

**CRITICAL CARE NURSES' DECISION MAKING IN REGARD TO  
CRITICAL INCIDENT STRESS DEBRIEFING**

**by**

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## **ABSTRACT**

Critical care nurses (CCNs) are exposed to death, grief, suffering, and moral distress on a daily basis as they care for critical care patients who have life-threatening disorders or health crises. CCNs cope with stressors as part of their profession, but certain events can trigger unusually strong emotional reactions in CCNs. These events are known as critical incidents.

There are numerous anecdotal and opinion pieces in nursing literature that detail the benefits of Critical Incident Stress Debriefing (CISD) to assist CCNs in coping with the effects of critical incident stress in the workplace. Although CISD is known to have many benefits, this type of debriefing is not always possible or appropriate for CCNs because they or their peers must decide to initiate the CISD by reporting the critical incident to CISD debriefers.

The purpose of this research was to ascertain how CCNs in an adult intensive care unit decide whether to access critical incident stress debriefing.

The recognition-primed decision (RPD) model guided this study in determining the decision-making strategies used by CCNs after a critical incident had occurred. The RPD model is an example of a naturalistic decision making (NDM) model. The research design of critical decision method was used to elicit aspects of CCNs' experience with critical incidents and their decisions on how to manage this experience.

The research findings provided an understanding of the decisions CCNs make in response to critical incident stress and the factors that influence those decisions. The participants identified three decisions made in response to critical incident stress: (a) attend a CISD; (b) debrief with colleagues; and (c) avoid debriefing. Implications of this

research focus on the need for the recognition of the cost of CCNs' personal emotional investment and the need for ongoing education in regard to CISD. Further research is indicated to monitor the outcomes for onsite, defusing and to determine what knowledge is helpful for management to aid nurses with critical incident stress.

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## CHAPTER ONE: INTRODUCTION

Critical care nurses (CCNs) are exposed to death, grief, suffering, and moral distress on a daily basis as they care for critical care patients who have life-threatening disorders or health crises. A CCN is a highly skilled professional who cares for critically ill patients in order to aid recovery or support a peaceful death (CACCN, 1997). CCNs cope with these stressors as part of their profession, but certain events can trigger unusually strong emotional reactions in CCNs. These events are known as critical incidents. For the purposes of this study, a critical incident is defined in accordance with the definition provided by the foremost expert in the field, as any situation or event that causes CCNs to have unusually strong, and generally negative, emotional reactions (Mitchell, 1983). CCNs determine whether or not a situation is a critical incident; someone else cannot make this determination for them (Appleton, 1994).

A formal type of critical incident stress debriefing (CISD) exists in many tertiary care facilities whereby a skilled professional debriefs the participants 24 to 48 hours after a critical incident (Mitchell, 1983). In this study, CISD will be referred to as an organized meeting between the CCN and a facilitator who is capable of enabling the participant to discuss his/her feelings and reactions to the critical incident, within a few hours following the event (Mitchell).

There are numerous anecdotal and opinion pieces in nursing literature that detail the benefits of CISD to assist CCNs in coping with the effects of critical incident stress in the workplace (Cudmore, 1996; Jefferson & Northway, 1996; Lane, 1994; Laws & Hawkins, 1995; Mitchell, 1983; Mitchell, 1988; Mitchell, 1997; Wright & Casier, 1996). Although CISD is known to have many benefits, this type of debriefing is not always

possible or appropriate for CCNs because they or their peers must decide to initiate the CISD by reporting the critical incident to CISD debriefers. A practical constraint to such reporting is that generally, CCNs work shifts that are asynchronous with debriefing personnel. Although many debriefing personnel can be paged or telephoned off-site during evening and night shifts and during weekends, CCNs working at these times may be unable to leave the unit for formal CISD to occur. Another complication is that in order to cope with the remainder of a shift following a critical incident, CCNs must put the incident in the background; i.e., they do not permit themselves to acknowledge the trauma because they have work to do and require focus in order to do that work (Isaac & Paterson, 1996).

I could locate only a few studies (Appleton, 1994; Burns & Harm, 1993; Cudmore, 1996) in which researchers investigated the efficacy of critical incident stress debriefing for nurses and none in which CCNs' decisions to access or not access critical incident stress debriefing programs were explored. CCNs have suggested CISD as a coping strategy for work-related stressors (Pelletier-Hibbert, 1998); however, no studies were found that investigated the unique experience of CISD among CCNs in adult critical care nursing, although various authors have studied the ways in which CCNs cope with stress in the workplace (Ehrenfeld & Cheifetz, 1990; Lewis & Robinson, 1992; Pelletier-Hibbert, 1998; Schaefer & Peterson, 1992; Spencer, 1994). Some researchers have explored the personality attribute of hardiness as a means of buffering CCNs' stress (Collins, 1996; Simoni & Paterson, 1997). Others have investigated CCNs' response to critical incident stress in the workplace (Cutler, 1998; Jezuit, 2000). No research was located that stressed how CCNs decide to resolve or mediate their

emotions resulting from critical incidents, although Lewis and Robinson (1990) warn that recurrent exposure to highly perceived stress, in conjunction with maladaptive coping measures, is a burnout indicator for nurses. Furthermore, administrators of health care agencies have reported increased absenteeism, worker's compensation claims, and reductions in work performance following a critical incident (McWhirter & Linzer, 1994).

### **Purpose**

The purpose of this research is to ascertain how CCNs in an adult intensive care unit decide whether to access critical incident stress debriefing.

### **Background Information**

Although there is a common discourse in hospitals and critical care units that the stress of critical care is resolved or minimized because CISD exists, it is my personal experience over 16 years as a CCN that I and my peers often choose not to access CISD or to report critical incidents. This practice concurs with Jefferson & Northway's (1996) beliefs that although CISD is well known to CCNs, that many of them do not believe in this kind of help and, in turn, this can affect other CCN's thinking.

Mitchell (1983), a paramedic, was the pioneer developer of the CISD concept. Interestingly, paramedics have reported CISD as a widely used strategy. This has not been my or my colleagues' experience in critical care, although CCNs often witness similar critical incidents to paramedics.

Researchers concur that critical care nursing is inherently stressful (Lally & Pearce, 1996; Pelletier-Hibbert, 1998; Schaefer & Peterson, 1992). However, few studies could be found in which the researcher(s) focused on CCNs' perceptions of stress in the workplace (Lally & Pearce; Sawatzky, 1996), although some identified

common sources of stress for CCNs as ethical issues, such as unnecessary prolongation of life and the perceived inability to meet patient needs (Burns & Harm, 1993; Lally & Pearce).

Lane (1994) believes CCNs are vulnerable to critical incident stress due to a number of variables: the objective and subjective severity of incidents, duration of the incidents, perceived similarity of the patient to a significant other, ethical concerns, viability of coping strategies and depth of the relationship with patients pre-critical incident. CCNs are often exposed to a crisis atmosphere. It is a commonplace occurrence to witness the death and dying of patients in whom CCNs have made a considerable personal investment.

Nurses' descriptions of critical incidents have been categorized as moral distress, lack of responsiveness by the health care team, workplace violence, emergency situations, death, and contact with infectious body fluids (Appleton, 1994). Nurses' reactions to critical incidents have been described as being angry, frustrated, fearful, and helpless (Burns & Harm, 1993; Appleton). In an attempt to cope with these feelings, nurses have sought out social support, used self-control, positive reappraisal, and problem solving (Appleton). Evidence to suggest which of these coping strategies were beneficial has not been revealed (Appleton).

CCNs are known to provide support for each other in terms of sharing details of a critical event, but there is limited nursing knowledge about the factors that influence CCNs' decision-making about the management of their coping strategies during and after a critical incident. Although CCNs are regularly exposed to critical incidents in which their emotions are overwhelming, the nurses do not always access CISD. Thus, it

is important to understand the nature of CCN's decisions about when and how to access CISD. This study seeks to add to the nursing knowledge about critical incidents, specifically for CCNs in adult ICU, in order to provide useful direction in the roles others play in helping CCNs manage their stress.

### **Research Question**

The umbrella question that will direct this study is: How do CCNs in adult ICU make decisions to access or not access CISD? The following sub-questions will also direct the study:

- (1) How do CCNs identify that a situation is a critical incident?
- (2) What factors determine whether a CCN accesses CISD or not?
- (3) What interventions or behaviors do CCNs use to cope with critical incident stress instead of or in addition to CISD?
- (4) What affective, behavioral, and other outcomes are associated with decisions to access or not access CISD?

### **Conceptual Framework**

As Burns & Grove (1997) contend, the framework of a study should be integrated with the methodology in order to guide the study's development and allow the researcher to link the findings to nursing's body of knowledge. This should allow the researcher to frame a solution to a problem or answer a question. In order to address the research questions the researcher must focus on nonroutine events. As these events would have occurred in the past, an appropriate approach would be one that fosters participant's recall of a specific incident. Having decision makers reflect on their decisions during a nonroutine event would elicit knowledge of their strategies.



The recognition-primed decision (RPD) model (Klein, 1997) will guide this study in determining the decision making strategies used by CCNs after a critical incident has occurred. The RPD model is an example of a naturalistic decision making (NDM) model. The definition of NDM is "how experienced people, working as individuals or groups in dynamic, uncertain, and often fast-paced environments, identify and assess their situation, make decisions and take actions whose consequences are meaningful to them and to the larger organization in which they operate" (Zsombok, 1997, p.5).

The RPD model focuses on experienced personnel who work in complex, uncertain conditions, who face personal consequences for their actions (Klein, 1997). The function of the RPD model is to describe how people can use their experience to arrive at decisions without having to compare alternative actions (Klein). A tenet of the RPD model is that people can use experience to evaluate a situation, providing them with a "sense of typicality" (Klein, p.287). The rationale for the existence of the RPD model lies in the assertion that people can use experience to "generate a plausible option as the first one they consider" (Klein, p.288). The second assertion of the RPD model is that experts recognize familiar patterns in a situation, therefore, time constraints do not diminish the decision maker's performance (Klein, p.288). The third assertion of the RPD model is that experienced decision makers can choose a course of action without comparing and contrasting courses of action (Klein).

The RPD model emphasizes the situational assessment component of decision making. Situational assessment is an internal conceptualization of the current situation which provides the impetus for the decision making process (Endsley, 1997). Other

models have focused on selecting a course of action from a variety of alternatives (Klein).

In the most elementary version of the RPD model the decision maker recognizes the situation as familiar due to previous experience. This simple matching is the original component of the RPD model (Klein, 1997). With this recognition, appropriate goals, cues, expectancies and a course of action for that event are generated (Klein). In more complex cases, the situational assessment phase involves seeking further information until an acceptable situational assessment is reached. Goals, cues, expectancies and courses of action are generated by this assessment (Klein). The decision maker may perform a mental simulation of the most feasible course of action to verify its suitability for the circumstances (O'Hare & Wiggins, 1998). Even in the more complex cases, the decision maker is more concerned with situational assessment than with weighing the merits of multiple options (O'Hare & Wiggins).

The most recent component to be added to the RPD model is the diagnosis of a situation. This diagnosis is the attempt to link the observed events to causal factors in order to explain the events (Klein, 1997). The decision maker uses "feature matching" or "story building" in response to an uncertain assessment of a situation or uncertain explanations of events in order to assign a diagnosis of the situation (Klein, p.290).

In order to make sense of this model and how the purpose of this study fits with the model, definitions of concepts to be studied will be offered. In this study a CCN is "a highly skilled health professional who works in a critical care unit in collaboration with an interdisciplinary health care team" (CACCN, 1997, p.2). An adult critical care unit is "a highly technological and specifically designated area that is established for the care of

critically ill patients and their families" (CACCN, p.2). Although many theories of decision making exist, for the purposes of this study, and in accordance with the decision making framework to be used in this study, decision making is constructed as a series of cognitive activities which take place simultaneously, decisions are made about interventions that are needed, and evaluation may or may not take place (Boblin-Cummings, Baumann & Deber, 1999).

In terms of looking at how these concepts are related, a researcher would expect that when a CCN identifies a situation as a critical incident, he/she would make a decision as to how to deal with the ensuing emotions, be it to access CISM or some other means of dealing with the stress. It follows then, that certain outcomes would result from these decisions.

### **Summary**

Of six chapters, Chapter One is an introduction to the study and describes the purpose and background. I have discussed the conceptual framework of the study, offered definitions, and presented the research question and sub-questions. In Chapter Two I will review the literature, organized according to the conceptual framework proposed in Chapter One.

In Chapter Three, I will describe the research method, the design, and the data analysis. In Chapter Four, I will present the data and analysis, and in Chapter Five, I will discuss the findings. In Chapter Six, I will summarize the research process, identify the major themes found in the research findings, and discuss implications of the findings for nursing including those that are clinical, educational, and research orientated.

## **CHAPTER TWO: LITERATURE REVIEW**

The purpose of this chapter is to critically analyze existing and relevant literature in order to provide a basis from which to design and implement this study. As previously stated in Chapter One, the overall purpose of this study is to determine how CCNs decide to access CISD. This question directed me to explore literature related to CISD and critical incidents. As I found little research pertaining to CCNs working in adult intensive care units, I had to extrapolate from literature in other areas, specifically that pertaining to military, police, emergency service personnel and civilian victims of traumatic events.

### **Conceptualization of a Critical Incident**

#### *Critical Incidents Within Nursing*

Caring for injured and ill people exposes nurses to the possibility of incidents when their emotions may be affected in an unusual and profound way. These emotions may be so overwhelming that the nurse's usual coping skills are ineffective (Appleton, 1994). The incident that caused the stress is known as a critical incident. The resulting response to a critical incident is known as critical incident stress.

A critical incident is commonly defined as any situation that causes unusually strong emotional reactions, which have the potential to interfere with a person's ability to function (Mitchell, 1983). Nursing authors define a critical incident in terms of how critical a nurse perceives an incident to be rather than actually defining the term. They argue that what one nurse considers to be a critical incident may not be appraised as such by another nurse (Appleton, 1994; Jefferson & Northway, 1996). However, in general, authors concur that nurses perceive that an incident is critical when they are

involved in a situation where they feel helpless and not in control (Burns & Harm, 1993). During these incidents nurses feel that the demands upon them exceed their ability to cope (Appleton).

Lane (1994) defines a critical incident as an event involving death or serious injury despite an intense effort on the part of the health care team to save the person's life. This definition is incongruent with Appleton's (1994) findings that the most common event appraised by nurses as a critical incident is moral distress (which may not involve death or injury) where nurses are unable to act on their moral choices. Burns and Harm (1993) provide a more elaborate definition by identifying the significant attributes of critical incidents; that is, the event is extraordinary and that the event has personal meaning for the participant. As experts in the field of stress and disaster, Melick, Logue and Frederick (1982) believe a critical incident is not limited to a single event, but is a series of events (before and after the event) that cumulatively affect the way a person reacts.

Regardless of the definition, all authors agree that the consequence of a critical incident is critical incident stress. Many authors state that the ability to deal with critical incident stress depends on the nurse's confidence in personal skills, previous experience, personal conflicts at the time, attachments formed, and the ability to create some personal distance from the event (Cutler, 1998; Lally & Pearce, 1996; Spencer, 1994).

#### *Critical Incidents as Defined in Non-Nursing*

It is through an exploration of the historical and theoretical roots of critical incident stress that its current usage and meaning can be better understood. Crisis

theory is the theoretical underpinning of most literature about critical incidents. Crisis theory evolved from studies of transitional crisis and grieving, writings on normal developmental issues, and studies of emotionally hazardous situations (Everly, Flannery & Mitchell, 2000). Studies in crisis counseling led to a classification of potentially critical situations for people that included: "(1) loss of bodily integrity, significant relationships, or personal integrity; (2) transitions in social status; (3) normal stages of maturational growth; and (4) catastrophic situations." (Everly, et al., p.24). It also generated significant research into the areas of psychological trauma and untreated post traumatic shock disorder. This research resulted in an expansion of the prevailing concept of a critical incident to include victims (Everly, et al.). In addition, the list of potentially harmful situations grew to include: homicides, rapes, robberies, assaults, and acts of terrorism and torture; that is, both natural and man-made disasters (Everly, et al.). "Stressful life events that might impact many persons and result in psychological trauma became known as critical incidents, crisis events of intense severity which overwhelmed individuals' usual coping mechanisms" (Everly, et al., p.25).

Other definitions of critical incidents have evolved in recent decades, depending on the theoretical and disciplinary perspective of the writer. Consequently, some definitions of critical incidents focus on the event, while others emphasize the individual's reaction to the event. Event-based definitions include descriptions of incidents where human lives are lost and/or serious injuries are witnessed (Maggio & Terenzi, 1993). Definitions that highlight individuals' reactions to a critical incident include Mitchell's (1983) classic definition that states "a critical incident is any situation

faced by emergency service personnel that causes them to experience unusually strong emotional reactions which have the potential to interfere with their ability to function either at the scene or later" (p. 36).

Although there are variations in the definitions of critical incidents, they have common characteristics (Maggio & Terenzi, 1993). Critical incidents are generally sudden and unexpected; critical incidents have the potential to disrupt a person's sense of control; critical incidents disrupt beliefs and assumptions concerning how one views the world, its people, and one's relationship to the world; critical incidents involve the perception of a life-damaging threat which brings on a stress response; and critical incidents involve an element of physical and/or emotional loss (Maggio & Terenzi).

Much of the literature on critical incidents involves emergency workers and law enforcement workers. A common thread in this literature is that there is a particular occupational or disciplinary culture that makes these workers unique in their experience of critical incidents. Although personnel in various occupations experience critical incidents, Van Patten & Burke (2001) contend that they occur in different contexts. For example, law enforcement's focus is on criminal activity; firefighters and emergency personnel focus on victims, therefore they experience critical incidents within a completely different context (Van Patten & Burke). Several authors state that it is the particular context within which a critical incident occurs that most significantly affects the coping style adopted by the personnel involved (Cutler, 1998; Lally & Pearce; Spencer, 1994; Van Patten & Burke).

Another common understanding within non-nursing disciplines is that critical incident stress occurs as a direct outcome of a critical incident. The theoretical

underpinnings of this understanding of critical incident stress derives from Selye's (1982) work on stress and adaptation to this stress. In Selye's theory of stress, it is believed that a person reacts to critical incident stress with stages of alarm, resistance, and (if the person is unable to adapt) exhaustion.

Critical incident stress was initially identified in soldiers who were referred to as "shell shocked" or "battle fatigued" (Kureczka, 1996). The civilian version of this phenomenon became known as "posttraumatic stress disorder" (Kureczka). A term commonly used in non-nursing literature as a predictor of posttraumatic stress disorder is "burnout". Burnout is characterized by emotional exhaustion that occurs in people who have frequent emotional pressure and intense involvement with others over a period of time (Kureczka).

#### *Applicable Views for Critical Care*

Nursing authors have generally held the view that critical incidents are defined by the nurses experiencing the incident, that critical incident stress ensues as a result of the incident, and that the context within which nurses work affects the way in which nurses will cope with critical incident stress. Contextual variations of nurses' work that might affect their experience of critical incident stress include: confidence in personal skills, previous experience, personal conflicts, attachments formed with patients, and the ability to create personal distance from the event (Cutler, 1998; Isaak & Paterson, 1996; Lally & Pearce, 1996; Spencer, 1994).

In terms of the context of critical care, several phenomena make the experience of critical incidents unique. Critical incidents often involve a death experience. In critical care this death experience may be sudden and unexpected, or it may be anticipated



and hoped for, or it can be cumulative in nature. The CCN must cope with the loss of a patient, the patient's significant others' response to the death and with the fact that the care given to this patient has not saved his/her life (Isaak & Paterson, 1996). CCN's degree of connection to patients and significant others can vary. The nature of critical care can be one of rapid turnover of patients and patients who are often unresponsive; these factors make it difficult at times for the CCN to feel connected to some patients (Isaak & Paterson). On the other hand, CCNs can form an intense and significant connection with patients due to the need for their constant one-on-one vigilance with patients. Connection is often viewed by CCNs as a necessary component of individualized patient care, but when CCNs experience connection with patients in critical care, they run the risk of being devastated when their efforts do not result in desired outcomes for the patient (Isaak & Paterson). Critical incident stress can occur, therefore, when patients in critical care die and when they live. For example, CCNs who believe that a patient should not be resuscitated, "based on the anticipated quality of life for the patient" (Isaak & Paterson, p.693) may experience critical incident stress when the individual survives resuscitation efforts. In order to minimize or negate the incidence of critical incident stress, CCNs may choose to remain aloof or disconnected from patients who are at risk for less-than-desired outcomes. (Isaak & Paterson).

A common thread in the general nursing literature on critical incidents is that they are sudden and unexpected. However, within critical care, a critical incident may be prolonged and include long-term relationships with the patient (Jefferson & Northway, 1996). In addition, the use of technology within critical care can prolong a patient's life

or it can be seen to prolong a patient's death; the use of life-saving technology in critical care is frequently a source of moral distress for CCNs.

Critical care units are commonly acknowledged to be stressful areas. A nurse working within critical care is expected to be able to handle uncertainty and instability as part of the daily routine. Because CCNs are socialized to expect to cope with extraordinary events, they may find it difficult to recognize their limitations in handling stressful incidents on their own (Cotterill-Walker, 2000; Jefferson & Northway, 1996). This may also affect how or when a CCN would recognize and admit that a critical incident has occurred.

In summary, analysis of the nursing and non-nursing literature related to critical incidents suggests a critical incident is a situation that results in people having such strong emotional reactions to particular events or circumstances that the person's usual coping skills are ineffective. A critical incident is deemed so by the person experiencing this event. Generally speaking, a critical incident involves an element of physical or emotional loss or a threat to life, touches the participant on a personal level, disrupts a person's belief system and sense of control, and results in a stress response. This stress response is known as critical incident stress. Possible consequences of this type of stress are that accumulated, unresolved feelings evoked by previous events may surface following a critical event or that the incident may provoke a crisis reaction where usual coping strategies are inadequate. Critical incident stress debriefing (CISD) is a method used to mitigate critical incident stress.

## **Background of CISD**

Interventions for critical incident stress have evolved in three stages: individual crisis intervention approaches, single factor group psychological debriefings, and most recently, multicomponent critical incident stress management models (Everly, Flannery, & Mitchell, 2000).

Historically, the CISD process has evolved from the military, police psychology, emergency medicine, and disaster relief (Mitchell, 1988). CISD was initially developed by Mitchell (1983) as a means of preventing posttraumatic stress in high-risk occupational groups. The first CISD programs were based in large hospitals and trauma centers. CISD services for staff members came about as an “offshoot” of services for traumatized victims and their families (Mitchell, 1988). It was, initially, used almost exclusively by emergency personnel. Anecdotal evidence provided support for the effectiveness of CISD within local trauma sites and, therefore, CISD was introduced in large-scale disasters (Everly, 1995). Since then, the use of CISD has been used in humanitarian aid organizations, a variety of public service agencies, and business and industrial settings (Everly).

Mitchell's (1983) model of CISD is the most widely studied and accepted form of critical incident debriefing. This model focuses on the group's participants processing of the experience within a “cognitive-emotional-cognitive” framework with the goal of psychological closure subsequent to the event (Everly, et al., 2000, p. 26). The debriefing begins with an introductory period where the rules, goals, and the role of the leaders are explained and the facts of the critical incident are established (Everly, et al.). A discussion of the thoughts of the group members follows. This is known as the

transition between the cognitive and emotional phases (Everly, et al.). The next step is a discussion of the full range of affects that may have been stimulated by the incident. This is followed by a discussion of any posttraumatic stress disorder-like symptoms that may be present, and the session concludes with teaching strategies for coping with the subsequent stress from the event, and for preparing to return to work (Everly, et al.).

Other variations of CISM models exist, such as the Multiple Stressor Debriefing Model, closely linked to the Mitchell (1983) model, that addresses the needs of those who experience multiple stressors at the same time (Armstrong, O'Callahan & Marmar, 1991). This model was developed in response to specific dilemmas confronting Red Cross personnel involved in disaster relief work.

Raphael's (1986) debriefing model emphasizes the emotional experiences of the participants. Raphael begins with the participant's initiations to the critical incident, and the training, and past experience that may influence their perception of the event. Then, the participant's role and experience (both positive and negative) in the critical incident, and reactions to the event are explored. Next, Raphael examines interpersonal relationships, which can include identification with the feelings of victims, concerns for colleagues, and the impact of the event on family and friends. The focus becomes the transition back to work and assessing what acquired knowledge could be transferred to future critical incidents. Dyregrov (1997) provides another variation of the Mitchell (1983) model. He focuses on the participants' decision-making process during the thought stage, adds a stage of sensory impressions of the incident to enhance understanding of the experience, and focuses on the normalization of reactions.

Although several variations of CISD exist, the intentions of each are the same. Debriefings are held in order to restore people to functioning within their routine environment, to support a network of caring attachments and victim's sense of meaning in life, as well as, to stabilize the situation and provide symptomatic relief (Everly, et al. 2000; Robinson & Mitchell, 1995).

Participants of CISD come from a variety of workplace settings: emergency services, defense force services, hospitals, welfare agencies, rehabilitation agencies, industries with high risk of accident such as mining and oil companies, educational institutions, banks, and corrective services (Robinson & Mitchell, 1995). As a result, several debriefing models, which vary in the degree of similarity to the Mitchell (1983) model, have been developed to fit the needs of the participants (Robinson & Mitchell). Participants of CISD may or may not be voluntary. In some work places, CISD is mandatory. In others, participation in CISD is available for voluntary use, and yet, is not always accessed or appreciated as part of the accepted culture of the workplace (Robinson & Mitchell).

### **Efficacy of CISD**

A number of authors have pointed to methodological shortcomings in research literature about the efficacy of CISD (Bisson & Deahl, 1994; Raphael, Meldrum & McFarlane, 1995; Mitchell & Everly, 1997). One of the methodological challenges presented in such research is the subject nature of the inquiry (Everly, et al. 2000). Critical incidents are sudden and unexpected; frequently involve loss of life, multiple injuries, and disruptions in community resources, therefore, making it difficult to conduct field controlled studies (Everly, et al.). Secondly, the differential nature and the impact of

these critical incidents vary from study to study (Everly, et al.). For example, researchers have not yet determined if a natural disaster is similar in effects to a loss of a colleague in the line of duty or to the loss of a patient; or if the impact of these events are the same for emergency personnel as they would be for nursing (Everly, et al.). Thirdly, the ethical implications of true random assignment to experimental and control groups are pronounced. The provision of crisis services to victims involved in a critical incident is considered an important aspect of care, and not offering this support would be seen as withholding assistance (Everly, et al.). Fourthly, assessment of the outcomes of CISD is complicated, partially due to the highly emotionally charged nature of critical incidents. CCNs may attempt to minimize these emotions by denying them or avoiding discussions about them. There is also a need for research that evaluates behavioral outcome measures, in addition to psychological outcome measures, to ascertain which is the more sensitive of indicators in terms of CISD outcomes (Everly, et al.). Finally, with the many existing variations in debriefing techniques, it is difficult to assess generalizability across studies or to effectively interpret the independent variable (Everly, et al.; Mitchell & Everly, 1997).

Of the research articles that I found for this study, most were quantitative studies with one-time questionnaires. There seems to be a great debate in the field of research on CISD in terms of its efficacy. I was unable to find qualitative studies that explored the experience of having a critical incident or the experience of being involved in CISD.

#### *Positive Outcome/ Uncontrolled Studies*

The studies I found on CISD in nursing included quantitative one-time surveys. Many authors investigated outcomes of CISD in terms of the participants assessing the

helpfulness of the debriefing. For example, Burns and Harm (1993) conducted a descriptive study of questionnaire responses (n=682) with supporting telephone interview data from twenty-six of the participants. The respondents were emergency nurses from three states in the United States who had recently participated in debriefings. Most of the participants in Burns & Harm's study responded that they found debriefings helpful to talk about the incident and to realize they were not alone in their responses to the incident. Although this study provides some evidence for the potential effectiveness of CISD, it illustrates some of the methodological issues that were noted earlier. Burns & Harm do not clearly define the debriefing model used or the characteristics of the leaders of the debriefing sessions. Moreover, Burns & Harm use self-report measures of CISD being helpful as an outcome of debriefing. No other outcomes were discussed, nor was the outcome of helpfulness measured or defined.

In research investigating nurses' perceptions of the need for debriefing following the resuscitation of a patient in the emergency department, Cudmore (1996) found that the perceived benefits of debriefing were decreasing stress and promoting team cohesion. The participants in this study were emergency room nurses working in one teaching hospital in Britain. Most of the respondents (n=34) in this quantitative survey stated that if they missed the debriefing, then another opportunity to discuss their feelings would be useful. Similarly, Appleton (1994) found that most of the respondents (n=50 medical surgical nurses from three lower mainland hospitals) in her descriptive study felt that, given the opportunity, they would have liked to participate in a debriefing following a critical incident. Although Spencer (1994) did not specifically explore CISD, her findings reveal that the type of support nurses would have found most helpful in

dealing with their grief following the death of a patient in intensive care is an organized group meeting with a counselor. Although these studies give some indication of the potential usefulness of CISD for nurses, they do not address the factors that influence nurse's decisions to access CISD or not.

### *Negative Outcome/ Uncontrolled Studies*

I could not locate nursing research that indicated negative outcomes of CISD. However, other researchers who conducted non-nursing research propose that CISD is not always helpful in the management of critical incident stress. For example, British soldiers who were involved in the Gulf War were debriefed following their experiences recovering bodies of both Allied and enemy soldiers (Deahl, Gillham, Thomas, Searle & Srinivasan, 1994). After nine months, subjects were mailed questionnaires. Half of the respondents in this study still had evidence of psychological morbidity and the researchers concluded that CISD had been ineffective (Deahl, et al.). It is difficult to ascertain whether the CISD was indeed ineffective or if the participants were exposed to other traumatic events over this time period that would confound the assessment of the original event.

In exploring patterns of recovery following a natural disaster, Kenardy, Webster, Lewin, Carr, Hazell and Carter (1996) reported the effects of CISD on the rate of recovery of emergency service personnel and disaster workers following an earthquake in Australia (n=195). The results of the questionnaires in this study did not support evidence of a more rapid rate of recovery for those who were debriefed versus those who were not debriefed. Similarly, in Hobbs, Mayou, Harrison, and Worlock's (1996) study of car accident victims, CISD demonstrated negligible effects. Neither the control



(no CISD, n=52) or experimental (CISD, n=54) group demonstrated a reduction in anxiety, depression or posttraumatic shock disorder (PTSD). Both groups were assessed by interviews and a self-report questionnaire. In their study involving burn victims, Bisson, Jenkins and Bannister (1997) found that at the research follow-up, most of the debriefed victims had PTSD as compared to the participants in the control group. Participants in this study (n=110) were interviewed at home at both three and thirteen months post-trauma

### *Timing of CISD*

One of the questions in regard to the efficacy of CISD is when to perform CISD. Researchers in disciplines other than nursing have explored this issue. The difficulty in assessing the appropriate timing of CISD stems from the nature of the critical incident and the type of victim. Mathews (1998) argues that personnel that suffer from cumulative trauma may need CISD at a later date due to the development of defense mechanisms, such as denial, that constrain the effectiveness of CISD. Mathews conducted a survey questionnaire of sixty-three direct care workers in thirty-two community homes for persons with developmental and psychiatric disabilities in Australia. Rose, Wessely, and Bisson's (2001) conducted a systematic review of research literature on CISD and concluded that more time than usually occurs between the incident and CISD may be needed to allow physical recovery from the trauma before attempting psychological recovery. Mitchell (1983) contends that his research with emergency personnel demonstrates that the process of CISD should be initiated by an informal defusing within a few hours of the event. Immediacy of CISD is similarly supported by Campfield and Hill (2001) in their study of civilians (n=77) who were at the

scene of a robbery. A self-report instrument was used in this study to assess symptoms of PTSD, initially in the presence of the researcher and again at two weeks from the date of the robbery over the telephone.

### *Alternatives to CISM*

The only evidence-based alternative to CISM that I could locate is critical incident stress management (CISM), known as a "new generation" of crisis intervention (Everly, et al., 2000, p. 23). Critical incident stress management is a multicomponent crisis intervention program that covers the entire crisis continuum from precrisis to acute crisis to postcrisis phases (Everly, et al.). CISM, having evolved from crisis intervention and debriefing techniques, represents the following elements: (1) precrisis preparation of an individual and organizational level, (2) demobilization procedures following mass disasters, (3) individual crisis counseling, (4) small group discussions known as defusings, (5) longer group discussions known as CISM, (6) family crisis intervention techniques, and (7) follow-up procedures, and/or referral for psychological assessment or treatment (Everly, et al.). I could locate only one study that compared CISM with CISM. Richards (2001) conducted a field trial to compare CISM (n=225) with CISM (n=299) with victims of armed robbery. Self-report instruments were used to measure symptoms of PTSD. Richards (2001) contends that this study shows that CISM reduces levels of long-term morbidity compared to a sole CISM intervention.

Although some researchers have conducted comparative studies where control groups did not receive CISM, (Bisson, et al., 1997; Hobbs, et al., 1996) an alternative to CISM for the controls was not offered or discussed. Other authors suggest that alternatives to CISM inherently occur. Cudmore (1996) offers that informal defusing or

an unstructured discussion immediately after a critical incident such as resuscitation of a patient almost always occurs. Appleton (1994) found that the most frequent coping strategy that nurses used, following a critical incident, was to seek out social support. Similarly, Spencer (1994) determined that talking to other staff members was a method that CCNs used to deal with their grief following the death of a patient. Respondents in Burns and Harm's (1993) study felt that support groups and stress management classes would be helpful alternatives to CISD.

#### *Barriers / facilitators of CISD*

Several authors have noted a reluctance of nurses to participate in CISD (Burns & Harm, 1993; Jefferson & Northway, 1996; Paton, 1997; Spitzer & Burke, 1993) although CISD is usually evaluated positively by health care workers (Mathews, 1998). A common theme cited in the literature, is that the culture of a profession and/or the nature of an organization can influence an individual's decision to access CISD.

Nurses are known to be a high-risk occupational group in terms of the occurrence of critical incidents (Paton, 1997). A cultural "norm" for such high-risk groups is to form cohesive social groups that have a tendency to suppress emotional reactions and to perceive the expression of emotion as an occupational weakness (Cotterill-Walker, 2000; Jefferson & Northway, 1996; Paton). This cultural norm may hinder emotional disclosure, even if facilitated by CISD (Paton).

The nature of the organization within which a nurse works can have positive and negative influences in regard to response to and recovery from a critical incident (Paton, 1997). Managerial desire to protect the organization from blame, internal conflicts in regard to responsibility, and managerial attitudes to stress and control and poor levels

of social support can affect the crisis response to a critical incident (Paton). These response characteristics can increase staff defensiveness, reduce the probability of discussing the incident, and impede the recovery process (Paton). On the other hand, management that responds to a critical incident with acceptance of the ownership of the crisis and its consequences can foster recovery (McNally & Solomon, 1999; Paton). Similarly, respondents in Lane's (1994) interviews suggested that debriefing needs to be part of the management agenda and administration needs to attend debriefings in order to better understand the needs of health care workers.

One factor that may enhance the effectiveness of CISD in nursing may be the presence of trained peer debriefers. As Burns & Harm (1993) found, the most common reason participants felt debriefing was not helpful was that the leaders lacked relevant nursing experience. Peer counselors provide credibility in terms of support from a fellow colleague who has "been there" (Burns & Harm, 1993; Everly, 1995; McNally & Solomon, 1999).

Lack of education about CISD can also hinder nurses' participation. Approximately one third of the respondents (n=682) in Burns & Harm's (1993) study had participated in a debriefing and fewer understood the role of the CISD team or how to access them. Similarly, Lane (1994) found that pediatric CCNs, although supportive of the CISD process, suggested that all health care workers be educated in regard to the debriefing model in order to promote its usefulness.

#### *Fit of Mitchell's CISD Model for Critical Care*

Mitchell's (1983) model of CISD is the most widely used form of debriefing. This model, initially developed for use with emergency service personnel, has been adapted

to fit other occupational experiences with critical incidents. I have found, in the literature that I explored, that Mitchell's model has been used most often to mitigate critical incident stress for CCNs. Some authors have contended that this model may not be the best fit for CCN's experience with critical incidents due to the fact that it is a community-based program adapted for hospital use that addresses one critical event even if it occurs as a result of accumulated events (Cotterill-Walker, 2000; Jefferson & Northway, 1996). Pediatric CCNs have called for a debriefing framework that is flexible so as to better fit the setting (Lane, 1994).

In looking at the fit of CISD for CCNs, one of the inherent problems is that debriefing focuses on a single trauma (Rose et al., 2001). CISD does not address the cumulative nature of critical incidents that CCNs can experience. Moreover, as Mitchell's (1983) model was developed for emergency response incidents, which are sudden events, the question arises whether or not this model can address the complexities of long histories and relationships inherent to critical incidents in critical care (Jefferson & Northway, 1996).

An underlying assumption of debriefing is that there is a uniform pattern of reactions to trauma and that discussing the trauma is therapeutic; attempting to deny it is not therapeutic (Rose et al., 2001). CCNs may need to distance themselves from a traumatic event in order to continue to function effectively (Cotterill-Walker, 2000; Isaak & Paterson, 1996). This distancing by CCNs may be needed in order to adapt to the environment of critical care. It is currently unclear what adaptations are necessary to make CISD a good fit for CCNs.

### **Summary and Directions for Proposed Research**

In this chapter, I have critically reviewed existing relevant literature in regard to CISD. The research in the field is contradictory in its findings, often unclear as to its design, and rarely specific to the unique context of adult critical care. It is apparent in this review that there is a need for further nursing research to understand the factors that influence CCN's decision-making in regard to CISD.

## CHAPTER THREE: RESEARCH METHOD

A gap in nursing knowledge exists in relation to understanding the decisions critical care nurses make and the factors influencing those decisions regarding their experiences of critical incident stress debriefing. The purpose of this study is an attempt to reduce this knowledge gap. I have chosen the critical decision method (Klein, Calderwood, & MacGregor, 1989), which is theoretically based on the recognition primed decision model (Klein, 1989) as the most appropriate method to guide this study. In this chapter I will outline the rationale for selecting this research design, provide a description of the design, the sample setting, and the procedures for data collection and analysis. I will also review rigor, potential limitations of the study, and ethical considerations.

### Research Design

#### *Research Approach and Rationale for Selecting Research Design*

I chose the research design of critical decision method (Klein, Calderwood & MacGregor, 1989) because I wanted to elicit aspects of CCNs' experience with critical incidents and their decisions on how to manage this experience. The critical decision method (CDM) is a valuable research approach in capturing "the kinds of knowledge and experience involved in real-world decision making and problem solving" (Hoffman, Crandall, & Shadbolt, 1998, pp. 256). The CDM builds on Flanagan's (1954) Critical Incident Technique by "using a set of cognitive probes to determine the bases for situation assessment and decision making during nonroutine incidents" (Klein, et al., pp.462). The CDM is useful in studying the cognitive foundations of decision-making in naturalistic settings (Klein et al.). The philosophical orientation of the CDM is that

“expertise emerges most clearly during nonroutine events” (Klein et al., p.471). Integral to this philosophy is the emphasis on “perceptually based cues that are difficult or unnatural for people to articulate” (Klein et al., p.465).

CCNs routinely face events that are outside the range of usual human experience (Acker, 1993). This familiarity with nonroutine events lends the CCN a certain expertise in coping with critical incidents. This knowledge may be difficult to tap, as experts have trouble articulating skills so well learned that they have become intuitive (Benner, 1982). “For this reason, knowledge elicitation methods that focus on making such knowledge explicit can provide information on expertise that is typically unavailable by means of other methods” (Crandall & Getchell-Reiter, 1993, p.43). The CDM is one such method.

The nature of expertise can be divided into several classes of knowledge, such as, explicit and objective knowledge or in other words factual knowledge and analytical procedures (Klein, et al. 1989). Another component of expertise is tacit knowledge, so named, as it is difficult to articulate this type of knowledge. Judgments of typicality fall into the tacit category, as analysis of a situation is unnecessary to determine that you have experienced similar cases in the past (Klein, et al.). “It may not be possible to analyze tacit knowledge, but knowledge elicitation methods should describe the function served by tacit knowledge...” (Klein, et al., p. 463). A research method that is sensitive to tacit knowledge is necessary to avoid placing emphasis solely on explicit and objective knowledge. CDM is such a method; a method that captures people’s naturalistic decision-making (Klein et al.).



This method is driven by a theoretical decision making model that focuses on “how people commit to options even though alternatives exist” (Klein et al., 1989, p.464). As described in chapter one, this model is the recognition-primed decision-making model (Klein).

There are several practical issues that influenced my reasoning for selecting CDM as the research design for this study- firstly, the time required to apply the research method. As Klein et al. (1989) contends, the researcher must be able to prioritize the prepared questions and probes to minimize extraneous material so that the limited time available with the participants is efficacious.

Next, the data collection and analysis in this method are cost effective. CDM employs efficient techniques for encoding and analyzing these data; therefore, the results can be evaluated quickly (Klein, et al., 1989).

Thirdly, the level of training required to use CDM is not extensive. It is possible to use structured interviews so that less training is necessary for myself as a knowledge elicitor (Klein, et al., 1989).

### **Sample and Setting**

I acquired approval from an acute, tertiary care hospital in Vancouver, British Columbia (St. Paul's Hospital) to access critical care nursing staff of St. Paul's Hospital. This followed ethical approval for this study from the University of British Columbia (UBC) and the hospital ethics committee. The sample for this study included CCNs at St. Paul's Hospital that have experienced a critical incident and have had a critical incident response, that being CISD or an alternative to CISD.

### *Inclusion Criteria*

CCNs' suitability for this study was based on the following criteria:

1. Volunteered to participate in research study;
2. Registered Nurse employed at St. Paul's Hospital, Vancouver, B.C.;
3. Diploma or baccalaureate-prepared R.N;
4. Employed on either full-time, part-time or casual basis;
5. Employed as a critical care nurse in adult intensive care;
6. Has experienced a critical incident while employed as a critical care nurse in adult intensive care.

### *Exclusion Criteria of Critical Incidents*

The sample did not include nurses who were:

1. Not currently employed as a CCN in adult intensive care;
2. Do not meet the inclusion criteria.

These inclusion and exclusion criteria were used in the selection of participants in this research study.

### *Recruitment of Potential Participants*

I provided a general introduction of my proposed thesis work in the intensive care unit at St. Paul's in a written description of the study (Appendix A) distributed to nursing staff by the Patient Care Manager (PCM) of the intensive care unit and the Critical Incident Stress Management Coordinator. I asked that the PCM place this letter in the communication book and on the staff assignment sheet to ensure that nurses in the intensive care unit saw it.

My role in this hospital is a staff nurse in intensive care. I have worked for an educational institution, intermittently, as a clinical instructor in this intensive care unit.

According to Morse and Field (1995), "It is generally agreed that nurses should not conduct qualitative studies in the unit in which they work....there is the confusion of roles as an employee and as a researcher...Of greatest concern is that data analysis may be impeded because of the researcher's familiarity with the setting. Nurses may not record data on some behavior or another because the behavior may be normative and therefore beyond awareness." (p.73). On the other hand, "it is essential that the researcher fit into the setting with minimal disruption." (Morse & Field, p.72). I feel that I am well known to the staff and familiar with the norms and values in intensive care at St. Paul's, therefore, I was minimally disruptive and entered the group more easily as a researcher. Morse and Field suggest that if you collect data in your own work setting, you should "define the research question so that it refocuses you from your usual perspective." (p.73). My usual role in intensive care is a staff nurse; the topic I investigated is the role that CISM plays in the intensive care unit. Although my chosen topic refocused me from my usual perspective, I was still an insider.

This study lends itself to the researcher as insider approach due to the sensitive nature of the topic and the fact that critical care has its own culture that may be misinterpreted by an outsider. The insider perspective represents a point of view in which the researcher filters data through her/his concerns both as a researcher and as a participant in the person's reality (Kemmis & McTaggart, 2000). This perspective offers a different angle from the outsider in order to consider the phenomenon under study by balancing personal insights and the voices of others (Kemmis & McTaggart).

Sensitive research is seen as research that poses a threat to the participants or the researcher (Platzer & James, 1997). This threat can come from delving into private affairs or into matters that are highly emotional (Platzer & James). Participants in this study were asked to discuss issues that are emotionally upsetting and have been, potentially, held in private by the participants, therefore, a threat to the participants exists. The same threat exists for the researcher in this study. As an insider, it is conceivable that I have been present during the participant's critical incident.

In terms of addressing the culture of critical care, Platzer and James (1997) argue that, with sensitive research, participants see the outsider as someone whom they must educate rather than someone whom they can have rapport with. This forced educator role of the participants can impede the research, however, an insider status can lead to greater participation and disclosure from the participants (Platzer & James; Thomas, Blacksmith, & Reno, 2000; Titchen & Binnie, 1993). If the researcher does not understand or share the same conceptual frameworks as the CCN participants, "it is likely to lead to misinterpretation of the latter's behavior" (Hanson, p. 941, 1994), therefore, it has been argued that nursing practice research must be carried out by insiders. Practitioners should interview other practitioners because, as insiders, they can have insight into the world of the participant and engage them in reflection of their practice (Bloor, M. 2001; Kemmis & McTaggart, 2000).

Although it may seem convenient for an insider to gain access to participants, this was not the reasoning for the insider perspective in this study. The sensitive nature of the topic of this study requires trust between the participants and the researcher. I live the participant's reality and, therefore, the participants and I are collaborators in this

research. This collaboration can result in rich data, particularly, when the participants are given the opportunity to clarify their responses and to be actively engaged in presenting their story (Heyl, 2001). For example, transcripts were shared with the participants in order for them to clarify their responses, give suggestions for reframing interview questions or to delete any material they had second thoughts about revealing (Heyl, 2001; Platzer & James, 1997).

There are limitations to the insider perspective. Insiders may not seek enough clarity or prematurely close data collection because they assume they know the participant's reality (Morse & Field, 1995). Furthermore, researchers that are familiar with the research setting are likely to see things from one perspective, whereas, a competent researcher is required to view realities in many possible ways (Hanson, 1994). Lastly, role conflict can be problematic when a nurse works and collects data in the same setting (Morse & Field, 1995).

Maintaining an audit trail counteracted the above problems. Field notes were written after each interview to "place the interviews within context" (Morse & Field, 1995, p.144). My subjective interpretations of the participant's interviews were recorded to keep me alert to areas of potential bias (Morse & Field). Other researchers were consulted during this research process as an additional method to ensure freedom from bias. Changes in methodological approach, for example, a change in the focus of the interview questions were recorded along with the rationale for the change in order to draw my attention to the emergence of concepts or themes (Morse & Field).

CCNs who have experienced a work related critical incident while employed as a CCN were eligible to participate in this study, therefore, participants who volunteer for

this study ensured appropriateness of data that was representative and contributed to understanding and insight in regard to critical incidents (Morse & Field, 1995).

Confirmation of the findings by the participants ensured data adequacy, that is, the amount of data obtained and whether or not saturation occurred (Morse & Field).

Consultation with other researchers, additionally, ensured that saturation occurred.

Of particular concern in this sensitive research was the potential for exploitation of subjects due to the ease with which women can get women to talk about private and upsetting aspects of their lives (Platzer & James, 1997). Participants may have trusted me as a colleague and confidante due to my insider status. Having a reciprocal relationship with the subjects and disclosing something of my own experience with a critical incident minimized this potential exploitation. Another concern of this sensitive research was that recounting a critical incident may be traumatic. Countering the fear that sharing emotionally disturbing events traumatize the research subjects were participants who claim that these types of interviews are cathartic (Platzer & James).

The type of data collected in this study may make it easy for participants to be identified in the research report by their colleagues. In order to counter this problem, participants were given the opportunity to see the transcripts and delete any material they had second thoughts about revealing.

In order to prevent potential problems when I was collecting data in my work setting, I ensured that the staff was aware that I was in a researcher role versus a staff nurse role. The aim was to avoid role conflict and confusion.

## **Data Collection**

Data collection occurred after ethical approval. Data collection included a single CDM interview (Appendix D), followed by an interview to clarify and expand upon data that were provided in the initial interview.

### *Critical Decision Method*

#### *History*

The beginnings of the CDM lay in Flanagan's (1954) Critical Incident Technique. Flanagan used interviews to investigate critical incidents.

The CDM was adapted from the Critical Incident Technique and initially applied to studies of fire ground command decision-making where the environment was "characterized by time pressure, risk, and dynamically changing events." (Klein, et al., p.465, 1989). The data gathering methods were designed to have a balance between research objectives and practical constraints. It was impractical to observe command decisions coupled with ongoing verbal protocol of the commander's thought processes during a challenging incident and, at the other extreme, asking fire ground commanders to describe their decisions would have resulted in "war stories." (Klein et al, p.465.) As a result, Klein et al. attempted to "focus the expert on those elements of an incident that most affected decisionmaking" (p.465). Klein et al. structured "responses in a way that could be summarized along a specified set of dimensions while still allowing the details to emerge with the commander's own perspective and emphasis intact." (p.465). This study was followed by several others, which revealed discoveries that led to refinements of the CDM. These findings suggested that in quickly changing situations, highly skilled decision makers rapidly assess the situation and identify an effective and feasible

course of action (Hoffman, Crandall, & Shadbolt, 1998). This stood in contrast with traditional models of decision making where the problem solver evaluates all alternatives before selecting the course of action (Hoffman, et al.). Subsequently, the CDM was used in various domains such as clinical nursing, systems analysis, instructional design, and corporate management (Hoffman, et al.).

### *Description*

The CDM is a retrospective interview technique that applies a set of cognitive probes to actual nonroutine incidents that required expert judgment or decision-making (Klein, et al., 1989). After the incident is chosen, the interviewer asks for a brief description of the incident and then a semi structured format is used to probe various aspects of the decision-making process (Klein et al.). There are specific procedures for analyzing the data.

Specific features distinguish CDM from other interview methods. The CDM is similar to all critical incident techniques in that it focuses on nonroutine cases, which are usually the richest source of data in regard to the capabilities of expert personnel (Klein, et al., 1989). This examination of nonroutine cases increases the efficiency of data collection and allows aspects of expertise to emerge that would not be apparent in routine incidents (Klein et al., 1989). The focus on nonroutine cases makes the CDM most appropriate for eliciting tacit knowledge (Klein, et al.).

Rather than asking general questions, critical decision interview questions refer to a specifically recalled event (Klein, et al., 1989). A side effect of this approach is that the events themselves, through comparing analyses, become an important source of data for future research (Klein, et al.).



The cognitive probes in the CDM interview sometimes require the decisionmakers to reflect on their strategies and bases for decisions (Klein, et al., 1989). This type of self report is a rich source of data (Klein, et al.).

The CDM is one of balance "between a totally unstructured approach, such as ongoing verbal protocol and one completely structured, such as an interview." (Klein et al., p.465, 1989). A significant amount of interview time is spent in uncovering perceptually based cues that are difficult for people to articulate. (Klein et al.). The CDM avoids some of the drawbacks of fully structured interviews in that "although specific questions are asked for each decision point, the order and wording can still follow the natural flow of a dialogue." (Klein et al, p.465). As the interviewers have already heard a description of the incident before probing begins, they are able to adapt the timing and wording of questions to this particular incident (Klein, et al.).

#### *Applications of the CDM*

Applications of the CDM include: knowledge engineering approach for an expert system data base, as a method for evaluating expert systems, as a method of analyzing skilled performance, as an approach to cognitive task analysis, and as a technique for eliciting expert knowledge (Crandall, Getchell-Reiter, 1993; Hoffman, et al., 1998; Klein, et al., 1989). The CDM has been used for knowledge engineering in the development of a case-based reasoning system for structural engineers (Klein, et al.). The probes of importance in this project were the ones that dealt with "cues, knowledge, analogues, goals, options, bases for decisions, and hypotheticals." (Klein, et al., p.470).

The CDM has been used to assess expert system feasibility and performance (Klein, et al., 1989). This study showed that data analysts used routine rules-of-thumb

only a portion of the time and most of their time they used complex and deep domain knowledge (Klein, et al.).

The CDM can produce critical cues and sets of nonroutine incidents, each with important decision points (Klein, et al., 1989). This information can be used for training program design and to help prepare personnel to deal with nonroutine cases (Hoffman, et al., 1998; Klien, et al.).

Another application of the CDM is the "generation of taxonomies of informational or diagnostic cues...derived from the coded incident accounts" (Hoffman, et al., p.260, 1998). This cue inventory is a list of key judgments that provides the researcher with a tool for identifying common elements of a particular type of incident (Hoffman, et al.). An example of this is Crandall and Getchell-Reiter's (1993) cue inventory, developed from reports provided by neonatal intensive care nurses, for assessment parameters of sepsis in critically ill infants.

Using the CDM with individuals of varying levels of expertise can help with understanding skill development (Hoffman, et al., 1998). This can be useful especially when the skill is rarely employed and could be enhanced with special training (Hoffman, et al.).

#### *Procedure of Critical Decision Method*

The procedures adopted for CDM interviews represent Klein's et al. (1989) solutions for meeting the goal of focusing the expert on the elements of an incident that most affected their decision making. Responses are structured in a way that they can be summarized, but still allow the details to emerge with the expert's own perspective (Klein, et al.). The complete CDM procedure takes approximately two hours. During this

time, retrospective analysis of an incident is required for the construction of a time line and the identification of decision points (Hoffman, et al., 1998). The following steps offer a detailed description of the interview protocol as presented by Hoffman et al. and Klein et al.:

Step one – Preparation: The interviewer or knowledge elicitor is trained in proper conduct of the CDM procedure. This involves practice in preparing an interview guide and conducting mock CDM procedures. (See Appendix D for the interview guide to be used in this study.) The knowledge elicitor is required to be familiar with the domain of the study through analysis of research, conversations with domain experts, and on-site observations. For the purposes of this study, I plan to conduct a practice interview, using the interview guide in Appendix D. I have spoken with the Coordinator of Critical Incident Stress Debriefing and recently attended a workshop on CISD at St. Paul's Hospital. Over the sixteen years that I have worked in critical care, I have been involved myself or have witnessed other CCN's involvement in critical incidents.

Step two– Select incident: An incident is selected that can illustrate nonroutine aspects of a domain. A case is selected that presents a unique level of challenge for the individual, therefore, the decision maker is asked to select an incident that was challenging and that, in his/her decision making, might have differed from someone with less experience.

Step three– Obtain Unstructured Incident Account: In order to have a sense of the individual's phenomenological perspective of the event, the individual is asked for a description of the event. This account proceeds without interruption by the interviewers except for minor points of clarification. For example, in this study, I will ask the

participants to describe a critical incident where they decided to access CISD or not to access CISD.

**Step four– Construct Incident Timeline:** After the incident is related, the interviewer reconstructs the account in the form of a timeline that establishes the sequence and duration of each event. This timeline serves to establish a shared awareness of the facts of the incident from the individual's perspective.

**Step five– Decision Point Identification:** During the timeline construction, specific decisions are identified for further probing. A decision point is probed if the individual agrees that other reasonable courses of action could be possible or that another individual with less or greater experience might choose differently. For example, after the participant recounts their critical incident, questions will be asked about their decision making process in regard to dealing with the incident.

**Step six– Decision Point Probing:** All studies use different probes, depending on the objectives of the study. This step generally begins with questions about the informational cues that were elicited in the initial assessment of the incident. The interviewer "focuses the participant's attention on the cues and information available within the situation, eliciting the meanings that those cues hold and the expectations, goals, and actions they engender." (Hoffman et al.,p.273, 1998). Many of the probes in this study will focus the participant on their decisions around CISD.

**Step seven – "What-If?" Queries:** During this step the perspective is shifted from the participant's experience to one of speculation on what might have happened differently. The purpose of the "what-if" queries is to expose variation in the choices made by the participant. Klein et al. (1989) believe that the "reasons for taking a particular action are

most frequently illuminated through understanding choices that were not made..."(p.467). For example, in this study, participants will be asked to explore their decisions in regard to CISD, given various circumstances.

### **Data Analysis**

There is no single coding procedure for the CDM. The research questions define the nature of the coding in the CDM (Klein, et al., 1989). The following is a summary of Klein's et al. analytical procedures for the CDM.

#### *Procedures for Data Analysis*

*Descriptive decision model* Decision point coding is used to distinguish the decision strategies employed by the participants. Each decision point is coded to ascertain whether or not concurrent or serial evaluation is used. One code characterizes the decision point as primarily involving an answer to one of two distinct decision strategies; that is, deliberation about the situation (situation assessment) or deliberation about the reaction (option evaluation).

*Critical cue inventory* The critical cue inventory is a collection of the informational and perceptual cues that are identified in the interviews. Probes in the CDM interviews are directed at attaining specific cues that have been used in formulating a situation assessment or in considering options.

*Situation assessment record* At each decision point, critical cues and current goals are probed. An initial situation assessment may be maintained throughout the incident, with new information serving to elaborate on what was already known, thus, goals do not change but may be refined or made more explicit. An extreme change in a situational

assessment results when there is a perceived change in the nature of observed cues, which causes the decision maker to modify earlier goals.

### *Rigor*

Rigor is required in research in order to prevent error (Morse & Field, 1995).

Lincoln and Guba's (1985) model was one of the first to address the four aspects of trustworthiness in qualitative research: truth value, applicability, consistency, and neutrality.

*Truth value or credibility* In qualitative research multiple realities are realized, thus, it is imperative for the researcher to report the perspectives of the participants clearly (Morse & Field, 1995). In order for qualitative research to be credible the presentation of the participant's experience must be recognizable as the participant's own experience.

Lincoln and Guba (1985) propose five techniques to promote trustworthiness in qualitative studies. They are: 1) prolonged engagement and persistent observation, 2) triangulation, 3) peer debriefing, 3) negative case analysis, 4) referential adequacy, and 5) member checks. Of particular significance in this study, will be member checks where I will offer a second interview as an opportunity for the participant to clarify, expand upon and add to the initial interview.

*Applicability* This criterion will be used to determine whether the findings of this study can or cannot be applied to other settings, groups, or subjects other than this study. The use of inclusion criteria in this study will attend to this criterion.

*Consistency* In this criterion, the focus is on whether or not the findings in this study will or will not be consistent if the study were replicated with the same subjects or in a similar context. On the other hand, qualitative studies emphasize the "uniqueness of the

human situation so that variation in experience rather than identical repetition is to be expected." (Morse & Field, p.144, 1995).

*Neutrality or confirmability* The emphasis of this criterion is to ensure the freedom from bias in the study. The researcher accomplishes this by identifying their own biases through the use of memos and consultation with other researchers (Morse & Field, 1995). I will maintain a journal to record my thoughts and observations about the data and the research process.

### **Ethical Considerations**

Several procedures protected the rights of human subjects in this study. Approval for this study was requested from St. Paul's Hospital Ethics Committee and from the University of British Columbia Behavioral Research Ethics Board. An informed consent form (Appendix B) was submitted to participants prior to the study. In addition, each participant received a verbal explanation of the purpose of this study and an opportunity to discuss any concerns regarding the study.

Audiotapes were monitored to maintain confidentiality. Only the research team had access to the tapes and transcripts. The tapes and transcripts were stored in a locked filing cabinet to which only the principal investigator had a key. Anonymity was maintained by referring to each participant by a code number. Participants were instructed not to use patient, family or colleagues names on the audiotapes. Audiotapes and transcripts will be destroyed in seven years following the study. Discussing a critical incident may be emotionally upsetting for the participants. In anticipation of this, the phone number for the Employee Assistance Program was available to all participants.

Due to the sensitivity of this research, the transcripts were shared with the participants in an effort to clarify their response or to delete any material they had second thoughts about revealing. The participants may have trusted me as a confidante due to my insider status. In order to minimize potential exploitation of the participants, I developed a reciprocal relationship with the participants by disclosing my own experiences with critical incidents.

### **Sample**

The study sample will be described in terms of demographics, including the participant's experience with a critical incident stress response. The setting for this study was an intensive care unit within a tertiary care hospital in Vancouver, British Columbia.

### *Demographics*

Table 1 provides a demographic profile of the participants (n=10) regarding gender, age, educational background, type of critical incident response experienced by the participants, total years of critical care nursing experience, and employment status.



Table 1. Demographic profile of participants (n=10)

Category	Variables	Percentage
Gender	Female (9)	90%
	Male (1)	10%
Age	30-39 (5)	50%
	40-49 (5)	50%
Education	Diploma (8)	80%
	Baccalaureate (2)	20%
CISD	Yes (7)	70%
Counseling with Employee Assistance	Yes (1)	10%
Other*	Yes (3)	
Total years of critical care nursing experience	1-6 years (2)	20%
	6-12 years (2)	20%
	> 12 years (6)	60%
Employment status	Full time (3)	30%
	Part time (5)	50%
	Casual (2)	20%

\*Participants described "other" as a response to a critical incident in the following ways:

- 1) spoke to, sought assistance from Patient Care Leader, Charge Nurse (1)
- 2) going out for a drink after work with a group of staff members (1)
- 3) informal debriefing with staff members (1)

### **Reflexive Journal**

I kept a reflexive journal during this study in order to document my insights and to record my subjective interpretations of events to keep me alert to potential bias. The following findings are from my reflexive journal. The reflexive journal helped me to gain insight about myself as a student conducting sensitive research with my peers. I found the interview process challenging because of the emotion evoked by the participant's recounting of their critical incidents. At times I felt that I did not want to continue with the interview because the participant was so upset, although the participant stated that she did not need to conclude the interview. After discussing this problem with my supervisor, I was able to put the interview process in perspective; – I was not causing the pain, the critical incident was the root of the pain. One of the participants, who found the retelling of her critical incident very difficult, told me that she had not spoken about this incident for ten years and since our interview, she finally could say that she "felt better". Once I was aware of the idea that I was not the cause of the participant's pain and, in fact, the interview may have benefited the participants, I was able to thoroughly engage in the participant's experiences through the interview process.

Through the reflexive journal process, I gained awareness of how rewarding it was to participate in nursing research in clinical practice. Participants had revelations about their practice during the interview process. I felt honored that my peers chose to share their experiences with me, some of which they had not talked about with anyone for years. As a result, I felt a strong sense of responsibility to accurately communicate the findings.

## **Summary**

The research design of critical decision method was presented as an approach to understanding CCN's decision making in regard to CISD. The rationale for selection of this method was discussed. Sample inclusion and exclusion criteria were included, along with the process for recruitment of participants. Methods of data collection in the critical decision method were discussed. A discussion of data analysis was offered. Ethical considerations were outlined in order to protect the rights of human subjects during this study. The findings of this study are presented in Chapter Four.

## **CHAPTER FOUR: FINDINGS**

In this chapter, I analyze data collected from the participants who recalled their experience of critical incidents and their decision-making with regard to managing critical incident stress. Research was directed at answering the principal research question: How do CCNs in adult ICU make decisions on whether to avail themselves of CISD? These decisions and the factors influencing them are reported and analyzed.

A total of ten participants took part in this study. All were interviewed using CDM interview guidelines. A second round of interviews, wherein each participant received a summary of his/her first interview and was asked to provide feedback, was also conducted. The first interviews were audio taped for later transcription, and the transcriptions were analyzed. During the course of analysis, it became evident that the participants' responses could be assigned to one of four categories: perception of critical incidents; perception of CISD; respondent decisions; and factors influencing decisions.

### **The Relationship of Connection to Critical Incidents**

The respondents did not share a common understanding of the term 'critical incident', thereby highlighting its ambiguity. A number of participants felt that a critical incident was an unusual situation that affected them personally.

Something that is a bit more out of the ordinary. From, you know, in critical care which is everything and little bits of critical incidents during the day, but something that is a little bit more out of the ordinary, something that happens specifically with a patient or a family member or something that affects me in some way, even if I don't know why, or a specific incident at work that affects me differently.

It's like pain...it's whatever you think it is ... and there's no real definition of it...I think. It's how it makes you feel.

I'll say it's a personal experience with stress...a stressful situation where a person's coping mechanism...where a person's normal coping mechanisms are challenged or taxed.

Other participants saw a critical incident as a situation that impeded their ability or desire to nurse and had a detrimental, lasting effect:

I see a critical incident as something that impedes our ability to handle what we're seeing and what we're doing. And that could be just overwhelming feelings, a sense of not being able to do what we want to be able to do with a patient. Somehow it impedes our ability to move forward.... And I think that in critical incidents, it's something that just doesn't allow us to kind of deal with something really effectively.

I think a critical incident within our work place, specifically, is anything, whether it's related to a patient, colleague, staff, whatever, is something that occurs that, basically, disables you... makes you unable to continue your shift or is so upsetting to you that you have to leave the bedside or someone has to come in and replace you or you're basically overall distraught or ineffective.

But I know when it does affect me and when I start to get stressed out and feeling very uncomfortable and thinking, "I want to quit my job now!" That's when I know it's a critical incident for me.

...Because I still remember the patients' names. That's a big one for me... we have this joke that they all become one after awhile. These have not become one...these have become separate incidents where I remember their names... So there's a long-term memory that kicks in. And, there is very much that sense that when something comes up it evokes that same feeling...I'll get a little bit leery or want to talk about it. And some of us who are of the same generation of nurses who started at, maybe, the same time, have this fairly common catalog of patients that we still need to talk about.

One participant felt a critical incident had no definitive end point.

I see it as an incident that occurs that makes you feel professionally uncomfortable and/or personally uncomfortable with regards to your work environment from a patient or a staff member. Uncomfortable to the extent that it's not being resolved; it's something that's probably more than likely emotionally disturbing to you; it affects you to the point where you feel there hasn't been a resolution to it and that it could be an on-going issue.

All participants identified common elements or features of critical incidents, most of which pertained to the degree of their connection to the patient, the family or the situation. All inferred that the central determinant of a situation as a critical incident was the existence of a personal connection between themselves and/or the patient, the family, and/or the situation.

You know, you think it's just all very standard and it's just critical care and it never really changes, but some things affect you that you don't think they're going to affect you. Certain patients die and you're in tears and somebody else dies and you're like "Oh well. Get the bed clean for the next patient." I don't know what the difference is. I often thought if there was a connection in some way. . . . I know sometimes it's been the family; I've bonded with the family.

Participants who were mothers, for example, identified with critically ill post partum patients and their children.

I think that a lot of it had to do, in that particular incident, with grieving. A lot of us were grieving along for the young woman, with a brand new baby, not to diminish the sadness of the male population that were involved, but we were women, a lot of us were mothers, we knew what it would be like. To have that loss in someone's life would just be overwhelming with a brand new baby.

Sharing the same language, culture and background as a patient and/or family member was often sufficient to establish the requisite connection. Some participants identified with families that reminded them of their own family. For one participant, nursing a fellow staff member's father who was terminally ill had a strong impact.

You know, there have been sad incidences along the way in my nursing career, but this one, because it was my co-worker, who you wanted to make it okay for and it wasn't something that we could make okay. . . . These were people that I knew as opposed to the unknown people that come through the doors of the ICU all the time. This was someone that I knew and it made it a little bit more real.

Here was her husband, who was probably ten years older than mine, also an engineer like mine, also French commonalities, and I think you feel somewhat related to the patient and family you deal with and there is an immediate link there. That affects us. And not all our patients are equal that way and I feel if I have a commonality with that family and patient it does affect me in ICU.

The term critical incident had a personal meaning for each participant. The reason for the connection between the participants and the patient and/or the patient's family varied between participants.

### **Perception of CISD**

The participants were asked to explain what CISD meant to them. Five out of the ten participants had been involved in what they perceived to be a CISD at their current place of work. They stated they had very little or no information about the nature and appropriate response to a critical incident. All were unsure as to when to classify an incident as worthy of CISD:

... They (other nurses) were really new at the time and they got critical incident stress debriefing by the stress debriefer person. . . like they actually arranged something for them. That's the only time I've ever heard of it. I know there is something, but I sort of think a plane has to crash or, whatever, for that to happen.

The participants did not anticipate ever needing CISD. They acknowledged that they did not think about CISD unless it was offered to them.

But I think . . . probably everyone should be aware that there's something there in place, but, like I said, until you are actually presented with an incident, it's not an issue and you don't really think. "What would I do if . . . ?" You just go on about your work. I was quite relieved that that was all taken care of for me.

The participants' overall perception of CISD was one of an opportunity to "tell your story" within a group, where a person trained in counseling or debriefing was

present to support the group. They believed that an expected outcome of CISD was that those attending would “reach some sort of normalcy”.

### **CCNs’ Decision Making**

Analysis of the transcripts revealed that participants responded to critical incidents in one of three ways: (a) by attending a CISD, (b) debriefing with colleagues, or (c) avoiding debriefing altogether. In the following section, I will discuss the various factors that resulted in these decisions.

#### *The Decision to Attend a CISD*

Participants who attended a CISD did so for a number of reasons: they felt a need to make sense of their situation, they felt safe in attending, and/or a CISD was available. Participants who did not attend a CISD had no information regarding the availability of this service at the time, felt the timing was inappropriate and/or that their critical incident was not sufficiently traumatic.

#### *Factors Relating to the Decision to Attend CISD*

Four out of the five participants who had attended CISD did so to gain a fuller understanding of the patient’s trauma.

Because I think I needed information. You know . . . I think I’ve probably done this long enough that I can kind of work through a lot of the emotional upset on my own or just one-to-one thing . . . . But there was a lot of information about her illness that was misunderstood or wasn’t clear. And, from a professional point of view, I was curious to find out more about the illness, but I needed to . . . have some understanding. And you know, having G say to all of us there’s nothing we could do, and hearing that and having it explained from a pathophysiology kind of point of view as to what was happening with her, and it was just a cascade effect,



you know. It was just a raging fire through her body kind of thing. It was . . . it was important to hear that. It was important to get at the information and I needed to do that. I needed to be able to get better informed and that was one of the . . . I'd probably say the biggest reason why I attended the critical incident debriefing.

The opportunity to hear what others had to say about the patient was another factor.

I'd had a long, hard day, but I was definitely intent on staying after (the shift). In fact, the debriefing started before my shift ended and I left a little bit early and went to it and stayed a bit into the night shift. This was all on a day shift, so you know, I extended my day . . . it was important. I was tired, but I wanted to hear what other people had to say and . . . I don't know . . . I guess I needed clarity or something.

One participant experienced a critical incident involving a patient with a rare and deadly infection. There was some confusion in the ICU regarding whether the disease was contagious and, if so, to what degree. In the hope of acquiring information that might allay her fears, the participant decided to attend a CISD.

Sensing that a CISD session was "safe" was important to five of the participants. By "safe", they meant that the debriefing would be confidential and the participants nonjudgmental.

The time, the place, and the format – that it was going to be an open forum and that it would be confidential. . . . And that it was a time for all topics to be brought out, if you felt comfortable.

None of the participants had ever initiated a CISD; rather, the opportunity to attend one was presented to them.

At the time, I really didn't think anything. I was just focusing on what had to be done. And, I think, I didn't have enough time after the fact before the other options were presented and right away, anybody that was involved was approached and said, "Okay, you have the opportunity to go to this debriefing

and we strongly encourage you to go". ...I didn't feel forced to do it. I think I was quite happy to have that opportunity.

I remember them saying that someone is going to come up and talk to people who were involved. And I remember thinking, "Oh! Maybe they can wave a magic wand."...And just kind of going with the flow at that time and letting someone else make the decision that this was what we were going to do.

None of the participants knew how to request a CISD or whether it was even appropriate to do so.

Even with the resources available, there tends to be a certain chain of command, so, you need to know the process to . . . by which you access these resources . . . Just myself, right now, I wouldn't know what to do to initiate it because it was all done for me.

The critical incidents recalled by participants occurred over lengthy periods of time, the shortest spanning twelve hours, the longest several months. Generally speaking, the longer the time frame, the greater the number of care givers are involved. As this number increases, so too does the likelihood of them deciding to attend a CISD.

I'm not sure if I, as a nurse, do know when it's okay to access the team, at this point. I do know that I've told other people to access that team for other scenarios and we have accessed the team in the past when it's been a whole bunch of staff about a similar situation or a patient that everybody's involved in. When it's just me that may be affected, I don't know that I want . . . I don't want to say waste their time, but that is, I guess, partly how I feel.

A need for connection with others who would understand his/her experience and response was evident in the participants' decision to access CISD. A fear of being alone with their feelings influenced the decision to access CISD:

When it (CISD) became an option, that's when I said I was more than willing to go. I was thankful for that option, quite frankly. And I think mostly I was thankful that other people might have felt the intensity of feelings that I was feeling because there was definitely a feeling of "what's going on with me?"

I knew as soon as I heard that they were going to have (CISD) that I would be there. . . . partly because I felt very heavy-hearted and needed to talk to people about it.

The participants reported a need to know that others shared their feelings but were reluctant to discuss their critical incident with anyone other than those whom they trusted.

It (CISD) has to be in a circle of people that you're comfortable with. I'm not interested in going through emotions with people who are, you know, the higher ups of Human Resources or Head Psychologist or that. There's an intimacy in the kind of family of nurses we have . . . and do I feel the need to hash it out with people with whom I have very little personal or professional respect or friendship . . . probably not. The reward for me is, I guess, being with, not with just like-minded people, but kind of like-feeling people.

Eight of the participants believed that how a CCN managed their critical incident stress (i.e. debriefed or avoided debriefing) depended on personal attributes.

I think that's an individual thing . . . I think it depends on coping mechanisms and past experiences and, yeah, coping strategies is the big thing. And personality – how assertive somebody is in being accountable for their own closure. . . I think it is unique in each individual.

And I think that assertiveness allows you to deal with stressful incidents. You recognize you've been through it enough with your experience; you have enough confidence in yourself to be able to say, "Well, you know what? I know how I'm feeling; my experience tells me this is how I'm feeling, this is what I can do with it, my assertiveness is telling me, let's do something about it." So whether or not they choose to work with it and whether they can deal with it really depends on some of those factors being incorporated into their practice.

. . . it's difficult because it's got a lot to do with personalities. And some people's personality would see it as weak at needing help or asking questions.

In summary, the factors governing the decision to attend CISDs include the need to make sense of the situation; encouragement from others; a perception of personal

safety; personal attributes; accessibility to CISD services; and an understanding of both the nature of CISD and the process.

### *Responses to CISD*

Four of the five respondents who had attended CISDs described positive consequences and because they had experienced these, they indicated they would attend CISD again. Four of the five respondents who had attended CISD felt that a bond had been formed between the group members. Sharing perspectives enabled participants to clarify issues, make sense of the incident, and eliminate feelings of isolation. However, most participants did not know what to expect of a CISD and only attended because it was offered and because "it can't hurt".

While cognizant of the benefits of CISDs, participants also recalled experiencing negative psychological effects, including guilt. Retelling their critical incident was still emotionally upsetting, as evinced by their reactions during the interviews.

### *The Decision to Debrief with Colleagues*

Informal debriefing with colleagues was often the first choice for participants, given particular circumstances. This occurred during and after critical incidents. Participants chose to debrief with colleagues for various reasons, such as they trusted their colleagues, their colleagues were available, their colleagues were supportive, and their colleagues had "been there" and the participant perceived that they would understand their feelings.

I felt better talking about it, and I felt there was actually somebody there that understood how I was feeling or that was willing to listen -- a good listener. So, that in

itself, having somebody there who was saying, "I'm hear to listen" helped me to say to myself that this was an appropriate way of dealing with the situation.

After debriefing with colleagues, participants generally felt that their feelings had been validated. They were able to make sense of their respective incidents by sharing their concerns and feelings and subjecting them to the views of colleagues. With a single exception, the participants agreed that this form of debriefing was very much preferable to "taking critical incidents home" with them:

You know, it's important to be able to work through it. And that's best done here! Cause, quite honestly, I don't have a whole lot of people outside my job that would even understand or would want to talk about it or could help me, so my help really comes from within these walls and it really comes from my colleagues, acknowledging and validating our feelings.

#### *Factors Relating to the Decision to Debrief with Colleagues*

A supportive atmosphere was a critical factor in the decision to debrief with colleagues. Peer support enabled participants to discuss critical incidents comfortably.

. . . it's often a little trigger that gets the conversation going and I've been privileged to be part of those kinds of conversations that I think would categorize as stress debriefing. Where we give each other support, where we comment on each other's care or we comment on the way we interact with family, or words will be said about "wow, that must have been" or "what a hard case to nurse" or "I like the way you handled that family." I think different nurses are better at doing that with one another, and I happen to have a number of colleagues who are actually very good at that and it's something that I try to do more intentionally, as well, because I think a lot of the answers are amongst ourselves. Because we know exactly the work we do. We know exactly what that feels like.

The above narrative also speaks to the nature of critical care, in that colleagues have "been there"; they share common bonds predicated on shared experience.

The need for trust in order to share critical incidents was evidenced by the following accounts:

It's come up in our unit on other issues, maybe a mentor program where people are there immediately for someone that needs, not so much a formal debriefing team, but someone who can be there for them in a situation. And that would have to be someone you work close with, that's within your line and that could be one of the CNLs (Clinical Nurse Leaders) or another staff RN, just a support buddy system that you can trust. I think there needs to be a sense of trust and knowing that it would be a confidential matter.

Participants indicated that it takes time to build mutual support among colleagues and that this support would less likely be available to new staff.

They were also aware of the existence of environmental constraints on debriefing. For instance, they reported that a busy night shift would preclude the opportunity to debrief.

### *The Decision to Avoid Debriefing*

Only one participant reported consistently opting to forego debriefing of any kind following a critical incident; the remainder chose to engage in debriefing on some, but not all, occasions. Avoidance of debriefing assumed various forms, such as withdrawing from the patient's bedside, focusing on some task, and denying feelings. Participants stated that no matter what the form, avoidance is a strategy for regaining control and composure. It is possible the participants debriefed in an informal way at a later date, but the participants were discussing what formal debriefing they had done immediately following a critical incident.

### *Factors Relating to the Decision to Avoid Any Debriefing*

A central factor that affected participants' decision to avoid any form of debriefing was the need to regain a sense of control and composure. Physical withdrawal was one way that participants accomplished this goal. Participants indicated that CCNs who encounter critical incidents during a shift are required to complete the shift and to give care to the same patient or other patients; withdrawal from the setting or the situation permits the CCN space to regroup and re-energize to complete their assigned tasks.

And I know that if I can move myself out of the place for ten minutes, it's just a way that I can kind of go "whew." It's like bringing that elevator, that inside elevator down to a floor that I can deal with.

Another form of withdrawal is focusing on a task, rather than the critical incident, to direct attention away from the critical incident.

I had chosen to just focus on a task. I was up on the floor – it was a very difficult cardiac arrest and I was alone – I mean everybody just disappeared right after the arrest – the body was right there and I was overwhelmed. I wouldn't say shocked by it, but it was the first real intense cardiac arrest I'd ever been to and I just handled it by finishing up the job. I was able to finish cleaning up and returned the cardiac arrest cart back to the ICU and, while I was focusing on replacing the equipment and cardiac arrest cart I just somehow was able to manage to distract myself, using tasks . . . to me, finding a task to focus on and finishing the task and focusing on the tasks of my job was one way of helping me to recover and to refocus myself so I wasn't dwelling on it per se.

Six participants stated they felt a need to constrain their feelings about the critical incident, especially when they had not yet completed their shift. They perceived that being emotionally distraught and being in touch with these emotions precluded their functioning effectively at the bedside. They believed that controlling their emotions allowed them to provide the patient with adequate care and the patient's family with support.

I think probably because there were children involved, because though it was terribly sad and they were saying, "It's okay, Daddy you can go now." and things that would tug at anybody's heart, I wanted them to . . . be able to feel that it was just them and their Dad and their Mom doing the grieving, and that I was there to help them. Because they were young children, I felt . . . that I needed to . . . not be as upset . . . so that I could help them through it and help the mother through it . . . and be supportive . . .

You're sobbing, you're crying . . . the next day I would have ended up crying, but I would have been able to talk a little bit differently than having been exhausted after forty-eight hours, two day shifts of having to deal with the family and the patient and the brother and the friends. So, I know, sometimes for me, in the immediacy of the situation isn't the best time for me to talk about something. I need the time to reflect and then I want to talk about it.

In some instances, debriefing was not a feasible option for the CCN. For example, one participant stated that debriefing was inappropriate when she was assigned to a patient in a private room as it was not possible for her to leave the bedside to do so. Another participant reported avoiding debriefing because she sensed a lack of empathy on the part of colleagues; she decided not to debrief because she could not trust her colleagues to be supportive. She stated she felt alone and isolated.

Under normal conditions . . . I do like talking about stressful situations, but when I talk about them I have to be able to trust the person and trust that the person I'm talking to is a good listener . . . There was nobody at that very moment that I could speak to. So just because there was no access . . . at that very moment, to my normal way of coping with a situation, I guess I...tr(ied) to distract myself, just to focus on a task, to take my mind off it.

In two cases where a critical incident stemmed from a staff altercation, participants wished to preserve their privacy and in order to keep the situation confidential, avoided debriefing about the incident.



### *The Decision to Avoid CISD*

Participants' decision to avoid CISD often stems from a lack of knowledge regarding this service, confusion as to what constitutes a critical incident, and constraints intrinsic to ICUs, such as time constraints. While all the participants believed critical incidents to be subjective in nature, that is, to impact each individual in a different way, they stated that management should assist them in accessing CISD. Participants were undecided as to how management was supposed to be aware of their critical incident. One participant postulated that in many instances, management "witnessed the reactions" of the staff and, therefore, initiated a CISD.

One participant explained why she thinks CCNs may not attend CISD, "A lot of people don't want it (critical incident) to become everybody's business so they just back away from it and don't do anything about it." Participants explained that the CISD process poses an interesting contradiction; although confidentiality is assured, confidentiality cannot be guaranteed in a group setting.

None of the participants knew how to request a CISD or whether it was even appropriate to do so.

And because we do these things so infrequently, it feels like it has to be super-duper special in order for it to happen. It is not all routine . . . so when it does happen, it feels that it needs to be big. So, I think that takes away from the value and it places the degree of incidence so high that, I don't feel I'm the one to call this (CISD).

I was the primary nurse for that patient for two days and it was just me that was affected. So I guess I just don't think that to call a team in at that point, just for me to vent, is what they're for, although there's a part of me that knows that's what they're for.

In many cases, participants relayed stories of critical incidents in which they were experiencing an unusually strong emotional reaction, yet they felt the critical incident and their response to it was not important enough to warrant CISD.

None of the participants appeared to have much knowledge of CISDs or the CISD process, or desired outcomes, even those who had previously attended sessions.

Still to this day, I don't quite have a grasp on what the mandate of these meetings is all about. Is it just a venting session? Or is there, at the end of the day, some kind of statement, or is there any follow-up? And I don't remember having any follow-up to that meeting, as far as I could tell. So, I guess the expected structure or the expected outcome of something like that is unclear to me and I think that's something that I would like to know more about.

The critical incidents recalled by participants occurred over lengthy periods of time, the shortest spanning twelve hours, the longest several months. Generally speaking, the longer the time frame, the greater the number of care givers are involved. The participants admitted to their confusion about how many caregivers were necessary to justify a CISD; several indicated that if they were the only CCN to experience critical incident stress, CISD would not be provided.

I think I knew that there was probably a system available; I just didn't know what criteria, how you became a candidate for this system and even if it was one-on-one or if everybody had to become involved. I think there was a little bit of fear to be the squeaky wheel.

It would not come easily to my consciousness to call in (for CISD) and I don't know what that is, I think, maybe it is a system that I'm not totally familiar with. There's also, I think, a desire not to shed too much light on me, that there's, sometime, a feeling like "is this an issue for me and not for others" and by calling a meeting I'm saying, "this is truly an issue for me" and I'm not sure that's totally in my nature.

The culture of critical care also played a role in participants' decisions to avoid CISD. The nature of critical care is such that a CCN is expected to deal with uncertainty

and instability as part of the daily routine. Eight participants felt that critical incidents were "just part of what they do" and, therefore, to be expected. They expressed a fear of being seen as weak, or less of a CCN, if they admitted that a situation was a critical incident.

I didn't expect to talk about it. Especially because the other people around me weren't affected by it. I even more so tended to internalize it and not talk about it for fear of looking weak or not being able to handle my job or just being an expectation of the job and not wanting other people to see how upset I was.

I think your more experienced nurses will deal with the situation and then afterwards . . . because it's what we do. You just do! Somebody codes; you just deal with it; you just look after the person; you don't think about it while it's going on. At the time you're just trying to react.

. . . there was something that had actually tipped me over into really needing to put a lot of effort into kind of regrouping and trying to focus on what I needed to do versus just falling apart. And then usually your co-workers, they would be saying . . . I didn't want them to be thinking, "Oh my goodness, look at her, it's not her dad and she needs to kind of get it together", I didn't want them to be kind of judging me for my reactions so that I was trying to stay more in control, but I wasn't winning.

Another characteristic of critical care is the rapid pace of CCNs' work.

Participants referred to the impracticality of making time for debriefing in this context as one of the reasons they did not access CISD.

. . . maybe it's time for us to verbalize more when things are difficult and to demand the pause . . . the privilege to pause and to reflect. It's not something that is routine in our workplace at all because there's no time for pausing, you know . . . the importance of saying, "this is what's happening to me . . . I need to stop and I want some time to go over this and this is perfectly legitimate." And I think that demands a change in culture, in the work culture, because that is not how we function. We let things escalate and culminate to a point that, then, yes, we all pause for listening to one another, but it probably needs to happen at an earlier stage.

Whether it's a good time for family, whether you can handle the family, what you're going to say to the family . . . those are all decisions that you make as you're caring for the patient, if you're having a busy shift in the unit. So I don't

think it's a kind of thing where we can say, "Well, let's just take an hour to sit down and analyze the pros and cons of what might be the best response to this situation." That doesn't really happen when you're working in an ICU, when things are all carrying on about you . . .

### **Summary**

Findings relating to the resolution of critical incidents were presented. Analysis of the transcriptions of interviews revealed CCNs' confusion and ambiguity about the definition of critical incidents and when CISD was warranted. Participants revealed three possible decisions with respect to debriefing following a critical incident: attend CISD, debrief with colleagues, and avoid debriefing. These decisions were mediated by personal and contextual factors, including an understanding of the nature and objectives of CISD, availability of and access to resources, the nature of critical care, and personal attributes.

## **CHAPTER FIVE: DISCUSSION AND IMPLICATIONS OF FINDINGS**

Chapter Five is a discussion of the findings generated by the research study. The aim is to understand how these findings contribute to nursing science.

An overview of decision-making, applicability of the RPD model, and implications of findings are discussed in this chapter. Throughout the chapter, I will compare and contrast the research findings with those of other researchers.

### **Overview of Decision-Making**

The research findings provide an understanding of the decisions CCNs make in response to critical incident stress and the factors that influence those decisions. The participants identified three decisions made in response to critical incident stress: (a) attend a CISD; (b) debrief with colleagues; and (c) avoid debriefing. Analysis of the data generated information regarding the personal and institutional factors that influenced all three decisions.

I determined the fit of the above decisions with Klein's (2001) classification of decisions to discern which type of decision was used most frequently. Klein's (2001) category of decision, titled recognitional decision, applies to incidents where the decision maker does not weigh options but adheres to a single course of action. All but two of the participant's decisions fall within this category.

### *Intuitive Decision-making*

For the most part, the participants did not evaluate alternatives or outcomes when making decisions about managing their emotional response to a critical incident. Rather, responses were conditioned by prior experience with stressful events.

The interviews revealed that decisions were arrived at with little thought given alternatives or consequences, "on the fly" so to speak. Nor were reasons for decisions analyzed; rather, CCNs reacted intuitively, on the basis of what Klein (2001) calls "situation awareness". In Klein's simple version of the RPD model, the situation is appraised and the individual immediately responds to it. In this case, a person is "drawn to certain cues and not to others because of [their] situation awareness" or, in other words, their intuition (Klein, p. 33). This finding is consistent with Crandall and Getchell-Reiter's (1993) observation that "experienced nurses' accounts of challenging incidents suggest that . . . [they] draw extensively on perceptual skills" (p. 50) in making decisions. Benner (1987) makes a similar assertion in regard to nurses' intuitive judgment in that nurses use pattern recognition, similarity recognition, and commonsense understanding in decision-making. A difference exists in the way the participants use their intuition to make a decision as compared to the participants in Benner's research. Generally speaking, intuitive judgment results in a direct decision to do something helpful for the patient. The participants, in this study, needed encouragement to make a decision to attend CISD. This is a significant finding, as CCNs who experience a critical incident may need guidance in decision-making in regard to managing this stress

### **Compartmentalization**

The widely held assumption among the participants that critical incidents are a routine part of their job posed an obstacle to recognizing the need for CISD. This belief may be associated with the way CCNs' compartmentalize critical incidents. Showers (2002) explains how people behave under stress by using an information-processing

model (compartmentalization) that views the self-concept as an enormous repertoire of self-relevant information, which is organized into categories. "Activation of a particular self-aspect category brings to mind a set of attributes associated with that category (Showers, p.274)."

Several authors (Burns & Harm, 1993; Cotterill-Walker, 2000; Spencer, 1994) believe that CCNs protect themselves in response to critical incidents by electing not to become too emotionally involved in the first place; that is, by compartmentalizing their emotions from the tasks of their role. According to Showers (2002), CCNs relegate negative self-beliefs to categories that are not likely to be activated and as a result, they are able to ignore the emotions associated with critical incidents. The use of compartmentalization may also explain why the participants felt their emotions were not important enough to access a CISD.

As predicted by this model, a person's tendency to compartmentalize about CISD is the result of trying to deal with his/her overall attitude toward (or emotional reaction to) a critical incident. According to this model, the participant's beliefs and attitudes toward CISD influence their decision-making in regard to CISD. For example, the participants' personal beliefs and preconceptions related to critical incidents foster a reluctance to access CISD.

### **Factors Affecting Decision-Making**

A number of factors, both personal and institutional, influence decision making in regard to CISD. For participants to perceive a situation as a critical incident, they had to perceive some personal connection between the CCN and the patient, the patient's family or the situation. This finding is consistent with Burns and Harm's (1993) finding

that nurses experienced critical incidents that “touched on personal issues” (p.434). Although CCNs realize connecting with a patient can be a “double-edged sword” that leads to critical incident stress, they do so “when they [attempt] to understand the person’s distinctive behavior, character, fears, needs, and goals” (Isaak & Paterson, 1996, p. 691). As Henderson (2001) contends, the reason nurses connect is that “the majority of nurses . . . see emotional engagement as a requirement of excellence in nursing practice” (p. 133).

Mitchell (1983) defines a critical incident as being a situation that causes unusually strong emotional reactions, which have the potential to interfere with a person’s ability to function; therefore, decision-making in regard to mitigating these events, may be disrupted. In most cases, the immediate goal of the participants during a critical incident was to maintain self-control so as to nurse effectively and competently. This finding is consistent with research findings of other authors (Isaac & Paterson, 1996; Pelletier-Hibbert, 1998). The participants’ perception that the ability to maintain self-control so as to be competent was the primary goal in critical incidents may explain why the participants did not anticipate needing CISM; that is, they did not want to compromise their self-control by verbalizing their stress in CISM. On the other hand, all participants describe critical cues that allow them to recognize a stressful situation. These include feelings of powerlessness and inadequacy, along with an element of surprise. Similarly, Burns and Harm (1993) found that “the primary theme of the descriptions of critical incidents among the interviewees was the theme of helplessness, of not being in control” (p.343). Some participants used the word “lost” to describe how



they felt after a critical incident and this feeling of loss of control may be influential in the participant's decision-making in regard to CISD.

The research findings suggest that trust and mutual support among colleagues is an important part of a supportive work atmosphere for CCNs in relation to their management of critical incident stress and their decision to access CISD. Other researchers have identified the existence of social support as a means of recovery from critical incident stress (Chandler, 1993; Cudmore, 1996; Paton, 1997; Pelletier-Hibbert, 1998). However, given that a high-risk occupational group such as nurses, "form cohesive social groups with a distinctive culture which reflects a tendency to suppress emotional reactions and to perceive emotional expression as an occupational weakness" (Paton, 1997, p. 52), it may be difficult for CCNs to find the social support they need even in a CISD.

The culture of critical care and critical care nurses influenced CCNs' decision making in regard to CISD. It is possible that CCNs "self-select themselves for the job to find a way of 'obtaining the level of stress or stimulation' needed for personal development" (Cotterill-Walker, 2000, p. 85). Individuals who seek out work opportunities in a stressful environment are often less likely to acknowledge stress or access CISD even when offered the opportunity as they may feel they have failed in coping with the pressures of the job. On the other hand, valuing one's own emotions and recognizing one's own limitations may assist CCNs in acknowledging a critical incident and in seeking help.

Participants expressed a need to protect themselves from the emotional assaults of critical incidents, while at the same time wishing to be perceived as someone who can

cope with critical incidents as part of the CCN role. Cutler (1998) contends that this balancing between self-protection and trying to appear as if one is fully capable of meeting the cultural demands of the job would render CCNs vulnerable to further stress.

Participants indicated that critical incidents have cumulative, long-term effects regardless of the decision reached and that these effects influence future decisions about CISD. Several authors have drawn similar conclusions (Cudmore, 1998; Laws & Hawkins, 1995; Mathews, 1998). In the research findings, CCNs whose response to a critical incident was traumatic and unresolved attempted to protect themselves from experiencing this stress in the future by negating the incident as critical or compartmentalizing their emotions; therefore, they did not access CISD.

### **Applicability of the RPD Model**

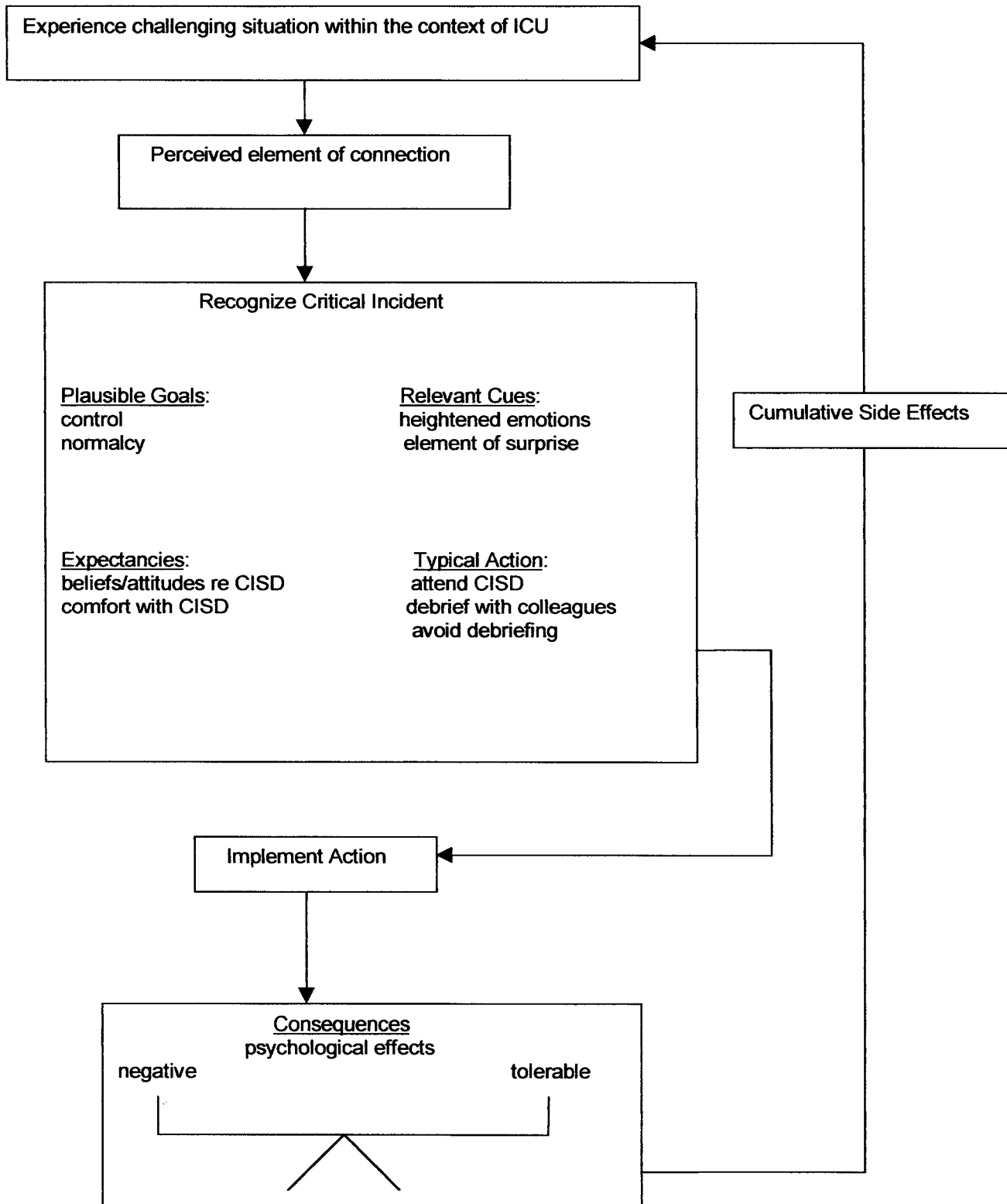
The RPD model emphasizes the situational assessment component of decision-making, whereas other models focus on selecting a course[s] of action given various alternatives (Klein, 1997). RPD features three levels of complexity. In its most elementary form, it posits a decision maker who recognizes a situation as familiar, as conforming to previous experience. At the second level, the decision maker may engage in "feature matching" or "story building" to diagnose the situation. The decision maker responds to an "anomaly or ambiguity by checking which interpretation best matches the features of the situation" and /or "may try to build a story to account for some of the inconsistencies" (Klein, 2001, p.26). At the most complex level the decision maker "imagine[s] how the course of action will play out", which involves visualizing the outcome of a decision (Klein, p.26). In all applications of the model, recognition of a situation generates appropriate goals, cues,

expectancies, and a course of action for that event (Klein, 1997). Other authors (Buckingham & Adams, 2000) have adopted a model of classification to describe decision-making, where pattern recognition is a defining attribute and “intuition is a fundamental and important part of any expert behavior” (p. 996).

The RPD model is applicable here in the sense that participants responded intuitively to their respective situations. However, it is limited in its ability to incorporate decision-making outcomes. This is a significant limitation as critical incidents have cumulative effects that can carry over to future critical incidents thereby exacerbating them.

Study findings prompted a revision of the most elementary version of the RPD model (i.e., the simple match) with a view to addressing the research question – How do CCNs make the decision to avail themselves of CISD? – in a more comprehensive fashion. Specifically, the model was revised to include all three decisions made by participants, outcomes of the decisions and cumulative effects that participants carry with them to future critical incidents [Fig. 1].

Figure 1: Schematic Representation of Revised RPD Model (Simple Version)



The factor that elevated a challenging situation into a critical incident was the existence of a personal connection between the participant, the patient, the patient's family or the situation, giving rise to the critical incident. This sense of connection gave rise to certain cues, expectancies, and goals. According to Klein (2001) the "recognition of goals, cues, expectancies, and actions is part of what it means to recognize a situation. That is, the decision makers do not start with the goals or expectancies and figure out the nature of the situation" (p. 25). Rather, an antecedent is followed by a response (Klein). "The expertise is in being able to recognize when the antecedent condition has been met" (Klein, p. 26). All participants explained that the degree of emotionality they were feeling was unusual. They were, then, poised to act and make decisions in response to the critical incident "on the fly". Baumann, Snizek, and Buerkle (2001) propose a model of self-evaluation, stress, and performance to explain decision-making under acute stress. They (Baumann et al.) assert that "self-evaluation, task experience, and anxiety all affect performance in acute stress domains" (p. 155). Anxiety narrows the focus of attention, resulting in tunnel vision and leads to negative self-reactions such as thoughts of failure that reduce "the decision makers ability to attend to and process all of the information available" (Baumann et al., p.150). This model may help to explain why CCNs experiencing a critical incident may need guidance in decision-making regarding management of this stress.

Revisions to the original simple match RPD model were undertaken with a view to incorporating outcomes stemming from decisions bearing on whether to access CISD, debrief with colleagues or forego debriefing. Respondents who opted for the first two options reported feeling they had made sense of their situation and that a bond had

formed between those participating in the debriefing. Those electing to avoid debriefing succeeded in regaining control of their emotions momentarily. All continued to experience negative feelings, such as guilt, whatever their decision. These negative feelings, though tolerable, were cumulative and tended to be carried over to the next critical incident. Several authors concur with this finding (Cudmore, 1998; Laws and Hawkins, 1995; Mathews, 1998). Eight of the participants experienced more than one critical incident and felt the need to protect themselves from such incidents in the future. "Protection" took the form of avoiding patients in situations similar to that which triggered the critical incident, maintaining control of their emotions, and limiting involvement with patients and families. With respect to how this strategy would affect future decision-making, participants felt they "probably would access" CISD, take action to relieve themselves of the care of the patient, talk with colleagues, and have an awareness of "red flags". Other authors (Fonteyn & Grobe, 1993) have noted that CCNs identify "critical indicators. . . (red flags) or signs of potential problems that could produce serious consequences if not identified early and resolved" (p. 408).

### **Implications of Findings**

The study findings indicate that lack of knowledge about CISD, confusion as to what constitutes a critical incident, constraints intrinsic to ICU (i.e. time constraints), undervaluing feelings, an attitude that critical incidents are just part of the job, and attitudes about critical incident stress management interfere with the CCN's assessment of a critical incident and contribute to less than optimal critical incident stress management outcomes. This finding is consistent with that of other researchers (Burns & Harm, 1993; Cudmore, 1996; Lane, 1994). These findings have several implications

for provision of CISD and for education of nurses about CISD. To begin with, these findings would imply that the participants believe that the institutional culture does not value knowledge that is relevant to critical incident stress management. As Paton (1997) contends, "a knowledge of traumatic event stressors facilitates the identification of high-risk situations, provides a basis for anticipating the intensity of reactions, and alerts the organization to likely support requirements" (p. 48). An institution that under values this knowledge will not be able to support a traumatized employee.

Secondly, these findings would imply that the participants believe that nursing education does not value knowledge in regard to critical incident stress management as it would appear that the participants had not received education in this regard. Paton (1997) argues, "professionals required to respond to traumatic events should be prepared, both technically and psychologically, for the atypical demands inherent within traumatic work contexts" (p.51). Owing to the diversity of critical incidents, it may be unrealistic to expect comprehensive preparation of nurses for such events; however, acknowledgement and education about critical incidents may reduce their impact and promote more effective responses (Paton).

Thirdly, these findings imply that society and indeed the nursing profession may acknowledge the fact that nurses manage difficult cases, but may not acknowledge the cost to the nurse. Indeed, several authors would contend that there is an assumption within society and the culture of helping professions that nurses cope without cost to their own emotions (Antai-Otong, 2001, Mathews, 1998; Spencer, 1994).

Lastly, these findings indicate that CCNs may not be able to take responsibility for managing critical incident stress because their decision-making may be disrupted by their response to the critical incident. As Mitchell (1983) indicates, a critical incident is a situation that causes unusually strong emotional reactions, which have the potential to interfere with a person's ability to function and to make effective decisions. It is apparent that there is a need for others, such as peers and management, to recognize a CCN's critical incident stress and promote CISD.

Findings related to the decision to attend CISD include CCNs' need to gain a fuller understanding of the situation, to connect with others who would understand their experience and response, and to know that others shared their feelings. Other factors related to this decision include encouragement from others to attend CISD, perception of personal safety, personal attributes (e.g., assertiveness), accessibility to CISD services, and an understanding of both the nature of CISD and its process. These findings highlight the importance of peer support and an atmosphere of acceptance in the decision to attend CISD. Also implied, is that the lack of knowledge of CISD may lead to resistance to attending. As Burns and Harm (1993) have noted, "education about critical incident stress and the debriefing process may be crucial in reducing the resistance to participation" (p.435).

The participants identified positive consequences of attending CISD, such as forming a bond between group members, making sense of the incident, and eliminating feelings of isolation. Participants' guilt about the incident and their reluctance to recall the incident were factors that prohibited their attending CISD. These findings have implications for provision of CISD and education of nurses about CISD. Foremost,



CCNs may not understand what type of CISM they have experienced or that CISM is only a piece of a broad CISM service. Turnbull et al. (1997) contend that CISM is not meant to be a single technique, but “part of an overall critical incident stress management procedure including pre-incident training, stress inoculation, defusing, demobilization, debriefing, and follow-up” (p.582). The CISM team may be unaware of CCNs’ lack of knowledge in this regard. Other barriers to education may exist, such as time constraints, limited educational resources, or lack of interest on the part of CCNs. Barriers may also exist to providing the services of CISM, such as limited trained personnel, and the difficulty in matching follow up times with CCNs’ shift work.

Findings indicate that the decision to avoid CISM stems from lack of knowledge of the process, the desired and possible outcomes, the means of accessing CISM, confusion as to what constitutes a critical incident, and how many caregivers are necessary to justify a CISM. These findings imply that CCNs have not been apprized of the CISM service and that barriers to communication of the availability of this service exist. Lane (1994) cites the lack of ownership of responsibility in “spreading the word about CISM” as a barrier to informing employees (p.313). Other factors influencing the decision to avoid CISM include time constraints, the belief that critical incidents are just part of the job, undervaluing feelings, and fear of being seen as weak. These findings suggest that the culture of ICU is one that devalues the importance of nurses’ emotional responses. Indeed, several authors would contend that there is an assumption within society and the helping professions that nurses cope without cost to their own emotions (Antai-Otong, 2001, Mathews, 1998; Spencer, 1994). Henderson (2001) argues, “personal emotional investment is virtually unrecognized and is certainly

unacknowledged, but clearly caring involves feeling, and feeling involves personal vulnerability” (p.131).

The decision to avoid any debriefing assumed these forms: withdrawal from the patient’s bedside, focusing on a task, and constraining feelings. The CCNs used these strategies as a means to regain control and composure in order to function effectively (i.e., provide the patient with adequate care and the patient’s family with support). These findings indicate that CCNs choose to disengage from the patient in order to focus on what they feel is effective nursing care. On the other hand, a key component in the participants’ experience of critical incidents was a sense of connection. This connection heightened the emotional response to the situation. This finding implies that CCNs are willing to engage in caring for patients even at a cost. This “emotional caring/feeling is . . . to some extent a choice, mediated by the degree of emotional engagement or detachment an individual chooses” (Henderson, 2001, p.130). Carmack (1997) believes that in order to safeguard the emotional health of the nurse, he/she needs to balance engagement and detachment and to monitor the balance to affect the outcome of the situation for the patient and the nurse. Henderson explains further “ the more emotionally demanding the circumstances, either due to intensity, acuity or length of contact time, the more important it is to learn to balance the two (engagement and detachment) and to maintain as well as interrogate boundaries” (p. 132).

The decision to debrief with colleagues was often the first choice for the following reasons: colleagues were trusted, supportive, and available; colleagues had “been there” and the participants perceived colleagues would understand their feelings. Facilitating factors for this decision included: a supportive atmosphere; a perception of

peer support and trust; and colleagues shared common bonds. Participants realized it took time to build mutual support among colleagues. These findings highlight the importance of a caring and collegial atmosphere. Implications for provision of CISD are CCNs may be willing to attend CISD: if the debriefing team includes a trusted member from ICU, if it is part of an integrated CISM service where the team members build trust with the CCNs pre incident. Similarly, Richards (2001) believes that "Given the choice, the traumatized do not readily volunteer for assistance. CISD might work best as part of the integrated CISM approach. . . by allowing the therapist or counselor to build a rapport and establish competence" (p. 360).

Several recommendations for practice can be made in light of the findings of this study:

1. Share the findings of this study with the Critical Incident Stress

Management Team and staff of ICU, including the participants;

2. Educate staff regarding critical incident stress recognition, specific to ICU;
3. Establish a collegial support system within ICU available for nurses experiencing a critical incident;
4. Educate staff in regard to the process, expected outcomes; accessibility and criteria for convening a CISD;
5. Establish and educate staff in regard to the need for follow up sessions for critical incidents;

6. Establish ongoing educational consultations for the ICU staff with the Palliative Care Team and Ethics Committee;
7. Invite consultants from RNABC to educate staff in regard to maintaining boundaries;
8. Conduct an annual survey of CCNs to establish their perceived need for education in regard to managing critical incident stress response.
9. Provide the Critical Incident Stress Management Team and management of ICU with the results of the survey and engage them in committing to these identified needs.

### **Summary**

In Chapter Five, I discussed research findings in regard to decision-making and the revisions generated to the RPD model that was originally discussed in Chapter One. It would appear that any strategy to resolve critical incident stress in adult ICU should address both personal and institutional factors. A number of practice directives have been identified within this chapter.

## **CHAPTER SIX: SUMMARY, CONCLUSIONS AND IMPLICATIONS**

In Chapter Six, I will summarize the research process, identify the major themes found in the research findings, and discuss implications of the findings for nursing research.

### **Summary**

The purpose of this study was to answer the research question – How do CCNs make decisions to avail themselves of CISD? Critical decision method was used to explore this research question, as it was a suitable method for examining, retrospectively, decision-making during nonroutine incidents. I determined there was a paucity of nursing knowledge related to how nurses make decisions and the factors that influence CCNs' decision-making regarding CISD. This gap in nursing knowledge prompted the study. This study sought to explore and expand nursing's body of knowledge in the area of study by determining what decisions CCNs make in response to whether or not to access CISD. The study findings provide useful direction to further nurses' knowledge of critical incident stress in the critical care environment. The research findings emphasize the need to develop more effective strategies to improve CCNs' willingness to access CISD and to recognize critical incident stress when it occurs.

The RPD model guided this study. The RPD model was applicable in the sense that participants responded intuitively to their respective situations. However, it was limited in its ability to incorporate decision-making outcomes related to critical incident stress. This was a significant limitation as critical incidents can have cumulative effects that can carry over to future critical incidents, thereby exacerbating the stressful response to critical incidents.

Ten CCNs participated in the study. I conducted semi-structured interviews with the participants about their experience with critical incidents. Analysis of transcripts of the interviews revealed the types of decisions CCNs made in response to critical incident stress and factors that influenced their decision-making regarding accessing CISC. Three types of decisions made were: (a) to attend CISC, (b) to debrief with colleagues, and (c) to avoid all forms of debriefing. Factors influencing these decisions were personal and institutional in nature.

The decision to attend CISC was associated with the option being presented to the participants. None of the participants initiated a CISC; rather, it was arranged for them by employers or others who recognized the need. The participants were undecided as to how the organizers of the CISC knew it was necessary to initiate the debriefing process. The decision to debrief with colleagues was common in all but two critical incidents involving staff altercations. A barrier to this decision was when CCNs could not easily access their colleagues for debriefing purposes, such as being assigned to care for a patient in a single room on a busy shift. The decision to avoid debriefing was mostly associated with the need to regain control in order to function effectively in the unit and to carry on with assigned duties. In two cases, the participants chose to avoid debriefing because they wanted to preserve their privacy.

The participants did not anticipate needing CISC for most of the critical incidents that they encountered. Many felt critical incidents were to be expected in ICU and therefore were unremarkable. The participants often experienced great emotional turmoil during and following critical incidents, but did not feel this was important enough to report. The decisions made to avail themselves of CISC were intuitive in nature and

were made quickly. CCNs may need guidance following a critical incident as they have been traumatized and feel "lost".

Personal and institutional factors influenced all three decisions. Personal factors included attitudes, comfort with debriefing, knowledge of CISD, and the degree of ambiguity of a critical incident. Institutional factors included time constraints and commitment to continuing critical incident stress management education.

Several implications for nursing education and for provision of CISD were discussed. As a result of the study findings, recommendations for education and provision of CISD were offered. The consequences of the three decisions were the same – tolerable negative psychological effects. Effects of critical incidents were cumulative. Due to this cumulative effect, questions arise about the timing of CISD (Campfield & Hill, 2001; Mathews, 1998; Rose, Wessely & Bisson, 2001). One way of addressing this problem is that CISD should be part of a comprehensive critical incident stress management (CISM) program (Richards, 2001). A CISM program allows for building of trust between the employees and the CISM team pre critical incident. When this trust is coupled with the positive experience of those debriefed, the result may be increased compliance with follow up interventions and consequently, with future debriefings (Richards).

### **Implications for Research**

Connection with the patient, family or situation was a significant determiner of CCNs' experience of critical incident stress. The participants made a connection because they personally identified with the patient, patient's family or the situation. As Henderson (2001) contends, this connection is a decision, in itself. Further research is

necessary to ascertain why CCNs choose to be connected and when they choose to “opt out” of the emotional involvement and predisposition to critical incident stress that is entailed in connection. Once they had experienced a critical incident, the participants reported that they tried to protect themselves from similar critical incidents. It is unclear at what point CCNs succeed in protecting themselves and whether this protection affects their ability to engage in effective caring.

Of interest, the demographics of this study show that none of the participants were over the age of forty-nine (there are staff members in this ICU over the age of forty-nine). The question arises, do CCNs with many years of experience develop immunity to critical incidents or is the concept of critical incidents and CISD so new that they do not relate to them? Another demographic characteristic of the sample is that only one participant was male. Further research should explore the influence of gender in the perception of critical incidents, emotional response or the decisions to manage critical incident stress.

Lastly, as there were no MSN prepared nurses in this ICU, I did not investigate how advanced education influences access to CISD. This is an area for further investigation.

Decision-making ability may be affected by the traumatic event. The continuous presence of a support person within ICU may be helpful in encouraging CCNs to identify and defuse critical incident stress, rather than relying on the CCN to access a CISD team. Further study is required to determine which strategy is efficacious.

The decision to access CISD was affected by the participant’s lack of knowledge of CISD or what constitutes a critical incident. This finding implies that nurses



knowledgeable in CISD and critical incident stress management would be more likely to access CISD, but this requires further investigation.

The participants felt that management personnel should be aware of a CCN who is experiencing a critical incident. In fact, this recognition may be a way in which management can facilitate a caring atmosphere. As one of the participants put it, "the fact that they showed support trying to get those debriefers up was in itself a good goal, not that I necessarily felt that it was the right thing for me at the time, but at least it felt like people were trying to support me". More research is needed to ascertain what knowledge and skills are useful for management in supporting CCNs through a critical incident. Another question is who should be responsible for implementing CISD and informing nurses of CISD?

The participants felt that personal attributes, such as assertiveness and experience affected the decision-making in regard to critical incident stress. This raises questions about how these and other personal attributes affect decision-making in regard to critical incidents and accessing CISD.

### **Conclusion**

The purpose of this study was to answer the question -- How do CCNs in adult ICU make decisions to access or not access CISD? The answer revealed that CCNs make this decision intuitively, based on situation awareness and previous experience. Knowledge gaps in the area of CISD, ambiguity as to what constitutes a critical incident, and constraints and cultural influences intrinsic to critical care were factors that influenced the decision. While all the participants believed critical incidents to be subjective in nature, that is, to impact each individual in a different way, they felt that

management should assist them in accessing CISD. Participants were undecided as to how management would know about their critical incident.

Other decisions to manage critical incident stress were debriefing with colleagues and avoidance of debriefing. Outcomes of the decisions were the same – the participants continued to have tolerable, negative effects. The effects of critical incidents were cumulative and left the participants at risk for further stress. Implications of this research focus on the need for ongoing education in regard to CISD. Further research is indicated to monitor the outcomes for onsite, defusing and to determine what knowledge is helpful for management to aid nurses with critical incident stress.

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You (1) are a diploma or baccalaureate prepared Registered Nurse; (2) are either a full-time, part-time or casual employee at St. Paul's Hospital Intensive Care Unit; (3) have experienced a critical incident and critical incident response while employed as a critical care nurse in adult critical care.

If you agree to take part in the study, Ellen Ayer will interview you. You will be asked some personal demographic data, to relay your experience with a critical incident, and to respond to questions related to factors that might have influenced your decision regarding the use of Critical Incident Stress Debriefing. All interviews will be tape recorded and transcribed. The transcriber will have access to the audiotapes, but identifying the audiotape by code number, only, will protect your anonymity. Your name will not be used in the transcriptions of the tapes or interviews. Only the research team will have access to the tapes and transcriptions. The findings in this research study will be reported in Ellen Ayer's Master of Science in Nursing thesis and they may be published in professional publications, in teaching materials, and at professional conferences. Your name will not be associated with the study.

The only known risk of this study is that recounting a critical incident can be emotionally upsetting. The phone number for the Employee Assistance Program will be available to all participants. If you agree to participate, the possible benefits of the proposed research are: (1) an increased awareness of factors influencing critical care nurse's decision to access Critical Incident Stress Debriefing may be a helpful outcome of

**Authorization**

I, \_\_\_\_\_ R.N., have read and decide to participate in the research study described above. My signature indicates that I give permission for the information I provide in tapes or interviews to be used for publication in research articles; journals/books, and/or teaching materials. Additionally, my signature indicates that I have received a copy of the consent form.

---

**Signature of Participant****Date**

---

**Signature of a Witness****Date**

names or other identifying information of participants. You have the right to refuse to participate in completing this demographic data. It is anticipated that this will take a maximum of ten minutes of your time to complete. The benefit of completing this data is to clearly describe the sample population in this research study. If you chose to complete the demographic data, it will be assumed that consent has been given.

1. Your current age: ☐ 20-29; ☐ 30-39; ☐ 40-49; ☐ 50-59 ☐ 60-65
2. Your educational background: ☐ Diploma RN ☐ Baccalaureate RN
3. Employment status: ☐ Full time; ☐ Part time; ☐ Casual
5. Your total years of critical care nursing experience:  
☐ 1-6; ☐ 6-12; ☐ >12
7. You have participated in which type of critical incident response:  
☐ Critical Incident Stress Debriefing as offered by the employing institution  
☐ Counseling with Employee Assistance Program  
☐ Other
8. If you chose "other" in question 7, please describe what you did in response to your critical incident. \_\_\_\_\_  
\_\_\_\_\_

**THANK YOU FOR COMPLETING THIS**

## **APPENDIX D: CRITICAL DECISION METHOD INTERVIEW GUIDE**

### **Study: Critical care nurse's decision making in regard to critical incident stress debriefing.**

- 1) Please describe an incident in your critical care nursing career that you considered to be a critical incident.
- 2.) What were you feeling at the time of the critical incident?
- 3) How did you know that you needed to make a decision to access CISD or not?
- 4) How did you know when to make this decision?
- 5) Were you expecting to make this type of decision during the critical incident?
- 6) Are there situations in which your decision would have turned out differently?
- 7) Describe the nature of these situations and the characteristics that would have changed the outcome of your decision.
- 8) At any time, were you uncertain about the appropriateness of your decision?
- 9) What was the most important piece of information that you used to come to your decision?
- 10) What information about CISD did you have available to you at the time of your decision?
- 11) Was there any additional information that you might have used to assist in making your decision?
- 12) Were there any other alternatives available to you other than the decision you made?
- 13) Why were these alternatives considered inappropriate?

- 14) Do you think you could develop a rule, based on your experience, which could assist another person to make the same decision successfully?
- 15) Do you think that anyone else would be able to use this rule successfully? Why or why not.
- 16) Were you, at any time, reminded of previous experiences in which a similar decision was made?
- 17) Were you at any time reminded of previous experiences in which a different decision was made?
- 18) How much time was involved in making this decision?
- 19) If the decision was not the best, what training, knowledge or information could have helped?

Interview Guide Adapted from Hoffman, R.R., Crandall, B. & Shadbolt, N. (1998).

Use of the critical decision method to elicit expert knowledge: a case study in the methodology of cognitive task analysis. Human Factors, 40 (2), 254-276;

Klein, G.A., Calderwood, R. & MacGregor, D. (1989). Critical decision method for eliciting knowledge. IEEE Transactions on Systems, Man, and Cybernetics, 19 (3), 462-472; and O'Hare, D. & Wiggins, M. (1998). Cognitive task analysis for decision centered design and training. Ergonomics, 41 (11), 1698-1719.