTION

Medical/surgical general duty nurses experience stress within their daily practice. However, it is not known if they experience the specific type of stress, known as critical incident stress. This study describes how medical/surgical nurses' appraise, react to, and cope with critical incidents.

Background to the Problem

Stress is part of our daily lives and it has been defined in a variety of ways. Several authors have identified that when an individual experiences a stressful event, there are automatic physiological responses within the body, primarily involving the neurological, the neuroendocrine, and the endocrine body systems (Everly, 1981; Everly & Rosenfeld, 1981; Everly & Sobelman, 1987; Selye, 1956). Prolonged or repeated exposure to stress is thought to cause a wide range of mild to severe mental or physical health problems (Cox, 1978; Selye, 1956, 1973).

Numerous authors also agree that what is perceived as stressful by an individual depends on several personal and environmental factors (Antonovsky, 1979; French, Rodgers, & Cobb, 1974; Lazarus & Folkman, 1984; Payne & Firth-Cozens, 1987). Individual appraisal of an event determines whether the event will be viewed as stressful and enables the

individual to decide the appropriate means to control or resolve stress through coping (Lazarus & Folkman, 1984). An individual copes with a stressful encounter by drawing upon several resources: positive beliefs, health and energy, problem solving skills, social skills, and social support networks (Lazarus & Folkman, 1984). It is clear that even if two individuals experience the same event, such as moving to a new city and beginning a new job, one may experience the event as stressful and the other may experience it as a challenge. In addition, even though two individuals may appraise the same event as being stressful, they each draw upon unique resources to cope with that event.

It is evident in the stress literature that an individual's workplace or occupation can be a source of stress (French, Rodgers & Cobb, 1974; Payne & Firth-Cozens, 1987; Vachon, 1987). Nurses are constantly subjected to stress in their daily practice. Numerous studies and the theoretical literature have examined how general duty nurses appraise and cope with stress (Dewe, 1987; Gribbins & Marshall, 1982; Huckabay & Jagla, 1979; Kelly & Cross, 1985; Robinson & Lewis, 1990; Yu, Mansfield, Packard, Vicary, & McCool, 1989). Despite an abundance of studies examining general duty nurse stress in acute care settings, this author did not locate any studies that investigated how nurses appraise and cope with a specific kind of stress,

critical incident stress (CIS).

Critical incident stress is defined as the emotional, physical, cognitive, and behavioral reactions to a critical incident (CI); these reactions may be acute or delayed (Mitchell, 1983; Snelgrove, 1989). A CI is a traumatic event or situation that causes unusually strong or extreme emotional responses in a person making usual coping skills ineffective. The reaction may interfere with the person's ability to function immediately or later (Back, 1992; Bergmann & Queen, 1986a; Mitchell, 1983, 1986; Snelgrove, 1988a). All nurses have the potential to experience CIS; however, staff nurses who work in complex environments such as acute care hospitals are particularly at risk.

There is extensive literature pertaining to CIS among rescue personnel such as firemen, policemen, and paramedics. The majority of this literature describes their reactions to caring for victims of disasters, is anecdotal in nature, and emphasizes the need for critical incident stress debriefing (CISD) programs (Bell, 1991; Graham, 1981a, 1981b; Heber & Hunsinger, 1991; Kelly, 1984; Melton, 1985; Mitchell, 1982, 1983, 1985, 1986, 1988a, 1988b; Pierson, 1989; Snelgrove, 1988a, 1988b).

The literature concerning CIS in relation to nurses is anecdotal in nature, rather than research-based, and focuses on the need for CISD programs to assist nurses to cope with

CIS (Back, 1992; Bergmann & Queen, 1986a, 1986b, 1986c, 1986d; Brown, 1990; Jimmerson, 1988; Johnston, 1987; Royal Inland Hospital, 1991; Rubin, 1990). No studies have been found that examine how general duty nurses experience CIS in their daily practice. Further, there is little information concerning what situations or events general duty nurses appraise as being CIs, their emotional responses, their coping strategies in relation to this type of stress, and the role others play in assisting them to manage it. Several authors speculate that individuals who experience CIS may suffer serious consequences; that is, nurses may display dysfunctional behaviors in both their professional and personal lives, and some may even consider leaving their positions (Bergmann & Queen, 1986a; Graham, 1981a, 1981b; Mitchell, 1983). Several authors also postulate that an individual experiencing a CI, and the subsequent stress reactions, may develop the more serious post-traumatic stress disorder (PTSD) (Bergmann & Queen, 1986a; Mitchell, 1983, 1986; Snelgrove, 1989).

Statement of the Problem

There is little information about CIS in nursing. Staff nurses who practice within hospitals are one group who may experience CIs. The nature of these experiences, how they are appraised, and the coping strategies used by staff nurses in relation to them are unknown.

Purpose of the Study

The purpose of this study is to describe how general duty nurses appraise, react to, and cope with a CI.

Theoretical Framework

The theoretical framework that will be used in this study is Lazarus and Folkman's (1984) model of stress appraisal and coping. These authors propose that, in order to understand why there are variations between individuals who experience comparable conditions, one must consider the cognitive processes that occur after experiencing an event and before the individual reacts to the event.

The Appraisal Process

According to Lazarus and Folkman (1984), cognitive appraisal is an evaluative process that determines what is significant to an individual in terms of his or her well-being. This, in turn, shapes an individual's behavioral and emotional responses. This cognitive process in essence draws out what is meaningful to an individual or what is at stake for that individual.

Lazarus and Folkman (1984) emphasize that this model is a transactional model, in which there is a relationship between the person and the environment. "Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her

well-being" (Lazarus & Folkman, 1984, p. 19). The environment is referred to as either or both of the external and internal demands that exceed an individual's resources (Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986). The cognitive appraisal process is influenced by numerous personal and situational factors. The personal factors include an individual's beliefs and commitments. Examples of situational factors are novelty, uncertainty, predictability, and timing. The authors have identified three kinds of cognitive appraisal: primary appraisal, secondary appraisal, and reappraisal.

Primary appraisal involves an individual's determination that an event is irrelevant, benign-positive, or stressful. An event in the environment is appraised as being irrelevant when there is no implication for an individual's well-being. When a benign-positive appraisal occurs, there is an enhancement of an individual's well-being or it is a positive encounter. There are three kinds of stressful appraisals: harm/loss, threat and challenge. Within a harm/loss situation, an individual has already sustained damage, as in a traumatic injury, recognition of a loss of self-esteem, or loss of a valued person. The most damaging situations are those in which there are major losses. In threat, the individual anticipates harm or losses that may occur. Within a situation viewed as a

challenge, the individual recognizes that there is potential for gain. Although there are distinctions among the three types of stressful appraisals, there are instances in which they may not be mutually exclusive. For example, a job promotion may be appraised as both a challenge and a threat. An individual may recognize not only the potential gains, such as increased financial rewards and responsibility, but also the risk of not performing as well as expected.

Secondary appraisal is the process used by individuals to determine what resources and options are available to cope with a stressful event. This is another example of an evaluative process as the individual considers what resources are available, the probability that a certain strategy will be effective, and the consequences of implementing such a strategy. Examples of individual coping resources include health and energy, existential beliefs (about God) or general beliefs (about control), commitments, problem-solving skills, social skills, social support and material resources (Lazarus & Folkman, 1984). Lazarus and Folkman (1984) also emphasize that there may be specific constraints that prevent the use of these resources in certain situational contexts. Coping options are distinguished from coping resources. Coping options are such actions as changing the situation, accepting it, seeking more information, or holding back from acting

impulsively. Coping resources, on the other hand, refer to the specific personal and environmental resources an individual draws on in order to cope.

Lazarus and Folkman (1984) emphasize that primary and secondary appraisal are interdependent. An individual is only able to classify an event as being either harmful, challenging, or threatening based on a convergence of information from both the primary and the secondary appraisals. For example, an individual who appraises an event as a threat and identifies adequate resources may appraise the threat as minimal. On the other hand, an individual may appraise a situation as a challenge, but determine that insufficient resources are available to cope. The event may then be appraised as threatening.

Reappraisal is the individual's modified appraisal of a situation through more information from the environment and/or new interpretations of the event. The only distinction between appraisal and reappraisal is that the latter occurs after the initial appraisal. For example, a threat may be reappraised as irrelevant, or a benign-positive appraisal may be reappraised as a threat. These modifications will influence a change in consequent individual emotions, coping strategies, and adaptational outcomes.

Coping

According to Lazarus and Folkman (1984), coping is determined by the primary and secondary appraisals. 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 or the person" (Lazarus & Folkman, 1984, p. 141). It is process-oriented in that when the individual appraises and reappraises the event, he or she will modify the coping strategies needed to meet the demands. The individual also draws on a multitude of personal and environmental resources in order to cope.

Coping includes all the efforts an individual uses regardless of the outcome. Based on the primary and secondary appraisal, the individual will either change the meaning of a situation or modify the environment. Lazarus and Folkman (1984) outline two types of coping: problem-focused coping and emotion-focused coping. The former is similar to problem-solving and is utilized to alter or manage the environment which caused the distress (or threat). The latter refers to a group of cognitive processes aimed at reducing the emotional distress: distancing, self-controlling, seeking social support, escape-avoidance, accepting responsibility, and positive reappraisal. Lazarus and Folkman (1984) state that these

two functions are also interdependent and may facilitate or impede one another.

Outcomes of Coping

Lazarus and Folkman (1984) state that the prime importance of appraisal and coping processes is that they affect three adaptational outcomes: social functioning, morale, and somatic health. Social functioning refers to an individual's degree of satisfaction with interpersonal relationships or degree of fulfillment in various roles, for example, as a parent, a spouse, and a friend. Morale refers to how individuals feel about themselves. An individual's emotional reactions and coping strategies are also seen to have an effect on health and illness; this is referred to as somatic health (Lazarus & Folkman, 1984). These three outcomes are also closely interrelated. Good functioning in one outcome may be directly linked to poor functioning in another and good functioning in one area does not mean that an individual is functioning well in all areas. For example, a nurse may be satisfied with the close relationships maintained with friends and family. However, this nurse also encounters stress or more specifically CIS at work and this may lead to dissatisfaction and/or low morale with relation to his or her role as a nurse.

After an individual appraises and copes with a specific event, a judgement is made on the extent to which

the encounter was resolved effectively (Folkman et al., 1986). This is based on consideration of an individual's values, goals, commitments, beliefs and expectations concerning the stressful event. For example, even though an individual may not be able to resolve the stressful event, there may be positive adaptational outcomes (positive morale, and effective interpersonal reactions). In such an instance the individual may feel that the demands of the event were managed as well as could be expected. On the other hand, an individual may recognize that even when a stressful event is resolved, there may be negative outcomes. This may occur when the resolution of a stressful encounter is inconsistent with an individual's values, beliefs, and expectations; an inconsistency may create additional conflicts for the individual (interpersonal difficulties, low morale, and health problems) (Folkman et al., 1986).

As CIS is one specific kind of stress, this investigator believes that Lazarus and Folkman's 1984 theoretical framework will assist in understanding how nurses appraise and cope wtih CIs, and how this particular type of stress affects their social functioning.

Significance of the Study

This study will add to the body of knowledge in relation to nursing and CIs. It will identify what events or situations medical/surgical staff nurses appraise as CIs,

and how they react and cope. As there is ever-increasing client acuity within hospitals, nursing administrators and educators may recognize CIS as an important issue. They may have to consider providing supportive programs for nurses who experience CIs or change care delivery methods. In addition, this study may stimulate further related research regarding nurses and CIs.

Research Questions

The following questions will guide this study:

1. What events do medical/surgical staff nurses appraise as CIs?
2. What are medical/surgical staff nurses' reactions to an event appraised as a CI?
3. How do medical/surgical staff nurses cope with a CI?
4. What impact have CIs had on medical/surgical nurses' professional and personal lives?

Definition of Terms

Medical/Surgical Staff Nurse - A registered nurse (RN), working in a medical or surgical area in an acute care hospital.

Critical Incident (CI) - Any situation defined by the nurse as being a traumatic event, causing the nurse to experience unusually strong emotional reactions, making the usual

coping skills ineffective (Back, 1992; Bergmann & Queen, 1986a; Mitchell, 1983).

Critical Incident Stress (CIS)- Recognition of the emotional, physical, cognitive, and behavioral reactions to a critical incident. These reactions can be either acute or delayed (Back, 1992; Bergmann & Queen, 1986a; Mitchell, 1983, 1986).

Assumptions

It is assumed that general duty nurses experience CIs in the context of their everyday practice and that the nurses will be honest in completing the study instruments.

Limitations

The findings of this study will not be generalizable to other medical/surgical nurses because of the convenience sampling technique used nor to nurses in other contexts and clinical settings. The study will only examine how nurses react and cope with a CI at one point in time (the first few days and evenings following the event). Participants will be recalling these CIs retrospectively, and the quality of data gathered will depend on the participants' memory of the events.

Organization of the Thesis

This thesis is comprised of five chapters. This chapter has outlined the following: background to the problem, statement of the problem, purpose of the study, Lazarus and Folkman's (1984) theoretical framework, significance, research questions, definition of terms, assumptions, and limitations. Chapter Two presents a review of the literature. The third chapter describes the methodological approach. Chapter Four presents the results of the data analysis and a discussion of the findings. The final chapter presents the summary, conclusions, implications for nursing, and recommendations for future research.

CHAPTER TWO

REVIEW OF THE LITERATURE

The literature is reviewed under the following two major headings: staff nurses' appraisal of and coping with stress, and appraisal of and coping with critical incidents. In addition, other related literature is presented.

Staff Nurses' Appraisal of and Coping with Stress

In a descriptive study of approximately 1800 nurses, Baily, Steffen, and Grout (1980) identified stressors of intensive care unit (ICU) nurses. Nurses reported that patient care and interpersonal relationships caused the most stress. Paradoxically, these same nurses also reported the greatest challenge and benefit from these two sources.

Yu et al. (1989) conducted a survey of 952 nurses in many specialized areas to examine their perceptions of occupational stress in hospital settings. In this study, occupational stress was categorized as general work pressure and uncertainty and routinization of tasks. Nurses who appraised their area of work as most stressful were those in administration, cardiology, medical/surgical settings, the emergency room, and the ICU.

In a descriptive study with 85 nurses, Burns, Kirilloff, and Close (1983) investigated the specific sources of stress and satisfaction of nurses working in an emergency department using the Lazarus and Folkman (1984)

categories. The top two categories that nurses appraised as being most stressful (threat and harm/loss stress appraisal) were unit management issues such as inadequate staffing, apathetic, inexperienced staff (physicians and nurses), and patient care issues such as critical emergencies, cardiac arrests, fatalities, serious injury or death of children, uncooperative, abusive or demanding patients or families, triage, and decision making. The greatest source of satisfaction (a benefit) was appraised as patient improvement and progress.

In another descriptive study of 46 ICU nurses, Huckabay and Jagla (1979) investigated stress factors in ICU. It was reported that these nurses appraised events or situations within the environment as more stressful (threatening or harmful) than internal stressors relating to the person. For example, the top five events appraised as stressful were workload and amount of physical work, death of a patient, communication problems between staff and nursing office, communication problems between staff and physicians, and meeting the needs of the family. These authors reported that, as the degree of control over a situation decreased, the appraised threat increased.

Huckabay and Jagla (1979) also concluded that experienced nurses were able to cope with stress more effectively because they were able to draw upon resources

such as acquired knowledge and proficiency. Younger, less experienced nurses reported a higher level of stress.

In a descriptive study of 182 full-time ICU nurses, Anderson and Basteyns (1981) reported the situations nurses identified as most stressful. These nurses rated the following five situations as most stressful: death of a young adult, inability to obtain help when the unit was short staffed, unavailability of the doctor when an emergency arose, medication errors, and situations in which adequate help was not available to properly care for patients.

In an exploratory study, Spoth and Konewko (1987) examined the frequency and severity of stress experienced by nurses within the context of several different ICU nursing units (three general ICUs, two neurologic, and one cardiac ICU). Overall, across all ICUs, the stressors that nurses described most frequently were too many interruptions, lack of respect or consideration from physicians, and the rapid decision making involved with patient care. The factors that were rated by these nurses as most severe were too many interruptions, lack of respect from physicians, and the physician not arriving quickly enough in a time of crisis. Nurses who worked in the neurologic ICU reported the highest frequency and severity of stress.

These investigators also explored the relationship

between potentially stressful life events, (those events occurring outside the ICU) and critical care stressors (Spoth & Konewko, 1987). Although there was no relationship between these two variables, insight was gained regarding which life events nurses perceived as most stressful. The top five stressful life events were change in work hours and conditions, change in financial status, vacation, Christmas season, and change in work responsibilities.

Robinson and Lewis (1990) reported that ICU nurses described lack of reward, the crisis atmosphere, and the experience level of medical residents as the three main work-related stressors. Fatigue, anxiety, frustration, irritability and forgetfulness were rated as the top five reactions to such events. These investigators also reported that ICU nurses used the following top five coping strategies to deal with stress: discussed problems with co-workers, used caffeine, watched t.v./read, problem-solved, and discussed problems with family.

In a descriptive study of 24 neonatal ICU staff nurses, Gribbins and Marshall (1982) identified personal (reactive and proactive) and management coping strategies. Personal reactive strategies included talking to people outside the unit and talking with fellow nurses. Personal proactive strategies included setting priorities, humour, and confrontation. Management strategies included attending

psychotherapy sessions and participation in meetings. Nurses with one year of experience, as compared to nurses with three to four years of experience, used fewer coping strategies and experienced different stresses. They did not talk to fellow nurses, attend psychotherapy sessions, participate in meetings, or use humour and confrontation.

These investigators acknowledged that it was difficult to present conclusions because of the small sample. Nevertheless, this finding raises questions about whether utilization of more effective coping strategies were related to the level of nursing experience. As a result of the findings, changes were implemented to assist both new and more experienced nurses in coping with stresses within the NICU. For example, nurses in orientation are encouraged to bring family and friends to visit the NICU in hope of their increased understanding of the nurse's stress experiences.

Bene and Foxall (1991) investigated the relationship between death anxiety and job stress in 30 hospice and 40 medical-surgical nurses. These investigators identified death as one experience nurses frequently encountered and were interested in its effect on their overall stress.

Overall, both hospice and medical-surgical nurses reported high levels of job stress within the same three stress categories: relationships with physicians, emotional demands/uncertainty, and overload/staffing. However,

medical-surgical nurses reported an increased amount of stress in terms of severity within the emotional demands /uncertainty, patient aggression, death and dying, and floating categories. In addition, the medical-surgical nurses more frequently reported overload/staffing, patient aggression, communication within the unit, and floating situations as causing them stress. These findings may assist in understanding which events or situations medical/surgical staff nurses appraise as stressful in comparison to other nurses.

Death anxiety was not correlated with job stress for the hospice nurses (Bene & Foxall, 1991). This finding raises questions as to whether nurses who work exclusively with the terminally ill in fact exhibit higher death anxiety. The medical-surgical nurses' death anxiety was found to correlate with the amount of job stress. These investigators believed that even though medical/surgical nurses experienced patient deaths less often than hospice nurses, their higher scores might be related to the additional overall stress within their workplace.

In a comparable study, Foxall, Zimmerman, Standley, and Bene (1990) investigated differences between frequency and sources of stress perceived by ICU, hospice and medical-surgical nurses. These authors reported no difference among the nurses in relation to the overall total scores on the

44-item 4-point Nursing Stress Scale. However, three main differences were reported after further data analysis. The ICU and hospice nurses experienced more stress than medical-surgical nurses in relation to death and dying. Medical-surgical nurses had a greater amount of stress than the other two groups with workload/staffing. ICU and medical-surgical nurses experienced greater stress than the hospice nurses in reference to floating. These differences suggest that nurses practicing in different specialties with different types of patients and levels of acuity, and unique resources, may appraise different types of events as being stressful. Furthermore, in terms of this study, a question can be raised as to whether general duty nurses in different medical/surgical settings will describe quite different events as being CIs.

Maloney (1982) studied the differences of stress levels and consequences between 30 ICU and non-ICU nurses. The non-ICU nurses scored higher on the state anxiety scale than the ICU nurses. State anxiety referred to anxiety producing situations within the work environment. In addition, the non-ICU nurses experienced higher levels of trait anxiety than the ICU nurses. Trait anxiety is referred to as emotional/physical uneasiness. Both of these findings are inconsistent with previous findings. Maloney postulated that since nurses choose the area in which they wish to

work, ICU nurses may have higher stress tolerance than non-ICU nurses. In addition, this investigator suggested that nurses within the ICU environment may support one another more than non-ICU nurses (nurses utilized each other as a coping resource). However, it can be argued that perhaps the ICU nurses possessed more resources in terms of how their environment was structured than the non-ICU nurses. If this were true, nurses would then be responding and reacting to stress depending on how their work environment was set up.

Maloney (1982) also reported that even though the non-ICU nurses scored higher with state and trait anxiety than ICU nurses, there were no differences between the two groups in terms of their overall job satisfaction/dissatisfaction (Maloney, 1982). However, the non-ICU nurses experienced higher levels of workload dissatisfaction. Finally, the non-ICU nurses reporting higher levels of anxiety experienced greater personal difficulties with friends and family than did ICU nurses.

Walcott-McQuigg and Ervin (1992) studied 67 community health nurses in regards to seven categories of stressful situations: knowledge and technical skills, management dynamics, direct patient care, interpersonal relations, physical work environment, life events, and administrative awards. The top five most stressful encounters were: lack

of time to complete work during scheduled hours, their schedule did not permit adequate time to organize work, uncooperative family members, inability to reach a physician, and unfamiliar situations. These investigators also reported that older and more experienced nurses experienced less stress than did younger nurses.

Kelly and Cross (1985) compared 31 ICU nurses and 61 ward nurses in terms of appraisal of, and coping with, certain stressful events. The events included were a variety of environmental, interpersonal, patient care, knowledge and skill, and workload situations. Both groups used a variety of coping strategies, some examples included: "...drawing upon past experiences, talking over the problem with others, and basing an action on understanding of a situation" (Kelly & Cross, 1985, p. 326).

However, Kelly and Cross (1985) reported that the ward nurses experienced more stress in relation to environmental factors, such as actual work space, than did the ICU nurses. Although the medical/surgical nurses primarily used adaptive coping strategies, these nurses were reported to eat more, sleep less, and cry more in comparison to the ICU nurses. These findings raise questions as to whether the ICU is the most stressful place for nurses to work. These investigators recommend that medical/surgical nurses receive the same support and resources as ICU nurses and that

changes be made to decrease the environment-related stress factors.

Schaefer and Peterson (1992) compared the effectiveness of coping strategies of 209 critical care nurses and non-critical care nurses. These investigators reported that there was no difference in the coping strategies used or their effectiveness between these two groups. Critical care and non-critical care staff nurses reported that confrontational, optimistic, self reliant coping strategies were most effective in the management of job stress. Evasive and palliative coping strategies were least effective.

Vachon (1987) examined the perceived stress of 600 health care professionals in caring for the critically ill, the dying, and bereaved. The younger group of health professionals (under 30 and 31 to 45 years) appraised work environment situations such as communication problems with colleagues and inadequate staffing as being most problematic. The oldest group (over 45 years) reported the most stress from their occupational role with patients and families. It was reported that the two older groups coped by developing a sense of team support, and team building whereas the younger group was more likely to seek out specific colleagues at an individual level. What is particularly interesting about this study is that the older

participants in similar situations experienced less stress by making use of an increased number and variety of coping strategies. Females represented the majority (71%) of the subjects and 49% were nurses. Of the males studied, 65% were physicians. The investigators reported that females were twice as likely to report difficulty coping with disfiguring illnesses (23% versus 12%). Males reported difficulty coping with unpredictable situations (35% versus 13%).

In a descriptive study of approximately 1300 nurses, Dewe (1987) reported several principal coping strategies used by nurses in stressful situations, "problem-oriented behaviour, trying to unwind and put things into perspective, expressing your feelings or frustrations, keeping the problem to yourself, accepting the job as it is and trying not to let it get to you" (p. 496).

Ethical distress can be linked to another concept, moral distress, another type of stress. Considering that nursing practice has become more complex within the last ten years with technological advances, increased patient acuity, increasing financial restraint, and increase in consumerism, it is not surprising to find empirical research that supports nurses as experiencing moral distress. Moral distress occurs when moral choices cannot be translated into moral action (Jameton, 1984). Typically an individual who

experiences moral distress has feelings of guilt, anger, frustration, and powerlessness (Jameton, 1984). Most important, however, several authors believe that moral distress is associated with nurses' stress and burnout (Cameron, 1986; Rodney & Starzomski, 1992).

Rodney (1987) examined in a qualitative study the experiences of critical care nurses' ethical decision-making with prolongation of life. She found that moral distress was a part of the nurses' experiences. "Nurses [were] bound by constraints that meant nurses were unable to implement choices... [and] moral distress was associated with some significant feelings for nurses, including resentment, frustration, and sorrow" (Rodney, 1988, p. 10). The concept of moral distress is helpful in understanding the complexities of ethical situations and also important in that it should be considered as one type of situation that nurses may consider to be a CI.

Ehrenfeld and Cheifetz (1990) conducted a one-day workshop to address the issue of coping with stress for 264 cardiac nurses. This workshop was not intended to meet the criteria of a research project, but rather to encourage group work and sharing of experiences and ideas relating to stress. It was discovered through each of the group leaders that the following five events were reported as the most stressful: dealing with an inexperienced physician or lack

of physician's presence when needed, lack of adequately skilled nursing staff or lack of nursing staff, coping with patients and families, coping with sudden death, and lack of communication or inadequate communication with physicians and with staff.

Through the same data collection procedure, Ehrenfeld and Cheifetz (1990) reported that of these 264 cardiac nurses, 32.6% used active coping skills towards solving a problem, 11.7% sought out other resources to facilitate problem-solving, 37% were passive, and 18.6% participated in activity that was not directed to the solution.

Norbeck (1985) reported that 180 critical care nurses who experienced high levels of job stress had low job satisfaction and high levels of psychological symptoms. Nurses who were inexperienced and worked nights reported low job satisfaction. Those nurses who were inexperienced reported low job satisfaction. This investigator also identified the specific stressful events that were related to decreased job satisfaction and increased psychological symptoms. Workload, communication difficulties with nurses, and physical set-up of the critical care unit contributed to perceived low job satisfaction. Four environmental factors (physical set-up, noise level, numerous pieces of equipment and its failure, and injury to a nurse), and two emotionally stressful factors (dealing with the psychological needs of

the patients, and communication difficulties with nurses) were related to increased psychological symptoms.

In another study, Gray-Toft and Anderson (1981) examined the relationship between stress, job satisfaction, and turnover in staff nurses. The sample included 122 nurses from five different nursing areas; medical, surgical, cardiovascular, oncology, and hospice. Across all of these five nursing units the three most stressful events/situations were workload, feelings associated with inadequate preparation to meet the emotional demands of patients, and death and dying. These investigators also reported that the nurses who scored the highest in relation to stress were less satisfied with their jobs and had higher turnover rates. For example, the nurses working on the medical unit experienced the most stress and, within a five-month period, had a 30% turnover rate. This raises questions as to whether nurses who experience CIs may be more vulnerable to lower job satisfaction and possibly higher job turnover.

In a descriptive study of 76 ICU nurses, Stone, Jebsen, Walk, and Belsham (1984) reported that nurses who experienced burnout were more dissatisfied, and perceived events occurring within the critical care environment as threatening. Nurses who held a positive sense of accomplishment viewed their work environment as innovative

and supportive. Nurses who utilized an increased number of effective coping skills experienced less burnout. Further, nurses who were more experienced and/or had more education were less likely to perceive events within the critical care context as stressful (threatening). Again, this study raises questions as to whether nurses who experience CIs are susceptible to higher levels of burnout.

Boyle, Grap, Younger, and Thornby (1991) examined the relationship between personality hardiness, ways of coping, and social support in the development of burnout within 103 critical care nurses. According to Kobasa, Maddi, and Kahn (1982), hardiness refers to a personality disposition that facilitates the use of effective coping strategies and, as a result, resolution of a stressful situation. Boyle et al. reported that nurses who scored low in hardiness scored high on the burnout scale. In addition, Boyle et al. reported that nurses who primarily utilized emotion-focused coping strategies also had higher burnout scores. Finally, nurses who scored high in relation to social support scored low in burnout.

Keane, Ducette, and Adler (1985) examined the differences between ICU and non-ICU nurses in relation to burnout. These investigators reported that there were no differences between these two groups. Both of these nursing groups scored high in burnout when they felt powerless,

alienated, and had an external locus of control. The nurses who felt challenged, in control, had an internal locus of control, and commitment towards their jobs scored lower on the burnout scale. In relation to coping, these nurses were essentially coping more effectively within their working environments.

Appraisal of and Coping with Critical Incidents

Only within the last ten years has CIS been acknowledged as a serious problem for rescue personnel assisting victims in tragic circumstances and witnessing human tragedy (Mitchell, 1988a). Several authors state that firemen, policemen, and paramedics experience the following events as CIs: death of a child, death or injury of a co-worker in the line of duty, multi-casualty incident (could include a disaster), incidents resulting in death where rescue attempts took place over an extended period, or where death was sudden and unexpected, incidents where the victim is known to the emergency worker, and any event that has significant emotional power to overwhelm usual coping mechanisms (Bell, 1991; Bergmann & Queen, 1986a; Mitchell, 1983, 1988b; Snelgrove, 1988a). Two authors report that emergency service workers' CIS emotional reactions may include fear, anger, irritability, frustration, anxiety, guilt, grief, and sadness (Mitchell, 1982, 1983; Snelgrove, 1989). All of these reactions correspond to Lazarus and

Folkman's (1984) harm/loss and threat stress appraisal categories. Fear, anxiety, worry, and anger correspond to threat appraisal as there is a potential for harm or loss. Anger, sadness, guilt, and disgust are consistent with the harm/loss stress appraisal. Common physical reactions include headaches, nausea, vomiting, diarrhea, and fatigue (Mitchell, 1983; Snelgrove, 1989).

Several authors report that, in coping with a CI, emergency rescue workers may display a variety of behavioural and cognitive responses: impaired thinking and decision making, depression, confusion, sleep disturbances, possible interpersonal difficulties at work and at home, and substance abuse (Mitchell, 1982, 1983; Snelgrove, 1988b, 1989).

There have been attempts to assist rescue personnel in coping with CIS through the development of critical incident stress debriefing (CISD) programs. CISD is the psychological and educational group process aimed at softening the impact of CIS through "talking it out" (Snelgrove, 1989). The primary purpose of these programs is to assist groups of individuals with their subsequent emotional reactions and to provide a resource to assist them in coping with CIS. The majority of the CIS literature focuses on information pertaining to CISD: the purposes, the benefits, and how to implement a CISD program (Bell, 1991;

Mitchell, 1983, 1986, 1988a, 1988b; Snelgrove, 1988a, 1988b). The latter authors provide anecdotal descriptions of those who have been involved in the debriefing process, and describe it as being helpful in assisting them in coping with their CI experiences.

The author has located two descriptive studies that examined the need for and the benefits of CISD programs. The first study addressed the effectiveness of the programs (Alberta Public Safety Services, 1985b). Based on 42 debriefing sessions per year with an average of 14 rescue personnel in attendance, the authors estimated a saving of $320,000 a year. This money was saved by decreasing the incidence of sick leave and workers leaving the occupation of emergency services.

The second study used a comparative descriptive method to assess the need for on-site counselling following a train disaster (Alberta Public Safety Services, 1985a). Seventy rescue personnel directly involved in the rail disaster were the study group, while 100 emergency workers not involved in the disaster acted as the control group. Through a 30-item health questionnaire, participants indicated whether the specific behaviours, emotions, and cognitive abilities occurred more, the same, less, or much more. It was found that the study group was constantly under more stress, less satisfied with job performance, feeling more nervous and

strung out, and feeling less hopeful about the future. In addition, 78.6% of the study group rated post-disaster counselling as being important/very important.

Only within the last several years have authors acknowledged that nurses are vulnerable to experiencing CIS within acute care settings, even though this phenomenon had existed previously (Back, 1992; Bergmann & Queen, 1986a; Jimmerson, 1988; McCall & Bebb, 1990). Bergmann & Queen (1986a) state that the following situations may be appraised as CIs by nurses:

> The death of a child, especially when due to criminal activity or parental negligence; the serious injury or death of a patient resulting from routine or emergency service operations; almost any case which is charged with emotion for that particular nurse such as the sudden death of an infant under particularly tragic circumstances; any loss of life which follows extraordinary and prolonged expenditures of physical and emotional energy during treatment; any incident which can be considered a serious physical or psychological threat or a sudden loss to the nurse, (i.e., working on a patient who is a friend or family member); almost any incident in which the circumstances are so unusual or the sights and sounds so distressing as to produce a high level of immediate or delayed

> emotional reaction that surpasses the normal coping mechanisms of the nurse (p. 35).

Again, the descriptions of nurses' emotional and physical responses are identical to those reported within the emergency rescue personnel literature.

There is no information regarding how nurses cope with CIs. However, in other situations when nurses' coping strategies are inadequate in managing their stress, there may be negative consequences: low job satisfaction, substance abuse, increased turnover, and higher burnout. There is a focus on the provision of CISD programs to assist nurses in coping with the resultant emotional, physical, behavioral and cognitive reactions (Back, 1992; Bergmann & Queen, 1986b, 1986c; Brown, 1990; Jimmerson, 1988; Rubin, 1990).

Summary

There were numerous studies that examined which events and situations staff nurses considered to be stressful and the strategies used to cope. These studies were conducted within different contexts (both non-ICU and ICU environments), and investigators used different theoretical frameworks pertaining to stress. It was revealed that nurses who practiced within medical-surgical nursing units were no less stressed than those nurses who worked within critical care environments. Furthermore, some of these

studies reported that medical-surgical nurses experienced more stress in some circumstances than did critical care nurses, especially related to lack of resources available. Moral distress was also examined as one possible type of stress nurses may encounter in relation to ethical situations.

It was reported that medical-surgical nurses and critical care nurses used similar coping strategies to manage their stress. It was revealed that nurses used a variety of coping strategies, and these were not identified explicitly by the investigators as being either emotion- or problem-focused as in Lazarus and Folkman's (1984) theoretical framework. However, the numerous coping strategies reported correspond to Lazarus and Folkman's (1984) emotion- and problem-focused categories. In addition, data revealed that nurses who had more experience used more effective coping strategies.

Although these studies identified the events general duty nurses considered to be stressful, there is lack of understanding as to which events may have been considered as CIs. As a result of this omission, there is a lack of understanding of how nurses react and also cope with these traumatic and overwhelming events (CIs).

Literature was reviewed that linked job stress and job satisfaction, high turnover, and burnout among staff nurses.

Several investigators found that nurses who had increased stress were less satisfied and consequently scored higher in regards to burnout. There was inconclusive evidence related to whether medical/surgical nurses experienced higher burnout and turnover than did ICU nurses. This raised questions as to whether nurses who experience CIs may be vulnerable in developing lower job satisfaction, higher turnover, and burnout.

There was an abundance of literature pertaining to CIS among rescue personnel; however, the majority of the information was anecdotal, emphasized the importance of CISD programs, and was speculative. Two studies described how rescue personnel reacted as a result of a disaster and reported the cost-benefit of CISD programs. Still, there is clearly a lack of research investigating how rescue personnel react and cope in situations appraised as CIs.

There is some literature reporting that nurses also experience CIS; however, there have been no studies investigating nurses and CIS. The literature is anecdotal, speculative, and advocates the implementation of CISD programs. Still, this raises the question of whether CIs have been imbedded in the context of some of these numerous stress studies without the traumatic experiences having been taken out and examined. It is therefore warranted to investigate and describe nurses' critical incident

experiences as it is important to know what situations nurses appraise as being CIs, how they react to a CI, how they cope with a CI, and the impact of the events upon their personal and professional lives.

CHAPTER THREE

METHODOLOGY

A descriptive design was used as it allows for description of phenomena about which very little is known.

Instruments

Participant Information Sheet

A general information sheet was developed by the investigator to record demographic information; gender, age, number of years of experience, and number of years in present position (Appendix A).

Critical Incident Information Form

This instrument was developed by the investigator and required that participants respond to a variety of yes/no and open ended questions concerning appraisals of and reactions to CIs and their impact on the nurses' lives. The instrument was tested through a pilot project and appropriate changes were incorporated.

Minor revisions related to grammar and sentence structure were implemented, as well as a suggestion to bold the definition of a CI on the instrument. Question number 3, which related to the time the CI occurred was changed to include both 8-hour and 12-hour shifts. Question number 5 was changed slightly to offer an option for the respondents to elaborate further about how the CI challenged their personal beliefs. One question (number 7) was changed from

an open-ended question to a closed-ended format. One question, which was pertinent to the appraisal of the CI was added to this instrument (number 10). Changes were also incorporated in question number 11, providing an option for respondents to elaborate and include any other physical reactions that they experienced as a result of the CI. In addition, it was necessary to be specific about reference to the time of these reactions after the CI. It was decided to measure reactions within the first few days and evenings following the CI. Lastly, a sentence was added to clarify the definition of debriefing (Appendix B).

Emotional Appraisal Scale

This instrument (Appendix C) was chosen because one of the study's questions was to measure medical/surgical staff nurses' reactions to CIs. A decision was made to use Folkman and Lazarus's (1986) 16-item Emotional Appraisal Scale rather than the 1985 version (Dr. S. Folkman, personal communication, October 26, 1992). The most recent study incorporated a factor analysis which was based on a much broader community sample and variety of stressful encounters. The instrument is a 16-item checklist with a 5-point Likert scale (0 = not at all; 4 = a great deal). The 16 items are categorized into 4 emotional scales: threat emotions, challenge emotions, harm emotions, and benefit emotions. Threat emotions include fear, anxiety and worry.

Challenge emotions include confidence, security, and control. Anger, disappointment, frustration, and disgust refer to harm emotions; and exhilaration, happiness, relief, pleasure, eagerness, and hopefulness correspond to benefit emotions.

Scores range from 0 to 12 for threat emotions, 0 to 12 for challenge emotions, 0 to 16 for harm emotions, and 0 to 24 for benefit emotions. The maximum score is 64 and the higher the scores for each of the categories, the higher the intensity of emotion.

The instrument was developed from the cognitive-phenomenological theory of emotion (Lazarus, Kanner, & Folkman, 1980). This theory has gained increasing acceptance as a result of empirical research within different populations and in different contexts. The quality and intensity of emotions (including both positive and negative emotions) such as anxiety, disgust, relief, happiness, and anger are dependent upon the appraisal process. According to these authors "...the relations between cognition and emotion are, no doubt, exceedingly complex two way streets, with emotion often redirecting or interfering with cognitive activity, as well as vice versa" (Lazarus, Kanner, & Folkman, 1980, p. 191). The authors emphasize that several of these positive and negative emotions occur concurrently (challenge, benefit, harm/loss,

and threat) and, over time, these emotions will intensify or weaken over the course of cognitive appraisals and re-appraisals. There is also evidence of construct validity. Folkman and Lazarus (1985) reported that students experienced both threat and challenge emotions concurrently, and this supports one component within their (1984) theoretical framework.

Within this same study, there was evidence of internal consistency as reliability alpha coefficients were .80 for the threat emotions; .59 for the challenge emotions; .84 for the harm emotions, and .78 for the benefit emotions.

In another study, 75 husbands and wives were interviewed once a month for six months regarding the most stressful encounter that they had experienced each previous week (Folkman & Lazarus, 1986). Internal consistency data were as follows; .87 for harm emotions, .80 for benefit emotions, .81 for threat emotions, and .82 for challenge emotions (Folkman & Lazarus, 1986).

Ways of Coping Scale (Revised)

This tool was developed from Lazarus and Folkman's (1984) theoretical framework and chosen as one of the instruments for the study as it would measure how nurses coped with CIs. This framework emphasizes that throughout the changing person-environment interaction, a person copes with stressful events through the use of both problem-

focused and emotion-focused coping.

The Ways of Coping Scale (Appendix D) is a 66-item 4-point Likert scale (0 = not used to 3 = used a great deal) which measures the behavioral and cognitive coping strategies used to deal with a stressful situation (Folkman et al., 1986). There is evidence of content validity as changes were made to the instrument as a result of ongoing testing with different populations. For example, the 1985 version differs from the 1980 version as unclear and redundant items were deleted or reworded, and several new items were added (Folkman et al., 1986).

The 66 items are categorized as being either emotion-focused or problem-focused. The minimum score for all emotion- and problem-focused coping categories is zero with maximum scores of 18 for confrontive-coping, 18 for distancing, 21 for self-controlling, 18 for seeking social support, 12 for accepting responsibility, 24 for escape-avoidance, 18 for planful problem-solving, and 21 for positive reappraisal. The maximum score is 150 and the higher the scores for each of the categories, the greater the degree of use of a specific coping strategy.

Several research studies provide evidence of construct validity. For example, one study reported that 98% of all participants (men and women) used both emotion- and problem-focused coping strategies (Folkman & Lazarus,

1980). In another study Folkman and Lazarus (1985) reported that 94% of all college students used both types of coping during an examination. It was also reported that students' coping methods did change throughout different points in time throughout the examination. This finding supports Lazarus and Folkman's (1984) framework in relation to the constant changes that occur when an individual appraises, reappraises an event and tries to cope.

In the 1985 Folkman and Lazarus study, reliability alpha coefficients were: .85 for problem-focused coping, .84 for wishful thinking, .71 for distancing, .81 for seeking social support, .65 for emphasizing the positive, .75 for self-blame, .56 for tension reduction, and .65 for self-isolation. Further evidence of internal consistency is provided by another study conducted by Folkman, et al., (1986). In this study, the sample consisted of 75 husbands and wives, and they reported the most stressful encounter that they had experienced during the previous week. The participants were interviewed once a month for six months. Reliability alpha coefficients were .70 for the confrontive coping scale, .61 for the distancing, .70 for self controlling, .76 for seeking social support, .66 for accepting responsibility, .72 for escape avoidance, .68 for planful problem-solving, and .79 for positive reappraisal.

Protection of Human Rights

To ensure that the human rights of the participants were protected, the study met the criteria set forth by the University of British Columbia Behavioral Sciences Screening Committee for Research and Other Studies Involving Human Subjects and all three hospital research committees. One hospital committee expressed concern for the participants' psychological well-being, as they might become upset and/or disturbed by recalling an event that had been traumatic. Thus, arrangements were made for assistance with possible effects with several resource people in the community who had been educated about CIS and its effects. Participants within the two teaching hospitals were advised of their availability if required. Anonymity was maintained by instructing participants to separate their completed questionnaires from their request for resource information (Appendix E). Participants who were employed at the community hospital were simply instructed to contact the newly-developed CISD team within the hospital.

Participants were informed in the introductory letter and information letter of measures taken to ensure anonymity and confidentiality (see Appendix F & G).

Sample Selection

A convenience sample of 50 medical/surgical general duty nurses was selected from three hospitals within the

British Columbia Lower Mainland. Two facilities were major tertiary teaching hospitals, and one was an acute care community hospital. This investigator chose to include this number of participants and three different hospital sites to enhance the reliability of the findings (Woods & Catanzaro, 1988).

Criteria for participation in the study were the following: a) registered nurse with at least 6 months of experience and employed on a medical/surgical nursing unit, b) has experienced a CI, c) has volunteered to participate in the study.

Subject Recruitment

Following the approval of the University of British Columbia Behavioral Sciences Screening Committee for Research and Other Studies Involving Human Subjects, and each of the hospital research committees, sample recruitment commenced. The investigator chose 5-6 medical/surgical units within each of the three hospitals and contacted each head nurse by telephone to explain the study and the request for participants. Brief meetings were then scheduled with the general duty nurses. The purpose of the meetings was to explain the study, emphasize the benefits in participating, answer questions, and request participation.

Data Collection

Introductory letters (Appendix F) were left with some

of the head nurses upon request, and others communicated information about the study through the staff communication book and/or bulletin board. The investigator discussed the study with nurses individually, or in small groups of two or three. Nurses who met the inclusion criteria and volunteered received a package which included an introductory letter and consent form, the instruments and, for the two tertiary teaching hospitals, a separate sheet that outlined resources and/or resource people to seek out for support if required, and a return envelope. Nurses who were employed at the community hospital were informed verbally who to contact as a resource, as this hospital had its own CISD team. Participants were asked to return completed instruments in the sealed envelope to a box provided on each of the medical/surgical nursing units. The investigator picked up the envelopes on a weekly basis.

Data Analysis

Quantitative data from the instruments were coded using the Lotus 1-2-3 statistical package and descriptive statistics such as means, ranges, frequency distributions, and standard deviations were calculated.

Open-ended questions in the Critical Incident Information Form were subjected to content analysis and categories were established for the CI responses. The investigator reviewed all 50 CIs two to three times and

conceptualized mutually exclusive categories that would capture them. Criteria for the six categories were established. One category, moral distress, involved situations in which nurses had been confronted with choices, but for a variety of reasons were unable to implement their choices. Key individuals involved were doctors, nurses, administrators, and families. Lack of responsiveness from a health care professional was identified as a second category and encompassed CIs in which nurses did not receive adequate assistance during a serious or crisis situation. Often these CIs could have been prevented if the nurses had received such assistance.

Violence towards nurses was another category and criteria for selection of the CIs included both verbal and physical abuse from a patient or other member of the health care team. In addition, exercising of overt power over a nurse was considered to fit within this category.

Death was a CI category for nurses who described incidents involving caring for patients near death and for grieving family members. Emergency situations was conceptualized as another category in which nurses were often trying to save a patient's life, as in cardiac or respiratory arrest, or nurses believed the risk for such an occurrence was high. Finally, a category labelled as contact with infectious body fluids (Hepatitis B /H.I.V.)

was identified. The main criterion for this type of CI was direct exposure to a life-threatening disease.

The CI responses were reviewed by the investigator a total of three times to ensure consistency in grouping the CIs. In addition, two other individuals were asked to categorize the CI responses (25 each) in accordance with the criteria. Inter-rater reliabilities were 88% and 84% respectively.

The investigator then reviewed the seven CIs that were categorized differently by the raters and a decision was made to place six of the seven CIs in the categories chosen by the raters. The remaining CI was reviewed by a third rater who was an expert in the area of moral distress and it was placed accordingly.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF THE FINDINGS

This chapter is organized into two sections. The first section presents the response rate, the demographic data, and years of experience for nurses in the sample. The second section includes the findings and discussion related to the four research questions.

Response Rate

Questionnaires were distributed only to those R.N.'s who could recall having a CI. A total of 50 out of 140 questionnaires was returned, yelding a response rate of 35.7%. The relatively low response rate may be related to several factors. As a convenience sample was used, only those nurses who were interested in the study and volunteered their time participated. Most of the data were collected during the Christmas season. Several nurses chose not to participate feeling that the questionnaire was too lengthy. Some of the respondents took between 40 minutes to 1 hour to complete the questionnaire. In addition, even though the investigator reviewed the definition of a CI with each prospective participant, there was no assurance that they indeed could recall or identify with a CI experience. Conversely, the investigator questioned whether there were nurses who could identify CI experiences, but because of the sensitive nature decided not to participate. During one of

the scheduled meetings with a small group of nurses, one nurse stated "I have thought about participating, but I just cannot handle going over the traumatic incident again, I just want to forget it." Furthermore, despite the assurance that the questionnaire was anonymous, it may have been easier for the nurses to discuss their CIs with the investigator informally rather than recording their experiences on such a sensitive concept. The investigator also observed that, during some of the meetings with the staff, those nurses who initially thought that they had never experienced a CI were convinced otherwise by some of their peers. This was done by nurses questioning each other about certain traumatic events that had occurred in the past. It was then observed that some of the nurses who originally thought that they could not relate to this type of stress, could identify an event that was a CI for them. Lastly, the investigator did not keep track of individual nurses, so only general reminder notices were posted on each of the nursing units to prompt return of the questionnaire. This strategy did not prove to be effective.

Demographic Characteristics of the Sample

The sample consisted of 50 medical/surgical general duty nurses, of whom 47 were female (94%) and 3 were male (6%). Ages ranged from 20 to 58, with the majority between the ages of 20 and 31 (see Table 1).

Table 1
Ages of the Subjects

Age	Frequency	Percent (%)
20-23	6	12.0
24-27	20	40.0
29-31	10	20.0
32-35	2	4.0
36-39	3	6.0
40-43	4	8.0
44-47	1	2.0
48-50	0	0.0
51-54	3	6.0
55-58	1	2.0
Total	50	100.0

With the use of a convenience sampling technique, the demographic findings related to gender were representative of the population of nurses in British Columbia (B.C.). Approximately 97% of the nurses in B.C. were female and 2.48% were male (University of British Columbia Health Human Resources Unit, 1992). However, there were differences in terms of age when compared to provincial and national statistics. Seventy-two percent of the sample were aged between 20 and 31 and 18% between 32 and 43. In 1991, 28% of B.C. nurses were in the <25 to 34 age group and 35% were in the 35 to 44 age group (University of British Columbia Health Human Resources Unit, 1992). In addition, according to Statistics Canada (1991), 35% of nurses were aged <25 to 34, and 35% were aged 35 to 44. Thus, there were larger numbers of young nurses (20 to 31) in the sample than in the

general nursing population. Explanations may be related to several factors. It may be that younger nurses could readily identify with CIS or that they were more willing to participate. Also, medical/surgical units are often the first place of employment for younger, less experienced nurses.

As shown in Table 2, the majority of nurses within this sample had between one and six years of experience, with a smaller proportion of nurses having more than seven years of experience. None of the nurses had less than one year of experience.

Table 2
Years of Experience as a R.N.

Years	Frequency	Percent (%)
< 1	0	0.0
1-3	21	42.0
4-6	12	24.0
7-9	7	14.0
>10	10	20.0
Total	50	100.0

The majority of nurses had been in their present positions from one to six years, with a smaller number having been in their positions for less than one year (see Table 3). In addition, some of the CIs occurred when respondents were students.

Table 3
Number of Years in Present Position

Years	Frequency	Percent (%)
< 1	6	12.0
1-3	26	52.0
4-6	14	28.0
7-9	2	4.0
> 10	2	4.0
Total	50	100.0

Research Question 1: What Events Do Medical/Surgical Staff Nurses Appraise as CIs?

Prior to presenting the findings relating to appraisals of CIs, additional findings within the Critical Incident Information Form (Appleton, 1992) are provided that may help to explain why certain events were appraised as CIs. For example, 44% of the respondents reported that the incident challenged their personal beliefs. Some nurses commented that the incident caused them to question how much their own well-being should be jeopardized at work. Others reported that they wanted to carry out a set of specific actions, but were unable to because of certain constraints: doctors, other nurses, families, or policies within the institution.

Furthermore, 82% of the nurses reported that their CIs occurred suddenly (without warning). The majority of the sample (65%) reported that their CIs involved dealing with something new. Among these experiences were: using new

equipment, implementing new nursing interventions, being in a life-threatening position (dealing with aggressive and violent behaviour, HIV exposure), communicating death to family members, code situations, death of a young adult and child, new patient with life-threatening condition and fighting for patient's rights with administrators.

A majority of the nurses (72%) also reported that there were elements of uncertainty within their CI experiences. It should be emphasized that some of the nurses who stated that the CIs involved something new also reported that there were elements of uncertainty. Therefore, the elements of novelty and uncertainty are not mutually exclusive. In addition, nurses who were confronted with uncertainty and new situations also reported that 80% of the time they felt comfortable with the decisions made during the CI experiences.

The type of uncertainty experienced was varied but it potentially had a significant impact. For example, one nurse who recalled a CI that was categorized under moral distress wrote that she was uncertain that the patient would receive any of the care he needed before dying, and uncertain if her reputation would be damaged or if her license would be revoked.

Within the violent CI category, nurses were uncertain of their own and other patients' safety. Within the context

of emergency situations, nurses were uncertain of patient outcome, that is survival or death. Regarding exposure to HIV, nurses were uncertain if they had contracted the life-threatening virus. Nurses who reported CIs that pertained to lack of responsiveness of a member of the health care team expressed uncertainty related to what was done for the patient. Finally, nurses who experienced a CI involving a patient death were uncertain as to whether everything was done to try to save the patient's life.

Sixty-one percent of the sample stated that they did not recall having any other stresses in their lives at the same time as the CI. Of the 39% who reported having additional stresses, 58% described them as personal and professional.

Nurses recalled CIs that had occurred from three days to 30 years previously (M=2.9 years). Sixty percent of the respondents were recalling events that occurred within one year previously. The reason for this is not clear. While the investigator did not construct any definitive time criteria for the CI experiences, 66.6% of the nurses recalled CIs that occurred early in their careers (between 1 to 3 years), including some student experiences. When the investigator recruited these participants and explained the definition of a CI, several nurses in each of the three hospitals stated the following: "Oh, I can relate, I

remember the worst thing that happened to me was when I was a new grad..." This finding may be related to the fact that nurses who experienced such traumatic events early in their careers were unable to draw upon resources such as past experience, knowledge, and a variety of coping strategies. Lazarus and Folkman's (1984) theoretical framework supports this reasoning as an event may be appraised as stressful due to many factors: lack of resources, novelty, uncertainty, and lack of development of a variety of coping strategies. It was also reported in several stress studies that older, more experienced nurses were less stressed than younger nurses because of their ability to draw upon past knowledge/experience, and a larger repertoire of coping strategies (Gribbins & Marshall, 1982; Huckabay & Jagla, 1979; Vachon, 1987; Walcott-McQuigg & Ervin, 1992).

Twenty-nine percent of the sample reported the CIs occurring on an extended 12-hour night shift (1900 to 0700), 22% on evening shift (1500 to 2300), and 22% from 2300 to 0700. Eighteen percent of the nurses reported CIs occurring during day shift (0700 to 1500) and 16% from 0700 to 1900.

In total, 65% of the CIs occurred during evening and night shifts. This finding is consistent with Lazarus and Folkman's (1984) framework. Individuals who are confronted with inadequate resources such as on evening and night shifts, may experience stress. This finding is especially

important to consider at the time when budget decisions are being made. Furthermore, nursing unit managers, clinicians and physicians (persons with more experience and seen as having expertise) are not as accessible during this time period. The investigator believes that some of these events would not have been classified as CIs by the participants if they had occurred during the day.

Using content analysis, the medical/surgical staff nurses' CIs were categorized within the following six categories: moral distress, emergency situations, death of a patient, violence against nurses, lack of responsiveness by a health care professional, and actual/potential contact with infectious body fluids (Hepatitis B, and Human Immunodeficiency Virus (H.I.V.)). The moral distress category occurred most frequently (see Table 4), with the least frequent category being contact with life threatening

Table 4
Categorization of Critical Incidents

Category	Frequency	Percent(%)
Moral distress	14	28.0
Lack of responsiveness	11	22.0
Violence toward nurses	10	20.0
Emergency situations	6	12.0
Death	6	12.0
Contact with HIV, Hep B	3	6.0
Total	50	100.0

infectious diseases. For each of the categories, examples

have been extracted to illustrate the different types of CIs experienced by the staff nurses. As some of the respondents jotted down their CI experiences in a point form format, the investigator has made some minor editing of the narratives to enhance the "readability."

Moral Distress

This category captured the events in which nurses were confronted with moral dilemmas. A total of 14 CIs were grouped within this category. As a result of being involved with these dilemmas, the nurses described feelings that are consistent with moral distress. Moral distress is defined for the purposes of this study as: "...the psychological disequilibrium and negative feeling state experienced when a person makes a moral decision but does not follow through by performing the moral behavior indicated by that decision" (Wilkinson, 1987/1988, p. 16). Nurses within this sample were confronted with choices, but were unable to act on those choices. Key players who prevented moral action were often families and members of the health care team (doctors, nurses, supervisors, and administrators).

The following example involved a nurse who experienced moral distress as a result of acting as a patient advocate. She was torn between risking her job security and protection of a patient's rights:

The patient involved was a 31-year-old male on a

medical floor in a large 1000-bed hospital. Despite having a diagnosis of metastatic cancer, he was not receiving any analgesics or sedatives, nor had he been referred to pastoral care. His physician ordered saline injections and a continuous infusion of saline and ordered nurses to deceive the patient and tell him he was getting analgesics and sedatives. This went on for weeks and patient was in moderate to severe discomfort. I found this patient as a float nurse on the unit and refused to take part in the deception and reported to my night supervisor, two assistant directors, and the head director as well as my provincial association. They all threatened me with the loss of my license. Guided by my ethics I pursued the matter for several weeks. I was very much afraid for the loss of my livelihood, and all for a patient whom I did not know personally, and for whom I had acted as a patient advocate. Between pastoral care and my union lawyers this patient did receive the care to which he was entitled.

Within the category of moral distress nurses expressed feelings of helplessness in relation to performing certain nursing procedures and interventions that were contrary to patients' beliefs. One nurse recalled the following event:

The patient was a 12-year-old Jehovah's Witness. Her

hemoglobin was extremely low, therefore requiring her to receive a blood transfusion in order to extend her life as she was battling leukemia. Her parents refused to have her receive the blood transfusion due to their religious beliefs. The patient also refused to receive the transfusion for the same reason. Her attending doctor received a court order to go ahead with the transfusion as the patient was a minor. At the time I was a student nurse assigned to this patient. My RN thought it would be a good experience for me to hang the blood on this girl, not taking into consideration my confused emotions and ethical uncertainty at this. I was devastated as I had to cover the blood tubing with cloths so the girl could not see that we were actually giving her the transfusion. I could not lie to the girl, I had to tell her that it was indeed the blood transfusion. I felt helpless, confused and most of all angry for having to deal with this situation with little support from the other staff members who were working at the time.

Nurses also reported feelings of senselessness and guilt associated with unnecessary or pointless interventions for patients. One nurse described the following situation:

A young male who was diagnosed with rheumatic arthritis at age 13, lived for years with excruciating pain.

> Gradually he developed horrific bed sores over every bony prominence. The bed sores were also covered with pseudomonas. Living and breathing for him was excruciatingly painful. He had daily dressing changes that took at least two hours. For me, as a student it took at least three hours.... Gloved, masked, gowned, I was encased. It was a hot hot day and the hospital's air conditioning had failed. With every twitch or turn, with every dressing removal or application he would scream. He would tip back his head and scream until I was finished each portion. Then he would lapse into unconsciousness for a few minutes. I did the entire thing with sweat and tears rolling down my face. I even sobbed out loud once when I made him roll to one side. This boy was very terminal. He died one week later. We all knew he was on his way out. I recall feeling horrified that he was forced to endure torture for no valid reason. Wound healing was not a valid reason, as he was dying.

Within this category nurses also described their feelings associated with being caught between what the family wished and identifying what would really be best in terms of the patient. One nurse described the following situation as a CI:

> A nineteen-year-old trauma patient whose father was

killed in the same car accident was admitted to the nursing unit. She arrived during a night shift and I was working days. The patient's family had not informed her of the death of her father. The family did not want to tell her for a few days. They felt she was not strong enough emotionally. The patient would be asking how her father was and I was not able to tell her. I was fearful that she might hear it from someone other than her family. She was a university student and of East Indian descent. She was eventually told two days later by her family, after numerous phone calls and discussions with the family and myself.

Jameton (1984) noted that there is often overlap/ blurring between the concepts of ethics and morality. Ketefian (1989) also acknowledged that there is confusion between moral reasoning and ethical practice. Therefore, for the purposes of this study, morality refers to a set of values or principles to which one is personally committed (Jameton, 1984). Jameton stated that within nursing these values are often guided by the formal set of rules, as in the Canadian Nurses' Association (CNA) Code of Ethics (1991). Again, moral distress is referred to as a situation in which a nurse knows what ought to be done (moral choice) but there are contextual constraints preventing moral action (Rodney & Starzomski, 1992).

Twenty-eight percent of the participants described CIs that were consistent with moral distress. Some authors suggest there are links between moral distress and stress and burnout (Cameron, 1986; Rodney & Starzomski, 1992). There are no reports of moral distress as a CI and this study is the first to identify it. One explanation is that nurses could have identified moral distress CI experiences previously, but the experiences were not separated from the research relating to stress. However, there was evidence within the current research in the area of ethics that there were nurses who left their jobs in part as a result of their inability to cope with moral distress (Wilkinson, 1987/ 1988). The investigator speculated that the nurses in Wilkinson's study might have identified their moral distress as a CI since the effects were quite serious (they left their positions).

Nursing practice has become more complex within the last ten years. There have been numerous technological advances and patient acuity and financial restraint have increased as has consumerism. Nursing decisions have become more complex and perhaps there are more situations in which the rules are unclear. It was not surprising, therefore, to obtain empirical evidence that nurses were experiencing moral distress CIs.

The nurses within this study expressed heightened

feelings of helplessness, senselessness, anger, and frustration. This finding is consistent with two studies involving moral distress (Erlen & Frost, 1991; Rodney, 1987). One investigator explained that the strength of nurses' feelings was dependent on how closely they related to a patient situation and their role in trying to deal with the situation (Wilkinson, 1987/1988). Lazarus & Folkman's (1984) framework also supported this; individuals who hold strong beliefs and values surrounding an event will have stronger reactions (because the events are important and have meaning to them).

Lack of Responsiveness from a Health Care Professional

Eleven out of the 50 CIs were grouped within this second category. Situations within this category occurred within the context of not receiving adequate response and/or interventions from members of the health care team during a serious or critical situation. Such situations were associated with nurses feeling frustrated and angry. The following two examples illustrate this. One nurse reported:

> I was working nights and I had finished handing out the evening medications half an hour previously, when I heard a patient yelling. He was usually very mild mannered, but was now throwing items in the room and being verbally abusive. Although he was unable to walk, I feared for my own safety as well as the safety

> of the other two patients in the room. The doctor was called and he ordered blood gases "STAT." I explained that I could not get near the patient let alone take blood gases. He said "Do the best you can" and hung up. Two more times the doctor was notified before he would order sedation. Ultimately the security was called, four nurses from the hospital and two R.C.M.P. officers were used to hold the patient down to give the sedation.

The following example occurred on a night shift and involved a patient who was experiencing delirium tremens. He was not given any sedation during the day shift, and was becoming progressively more agitated. The nurse wrote:

> He had pulled out his intravenous, was hallucinating and was very diaphoretic. I called the doctor then, and received an order for an oral medication as the patient refused to have an intravenous started. I then gave him the oral dose stat. From then on the situation was awful. Security was called as he became physically and verbally aggressive and was going into all the patients' rooms and going through their belongings. He continued to hallucinate and became extremely paranoid. Again the doctor was called for further orders. The doctor voiced annoyance at being called but reluctantly gave an order for Haldol

> intramuscular. This was given with no effect. After 30 minutes I called the doctor again to be asked "What time is it now?" and "Do you need anything else?" The doctor was politely told of the patient's severely escalating condition. Again Haldol was ordered and again after 30 minutes it was ineffective. All of this was given with no effect, as well as patient being restrained with leather wrist and ankle restraints. Each time the doctor was called she expressed annoyance and was then asked to come to the hospital to assess patient. This was refused as well as a request for an internist. For at least nine hours this patient screamed obscenities and was physically abusive.... I was very concerned for the safety and life of this patient as well as the safety and well-being of the other 19 patients and the staff.

Although the two previous examples involved violence towards a nurse, the stressful situation evolved into a CI because of the lack of responsiveness on the part of the physician. These escalating situations could have been prevented if the nurses had received adequate support from the physician.

This next example involved lack of responsiveness on the part of colleagues during a crisis situation. The nurse wrote:

> I was a new grad at the time (< 4 months) and it was my first shift working without a preceptor in a very specialized acute medical floor. My patient was considered a fairly light assignment. At approximately 0500 hours the patient passed approximately 2 litres of fresh melena. I called the doctor to come in and received some orders. I informed my co-workers that my patient was bleeding but received no help or support. It wasn't until I grabbed one co-worker and looked her in the eye and stated I need help now, that I did actually receive help. The patient continued to actively bleed. A crisis situation evolved. The doctor who arrived to "help" was very condescending and angry. I felt people (doctor and nurses) were ignoring me when I said my patient was bleeding. I felt they were saying to themselves, "Oh, she is new, she has never seen a major bleed."

In this sample, 22% of the CIs reported were related to lack of responsiveness from a health care professional. Previous investigators may have alluded to this lack of responsiveness by reporting nurses who considered lack of a physician's presence during an emergency/crisis as being stressful (Anderson & Basteyns, 1981; Spoth & Konewko, 1987).

Lazarus and Folkman's (1984) theoretical framework also

assists in understanding why this kind of event was appraised as a CI. A nurse who had less than adequate resources in a serious patient situation experienced uncertainty and fear as how to cope with the event. Huckabay and Jagla (1979) reported that communication difficulties amongst staff were considered to be stressful. The context of these communication difficulties is not known (whether they were related to patients, staff, physicians, or family members).

There was no previous evidence within the current CI literature that identifies this type of CI. Explanation as to why nurses appraised this lack of responsiveness as a CI may be related to situations that nurses assessed as serious that became more severe and could have been easily prevented.

Violence Toward Nurses

Violence toward nurses was another category that nurses described as being a CI. Ten out of 50 CIs were grouped within this category. Violence encompassed verbal abuse, verbal threats, and physical abuse toward a nurse by a patient or another member of the health care team. Exerting power over another person was also considered to fit within this category. Nurses described feelings that were associated with vulnerability. For example, nurses were fearful of their safety when they were the targets of verbal

threats. The CI for one nurse relates to a post-operative patient being verbally and emotionally abusive:

> This patient was using foul, vulgar, abusive language in a very loud and threatening manner. The patient also used arm motions in an attempt to threaten me. Attempts were made to calm the patient down but were unsuccessful. The patient frightened all of the patients on the floor.

In other circumstances nurses were the target of physical threats with associated risk of physical injury and possible death. The following two examples illustrate this. One nurse described how a 19-year-old male patient with encephalitis became very disoriented and agitated:

> He was physically very strong and had broken out of leather wrist restraints. At the time of the incident he ran down to the nurses station and saw me. He mistook me for his ex-girlfriend and proceeded to swing the leather restraints with large metal buckles at my head. A resident doctor in the next room heard the incident and tackled the patient by his feet, dropping him to the floor. I feared for my life. If I had been hit with the whirling buckle, I would have surely suffered a serious head injury.

A second nurse recalled:

> Suddenly I heard a call for help down the hall. I

> walked into a private room where the call had originated from. In that room I saw three nurses attempting to clamp a very violent man's chest tube, he was trying to kick or hit one of the nurses. I yelled, "get out of here," and they all came to their senses and started to get out of the room. When the patient cracked his chest tube bottle and was waving a broken bottle at the nurses everyone ran out of the room. It was very scary to see how close these nurses were to being wounded with a broken bottle by a crazy man.

Violence was not restricted to nurse-patient interactions; in some instances it was between a physician and a nurse. The nurse expressed feelings of anger and belittlement associated with lack of respect as a professional. The physician was exercising overt power over the nurse. She described a situation in which her patient was on telemetry:

> The key persons involved were: chief of general surgery, patient (who was a doctor), and myself. The ICU reported to me that the patient's monitor was reading as a "straightline." I went in the room to check on the patient. The chief surgeon was sitting in chair taking a history and physical. I excused myself and checked the patient's leads. The surgeon burst out with abusive language toward me for

> interrupting his history and physical. He told me to wait outside. Words were exchanged between the surgeon and myself. The situation got totally out of control. I told the surgeon never to call me down in front of a patient. The surgeon flew into a rage.... What got to me was that the patient, even though he agreed I was correct to check on him said, "I have to take the doctor's side because I am also a doctor."

In this study, 20% of the sample described CIs that involved violence. There was literature describing violence as a stressful occupational hazard for nurses (Anderson, Ghali & Bansil, 1989; Cox, 1987, 1991; Lipscomb & Love, 1992). Violence was only implicitly referred to by CIS authors (Bergmann & Queen, 1986a). This finding is significant as there was evidence of physical assault, verbal threats by patients, families, and a physician as being components of violence in this study.

Explanations as to why nurses identified violent events as CIs vary. Some nurses were afraid for their own lives, the safety of other patients, or the potential for something serious happening. Nurses valued their own safety and an event that was perceived as a threat to this safety was appraised as stressful, which is consistent with Lazarus and Folkman's (1984) reasoning. Another possibility that is consistent with Lazarus and Folkman's framework is related

to the lack of resources available. Several of these violent events occurred during night shift, when there were less staff to respond to an urgent situation. In addition, nurses may have reported these violent CIs because violence within acute care settings is on the rise (British Columbia Ministry of Health, 1992a). Nurses may also not be willing to accept violence as "part of the job," and are therefore reporting violent incidents.

It is not surprising to find studies that provide evidence that health care workers have lost much time due to workplace violence and some have even left their positions. In 1987 and 1991, Cox reported that 18% and 24.3% of the annual staff turnover was related to verbal abuse. In addition, Carmel and Hunter (1989) reported that 121 staff members sustained 135 injuries over a one year period in a maximum security forensic hospital, with 43% of the injuries resulting in lost time at work.

Emergency Situations

Within this sample six of the CIs fit within this category. All of the incidents involved patients whose status was deteriorating. In some situations the patients experienced a cardiac or respiratory arrest while, in others, the nurses perceived this as highly likely. The nurses were caring for patients who were near death, and were implementing measures to try to prevent death. One

nurse described the following:

> I was working with a practical nurse, the others were on coffee break. The ward was very busy, and almost every call bell was on. I found one patient who had a tracheostomy a few days back lying on the floor. The patient had pulled the trach out. There was blood all over the floor. I checked the patient and found him unconscious, with his skull split open at the back. I was unable to assist the patient back to bed. There was no one to make a phone call so I called, "arrest." I did get help but it sure took long time, the patient ended up in ICU.
>
> A second nurse wrote:
>
> Shortly after coming on shift at 1930, an arrest was called while I was receiving report. The patient had surgery the day before and was up and about. The practical nurse (PN) found the patient lying in bed in a pool of blood, in a full arrest. I started cardio-pulmonary resuscitation (CPR), the arrest team arrived.... I was playing "gofer" and the PN was doing compressions. All other staff for the shift were trying to continue with other duties. Approximately 15 minutes into the arrest, another patient complained of feeling dampness around his dressing (same surgery and same day). When the RN looked under the bed linen, the

> blood was spurting. She yelled and another PN came to help. It took two to put pressure on the site so it wasn't spurting.... Within 15 minutes we had the second patient in the operating room. However, he was near arrest. Meanwhile the arrest team continued to work on patient number one, but was unsuccessful after 1 hour and 15 minutes. Basically in an hour and a half into my shift--one arrest caused by an arterial bleed, and a second with an arterial bleed and just 10.5 hours left to work!

Death

This category involved nurses who cared directly for patients who were near death and/or their grieving families. A total of six CIs were grouped in this category. Several nurses' CIs involved the death of a young patient. The following is a situation one nurse faced:

> During my shift in the neurological intensive care unit my patient deteriorated rapidly. She was a 23-year-old new mother who had suffered a subarachnoid hemorrhage, and because of the position of her aneurysm she was not a candidate for surgery. She subsequently went into vasospasm and infarcted half her brain and had a cerebral herniation while I was caring for her. She died the next day.

Common characteristics associated with this category

included nurses' feelings of helplessness, sadness and grief. For example one nurse recalled caring for a "28 year old leukemic patient who died. He had an eleven-month-old child and a newborn. His wife took the death very hard--difficult to console."

Numerous investigators have reported that nurses appraised death and emergency situations as stressful (Anderson & Basteyns, 1981; Burns et al., 1983; Foxall et al., 1990; Huckabay & Jagla, 1979). In this sample, nurses (six in each category) reported death and emergency situations as CIs. These findings are consistent with Lazarus and Folkman's (1984) theoretical framework.

Identification of death as a CI could be explained by the degree of loss surrounding the death. Some of the CIs involved deaths of young children, a young mother and father, and a death witnessed by a young child.

In relation to emergency situations, one possible explanation as to why nurses appraised these events as CIs is that they were confronted with the events within a medical/surgical nursing unit. Emergency situations may not have occurred on a daily basis. In combination with their heightened level of fear and uncertainty related to patient outcomes, their perceptions of a CI may also be explained by the lack of resources available at the time. For example, in comparison to an ICU, resources are less readily

available.

Contact With Infectious Body Fluids

Three of the 50 CIS experiences fit into this category. It included the CIs that nurses described related to direct contact with potentially life-threatening infectious diseases, such as Hepatitis B/HIV, as the following examples illustrate. One nurse wrote:

> I poked myself with a needle used on an HIV positive patient. I had to go to occupational health, and be admitted through emergency and seen by the Chief Executive Officer. I had a blood test done and then I was offered the option of receiving A.Z.T.(medication treatment for individuals testing positive for HIV). This option of taking A.Z.T. was done over the telephone. I had to complete numerous forms and the whole process took more than two hours. I was terrified and did not return back to work that day or for about one and a half weeks for stress leave (fearing I had contracted HIV and having no control over this).

A second nurse reported:

> A 27-year-old long term patient died half an hour before I arrived on the ward after I had been off sick for a number of days. Her mother met me in the corridor and told me of her death and we cried

> together. Then I started my shift. Later that afternoon a high risk HIV patient was returning from the O.R. and during the transfer his davol snapped apart spraying my face, eyes, and mouth. I had a fresh cold sore on my lip and I was concerned that it may have been a possible entry site. Hospital procedure dictated a wash and to be seen in emergency. The ward was busy and could not afford my prolonged absenteeism twice during the shift. I had to return again after my shift and wait about one hour to be attended to.

Again, there was no direct referral to direct exposure to a life-threatening disease as incidents in the CI literature. Bergmann and Queen (1986a) implicitly stated that a CI may involve an event that causes a serious physical risk.

The British Columbia Ministry of Health (1992b) reported 1,411 HIV cases in B.C.. Across Canada there were 7,282 cases of HIV (Health and Welfare Canada, 1992). Nurses care for these individuals during various stages of their disease processes, and in different contexts (acute care settings, clinics, home care, and hospice programs).

Explanations as to why nurses appraised their exposure to this potentially life-threatening disease were possibly related to having no control of the situation, uncertainty,

and fear of testing positive for HIV. The process of testing takes at least six months for accurate results and this could possibly make things even worse. In addition, nurses described the steps that had to be taken as imperfect. Two out of the three nurses had to wait one to two hours in the emergency of their respective agencies to have necessary blood work and paper work completed. After all procedures were final, nurses returned to work to resume their duties (each of the nursing units would have had to work short staffed while they were absent). The stress of potential harm was augmented by competing pressures, responsibility to self versus responsibility to the colleagues and patients on the unit.

One of the nurses did receive one initial visit with a psychologist, but she said that this was not useful, as there was not much discussion about the event. This finding raised a question as to whether hospitals could provide improved protocols/procedures, as well as accessible and meaningful resources to nurses with this specific kind of CI.

Research Question 2: What are Medical/Surgical Staff Nurses' Reactions to an Event Appraised as a CI?

Using the Critical Incident Information Form (Appleton, 1992), information was gained about the physical reactions that nurses experienced one to two days following

the CIs. They reported a variety of physical reactions related to experiencing CIs (see Table 5).

Table 5
Physical Reactions to a CI

Physical Reaction N=43	Frequency	Percent(%)
Nausea	7	16.0
Diarrhea	2	5.0
Headache	10	23.0
Fatigue	35	81.0
Insomnia	20	47.0
Others	14	33.0

In addition to these, 33% of the nurses reported several others, such as, nervousness, crying, anxiety, fear, decreased concentration, agitation, preoccupation with the event (thinking about it all the time), tense stomach, and shaking of the knees.

Other emotional reactions to CI experiences were measured using Folkman and Lazarus's (1986) Emotional Appraisal Scale. Nurses reported using a variety of such reactions (see Table 6). During the first few days and evenings following a CI, nurses reported using harm emotions (anger, disappointment, frustration, disgust) with scores ranging from 0 to 16 (M=9.86), threat emotions (fear, anxiety, worry) with scores from 0 to 12 (M=6.36), challenge emotions (confidence, security, control) ranging from 0 to 10 (M=3.48), and benefit emotions (exhilaration, happiness,

relief, pleasure, eagerness, hopefulness) with scores ranging from 0 to 15 (M=3.22). Overall, nurses' total scores ranged from 6-44 (M=22.40).

Table 6
Scores on Emotional Appraisal Scale

Score	Frequency	Percent (%)
	Threat Appraisal (M=6.36, S.D.=3.37)	
0-2	9	18.0
3-5	13	26.0
6-8	11	22.0
9-12	17	34.0
Total	50	100.0
	Harm Appraisal (M=9.86, S.D.=3.80)	
0-2	3	6.0
3-5	3	6.0
6-8	12	24.0
9-12	17	34.0
13-16	15	30.0
Total	50	100.0
	Challenge Appraisal (M=3.48, S.D.=2.95)	
0-2	20	40.0
3-5	15	30.0
6-8	11	22.0
9-12	4	8.0
Total	50	100.0
	Benefit Appraisal (M=3.22, S.D.=4.03)	
0-3	33	66.0
4-7	8	16.0
8-11	6	12.0
12-15	3	6.0
16-20	0	0.0
21-24	0	0.0
Total	50	100.0

With reference to Folkman and Lazarus's (1986) study, overall scores were comparable (M=20.06) to the nurses' total scores in this study (M=22.40). However, nurses who experienced CIs reported a higher intensity of negative (harm/loss and threat) emotions than did participants in the Folkman and Lazarus study who were lay people. The finding can be explained by the fact that nurses who experienced CIs were frequently in situations where the stakes were high. For example, in numerous instances, nurses perceived threats to their safety or a patient's safety, as was the case in terms of the violence and lack of responsiveness categories. In other words, the investigator believes that nurses used these harm and threat emotions more frequently because they were often dealing with difficult situations in which they could in some cases become victims themselves (as in the case of violence).

The above finding relative to harm and threat emotions is consistent with the anecdotal CIS literature in other occupations (emergency rescue personnel) (Mitchell, 1982, 1983; Snelgrove, 1989).

Still, there was a small number of nurses who reported using the benefit and challenge emotions after CIs. This finding is consistent with Lazarus and Folkman's theoretical framework in that individuals will use a variety of emotions during a stressful encounter. The finding is also

consistent with stress literature. For example, several authors reported that nurses often experienced stress reactions in relation to patient care and interpersonal relations but also reported the greatest amount of challenge from these same two situations (Bailey et al., 1980). In relation to this sample, nurses may have been worried, fearful, and anxious, but at the same time experienced emotions such as relief, hope, and confidence. There were stressful events encountered by individuals in which the four types of stressful appraisals were also not mutually exclusive (Lazarus & Folkman, 1984).

Research Question 3: How do Medical/Surgical Staff Nurses Cope with a CI?

Using the Ways of Coping Scale (Folkman et al., 1986), nurses' coping strategies following a CI were measured. It was reported that during the first few days and evenings following a critical incident nurses used a variety of emotion- and problem-focused coping strategies (see Table 7).

Emotion-focused coping strategies included distancing, self-controlling, accepting responsibility, escape-avoidance, and positive reappraisal. Problem-focused coping strategies included seeking social support, confrontive coping, and planful problem-solving. The top four coping strategies, in descending order, used by the nurses were

seeking out social support, with scores ranging from 0 to 15 (M=8.00), self-controlling with scores from 0 to 14 (M=5.96), positive reappraisal with scores from 0 to 18 (M= 5.14), and planful problem-solving with scores ranging from

Table 7
Scores on Ways of Coping Scale

Way of Coping	Score	Frequency	Percent(%)
Confrontive (M=3.78, S.D.=3.13)			
	0-3	29	58.0
	4-7	15	30.0
	8-11	4	8.0
	12-15	2	4.0
	16-19	0	0.0
Total		50	100.0
Distancing (M=3.90, S.D.=3.03)			
	0-3	29	58.0
	4-7	14	28.0
	8-11	6	12.0
	12-15	1	2.0
	16-19	0	0.0
Total		50	100.0
Self-Controlling (M=5.96, S.D.=3.82)			
	0-3	15	30.0
	4-7	20	40.0
	8-11	8	16.0
	12-15	7	14.0
	16-19	0	0.0
Total		50	100.0
Social Support (M=8.00, S.D.=3.46)			
	0-3	6	12.0
	4-7	14	28.0
	8-11	24	48.0
	12-15	6	12.0
	16-19	0	0.0
Total		50	100.0

0 to 12 (M=4.70). The confrontive coping strategies scores ranged from 0 to 15 (M=3.78), distancing from 0 to 12 (M=3.90), accepting responsibility from 0 to 7 (M=2.08), and

Table 7 (Continued)

Way of Coping	Score	Frequency	Percent(%)
Accepting Responsibility (M=2.08, S.D.=2.01)			
	0-3	37	74.0
	4-7	13	26.0
	8-11	0	0.0
	12-15	0	0.0
	16-19	0	0.0
Total		50	100.0
Escape-Avoidance (M=3.60, S.D.=3.30)			
	0-3	29	58.0
	4-7	14	28.0
	8-11	5	10.0
	12-15	2	4.0
	16-19	0	0.0
Total		50	100.0
Problem-Solving (M=4.70, S.D.=3.28)			
	0-3	20	40.0
	4-7	23	46.0
	8-11	3	6.0
	12-15	4	8.0
	16-19	0	0.0
Total		50	100.0
Positive Reappraisal (M=5.14, S.D.=4.14)			
	0-3	20	40.0
	4-7	19	38.0
	8-11	7	14.0
	12-15	2	4.0
	16-19	2	4.0
Total		50	100.0

escape avoidance from 0 to 13 (M=3.60). Overall, the nurses' scores ranged from 2 to 74 (M=37.16). The nurses' total score was higher (M=37.16), than that for Folkman and Lazarus's 1986 sample (M=30.08). Both of these samples utilized a variety of both problem- and emotion-focused coping strategies. The nurses' higher total score was a result of their using primarily two problem- and emotion-focused coping strategies (seeking social support, planful problem-solving, self-controlling, and positive reappraisal). The use of a variety of coping strategies is consistent with Lazarus and Folkman's (1984) theoretical framework and research suggests that effective coping includes the use of an average of six to seven different types of coping strategies (Folkman & Lazarus, 1985). In addition, these same investigators determined that there was an association between problem-focused coping and one type of emotion-focused coping, emphasizing the positive. Therefore, it can be suggested that nurses who used positive reappraisal (emotion-focused coping) may have utilized problem-focused coping more readily.

There is additional support for these findings within the nursing stress literature, with several investigators reporting that nurses used a variety of the following strategies: talking to people about their experiences (both at home and at work), use of humour, confrontation, drawing

upon past experiences, trying to base action on understanding of the situation, setting priorities, trying to put things into perspective, expressing feelings or frustrations, keeping the problem to self, using caffeine, trying to keep a positive perspective, and accepting the job as it was (Dewe, 1987; Gribbins & Marshall, 1982; Kelly & Cross, 1985; Robinson & Lewis, 1990; Schaefer & Peterson, 1992).

There was no evidence within the CI literature on how nurses tried to cope with CIs. It seemed that, although these nurses experienced a more traumatic event, they were using coping strategies similar to those used by nurses in stressful situations. However, this study did not measure the effects of and coping strategies that nurses used as a result of these CIs in the long term. Perhaps some of the nurses were coping with the CI weeks or months after the event.

Although this sample was 97% female, and generalizations cannot be made as to whether women in this sample coped differently than the men, there are several pertinent studies. For example, Long (1989) reported that within our society there is an underlying assumption that women do not cope with stress as effectively as men. However, in a study of 100 middle-aged adult men and women (aged 45 to 64), Folkman and Lazarus (1980) reported that

98% of the subjects used emotion- and problem-focused coping in dealing with stressful events of daily living. What is particularly interesting is that men used more problem-focused coping at work than did women. It was reported that, in similar contexts of daily living, women and men did not differ in their use of emotion-focused coping. In a 1986 study involving 75 married couples, Folkman et al. reported that men and women consistently used emotion- and problem-focused coping in dealing with stressful events in similar contexts.

Dunkel-Schetter, Folkman and Lazarus, (1987) reported that women were using reappraisal as a coping strategy more than men in similar working contexts. These investigators postulate that this strategy reflects a more optimistic outlook and need to use an inner-focused strategy to cope with a given stressor.

Additional Findings

Debriefing has been recognized as one strategy to assist nurses to cope with CI experiences. When the subjects were asked if they had participated in a debriefing session following their CI, a large majority (84%) responded "no." The nurses who responded "yes" described their main support coming from their head nurse or a person from pastoral care. They talked to these individuals about the situation and received support by being able to express

their feelings about the incident. Other nurses described informal talks with their peers as being beneficial (often nurses were told that they had done all that was possible). Furthermore, the nurses who did not participate in a debriefing wished that they had had the opportunity to do so.

Debriefing for the purposes of this study was defined as "a formal psychological and educational group process aimed at softening the impact of stress as a result of experiencing a CI, through 'talking it out'" (Snelgrove, 1989). This is an important finding as nurses recognized that such an approach may have assisted them in coping with the CI.

Only a few studies have attempted to measure the effectiveness of these debriefings (Alberta Public Safety Services, 1985a, 1985b). Robinson (1992) reported that hospital personnel found them helpful through talking with others about the incident (42%), talking about the incident (17%), understanding of self (12%), understanding of the situation (9%), and 9% stated that they gained solutions, support, and direction. The author also recognized the lack of research findings related to debriefings as they are confidential groups, and it is therefore difficult to measure their effectiveness (Dr. R. Robinson, personal communication, November 5, 1992).

Although the investigator provided the nurses a definition related to the debriefing option, there are other forms of intervention that may be more beneficial to nurses. For example, defusings may be another means of assisting nurses in coping with their CIs. Defusings are similar to debriefings except that they are shorter in length (20 to 45 minutes) and may only involve two to three people. Within the air traffic industry, Logie (1992) reported that many of her interventions incorporated one-to-one defusings. There are similarities between both of these intervention modalities. The most important is that both interventions involve skilled individuals. A mental health professional is an essential part of the team. However, Robinson and Murdoch (1991) emphasized that peers who are educated in the debriefing process are the main thrust of the program. "In many instances peers have been in the same or similar situation as the troubled employee, peers can therefore often readily understand the plight of their colleagues and they are generally perceived by their colleagues 'to understand'" (Robinson & Murdoch, 1991, p. 1).

Through attendance at a recent workshop the investigator learned that CISD programs should have a strong connection to an employee assistance program and mental health support. Mental health professionals are available for referrals, consultation, and participation in

debriefings as necessary. Within acute care settings, nurses who volunteer to become peer debriefers must be respected by their colleagues, educated about CISD interventions, and be committed to these interventions.

In terms of costs to implement such programs, some emergency services departments have been able to start the program with $10,000.00 (Richmond Fire-Rescue Department, 1990). Some hospitals have also developed a team on a totally volunteer basis (Lawrence, 1992). Costs are an important factor for setting up necessary programs. However, administrators must consider the savings in the reduction in sick calls, stress leave, and possibly increased retention.

Research Question 4: How Have CIs Impacted on Medical/Surgical Nurses' Professional and Personal Lives?

Nurses responded to several questions that related to the impact of these specific CI experiences within their professional and personal lives. Twenty-nine percent of this sample reported that the CIs did have a negative impact on interpersonal relationships with their colleagues at work, while 71% did not report a negative effect. Furthermore, 18% reported that the CI did affect their relations with family and/or friends, with 82% reporting no effects on relationships.

The majority (70%) of this sample were recalling CIs

that occurred during their present position and, of this 70%, 11% considered leaving their positions. Of the 30% of nurses recalling events that occurred in previous positions, 27% had considered leaving their positions because of the CIs.

One of the reasons why there is concern about stress and CIs is that there are negative effects within nurses' lives at work and at home. The investigator believed that a large number of these nurses would consider that their CIs had a negative affect on their personal and professional lives, but this was not the case.

There could be several reasons for this finding. First, the questions developed by the investigator were very broad. Secondly, nurses may not have considered whether the CIs affected such aspects of their lives as communication difficulties with their families, illness, and tension between colleagues at work. Thirdly, nurses within this study may not have been conscious or aware that their lives were indeed affected by the CI. Some of the nurses who had experienced such effects may have already left the profession.

Within this chapter the major findings were discussed in relation to previous research studies, Lazarus & Folkman's (1984) theoretical framework, and pertinent literature. Through the use of content analysis, six CI

categories were identified: moral distress, lack of responsiveness, violence, emergency situations, death, and direct exposure to a life-threatening disease. The majority of the nurses recalled CIs that occurred earlier in their careers, and on evening or night shifts. Nurses recalled a variety of physical and emotional reactions, and primarily used four different types of strategies to cope with the CIs. A large majority of the respondents identified debriefing as being an option that might have been helpful in coping with the CIs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter includes a summary of the study and conclusions based on the findings. Implications for nursing education, administration, and future research are outlined.

Summary

Despite numerous studies that investigated how staff nurses appraised and coped with stress in their daily practice, there were no studies located that related to staff nurses and a specific kind of stress: critical incident stress (CIS). Literature pertaining to CIS among nurses was anecdotal and emphasized the need for programs to assist nurses in coping with CIs. The purpose of this study was to describe how nurses appraised, reacted to, and coped with a CI.

The investigator selected a descriptive design and recruited 50 medical/surgical staff nurses within three different hospitals to comprise the sample. All participants completed four instruments: Participant Information Sheet, Critical Incident Information Form (Appleton, 1992), Emotional Appraisal Scale (Folkman & Lazarus, 1986), and Ways of Coping Scale (revised) (Folkman et al., 1986). These instruments were used to answer the four questions that guided this study: 1) What events did medical/surgical staff nurses appraise as CIs? 2) What were

medical/surgical staff nurses' reactions to an event appraised as a CI? 3) How did medical/surgical staff nurses cope with a CI? 4) What impact have CIs had on medical/surgical nurses' professional and personal lives?

Participants ages ranged from 20 to 58, with the majority between the ages of 20 and 31. The majority of the CIs that these nurses recalled occurred early in their nursing careers, with some occurring while they were nursing students.

Through content analysis it was determined that the CIs fell into the following six categories: moral distress (14), lack of responsiveness from a health care team member (11), violence (10), emergency situations (6), death (6), and exposure to a life-threatening disease (3).

Nurses reported a variety of physical reactions within the first few days and evenings following the CIs, with the majority experiencing fatigue and a moderate proportion experiencing insomnia. The largest number of nurses experienced emotions that corresponded to Lazarus and Folkman's (1984) harm/loss and threat emotions. Nurses also reported using the challenge and benefit emotions, but to a lesser degree.

Responses on the Ways of Coping Scale (revised) (Folkman et al., 1986) indicated that nurses utilized a variety of emotion- and problem-focused coping strategies to

cope with their CIs. The four most commonly used coping strategies were: seeking out social support, self-controlling, positive reappraisal, and planful problem-solving. The use of a variety of coping strategies is consistent with Lazarus and Folkman's (1984) theoretical framework. At least 18% of the nurses also reported that the CIs did have an impact on their professional or personal lives. Eighty-four percent of the nurses identified the need for more formal assistance in coping with their CIs.

Conclusions

The conclusions extracted from this study are the following:

1. Medical/surgical staff nurses do experience CIs within their daily practice.

2. The majority of medical/surgical staff nurses recalled CIs that occurred early in their nursing careers.

3. The majority of the CIs reported occurred on nights/evening shifts.

4. The nurses primarily experienced harm/loss and threat emotions one to two days following the CIs.

5. The nurses primarily used four different types of strategies to cope with the CIs: seeking out social support, self-controlling, positive reappraisal, and planful problem-solving.

6. Debriefing was identified by the majority of the nurses as one resource that would have been helpful following the CIs.

7. A small percentage of the nurses reported that the CI experiences did have an impact on their personal or professional lives.

Implications

A number of implications can be identified for nursing education, administration, and research.

Nursing Education

Educational programs within acute care hospitals should educate nurses about critical incident stress and inservice educators should advocate the development and implementation of programs to assist nurses following CIs. Debriefing and defusing are two such programs.

Nursing educators may find it useful to know that some nurses recalled CIs that occurred early in their careers or when they were students. Recognizing the potential for such occurrences among students will help to ensure that appropriate resources are available to assist them in coping with this kind of stress. In addition, within nursing curricula, a course in ethics should be incorporated in order to assist students to recognize moral dilemmas in practice. In addition, such a course will provide students the opportunity to identify how they might cope with such

moral dilemmas as beginning practitioners.

Nursing Administration

Nursing administrators may find it useful to know that the term CI does not mean that this kind of stress occurs only within a critical care context. Other studies have shown that nurses working within a medical/surgical context experience just as much stress as critical care nurses and sometimes even more. The findings of this study provide evidence that nurses experience different types of CIs. Some of those described offer new perspectives such as moral distress, lack of responsiveness, violence, and exposure to a life-threatening disease. The implementation of debriefing and/or defusing programs will only be effective if planners and organizers are aware of the kinds of CIs nurses experience.

Administrators should be aware that a large number of nurses reported CIs that fell within the category of moral distress. As patient acuity levels increase within the medical/surgical context and financial constraint continues, this specific type of CI may be even more prevalent. Therefore, the investigator suggests that acute care hospitals establish ethical committees with staff nurse representation. The committees should be accessible to staff nurses confronted with moral dilemmas.

Nursing administrators should also be aware that nurses

described CIs that were categorized as a lack of responsiveness from a health care team member (most of these CIs involved the physician). Policies should be implemented that provide clear direction for staff nurses when they are confronted with this situation. For example, a nurse who is not receiving adequate support from a physician should have recourse to a mechanism for addressing the problem. Nurses should also receive inservice education in assertiveness and conflict resolution. Physicians should also participate in seminars regarding effective communication skills.

Nursing administrators and inservice educators should be aware that violence was identified as one category of CI within this sample. Management must provide all staff nurses with inservice education about the management of patient aggression and strategies to prevent, manage, and resolve violence against nurses. With this finding, questions are raised concerning the structures within hospitals to assist nurses in coping with violence. For example, several hospitals have implemented emergency response teams and educational programs to assist nurses in dealing with violence (Burke, 1992). In addition, the British Columbia Hospital Association is planning to implement a new educational program entitled "Drawing the Line" for the specific purpose of providing guidance to hospitals in managing violence within the workplace (B.

Goodall, personal communication, February 8, 1993).

Given that a few of the nurses' CIs involved exposure to a life-threatening disease, policies and procedures should be in place to ensure that quick and thorough measures are implemented.

Nursing administrators should also be aware that most of these medical/surgical staff nurses' CIs occurred on nights or evenings. It has always been true that fewer nursing staff are scheduled on nights and evenings. This investigator questions whether this can continue, especially as the level of patient acuity continues to rise.

Lastly, the findings raise questions about the employers' responsibility for the well-being of their employees. The British Columbia Nurses Union and the Registered Nurses Association of British Columbia have advocated changes to the existing structures. Nurses are the largest group of health professionals within acute care settings. It is important to have adequate resources for them to draw upon. Examples of these resources may include debriefing teams, defusing teams, peer support groups, and counselling, changes in care delivery methods, and more resources available on evening and night shifts. Such interventions may serve to reduce time lost in turnover and illness, resulting in substantial budgetary savings.

Nursing Research

As this investigator used a convenience sample to recruit the medical/surgical staff nurses it would be beneficial to repeat this study, but choose a probability sampling technique to increase the generalizability of findings. This study described how medical/surgical staff nurses appraised, reacted to, and coped with CIs. Studies describing and comparing how nurses in other contexts (e.g., paediatrics, obstetrics, critical care, community health) and of both sexes experience CIs would be beneficial in increasing the understanding of CIS among nurses.

This study was descriptive in nature and nurses were only asked to describe one CI. It would be beneficial to design a study measuring the prevalence of CIs among nurses. This type of study might indicate whether some specialty nursing groups experience more CIs than others. A study designed to measure the relationship between nurses' CIS experiences and job satisfaction and burnout would add to the knowledge about quality of worklife.

This study focused on obtaining data on the nurses' reactions and coping strategies at one point in time. A study of the long term effects of CIS would be useful. Finally, it is important that studies be undertaken of the effectiveness of debriefing and/or defusing sessions in assisting nurses to cope with CIs.

This descriptive study was useful in gaining knowledge related to CIs experienced by medical/surgical staff nurses and how they reacted to and coped with them. However, as CIS research within nursing is in its infancy, it is important that other studies be implemented to assist in understanding the complexities of this type of stress.

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Appendix A: Participant Information Sheet

PART ONE

PARTICIPANT INFORMATION SHEET

AGE:

20-23 ___
24-27 ___
28-31 ___
32-35 ___
36-39 ___
40-43 ___
44-47 ___
47-50 ___
51-54 ___
55-58 ___
59-62 ___
> 62 ___

GENDER: Female ___
Male ___

YEARS OF EXPERIENCE AS A R.N.:

< 1 Year ___
1-3 ___
4-6 ___
7-9 ___
> 10 ___

YEARS IN PRESENT POSITION:

< 1 Year ___
1-3 ___
4-6 ___
7-9 ___
> 10 ___

Appendix B: Critical Incident Information Form

Appleton (1992)

CRITICAL INCIDENT INFORMATION FORM

PART TWO

Please read the following definition, and then proceed.

A critical incident is an event or situation that you consider as being traumatic and causes you to have unusually strong emotional responses, and may also make your usual coping skills ineffective.

1. Describe in 50-75 words a critical incident that you have experienced (Please include in this description who was involved, a brief description of what happened and what role you played in the situation).

2. How long ago did this critical incident occur?

3. When did this critical incident occur? (circle one)

   a) Day Shift (07-15)
   b) Evening Shift (15-23)
   c) Night Shift (23-07)
   d) Days (07-19)
   e) Nights (19-07)

4. What was the worst part of this critical incident?

5. Do you recall this incident as challenging your personal beliefs?

a) yes _____ b) no _____

Elaborate if you wish:

6. Do you recall this situation occurring suddenly (without warning)?

a) yes _____ b) no _____

7. Do you recall having any other stresses in your life at the same time as this critical incident?

a) yes _____ b) no _____

If yes please specify:

a) personal stress _____
b) professional stress _____
c) other _____

8. Did this incident involve dealing with something new?

a) yes _____ b) no _____

If yes please explain:

9. Do you recall that there was an element of uncertainty with this incident?

a) yes _____ b) no _____

If yes please explain:

10. Were you comfortable with the decisions that you made during the incident?

a) yes _____ b) no _____

Elaborate if you wish:

11. After the critical incident (within the first few days and evenings following this event) do you recall experiencing any of the following physical reactions? (circle the relevant reactions)

a) nausea
b) diarrhea
c) headache
d) fatigue
e) insomnia
f) if others, please specify: _____

12. Do you recall the critical incident having a negative impact on your interpersonal relationships with your colleagues at work?

a) yes _____ b) no _____

with your friends and/or family?

a) yes _____ b) no _____

13. Did this incident occur while you were working at your present position?

a) yes _____ b) no _____

If yes please answer question 15. If no go to question 14.

14. Did you consider leaving your position because of this incident?

a) yes _____ b) no _____

15. Have you considered leaving your present position because of this incident?

a) yes _____ b) no _____

16. Please read the following (prior to answering this question):

Debriefing is defined as a formal psychological and educational group process aimed at softening the impact of stress as a result of experiencing a CI, through "talking it out." This is different than informal talking to a colleague about the event.

Did you participate in a debriefing session following the critical incident that you have just described?

a) yes _____ b) no _____

If you answered yes, go to question 18. If you answered no, go to question 17.

17. Would you have liked a debriefing session following your CI?

a) yes _____ b) no _____

18. If there is anything you wish to add regarding this critical incident, please do so in the space provided:

Appendix C: Emotional Appraisal Scale

Folkman and Lazarus (1986)

EMOTIONAL APPRAISAL SCALE

PART THREE

As best you can, describe how you felt after experiencing this critical incident (within the first few days and evenings following this event). To do this, it is important that for each item you circle the number that best describes the extent of that feeling.

	Not at all	A little	Some-what	Quite a bit	A Great deal
a. angry	0	1	2	3	4
b. worried	0	1	2	3	4
c. exhilarated	0	1	2	3	4
d. disappointed	0	1	2	3	4
e. secure	0	1	2	3	4
f. confident	0	1	2	3	4
g. in control	0	1	2	3	4
h. fearful	0	1	2	3	4
i. pleased	0	1	2	3	4
j. hopeful	0	1	2	3	4
k. disgusted	0	1	2	3	4
l. eager	0	1	2	3	4
m. frustrated	0	1	2	3	4
n. anxious	0	1	2	3	4
o. happy	0	1	2	3	4
p. relieved	0	1	2	3	4
q. other (please specify):	0	1	2	3	4

_____

Appendix D: Ways of Coping Scale (Revised)

Folkman et al. (1986)

WAYS OF COPING (REVISED)

PART FOUR

Please read each item below and indicate, by circling the appropriate category, to what extent you used it after experiencing the critical incident (the first few days, and evenings following the event). Simply circle the "not used" column if an item is not applicable.

		Not used	Used somewhat	Used quite a bit	Used a great deal
1.	Just concentrate on what I had to do next -- the next step.	0	1	2	3
2.	I tried to analyze the problem in order to understand it better.	0	1	2	3
3.	Turned to work or substitute activity to take my mind off things.	0	1	2	3
4.	I felt that time would make a difference -- the only thing to do was to wait.	0	1	2	3
5.	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 or her 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 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 had happened.	0	1	2	3
14.	I tried to keep my feelings to myself.	0	1	2	3
15.	Looked for the silver lining, so to speak; tried to look on the bright side of things.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
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. Accepted sympathy and understanding from someone.	0	1	2	3
19. I told myself things that helped me to 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 see what would happen before doing anything.	0	1	2	3
25. I apologized or did something to make up.	0	1	2	3
26. I made a plan of action and followed it.	0	1	2	3
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. Got away from it for a while; tried to rest or take a vacation.	0	1	2	3
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.	0	1	2	3
34. Took a big chance or 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. Maintained my pride and kept a stiff upper lip.	0	1	2	3
38. Rediscovered what is important in life.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
39. Changed something so things would turn out all 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 too much about it.	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; I was in a similar situation before.	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 different next time.	0	1	2	3
52. Came up with a couple of different solutions to the problem.	0	1	2	3
53. Accepted it, 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	3
55. Wished that 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 or imagined a better time or place than the one I was in.	0	1	2	3
58. Wished that the situation would go away or somehow be over with.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
59. Had fantasies or wishes about how things might turn 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 admire would handle this 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

Appendix E: Resource Information

If you found participation in this research has raised issues about your experience with a critical incident, and you would like more information regarding resources and/or resource people, please fill in the information below. I can provide you with a list of possible resource people that may be beneficial to you. **Ensure that you separate this information from you completed questionnaire and leave it on your nursing unit for me, phone me, or send it to me c/o the U.B.C. School of Nursing.**

PLEASE DETACH THIS INFORMATION, DO NOT INCLUDE WITH YOUR COMPLETED QUESTIONNAIRE.

REQUEST FOR RESOURCES/RESOURCE PEOPLE

Name _____

Address _____

_____

AND/OR

Phone Number _____

If you found participation in this research has raised issues about your experience with a critical incident, and you wish to seek out assistance that may be beneficial to you, **please contact the following resource:**

Appendix F: Participant Introductory Letter

PARTICIPANT INTRODUCTORY LETTER

STUDY TITLE: Acute care medical/surgical general duty nurses' appraisal of, reactions to, and coping with critical incidents: A descriptive study.

INVESTIGATOR: Leanne Appleton
Master's nursing student, School of Nursing
University of British Columbia

THESIS SUPERVISOR Professor Judith Lynam
School of Nursing
University of British Columbia
Phone number: 822-7476

Dear Potential Participant,

My name is Leanne Appleton and I am in the M.S.N. program at the University of British Columbia. My thesis is a study of how medical/surgical staff nurses describe, react to, and cope with critical incidents.

Despite numerous studies investigating how nurses react and cope with stress in acute care settings, there is a lack of knowledge concerning nurses' descriptions, reactions, and coping abilities in relation to a specific stressful event, a critical incident. A critical incident refers to an event or situation that a nurse defines as being traumatic, causing unusually strong emotional reactions, and making his or her usual coping skills ineffective. The purpose of this study is to obtain medical/surgical nurses' descriptions of critical incidents and how they react to, and cope with such events.

I invite you to participate in this study if you have had a critical incident experience, and have at least 6 months experience as a R.N. Participation in this study is voluntary, and you may withdraw at any time without jeopardizing your present position.

If you choose to participate in this study, you will be required to complete a set of instruments, that contain information about your description, reactions, and coping strategies in relation to a critical incident. This will take approximately 35-45 minutes to complete.

Your completion of the instruments will be taken as evidence of your willingness to participate. It also serves as your consent to have the information used for the purpose of the study. To ensure confidentiality you will never be identified by name, as the instrument will be coded with a number. Data collected will be kept in a locked filing cabinet. Only the investigator and thesis committee members will have access to the information.

Sincerely,

Leanne Appleton R.N.,
B.Sc.N.
c/o School of Nursing

Appendix G: Participant Information Letter

PARTICIPANT INFORMATION LETTER

STUDY TITLE:	Acute care medical/surgical general duty nurses' appraisal of, reactions to, and coping with critical incidents: A descriptive study.
INVESTIGATOR	Leanne Appleton Master's nursing student, School of Nursing University of British Columbia
THESIS SUPERVISOR	Professor Judith Lynam School of Nursing University of British Columbia Phone number: 822-7476

Dear Participant,

Thank you for participating in this study. The purpose of this study is to obtain medical/surgical nurses' descriptions of critical incidents and how they react to, and cope with such events.

Although participating in this study will not be of immediate benefit to you, the findings of this study may have implications in nursing education and practice.

Your participation in this study is voluntary and you may withdraw from the study at any time without jeopardizing your present position. Your completion of the instruments will be taken as evidence of your willingness to participate. It also serves as your consent to have the information used for the purpose of the study.

Please find enclosed in this package four separate instruments: The Participant Information Sheet, the Critical Incident Information Form (Appleton, 1992), the Emotional Appraisal Scale (Folkman & Lazarus, 1986), and the Ways of Coping Scale (Folkman et al., 1986).

Please answer all questions in the order that they are presented here. In addition, please read the directions for each tool carefully, as there are specific instructions for each of the four instruments. It is estimated that completion of all instruments will take approximately 45 minutes.

To ensure confidentiality you will never be identified by name, as the instrument will be coded with a number. Data collected will be kept in a locked filing cabinet. Only the investigator and thesis committee members will have access to the information.

Sincerely,

Leanne Appleton R.N.,
B.Sc.N.
c/o School of Nursing