FACILITATING CONSCIOUS AWARENESS AMONG CRITICAL CARE NURSES

by

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I declare that FACILITATING CONSCIOUS AWARENESS AMONG CRITICAL CARE NURSES is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. This work has not been submitted before for any other degree at any other institution.

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FACILITATING CONSCIOUS AWARENESS AMONG CRITICAL CARE NURSES

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Summary

Critical care nurses experience stressful situations in their daily working environments. The question arises for nurses: are there adequate support systems in the critical care environment and what are critical care nurses doing to mantain their own health and well-being. Facilitating conscious awareness among critical care nurses could enhance their resiliency and their hardiness, strengthening their coping capacities in stressful working situations. The contextual framework adopted for this research was the Neuman Systems Model. A qualitative research approach (exploratory, descriptive and contextual) was used to explore and describe the stress experienced by critical care nurses. Focus group interviews were conducted with critical care nurses and individual interviews with nurse managers. The results revealed their perceptions and experiences about the effects of stress in the critical care environment, as well as some of their coping strategies.

Raising critical care nurses' levels of conscious awareness about their coping strategies with stressful events in their daily working lives, could enhance their resiliency and hardiness, enabling them to continue working effectively in stressful environments. This could enhance the general well-being of individual critical care nurses, the nursing care rendered to critically ill patients, and save money for the health care services by reducing turnover rates among critical care nurses.

Key terms:

Conscious awareness, coping strategies, critical care nurses, critical incident stress disorder, external environment, internal environment, interpersonal coping, Neuman Systems Theory, resilience, post-traumatic stress disorder.

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To my Creator, Almighty Allah for the help,
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List of abbreviations

AIDS	Auto Immune Deficiency Syndrome
APA	American Psychiatric Association
CCC	Critical Care Council
CCN	Critical care nurse
CCU	Critical care unit
CISD	Critical incident stress debriefing
CISM	Critical incident stress management
DSM IV	Diagnostic and Statistical Manual of Mental Disorders
EAPS	Employee assistance programme services
GAS	General adaptation syndrome
HSRC	Human Sciences Research Council
ICU	Intensive care unit
IES	Impact of events scale
IOM	Institute of Medicine
LAS	London's ambulance service
NHS	National health service
NOVA	National Organisation for Victim Assistance
PTSD	Posttraumatic stress disorder
SANC	South African Nursing Council
SICU	Surgical intensive care unit
Stats SA	Statistics South Africa
DENOSA	Democratic Nursing Organisation of South Africa
TED	Traumatic event debriefing
TSD	Transient situational disturbance
UK	United Kingdom

List of abbreviations

UKCC	United Kingdom critical care
USA	United States of America
WHO	World Health Organization

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Chapter 1

Orientation to the research

This chapter presents an orientation to the research. The general background, problem statement, objectives, definitions, assumptions and the significance of this research will be introduced in this chapter. The research design and methodology will also be described.

1.1 INTRODUCTION

Owing to the highly technical nature of the critical care environment in which they work, and the critical incidents which they encounter, large numbers of critical care nurses (CCNs) are in danger of developing post-traumatic stress disorder (Taylor 1999:321). This makes it imperative that they develop conscious awareness as a basic prerequisite for stress management and resilience behaviour. Conscious awareness is gained when an inner sense of behaviour enhances self-control, and personal autonomy is regained through behavioural modification (Taylor 1999:321).

The development of conscious awareness is advocated in order to achieve the goal of coping and adaptability. Taylor (1999:321) describes consciousness as emerging from brain structures and associated memory. Consciousness is divided into two states of mind: perceptual and semantic. The perceptual structure occurs when the environment is experienced. The semantic structure

embraces a reflective consciousness of past experiences and an awareness of the "self" as an experience. According to Taylor (1999:30), a third active form of consciousness is present, as thinking processes are transformed internally by the frontal lobe of the brain to present a solution to a problem.

Consciousness states also have an affective component.

A general definition of consciousness by Taylor runs as follows:

> Consciousness is a complex concept, the one part being passive and input driven and the other active and response driven. A third part is internally driven when in a state of planning and thinking and when emotionally aroused. The strongly cognitive state may also be regarded as one that is action driven, since thought is most basically used to solve problems where resolutions demand some action or other. The most general form of problem-solving is determining a path through a cognitive space to attain a suitable goal position. Cognitive internal processes are all concerned with action in one form or another (Taylor 1999:343).

- **Aspects of consciousness**

Three general aspects of cognition can be abstracted from the concept of consciousness, and may be referred to as awareness; control; and representational complexity (Cohen & Schooler 1997:263).

Awareness is a common aspect of consciousness. Reber (1985:148), in his dictionary of psychological terms, refers to "awareness" as a common usage in the sense of "consciousness", which includes perceptual experiences, experiences of activities, knowledge of facts and remembering experiences.

Umilta (1988:334) maintains that **control** strategically organises cognitive processes, comparing outcomes with criteria, expectations and goals, which influence further processing. Control

enhances the efficacy of action and goal-orientated behaviour. Umilta (1988:334) maintains that control is the aspect of consciousness "most likely to have a causal role".

Representational complexity includes the acknowledgement of different viewpoints, and resolving conflict by comparison, decision-making and evaluation to negotiate between complex representations. Consciousness is "self-reflective". The concept of "self" evolves from all aspects of consciousness as experiences, behaviour and the experience of an "I" or a "self". Consciousness plays a motivational role in maintaining behaviour by awareness, control and cognitive complexity.

Vogeley, Kurthen, Falkai and Maier (1999:343) view consciousness as based on real experiences, perceptions and memories and reflecting responses to the various needs of the environment. Consciousness engages in introspection and reflection. Introspection involves, firstly, the experience of having perceptions, memories and thoughts; secondly, the implementation of these memories, perceptions and thoughts; and thirdly, the forming of long-term beliefs and attitudes.

◆ **Conscious awareness and resilience**

CCNs need to develop conscious awareness as a basic prerequisite for stress management and resilience behaviour. The sense of self is dynamic and ever-changing. The CCNs are in a constant state of change, development and growth and might perceive themselves through the eyes of others, as CCNs rely on their patients, colleagues, educators and managers for positive and negative feedback. Such feedback is absorbed into the sense of self (Burnard 1991a:36).

Strümpher (1999a:2; 1999b:3; 1999c:2) proposes a model of **resilience** which strongly emphasises the need for the individual to be strong in the face of inordinate demands. In appraising the situation as a challenge, a threat or an adversity, goals are set. Constructive appraisals lead to actions or behaviours that maintain or promote well-being and coping mechanisms. Cognitive appraisals may consciously modify behaviour towards adaptation.

Strümpher (1999a:5) presents components of resilience in a psychological sequence. The

components include the following:

- *Appraisal* implies that individuals must become aware of the situation as a challenge, threat or an adversity. The word "challenge" relates to pleasant feelings and joy. "Threat" relates to feelings of fear and anxiety. "Adversity" relates to harm or loss that has occurred (or could occur) and accompany feelings of sadness.
- *Resilience goal setting* affects task performance by
  - energising performance by motivating people to exert efforts in line with the difficulty or demands of the goal or task at hand
  - motivating people to persist in their goal-seeking activities through time despite challenges
  - directing people's attention to relevant behaviours or outcomes
- *Resources under one's own control* influence individuals' beliefs that their behaviour is determined by their own choices, that they control resources which could influence changes.
- *Resources controlled by legitimate others* influence the belief that reliable, trusted, friends, coworkers, managers and members of various professions are available who may be effective in counteracting stress.
- *Meaningfulness* presumes that life makes sense and that it is worth investing energy in coping with life's stressors.
- *Value systems* influence how situations are approached and appraised and how future goals are set.
- *Positive feelings* relate to demands which are overcome, survived or tolerated. These positive feelings include joy, relief, anxiety, reduced pain and especially the experience of success, increased self-esteem and positive appraisal from others.
- *Enhanced interpersonal coping* implies that relationships develop coping skills through rendering support and services to others.

1.2 GENERAL BACKGROUND TO THE STUDY

1.2.1 Stress and stress disorders

Stressful events are an inevitable part of life. Many people are able to cope with stressors, depending on the severity of the stress. However, the severity of the stressor does not always predict a resultant adjustment disorder. Most people under stress do not develop mental disorders, though possibly a vulnerability to them. Stressors differ in degree, quantity, duration, reversibility, environment and personal context. Stress that is chronic and

ongoing may result in a chronic disorder. Three months or more may elapse before symptoms occur, and they do not always subside as soon as the stressor disappears. Symptoms include depression, anxiety, mood swings, behavioural patterns such as aggression, irresponsible behaviour and social withdrawal (Berk 1998:15-17).

Nurses who work in highly stressful situations are constantly under pressure and are vulnerable to

a variety of symptoms in reaction to the stressor. Over time the exposure to stress and trauma may induce both physical and emotional signs described as “burnout” (Cudmore 1996:120). Lack of control over various aspects of the work situation may lead to feelings of inadequacy and affective exhaustion. Factors related to burnout, such as lack of social support from supervisors and role ambiguity, may enhance the burnout process (McKnight & Glass 1996:23-48).

The physical signs of burnout include fatigue, disinterest, apathy, disturbed sleep patterns, general malaise, aches and pains, nausea, indigestion, coughs, colds and headaches. Emotional signs include oversensitivity, instability, emotional upsets, anger and suspicion (Berk 1998:23-28).

These symptoms are similar to those described by Koopman (2000:1888) and published by the American Psychiatric Association (APA 1994:236) as post-traumatic stress disorder (PTSD). However, the concept of burnout does not belong to the DSM-IV diagnostic entity (Grobler & Hiemstra 1998:23). These authors maintain that the DSM-IV association results between the development of PTSD and psychologically distressing events that include intense fear, helplessness and devastating effects or events.

Wilson (1994:681) in the United States of America (USA) investigated of the diagnostic criteria of PTSD from Sigmund Freud to the current DSM-IV. Freud’s original model of neurosis “seduction theory” focused on external stressors. In 1897 Freud changed to “stress intra-psychic fantasy” as an analytical term for traumatic neurosis and influenced the DSM-I and II classifications of stress response syndromes as transient reactive processes. Developments over the years have led to the incorporation of PTSD within the DSM-IV and within the WHO (World Health Organization) International Classification of Mental and Behavioural Disorders (Finnegan 1998:212; WHO 1994:236-238).

Berk (1998:22) states that the genetically and biologically compromised individual is vulnerable to job stressors which result in major depressive episodes and later in chronic anxiety disorders. The DSM-IV includes a multi-axial diagnostic system listing the following psycho-social and environmental problems:

- anxiety symptoms including cognitive anxiety, as well as somatic symptoms such as palpitations and jitteriness
- low or depressed mood, tearfulness and feelings of hopelessness
- disturbance in conduct (This is diagnosed by evidence of conduct disorders or an anti-social personality. The rights of others are violated and societal norms are treated with disregard.)
- adjustment disorder with mixed disturbance of mood and conduct presentation
- adjustment disorder with mixed anxiety and depressed mood
- adjustment disorder, unspecified, as a residual category for other maladaptive responses, such as social withdrawal or denial and noncompliance with regard to a medical illness (Berk 1998:22)

Escalation in stress-related incidents, including stress disorder, has necessitated the development of new therapeutic strategies and techniques for dealing with psychological trauma. Symptoms of post-traumatic stress include anxiety, depression, nightmares, insomnia, flashbacks and substance abuse.

Traumatic events are incidents that lie outside the range of usual human experience, and exert a power that is capable of overwhelming any person's normal coping abilities and causing severe stress reactions. Traumatic event debriefing (TED) conducted 24 to 72 hours after exposure to the traumatic event uses a form of intensive group crisis intervention. The method was designed to help reduce acute stress symptoms and accelerate the recovery process, thereby diminishing the subsequent development of PTSD. If the traumatic stress is not treated immediately and effectively, post-traumatic stress can result in permanent impairment (Bell 1995:36-41).
Without intervention during the first hours or days after the trauma (the acute stage), even those individuals who initially appear to have coped well may, without warning, experience symptoms such as particular sights, sounds, smells or tactile stimuli that evoke terrifying memories of the traumatic experience. Such individuals are at risk of developing PTSD, as the symptoms become debilitating and prevent them from regaining their pretrauma level of functioning (Bell 1995:36-37).

A study was done to explore whether four clients perceived a change in themselves whilst being

debriefed. It was found that people who were more intent and aware experienced less stress and greater satisfaction. Debriefing assisted in raising awareness by allowing the individuals to connect their thoughts and feelings to the experience or reality testing and to develop their own understanding of how change could occur through the debriefing process (Jinks 1999:57-59).

1.2.2 Critical care workers and trauma

Several studies have investigated strategies used by critical care workers when distressed (Genesis, Levine, Ramsden & Swanson 1990:305). However, little attention has been given to their routine activities and normal functioning after the traumatic experience(s). Some emergency workers said they coped with unsuccessful resuscitation attempts by avoiding or distancing themselves from intrusive thoughts and from sadness (Jenkins 1997:3-7).

Professional burnout is a phenomenon that can easily occur in the life of a CCN. Internal and external stressors are inherent in the critical care environment. This environment involves stressful, critical situations relating to role conflict, role ambiguity, qualitative and quantitative work overload, rapid decision making and a speedy delivery of care. CCNs experience suffering as affecting their integrity and wholeness and their ability to carry out their perceived roles. They practise in the face of moral incongruity on a daily basis. Thus CCNs might have difficulty in meeting their obligations to themselves as well as to their patients. These persistent difficulties could evolve into distress. Suffering remains problematic because of the lack of resources to assist CCNs in identifying and resolving the incongruity between the nurses' ideals of care and the actual care provided (Bosek De Wolf 1999:12-13).

The starting point for growth is knowledge about the present situation. CCNs must become aware of how they see themselves and how they act on that perception. An awareness that skill levels fall short of standards could lead to a vision of more effective functioning. By taking ownership of thoughts and feelings, they could more critically reflect on words, actions, behaviours and intents (Bosek De Wolf 1999:12-13).

Selye (1974:8) deals with the perception or cognitive appraisal of a stressful situation. In the

critical care environment, this entails the actual stressful event or stressor, the CCN's perception of the stressor, the external and internal environmental factors and the manifestation of the response. Lazarus (1984) agrees that the perception or cognitive appraisal of a stressor forms the basis on which an understanding of the stress response is determined, and indicates that an appraisal of a critical incident could find it threatening or challenging. An understanding of mediating stressors is imperative for coping and adaptation (Sawatzky 1996:410-411).

According to studies done by Wilkinson (1999:39), avoiding self-awareness is detrimental to good nursing practice. This raises concerns about the lack of adequately structured programmes of reflection and debriefing in nursing education curricula.

1.2.3 Stress in South Africa

Vinassa (2003:20) identifies South Africa as a stressful country. Many organisations disregard stress-related problems. However, there are a number of organisations that acknowledge the problem of work stress and encourage corporate wellness strategies. Minimal stress creates monotony and disinterest, but sustained high levels of stress result in burnout and PTSD. According to Andrew Davies, managing director of an organisation that provides risk-management services before post-traumatic stress is experienced, the past five years have seen growing evidence that the major source of stress is the effect of traumatic or critical incidents (Vinassa 2003:20).

Vinassa (2003:21) states that according to a South African wellness specialist, the interest in corporate wellness programmes has increased during the last two years and more than 275 000 employees and their families, suffering from acute and chronic depression, have been referred for counselling. Some specialists prefer the concept "stress mastery", as opposed to stress management, and suggest a holistic approach by evolving stress mastery, identifying eustress (good stress) and distress (bad stress). Individuals who are consciously aware of stressors and who have the available support systems are more able to achieve physical and psychological well-being.

Trauma-care and critical-care nurses in South Africa are thus faced with traumatic deaths daily. Difficulty in dealing with death issues include physical and emotional reactions to the critically ill, non-violent deaths, unsuccessful resuscitation and unforeseen loss of life. Avoidance of or escapism from a situation as coping strategies could be evidenced by the CCN going home to sleep without considering the feelings at all (Vinassa 2003:21).

1.2.4 Relevance to this study

Bailey (1985:47) points out that CCNs who reach the limits of their adaptive capabilities are unable to cope with post-traumatic stress and often leave the critical care environment. Many health organisations perceive turnover to be a problem, but make no effort to alter the conditions that contribute to the stressors. The focus of this research is that CCNs need to confront the different situations in which they find themselves. Effective coping entails accurate perceptions, knowledge, courage and cognitive appraisals. The critical care environment must be effectively and objectively assessed in order to establish a starting point for promoting coping resources. A major part of this assessment must be directed at the CCN, who must recognise signs and symptoms before any type of intervention can be implemented; the CCN must consciously be aware of the problem before it can be addressed. Acquiring or enhancing coping resources for managing chronic stress is a responsibility the CCN must accept.

The challenge is to enhance resilience by learning to accept situations that cannot be changed or controlled. CCNs can identify or learn to recognise signs and symptoms of post-traumatic stress by becoming attentive to signals of physiological arousal. CCNs might experience chronic arousal but appear to be in control, because their composure might hide underlying stress responses (Muldary 1983:124-126).

Deliberate self-monitoring of physical signs, thoughts and emotions enhances conscious awareness. Self-monitoring entails observational skills, which are applied inward to the "self". Exploring the self is a gradual and continuous process of behavioural, psychological and physical dimensions. The intention is to enhance CCNs' personal and interpersonal understanding (Muldary 1983:127) and thereby to help them to develop greater resilience.

1.3 PROBLEM STATEMENT

The following questions were formulated as stating the problem guiding the present research:

- Are CCNs consciously aware that they might be suffering from severe stress, burnout and/or PTSD?
- What coping strategies are being utilised by CCNs?
- Do hospitals provide stress management programmes in critical care areas?
- Are CCNs responsible for their self-care?
- What resources do CCNs have to empower themselves?
- How could CCNs be helped to enhance conscious awareness resulting in more resilient behaviour?

1.4 OBJECTIVES OF THIS RESEARCH

To answer the research questions, the study was conducted in two phases in an attempt to accomplish the following objectives:

◆ **Phase I**

The objectives in Phase I of this research study were to

- explore and describe relevant literature that focused on the development of conscious awareness of critical incident stress, burnout and PTSD among CCNs
- identify and describe how CCNs appraise the critical care environment, using focus group interviews.

◆ **Phase II**

The objective of Phase II was to conduct interviews to identify and describe the perceptions of

nurse managers as they reflected on CCNs' experiences disclosed during focus group interviews, previously conducted with the CCNs.

1.5 DEFINITIONS OF TERMS USED IN THIS RESEARCH STUDY

The definitions below indicate the way in which the following terms are used in the context of this study:

1.5.1 Adaptation

Monsen, Floyd and Brookman (1992:28) quote Mechanic (1974) and Moos (1977) in Monsen et al (1992:28) as stating that adaptation is the modification of behaviour to eliminate the stress experience and maintain balance and integrity. Adaptation maintains the balance between perceived demands and coping. Ineffective adaptation causes internal disorganisation. White (1974 in Monsen et al 1992:28) describes three elements which are required for adaptation:

(1) a consistent flow of information from the environment
(2) internal ability to process information and take action
(3) autonomy and flexibility in coping skills

1.5.2 Burnout

McKnight and Glass (1996:23) refer to the term "burnout" as a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that occurs in professionals such as nurses, rendering caring services.

The syndrome has five common characteristics, according to Maslach and Schaufeli (1993:1-18).

- Dysphoric symptoms such as mental or emotional exhaustion, fatigue and depression.
- The individual displays mental and behavioural symptoms rather than physical symptoms, although some authors mention atypical physical complaints as well.
- Burnout symptoms are work related.
- The symptoms manifest themselves in "normal" persons who did not suffer from psychopathology before.
- Decreased effectiveness and work performance occur because of negative attitudes and behaviour.

1.5.3 Compassion fatigue

Pfifferling and Gilley (2000:39) describe a form of burnout as "compassion fatigue", a deep physical, emotional and spiritual exhaustion accompanied by acute emotional pain. Health-care professionals have to cope with physical and emotional demands. Compassion fatigue takes a toll, not on the health-care professionals only, but also on the workplace, causing a decrease in productivity, increased absenteeism and an increased rates of staff turnover.

1.5.4 Conscious awareness

Conscious awareness is a process whereby human beings gain an awareness of their internal psychological processes (thinking, reasoning and feeling), obtaining access to their internal worlds and acquiring insight into their feelings and emotions. Conscious awareness requires the owning of thoughts and feelings in dealing with conflicting or distressing situations (Pollard 1994:727).

1.5.5 Coping

Coping is viewed as the process through which the individual manages the demands of the person/environment relationship that are appraised as stressful (Lazarus & Folkman 1984). Problem-focused coping determines to what extent transactions are stressful (primary appraisal) and the options that are open to deal with the stressor (secondary appraisal).

1.5.6 Critical care environment

Clochesy, Breu, Cardin, Rudy and Whittaker (1996:xiii) describe the environment in which critical care nursing is practised as a collaboration of relationships, continuous learning, innovation, and shared expertise. The effectiveness of support systems, resources and the significant integration of patient and family needs across all care delivery is assessed within the first few hours after the admission of a patient. Collaboration includes recognising the value and rights of each health care provider and respecting each team member's contribution and expertise.

1.5.7 Critical care nurses

Critical care nurses (CCNs) are highly specialised nurses who have mastered knowledge about critical care nursing and about pertinent information from other disciplines. These highly competent and skilled nurses provide intensive care for patients requiring both close monitoring and critical care interventions (Clochesy et al 1996:xiii).

CCNs provide care to patients with life-threatening or potentially life-threatening illnesses or injuries which entail physiological and/or psychological risks. The patients' vulnerability is influenced by the fast-paced, labour-intensive environment, where technology and vigilance are life-saving strategies. Stresses within the critical care environment necessitate the creation of a compassionate, humane and flexible approach to care, as the patient and the family are kept as the central focus of the critical care environment (Clochesy et al 1996:xiii)

1.5.8 Critical incident stress

A critical incident in this context has been defined as "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." Prolonged exposure to multiple critical incidents might have a cumulative effect, producing symptoms of post-traumatic stress disorder (Laws & Hawkins 1995:33).

1.5.9 Debriefing

A debriefing session is a powerful crisis intervention strategy designed for individuals or groups who have experienced a traumatic event. Traumatic event debriefings help to reduce symptoms and accelerate the recovery process. To decrease the possibility of post-traumatic stress disorder, prompt intervention (such as debriefing) is imperative (Bell 1995:37).

1.5.10 Diffusion

Diffusion is the process through which an innovation or empirical evidence is communicated through certain channels over a period of time among CCNs or other social systems. Research evidence about innovative clinical practice contains new data, methods or ideas. Diffusion about innovation is a slow process affected by the characteristics of the CCN, the clinical setting and/or the evidence. According to Taylor-Piliae (1998:30-37), diffusion of innovative theory includes the following stages:

- Nurses pass through an innovation decision-making process.
- Knowledge or awareness of the innovation is acquired preceding the formation of attitudes about the innovation.
- Decisions are made about adopting or rejecting the innovation in practice and thereby confirming whether or not the innovation is of value. Knowledge and a conscious awareness in clinical practice may overcome conflicting attitudes to current practices and changes (Taylor-Piliae 1998:31-33).

1.5.11 Distress

Selye (1974:27) used the concept "distress" to refer to bad stress or disruptive stress and the concept "eustress" to indicate positive or constructive stress. A person in distress is one who subjectively experiences that something is wrong.

1.5.12 Holistic approach

According to the American Holistic Nurses' Association (AHNA), the term "holistic nursing" includes all nursing practice that has the healing of the whole person as its goal (Dossey & Guzzetta 1995:7). The two aspects of holism recognised by the AHNA are significant:

- understanding that the biological, psychological, social and spiritual dimensions of the individual are interrelated and " that the whole is greater than the sum of its parts" (Dossey & Guzzetta 1995:7)
- understanding the reciprocity between the individual and his or her internal and external environments, and that the individual therefore reacts and is being reacted upon by these environments (Dossey & Guzzetta 1995:7)

Landrum, Beck, Rawlins and Williams (1993:37), add:

- awareness and acknowledgement of the existence of stressors that influence the whole person
- individual responsibility for one's own health status, implying a choice of attitude, behaviour and direction to maintain health goals

1.5.13 Post-traumatic Stress Disorder (PTSD)

Should stress responses become prolonged, signs and symptoms of post-traumatic stress disorder could occur. These include constant flashbacks, unwanted thought intrusion, moodiness, difficulty in concentrating, avoidance behaviour and restlessness, fatigue, sleep disturbances, anxiety and depression. If these disturbances continue, the person's ability to function will be adversely affected.

1.5.14 Resilience

Strümpher (1995:87) defines resilience as a pattern of psychological activity which includes a need or motivation to be strong in the face of adversity or inordinate demands, especially stressful and traumatic experiences. A non-resilient person has minimal adaptive flexibility and is less able to respond to the changing environment, may become disorganised in demanding situations and therefore unable to recoup after stressful traumatic experiences. Resilience also refers to self repair and recovery. Antonovsky (1987), Bleuler (1972/1978) and Grofberg (1997), in Strümpher (1995:87) indicate that the qualities of resilience may include strengthening, hardening, toughening or steeling effects.

1.5.15 Stress

The physiological component of stress involves stimulation of the pituitary-adrenocortical axis, with subsequent release of cortico steroids and catecholamines (Mason 1971; Selye 1975 in Lazarus & Folkman 1984:10).

The stimulus definition of stress is an external force from the environment that causes a reaction within the individual. The response definition explains that as individuals react physiologically and psychologically by undergoing pressure from an unbalanced environment, they react internally to external stressors. This definition combines the stimulus and the response and assesses the interaction between the environment and individual (Turton 1994:30).

A distinction is made between burnout, compassion fatigue and critical incident stress.

1.5.16 Stressors

Neuman (1995:22) defines stressors as tension-producing stimuli which result in disequilibrium within the internal, external and created environments. The effect of the stressor in any type of environment is mitigated by several variables. These include the number, nature and intensity of stressors; and the timing, occurrence, and conditions of well-being and adaptive ability of human beings within the environment.

1.6 ASSUMPTIONS OF THIS RESEARCH

Chinn and Jacobs (1987:7) suggest that a conceptual framework for nursing science is the synthesis of the individual concepts of stress-coping and adaptation of the person/environment in a health status. The linking of the concepts into a stress-coping adaptation framework provides nursing with a theoretical and practical orientation, synthesising concepts of the Neuman Systems Model (Neuman 1989:17), facilitating conscious awareness among CCNs.

1.6.1 Models underlying the assumptions of this research

Assumptions underlying this research are selected from the Neuman Systems Model (Neuman 1995:22).

- **The Neuman Systems Model**

The emphasis of the Neuman Systems Model (1989:123) is on the total person (see Figure 1.1). The person functions in a collaborative relationship termed a client system, whether it is an individual, group, community or social system, and is in a dynamic interrelationship between physiological, psychological, sociocultural, developmental and structural variables (Fitzpatrick & Whall 1996:199-208).

FIGURE 1.1

Neuman Systems Model

The model describes stressors in the environment and the reaction of each client system to these stressors. The individual has an internal set of resistance factors called lines of resistance which attempt to stabilise the individual to a homeostatic state. Each line is comprised of patterns of coping and problem-solving strategies.

In 1989 Betty Neuman developed new terminology for concepts used previously in her model (Neuman 1989:29). This new terminology in the Neuman Systems Model encompasses the spiritual variable in helping an individual to cope with the internal and external stressors of the created environment. These aspects can be applied to the CCN, including the "spiritual variable" and the "created environment".

- **The spiritual variable**

The client system originally comprised four variables: physiological, psychological, socio-cultural and developmental variables (Neuman 1989:29). Neuman later added a new variable of spirituality, which forms an intrinsic part of the individual and increases the optimal wellness level. The spirit controls the mind and the mind consciously or unconsciously controls the body. Enhancing a conscious awareness of self through attention to changes in the body creates insights into psychological states and body image.

- **The created environment**

The created environment is described by Neuman (1989:30) as the client's unconscious mobilisation of all system variables (physiological, psychological, socio-cultural, developmental and spiritual). Its primary function is to create a protective environment for the client. This environment embraces the client's internal and external environment. When a stressor is experienced, the created environment changes the response of the client to the stressor. Intrapersonal, interpersonal and extrapersonal factors as well as system variables influence the created environment.

The new concepts of the Neuman Systems Model of wellness and primary prevention defines wellness as "the condition in which all system parts and subparts are in harmony with the whole system of the client" (Neuman 1989:71). In the context of the CCN's situation, primary prevention is therefore an intervention when the CCN appraises the critical care situation as being stressful and consciously expands the distance of the flexible lines of defence from the normal lines of defence, thereby enhancing his or her resilience (Neuman 1989:72).

- **The hourglass model**

The "hourglass" model depicted in Figure 1.2 portrays human ecological interactions and indicates the interrelationships and involvements between the individual and everything surrounding the individual. Different components influence one another. Human actions occur within a specific context and such actions cannot be understood outside this context. This "hourglass" model has been adapted from Bruhn's Model as described by Lancaster and Lancaster (1982:340).

- **Aspects of the Neuman Systems Model and the Hourglass Model**

In this study the critical care nurse is regarded as a person who is a combination of body, mind and spirit and who is in interaction with the internal and external world. The body, mind and spirit do not exist separately, but are interdependent entities (see Figure 1.2).

- **Body, mind and spirit**

Anatomically, physiologically and biochemically the **body** is unique in that it will react spontaneously to stimuli as it is in a dialectical relationship with the internal world. Manifestations of the body include the bodily expressions of fight and/or flight in the General Adaptation Syndrome which Selye (1974:137) has researched over many years. The body therefore acts or reacts subjectively to what it is told by its internal environment. Through physical interaction with the external world, which is the critical care environment in this study, the person becomes consciously aware of inner feelings and experiences. Therefore the body language must be defined within this context. The more one is aware of the subtleties of body distress, the more one is able to use biofeedback mechanisms within the body to ease such bodily distress.

Figure 1.2

Hour glass model

Mental and emotional processing of data are included in the concept of **mind**. A range of psychological states, including anxiety, depression, chronic frustration, fear, resentment, anger and worry, can trigger bodily harm and cause physical illness. Strong negative emotions are experienced. Expressions of bodily processes can occur in an attempt to maintain equilibrium and include shock, nausea, fatigue, dizziness and twitching, which may result in a lack of problem-solving ability, lack of concentration, withdrawal, hyper-alertness, irritability and mental numbness.

The **spirit** is that part which is capable of extending past psychological maturity into a state of experiencing a connection with strongly positive and powerful forces. This transcendental experience or connection with this force is related to the person's philosophy of life. Beliefs and attitudes towards oneself and others originate from this philosophy. Introspection and self-appraisal abilities, conscious decision making and rational choices are inherent in this philosophy of beliefs, as it is the spirit that activates intellectualisation.

- **Environment**

Environment in the Neuman Systems Model consists of the internal, external and created environments (see Figure 1.1). Internally, forces are contained only within the human being and correlate with intrapersonal stressors. All forces external to the human being, such as interpersonal and extrapersonal stressors, make up the external environment.

In this study the **internal** environment includes feelings, beliefs, attitudes, emotions, conscious decision making and rational choices, as well as psychological states such as anxiety, depression, frustration, fear, resentment, denial and anger.

The **external** environment in this study is the world outside the person, which in the case of the CCN includes the world of science and technology comprising skills, expertise, professionalism, speedy decision-making and life-saving interventions. The CCN continuously strives towards maintaining equilibrium within the critical care environment. Disequilibrium in either the physical or social components of the external environment can cause changes and alterations in the internal

environment, and vice versa. The behaviour of a person represents a delicately maintained balance between environmental stressors and adaptive abilities, determining the individual's position on the wellness-illness continuum (Neuman 1995:22).

The hourglass scheme (see Figure 1.2) illustrates the relationships between CCNs and the environment. The position of the shifting sands determines the status of the nurse within the environment (Lancaster & Lancaster 1982:340).

The **physical environment** represents the environment as a source of shelter and protection and the objective world within which man explores and builds relationships.

The **sociocultural aspects** refer to norms, values, attitudes and biases that are sanctioned and conveyed from one group to another. The sociocultural environment gives a person a sense of security, a point of departure from which belief systems, values and social traits determine the person's thinking and decision-making processes. Structures and processes created by man (individuals, groups, communities and nations) make the world meaningful and influence conscious decision making and rational choices (Kotze:1998:3-6).

The **emotional** nature of critical care nurses has two components. Firstly, strong negative emotions are experienced, which must be expressed clearly, quickly and effectively so that the physical responses of the body will rebalance themselves. Secondly, the nurses should increase their awareness of unresolved conflicts that created these emotions. Cognitive modifications may enhance awareness of future stressors, monitoring distressing thoughts and painful stimuli to avoid destructive emotional responses.(Curtis 1995:95).

The **psychological** components of the external environment include the personality and interpersonal relationships. Man is seen as a dynamic system operating between himself and the environment in an attempt to control or modify demands or threats to effective coping. (Kotze 1998:3-6).

Science and technology also play a part in the environment. Health care and critical care nursing do not exist in a political or economic vacuum. Critical care takes place in a complex and dynamic environment. The discipline of nursing aims at strengthening the scientific foundations upon which clinical practice is based. The implementation of research findings could improve the quality of nursing care.

◆ **Adaptive ability**

A person learns to respond and adapt to events on the basis of perceptions, attitudes, fears, biases, strengths and limitations (Lancaster & Lancaster 1982:338). Adaptability and resilience do not mean that the person can overcome all stressors experienced. However, in coping with adversity, highly resilient people will do better than people with low resilience. When a problem cannot be solved, a resilient individual will maintain adaptability as opposed to a person who has minimal adaptive skills and may become disorganised in similar demanding situations.

◆ **Coping capacity**

This encompasses

- acknowledging strengths and weaknesses
- accepting adversities or transforming attitudes that support these adversities
- being consciously aware of acts, attitudes, negative thoughts, feelings, experiences and motives
- assessing interactions with fellow workers and the external environment
- self-disclosure by using reflective strategies or by sharing perspectives with significant others
- accepting the "self" and fellow workers unconditionally
- being aware of the mental and physical potential of self and others (Kotze 1998:3-5).

◆ **Support systems**

- **Personal support**. Interpersonal and collegial support is essential for CCNs who render

critical care within a holistic team approach.

- **Professional support** includes:
  - counselling
  - debriefing
  - supportive groups
  - educational programmes
  - supportive systems enabling specific actions by participating in stress programmes, emphasising theories of stress management and coping strategies to address manifestations of stress and post-traumatic stress, and to reduce or prevent the impact of a distressing critical incident on any unique person's functioning capacities (Kotze 1998:7)

◆ **Application of the Neuman Systems Model to the critical care nurse**

The Neuman Systems Model (see Figure 1.1) is based primarily on the concepts of stress and the reaction to stressors. Neuman (1995:45-46) views the client from a systemic perspective characterised by the continuous flow of input, process, output and feedback. The model is applicable to this research because it is predominantly holistic in nature and wellness orientated, referring to the client as an open system in constant interaction with the environment. In this study a CCN could also be regarded as an open system (total human being) in constant interaction with the critical care unit's environment comprising potential stressors such as critically ill persons and their families/friends, advanced technology which needs constant monitoring and immediate action if anything goes amiss, life and death decisions, interpersonal relations with nursing colleagues, doctors, other members of the health care team and management of the hospital.

Neuman (1995:23) defines stressors as "tension-producing stimuli or forces occurring within both the internal and external environmental boundaries of the client/environment system". The environmental stressors include intra-, inter- and extrapersonal stressors. In the context of this study:

- **Intrapersonal stressors** would be those within the CCN him/herself, such as adverse emotions.
- **Interpersonal stressors** would be forces that exist outside the boundaries of the CCN, for example, interpersonal relationships with other health care workers, with patients and their families/friends.
- **Extrapersonal stressors** may be experienced by the CCN due to adverse factors in the environment, such as respirators which malfunction or interruptions in the electricity supply.

1.6.2 Theoretical assumptions

In this study various theoretical assumptions informed the methods chosen. Participation in both individual and collaborative processes could help CCNs to construct and reconstruct meanings about feelings and experiences of suffering and distress. Such participation should include the ability to generate questions about self and others, to probe for underlying meanings and understanding (Ubbes, Black & Aushermann 1999:6). These authors reported a study by McLeod (1990) who reviewed research on clients' experiences in a number of UK studies conducted during the early 1970s. These studies helped to develop the method of using interviews to explore subjective experiences and understanding of what actually occurred during debriefing. Rennie and Watson (1994) developed debriefing methodologies, Egan's Skilled Helper Model (1994) describes cognitive behavioural approaches. Ubbes et al (1999:6) maintain that the professional debriefer should get in touch with unconscious processes which might stimulate the recall of experiences. Change processes were observed in ten clients during short debriefing processes. Data confirmed changes in behavioural patterns, increased awareness of the self achieved through the improved connecting of thoughts and feelings which continued to improve throughout the debriefing process, as indicated by measurements of clients' perceptions of their problem-solving abilities, confidence and self-control (Ubbes et al 1999:6). If debriefing sessions with CCNs, raising their levels of consciousness awareness, could produce similar improvements, then CCNs' problem-solving abilities, confidence and self-control would be enhanced, benefiting the CCNs themselves, and their families, their patients, their colleagues and the critical care unit (CCU) environment as such.

1.6.3 Methodological assumptions

The scientific methodology of this study focuses on the usefulness of qualitative data for the improvement of nursing practice in the CCU. Within a functional approach, the exploring and describing of the research objectives become prescriptive (Botes 1995:10). Knowledge that is useful for the practice of nursing in the CCU, such as a framework for facilitating conscious awareness among CCNs by developing resilient behaviour.

1.7 SIGNIFICANCE OF THIS RESEARCH

Descriptive and empirical research into the use of techniques that facilitate reflection, conscious awareness, resilience techniques, debriefing and counselling is recommended to enhance nurses' coping skills in clinical areas (Wilkinson 1999:39).

In an unsupportive environment stress responses may escalate into high levels of self-doubt, and negative self-talk can creep in. This may aggravate anxiety, low mood or depression, defensiveness and avoidance of individual colleagues as well as avoidance of the work environment itself, which might account for some absenteeism among CCNs, for the fact that many CCNs work part-time only and for some sick leave among CCNs. All of this is not inevitable. Some people tend to respond to potential stressors better than others. Whether or not any specific person experiences a situation as being stressful seems to depend clinically on his or her appraisal of that situation (McInnes 1999:53). The only organism that does not experience any stress is a dead one. While humans are resilient, the inputs, outputs and process analogy can either tackle the stressor directly (inputs) or symptoms (outputs), or the way in which the situation is appraised (McInnes 1999:53).

The aim of conscious awareness is to achieve self-awareness of present thoughts and feelings, to accept those feelings experienced and to own them (Müller 1998:33). Developing resilience is one process which could assist CCNs to attain and maintain desirable levels of conscious awareness. Realistic conscious awareness is a significant aspect in coping and adapting change within the self (Müller 1998:33). The proposed interviews with CCNs would operate in a similar

way to debriefings, raising the level of conscious awareness.

Stress management sessions, including raising levels of conscious awareness, with CCNs should enable them to prioritise their duties, and to set boundaries in such a way that they could attend to their own values, feelings and beliefs and allow themselves to spend time with their families and friends. This would enhance their resilience by strengthening their resources and support from family and friends. In turn, enhanced resilience should enable CCNs to manage and understand stressors in the CCU more effectively than they would have done without such resources.

If resilience consists of those psychological, biological and environmental capabilities that promote reintegration subsequent to disruptions, then the areas in which any individual lacks such resilience should be identified. The constituents of resilience are:

- psychological resilience or the mental ability to "bounce back"
- insight into oneself and others
- a sense of self-esteem
- the ability to learn from experience
- a high tolerance of distress
- a low tolerance of unacceptable behaviour
- open-mindedness
- courage, personal discipline, creativity, integrity, a keen sense of humour
- a constructive philosophy of life that gives meaning

In research on a group of prisoners, it was found that those prisoners who best handled critical incidents had insight into the emotional impact of their experiences and were able to express their feelings (Wolf & Mosnain 1990:42). These authors also reported group morale and group interaction to be enabling survival techniques among prisoners. The ability to share a critical incident with another empathetic human being shortly after the event provided a critical route towards resolution of the anxiety, enhancing the resilience of the person. Restoring morale and reducing the influence of detrimental factors in the milieu requires individuals to replace negative stressors with factors that promote health (Strümpher 1995:10).

Although no similar research could be traced among CCNs, similar results could be expected should CCNs have access to sessions or programmes for enhancing conscious awareness. This research therefore attempted to design a framework for enhancing conscious awareness among CCNs in order to reduce the potential of negative stressors in the CCU.

1.8 RESEARCH DESIGN AND METHODOLOGY

A research design implies a "blueprint" for conducting a study that "maximizes control over factors that could interfere with the validity of the findings" (Burns & Grove 2001:795). On the other hand, research methodology refers to the "steps, procedures and strategies for gathering and analyzing the data in a research investigation" (Polit & Hungler 1993:648).

1.8.1 Design

The research strategy comprised an exploratory (Mouton & Marais 1990:43), descriptive (Burns & Grove 1999:28), qualitative (Burns & Grove 1999:411), contextual (Mouton & Marais 1990:43) design and a phenomenological interpretation of socially constructed realities (Burns & Grove 1999:349).

◆ **Exploratory design**

The researcher departed from a point of reference of not knowing, and thus used exploratory methods to gain information. In this study the researcher used focus groups for exploration purposes (Mouton & Marais 1990:43).

◆ **Descriptive studies**

A descriptive study is structured and organised according to saturated themes which will provide relevant information (Burns & Grove 1999:411). This research aimed at identifying ways in which CCNs' levels of conscious awareness could be raised in order to reduce the potential impact of

negative experiences in the CCUs.

◆ **Qualitative research in nursing**

Qualitative research combines the scientific and artistic nature of nursing to enhance the understanding of the human health experience. Burns and Grove (2001:808) define qualitative research as: "A systematic, interactive, subjective approach used to describe life experiences and give them meaning". This survey attempted to identify CCNs' conscious awareness of experiences of critical incidents in the CCUs. The basic assumption underlying this research was that by raising the conscious awareness of CCNs, their resilience will be increased to withstand the potentially negative consequences of experiences in their daily working lives, and thereby enhance their abilities not to develop PTSD nor to experience burnout. Such abilities could contribute towards reducing the rates of staff turnover among CCNs and enhance the quality of their working lives.

◆ **Contextual studies**

A context is a particular set of conditions within which the action/interaction strategies are taken (Strauss & Corbin 1990:29). This study is contextual in that it deals with CCNs and the critical care environment within which the CCNs operate.

◆ **Phenomenological approach**

A phenomenological approach was used, which emphasised socially constructed realities, local generalisations, interpretive resources and intersubjectivity (Burns & Grove 1999:349).

1.8.2 Research methodology

The research methodology is presented in more detail in Chapter 2. A phenomenological approach was used because this was a study of lived experiences, exploring phenomena which were grounded within CCNs' holistic beliefs. This study involved CCNs in the critical care

environment. By raising their levels of conscious awareness about experiences that influenced their perceptions of the world and by acknowledging their physical and emotional states, self-realisation and ultimately holism could be promoted.

This research consisted of two phases.

Phase I included the explorative phase. A literature search was conducted on the needs of CCNs for stress management coping and resilience behaviour. Focus group interviews with CCNs were conducted. Phase 1 also comprised choosing the sample population, sampling criteria, sampling procedures, the research instrument, data collection and data analysis.

Phase II included a descriptive phase of individual interviews with nurse managers as they reflected on their perceptions of CCNs' experiences (which had been disclosed during the focus group interviews in Phase I).

1.9 ORGANISATION OF THE RESEARCH REPORT

Chapter 1 : Introduces the research topic by describing the orientation and general background information of this research.

Chapter 2: Describes the research design and methodology.

Chapter 3: Discusses the analysed data obtained during the focus group interviews conducted with the CCNs and the interviews conducted with nurse managers. These findings are presented with verbatim phrases from the focus group interviews, where relevant, and the research results will be compared and contrasted with relevant aspects from the reviewed literature. (Initially a separate literature review chapter had been included but as there appeared to be too many repetitions from the literature review chapter in the data analysis chapter, the former chapter was deleted and the latter was expanded to encompass references to relevant literature. Although the

results obtained from the focus group interviews with CCNs (phase I of the research) and those obtained from individual interviews conducted with nurse managers (phase II of the research) were discussed as separate chapters, similar categories and subcategories emerged during the analysis of the data. Consequently the results obtained from the two data collection phases were incorporated and discussed under the relevant categories and/or subcategories in chapter 3. Another separate chapter addressed concept analyses but to obviate unnecessary repetitions, the relevant aspects of this chapter were also incorporated into chapter 3 presenting the analysis and the discussion of the research results).

Chapter 4: Concludes the thesis by presenting the conclusions, recommendations and limitations of the research as well as suggestions for further research.

1.10 CONCLUSION

This chapter, being the orientation chapter, formed the structural point of reference for the entire research. In this chapter the general background to facilitating conscious awareness among CCNs was discussed. The objectives of the research study, definitions, assumptions and the significance of this study were mentioned but will be discussed in more detail in Chapter 2.

Chapter 2

Research design and methodology

2.1 INTRODUCTION

This chapter is concerned with the methodology of the research. The research design includes research decisions taken with regard to the research strategy, method of collecting data, data analysis, reliability and trustworthiness (Botes 1995:4-9). These research decisions were taken within the framework of the determinants of research.

2.2 RATIONALE

Nursing is a health-care science and is closely related to the social sciences. Wilkinson (1999:37) maintains that the processes of reflection and validation concerning professional activity in situ seem pivotal to the development of professional expertise as they serve to create consciousness. Only in this way are professional experiences and understandings structured and restructured, so that the meanings of particular professional events are transcended and transformed in ways that, eventually, enable rapid and effortless understanding of present situations.

Reflection must be consciously implemented in an environment which supports both reflection and the debriefing processes (Wilkinson 1999:37). Self-awareness and insight should be demonstrated through acknowledgement of personal limitations in understanding. Experiences of "self" should be explored (Wilkinson 1999:38-39).

Neuman's holistic concept of a human being depends on the interrelationship of variables that determine the amount of resilience in response to stressors. Neuman's definition of a human being as a physiological, psychological, sociocultural, spiritual and developmental being should not be interpreted as a focus on individual parts, but holistically. This implies that the meaning of any (whole) experience must be considered within the context of stressors produced and coping behaviours required within a specific situation (such as the critical care environment). Such assessments comprise the following steps (Neuman 1995:202):

- identifying one's present feelings accurately
- owning feelings as part of oneself
- identifying and owning values and values clarification
- communicating feelings and emotional experiences (Wilkinson 1999:38-39)

The behavioural change perceived by individuals includes taking action rather than being overwhelmed by feelings (Jinks 1999:65).

2.3 AIM OF THE RESEARCH

The aim of this research was to facilitate a conscious awareness in CCNs with the goal of encouraging "self-care".

2.4 RESEARCH DESIGN

Research design refers to the entire strategy carried out for the research and is associated with the framework which guides planning for the implementation of the framework. It clarifies strategies adopted to develop information that is accurate, unbiased, accountable, reliable and interpretable (Polit & Hungler 1993:123).

A phenomenological approach was used for describing and clarifying phenomena significant to CCNs' practice and their need for conscious awareness to enhance their resilience and thus also their coping capabilities. The research strategy therefore included an exploratory, descriptive, qualitative and contextual design (Burns & Grove 1999:340).

2.4.1 Exploratory

Exploring generates a new understanding of the phenomena and thus has the potential to generate statements (Mouton & Marais 1990:43). The researcher departs from a point of not knowing and thus uses exploratory methods to gain information. In this research the researcher used focus group interviews for exploration purposes (Mouton & Marais 1990:121). The exploratory method could lead to insight and comprehension of data, the examination of new ideas and suggestions and an openness to new stimuli (Mouton & Marais 1990:43). This approach attempted to explore and understand the dimensions of the CCN in the critical care environment (Talbot 1994:90). The researcher scrutinised unknown regions for the purpose of discovering associations and differences between phenomena. CCNs' responses, thoughts, feelings, attitudes, experiences, sensations, skills, behaviours and physiological functions were explored (Woods & Catanzaro 1988:221), in an attempt to identify CCNs' need for conscious awareness in order to enhance their functioning in the CCUs.

2.4.2 Qualitative

A qualitative approach reflects a phenomenological orientation. This approach is based on a world view which is holistic, maintaining that reality is not a single entity, because reality is based on perceptions which are different for each individual, changing over time. Any known

phenomenon has meaning and significance only within a given situation. When using a qualitative approach, the researcher views the person as being an integral part of the environment. Each person's world is so unique that it cannot be recognised unless some form of description occurs. Reality is considered to be subjective, therefore an experience is regarded as unique for each individual. Qualitative research could thus provide insights into CCNs' practice that might not be uncovered by using quantitative methods (Burns & Grove 1999:341). Heideggerian phenomenologists believe the person to be a self within a body. Thus the person is referred to as being embodied. "Our bodies provide the possibility for the concrete actions of self in the world" (Burns & Grove 1999:24). The individual who is the CCN is situated in the critical care environment and shaped by this "world", and is therefore forced into establishing meaningful relationships, language, culture, history, and values which are qualitatively unique (Burns & Grove 1999:24).

2.4.3 Descriptive

Descriptive research is a means of discovering new meaning about what actually exists. It is conducted when more information is needed to understand phenomena (Burns & Grove 2001:24). Focus groups were used in this research to explore and describe the phenomenon of CCNs' experiences in the critical care environment (Burns & Grove 1999:28). Focus groups were selected for this research because the permissive group environment would offer individuals the freedom to divulge emotions which might not emerge during other forms of questioning, promoting self-disclosure among the individual participants (Krueger 1994:11). The data obtained by a descriptive approach were analysed manually, as well as by using a computer package for the analysis of qualitative data – non-numerical unstructured data indexing, searching and theorising (NUD*IST 4). The researcher organised the data by identifying meaningful units, which were then categorised or coded (Cresswell 1994:1). Data within the same category were then grouped and subcategories were developed. Data were validated by moving backwards and forwards between the raw data and the categorised data in NUD*IST 4. Data were then compared in order to identify common and unique themes and patterns (Burns & Grove 1999:24). Two nurse researchers, experienced with qualitative research, independently categorised the categories and sub categories. These two experts and the researcher jointly decided which categories and sub

categories to accept as presented and which to combine. Surprisingly few discrepancies occurred between these three persons' approaches to the categorisation of the research results.

2.4.4 Contextual

This research project used a contextual or ideographic approach because it focused on the critical care environment (Strauss & Corbin 1990:96). A context may be described as a particular set of conditions within which the action/interaction strategies occur. Talbot (1994:93) argues that context explains why certain attributes of a phenomenon appear when they do and why they are interconnected in specific ways. This research could be described as contextual because it dealt with CCNs who participated in focus group interviews and who were committed to the critical care environment. This contextual research was conducted within the following framework.

2.4.4.1 Naturalistic inquiry

According to Guba and Lincoln (1985:187-189), naturalistic inquiry is conducted in the natural environment of the phenomenon, since the context is bound by the meaning of reality. Naturalistic inquiry emphasises the meaning in context. Human beings are best suited for this task by using methods such as interviewing, observing and analysing. Guba and Lincoln (1985:193) also propose the use of a human-as-instrument because of unique human characteristics like flexibility and interactional adaptability. The human being is able to process analyse, clarify and summarise information with reliability and trustworthiness (Guba & Lincoln 1985:194).

2.4.4.2 Legal, ethical and professional framework

The research was conducted within the philosophy of the South African Nursing Council as outlined in the South African Nursing Act (No 50 of 1978), as amended (Act No 21 of 1992). The ethical aspects pertaining to this research are discussed in detail in section 2.6 of this thesis.

2.4.4.3 Intention

The intention of this research was to enhance CCNs' conscious awareness in order to improve their resilience and self-care and to enhance their coping capabilities in the CCUs.

2.5 RESEARCH METHOD

Research method refers to the process, procedure and strategies for combining and analysing the data in the research process (Polit & Hungler 1993:440).

The discussion of the research method includes a description of the sampling, method of selection, data collection and data analysis. The research was conducted in two phases.

The objectives of Phase I were to:

- explore and describe relevant literature that could facilitate conscious awareness of critical incident stress, burnout and PTSD among CCNs
- identify and describe how CCNs appraise the critical care environment, using focus group interviews

2.5.1 Sampling

A nonprobability (nonrandom) sampling approach was used in this research (Parahoo 1997:232). In a nonprobability (nonrandom) sampling method, the sampling elements are chosen from the population by the use of nonrandom methods (Parahoo 1997:230). In this research nonprobability sampling was used, namely purposive sampling.

Purposive selection was used for the selection of 10 participants, five members in each focus group interview.

2.5.1.1 Purposive sampling

Qualitative researchers employ purposive and nonrandom sampling methods (Parahoo 1997:222). Groups and individuals are selected in practice where the phenomenon being researched is commonly found. This method of sampling includes the conscious selection of participants to be involved in the research (Burns & Grove 1999:246). For the purpose of this research, the target population comprised CCNs working in five hospitals in the Tshwane (previously Pretoria) metropolitan area, because their specific characteristics, similar interests and experiences were significant to this research (Brink 1996:132; Polit & Hungler 1993:173-174; Strauss & Corbin 1990:182). These participants were geographically well situated as regards convenience and economy, and the project was perceived as being feasible for the participants in terms of transportation and other financial considerations.

Participants had to meet the following criteria:

- They had to be employed full time or part time as CCNs.
- They had to have a diploma, Honours or Master's degree in critical care nursing.
- They had to be male or female CCNs working in a critical care environment in one of five hospitals in Tshwane.
- Participants had to be registered with the SANC as critical care nurses
- Each participant had to give informed consent to participate in the research.
- Participants had to be able to converse in English during the focus group interviews.

Identification of participants was conducted by the peer group and the researcher.

2.5.2 Method of selection of CCNs and nurse managers

- Letters were hand-delivered to five private hospitals in the metropolitan area of Tshwane.
- Each participant received information in the letter which explained relevant aspects of this research and included the purpose, method, objectives, potential risks, benefits and the significance of participation in this research.

- Participants fulfilled the selection criteria.
- They were given the assurance that anonymity and confidentiality would be maintained and that participants had the option of withdrawing from the research project at any time.
- Voluntary consent was obtained, without any coercion or undue influence and without any remuneration (Burns & Grove 1999:167).
- A telephonic enquiry by the researcher was made one week later, after having received no response from the CCNs nor from the nurse managers. Participants who were willing to participate referred the researcher to their peers who might also be interested in participating in the research, which amounted to snowball sampling. Consent forms attached to the letters were returned within two to three days after the telephone conversations.
- Identified participants who worked in the five hospital were situated within a distance of 5 to 10 km from the venue where focus group interviews were held.

2.5.3 Focus group interviews

The data collection method used to obtain information was the focus group interview, to obtain a particular kind of information that would be difficult to obtain using other data collection procedures. The unique difference between focus groups and other groups is that the goal is not to reach consensus, provide suggestions or make decisions about courses of action. Focus groups purposefully determine the perceptions, feelings and thoughts of participants (Krueger 1994:17-19). People are the product of their environment and are influenced by other people. People may need to listen to opinions and perceptions of others and themselves to create an awareness about their own coping abilities and strategies (Krueger 1994:6-11).

CCNs work closely together in the critical care environment. Attitudes and perceptions relating to work issues, stressors, grievances and the approaches relevant for coping are developed in part by interaction with other critical care team members. The focus group interview was selected for this research because the characteristics of focus groups present a more natural environment than individual interviews: participants influence and are influenced by one another, just as they are in real life (Krueger 1994:19).

A focus group is a special type of group that provides richness of information at an economical cost. Real-life situations and interactions of people are explored. Participants' attitudes, values, feelings and views might be disclosed more effectively during focus group interviews than during individual interviews (Krueger 1994:6).

The researcher conducted two focus group interviews. A brief description of the meaning of focus group interviews was given, and the application of the focus group interview in this research and reasons for its use were described. Participants' attitudes, perceptions and feelings were respected throughout the interview process. Each individual was as important as any other participant. Hearing oneself and obtaining feedback about similar situations experienced by other colleagues could create an awareness of shared experiences in different CCUs of different hospitals.

There are specific characteristics of a focus group:

(a) Size of the group

Focus groups are typically composed of six to ten participants, but can range between four and twelve (Krueger 1994:6). Limiting the number of participants must be considered, as each participant must have the opportunity to verbalise his or her perceptions. Fragmentation of the group must be avoided. A smaller size results in a smaller pool of ideas.

In this research the two groups comprised five members each, therefore each person had the opportunity to share perceptions and ideas, but the two groups were large enough to represent a diversity of perceptions, views, ideas and attitudes. The small size was also preferable because the representativeness of the target population was essential to this research (Krueger 1994:6; Morse 1991:227), as CCNs from all five participating hospitals took part in the focus group interviews.

(b) Focus groups conducted in series

A true and realistic series of events should follow. In this research the researcher conducted a series of two focus groups, comprising five members each, until the data collected had reached saturation, implying that no further new knowledge was disclosed during subsequent discussions (Krueger 1994:17).

(c) Homogeneity of participants

Qualified CCNs working in CCUs represented the target population in this research project. They were selected based on their knowledge about and experience in CCUs. Homogeneity was perceived as having minimal risks for the participants and self- disclosure was spontaneous (Morse & Field 1996:26).

Focus group interviews were selected in this research because of certain characteristics pertaining to facilitating conscious awareness among CCNs. The environment created an openness for verbalising and expressing emotions that might not surface by using other techniques of questioning (Krueger 1994:11). Participants disclosed various perspectives and exchanged experiences, attitudes and views, thereby generating a dynamic amount of information.

In the planning of the focus group interviews, the researcher considered the following pertinent aspects:

- planning of the environment
- preparation of the questions to be put to the group

Two focus group interviews were held, with five participants in each focus group interview, as three participants cancelled on the morning of the scheduled date, and two male participants, who did not cancel, were not present at either of the focus group interviews.

2.5.3.1 Application of the focus group interview

In this section the planning of the environment and the questions will be addressed.

- **Planning of the environment**

The planning of the environment included the following: creating a quiet environment away from the hospital, with comfortable chairs arranged so as to maintain eye contact and equal spaces between the participants (Krueger 1994:48). This venue was not attached to any of the five participating hospitals but situated within a convenient distance of 5 to 10 km from all these hospitals.

In this research the focus group interview was conducted in an informal conference room with a one-way mirror. To ensure that every participant was clearly videotaped, the video operator was beyond the one-way mirror, so as not to distract the participants with the swinging of the camera. Telephones were taken off the hook. A notice stating that a group interview was in session was placed outside the door, to minimise noise which could distract and influence the focus group interview process. The researcher used extensions and electric cords to place the audio cassettes close to the participants, so that clear audiotaping from each participant was maintained throughout the interview process. The researcher and assistant collected field notes while maintaining eye contact so that pertinent factors were jotted down.

- **Planning of the questions**

A literature search was done which enabled the researcher to construct specific questions in a sequence of importance. Ten questions were planned, with the aim of adding or reducing the number of questions to be asked, depending on the information emerging during the focus group interviews. Steward and Shamdasani (1990:62) state that the more homogeneous the participants are in the focus groups, the sooner they will work through a large number of questions, reaching saturation sooner than a heterogeneous group.

Qualitative data are obtained through focus groups by asking open-ended questions. The researcher wanted to collect new ideas and create new associations from answers in response to specific questions. These influenced mental images that opened up perceptions and perspectives of participants relating to specific issues in the CCUs. The literature review was

used as a guide to direct the line of questioning. Questioning and the kind of discussions that occurred in the focus group interviews were conducted as follows:

- **The opening question**, which served to identify similar characteristics. *Do you experience stress in your work situation? Tell me about it.*
- **An introductory statement/question** allowed for interaction and mutual acknowledgement amongst the participants. It was acknowledged that the work of CCNs was extremely stressful and could lead to burnout, acute stress disorder or PTSD. The participants' rights to self-determination, privacy, anonymity and confidentiality were respected and participating CCNs were not forced to divulge any information if they felt uncomfortable doing so.
- **Transition questions** linked the introductory questions to the key questions, providing pertinent information, such as:
  - *Are you conscious/aware that you are having these feelings?*
  - *How do you know that you are experiencing severe stress*?
- **Analysing questions** created closure and allowed for reflection and introspection, thereby focusing on pertinent aspects for data analysis. These included:
  - *What happens in the work environment?*
  - *What happens in the personal environment?*
  - *How do you cope or handle stress in your work situation?*
  - *How do you take responsibility for your "self care"?*
- **Summary questions** evolved out of the discussion and were further critically analysed by the participants.
  - *What does your employer do to help you cope with stress?*
  - *How do you feel about the employer's assistance in this regard?*
- **The final question** was asked at the end of the focus group.
  - *Is there a need for stress management programmes in your hospital?*
  - *What can CCNs do to overcome severe stress or prevent the development of PTSD?*
  - *What do you understand by resiliency?*

A brief overview of the aim of this research was given. Concluding questions were asked, such as *Have we overlooked any information or aspect?*. Timing was critical and participants were

warned at least ten minutes prior to the conclusion of the focus group interview (Krueger 1994:54).

A list of possible questions was shown to critical care nurses not included in the research, to enhance reliability, trustworthiness and the correct interpretation of questions, avoid ambiguities and ensure that the questions were formulated in a nonthreatening manner (Steward & Shamdasani 1990:66). The questions were typed on different colour paper to identify specific questions as opposed to general questions to facilitate prioritising questions during the focus group interviews.

- **Focusing on the topic**

The researcher carried out an in-depth analysis of the topic and the sequence of the questions was predetermined. Open-ended questions were used, appearing to be spontaneous but derived after much reflection, and were arranged in a logical, rational sequence. A unique element of focus group interviews is the absence of coercion by the moderator to make the participants reach consensus. The discussion was facilitated by the moderator, who kept each group's attention focused on their perceptions, views, feelings, attitudes, values and religious beliefs concerning the critical care environment (Krueger 1994:20).

2.5.3.2 Moderator training and preparation

The moderator acted as the group leader during the focus group interview. This role varied in accordance with the type of group. The challenges faced by the leader were to analyse the needs of the situation and characteristics of the group and maintain the most suitable leadership style. The moderator can be the researcher, according to Steward and Shamdasani (1990:69), and was in this case.

The researcher chose to be the moderator in this research, because she had a clear understanding of the nature of the problem, and she was knowledgeable about the background information as she had conducted a literature search and identified the relevant concepts such as conscious awareness, debriefing, stress and post-traumatic stress. The moderator and the strategy for concluding the interview need to be suited to the objectives of the research and the characteristics of the group members (Steward & Shamdasani 1990:73).

Steward and Shamdasani (1990:70) state that "moderators have the difficult task of dealing with dynamics that constantly evolve during a focus group discussion". They must know how to handle the "rational man" syndrome, in which respondents give the "right" or "socially acceptable" answer. The researcher must have insight into effective interviewing techniques, leadership skills and group dynamics, together with a fair amount of understanding of the research problem. The effectiveness of moderating depends on the preparation of the moderator, the process of moderating and analysis of data, as well as the unforeseen consequences of moderator performance (Steward & Shamdasani 1990:70).

◆ **Choice and role of assistant moderator**

In this study the researcher carefully selected the assistant moderator according to specific criteria. The assistant moderator:

- was skilled in the technique of focus group interviewing
- was not known to the participants
- was an experienced qualitative researcher
- had the skills of listening and probing
- was knowledgeable about the aim and objectives, as well as the questions to be asked during the focus group interviews (Morse 1991:227)

The role of the assistant was as follows:

- Preparation of the venue included arranging facilities for the recording of field notes, providing refreshments to participants, lighting and ensuring comfortable seating. The researcher and the assistant discussed specific pertinent aspects, namely the objectives of the focus group interview, the process, the sequence of questioning and the responsibilities of the assistant.
- The assistant moderator asked additional questions or probed for a specific response. The assistant noted the participants' body language during the discussion (Krueger

1994:104). A second set of eyes and ears increased the amount of information and the reliability and trustworthiness of the collected data (Krueger 1994:104).

After completion of the planning phase, implementation took place. This included the following:

2.5.3.3 Implementation of the focus group interviews

The researcher acted as the moderator and was assisted by an assistant moderator.

- **Participants**

The researcher conducted two focus group sessions which consisted of five participants each. Participants were not coerced into entering the research project. The researcher therefore anticipated that not all 13 prospective participants who responded by letter and validated their responses telephonically would turn up for the focus group interviews. The number of participants in both focus group sessions was, however, reduced due to unforeseen circumstances. Two participants telephoned on the morning of the focus group interviews and cancelled for personal reasons. Two male participants did not attend the focus groups interviews but failed to cancel.

The objectives of the focus group interview and significance of the research were explained. Participants were made aware that each individual contribution would be significant and relevant to this research (Steward & Shamdasani 1990:201). All participants would be protected from public disclosure. No hospital or person would be identified by name in the research report. All participating CCNs were reassured that there were no right or wrong answers to any question but the CCNs' lived experiences were vital to provide some insight into the stresses CCNs encounter in their daily working lives.

(a) Environment

The venue was easy to find. The environment was neutral and physically distant from the participants' places of employment, free from distractions and stimuli. Posters were removed

from the walls. Chairs were arranged with participants facing one another and an oval table enabled participants to feel free and sit comfortably. Eye contact was possible between all the participants as they were equally spaced around the table (Krueger 1994:88).

A nonthreatening environment was ensured by welcoming participants, explaining seating arrangements, and introducing the assistant moderator and the participants to one another. Name plates with the first name and number were given to the participants, thereby ensuring anonymity and confidentiality. Interviewees were reassured that the first names would be switched for a number allocated when data were transcribed. The reassurance was given that the data would be used purely for the aims of this research. With this assurance the participants were invited to freely participate in the discussion as they were important contributors to the research.

The audio cassette recorders were tested, but one failed to function. A video recording was used as a backup system. Consent was obtained for the use of the audio and video recordings, as well as the verbatim transcriptions that were made from the audio and video recordings. Participants were reassured that the audio and video tapes would be destroyed after the data analysis had been completed. Until such time as this had been done, the tapes and transcriptions would be kept locked up. Only the researcher and the data analyst would be able to use the transcriptions. Even though this access was extremely limited the particpating CCNs' names had been changed so that no person would be identifiable from the transcribed raw data.

(b) Field notes

Field notes were an important data collection technique. Non-verbal responses and gestures made by the participants as well as interactions between participants were jotted down in conjunction with verbal responses, augmenting pertinent information relevant to the research. This was done in accordance with the recommendations of Woods and Catanzaro (1988:331). Participants who were bored, insecure or anxious were observed and recorded in the field notes, which were analysed with the transcriptions of the audio and video recordings (Krueger 1994:147).

The assistant handled the cards with the questions in exactly the same order as the asking of

questions. Field notes were made in accordance with the pertinent aspects of each question. The sequence in which participants discussed certain aspects were recorded. Non-verbal behaviour was recorded; for example, “number 2 appears bored and uninterested”, or “number 5 is very comfortable”. Other information that was pertinent to the research was also recorded, such as two-way conversations held between two participants at any specific time during the focus group interview.

Field notes were invaluable during transcription of the interviews and during data analysis. The sequence which questioning followed assisted transcription when the speakers on the audio recorders were not clearly audible and one of the audio cassettes was faulty.

(c) Group dynamics

During the focus group interview the assistant moderator developed a sociogram in order to interpret the dynamics between the group members. A cue was given to the researcher when it was seen that one of the participants was not interacting. Group dynamics were maintained to enhance interaction and communication processes between the participants (Bernard & Walsh 1990:23; Quinn 1995:31, 144).

The assistant moderator recorded specific interactions, such as communication between the members, and supplying of words that could not come to mind by other participants. Field notes recorded the group dynamics during the focus group interviews and are included as Annexure A.

(d) Communication strategy

The moderator tried to create an atmosphere of trust and openness from the very beginning. Anonymity and confidentiality were reassuringly explained. Ground rules were explained and a typical opening was made by personal introductions and providing information about each participant him/herself (Steward & Shamdasani 1990:92). The moderator introduced the topic in a “general sharing of experiences” manner (Steward & Shamdasani 1990:94).

The moderator was sensitive to and aware of the nonverbal cues exchanged by the participants.

Facial expressions and body language indicated whether the person wanted to verbalise, disagree or was uncertain about any aspect and the moderator had to be skilled to recognise these cues and respond appropriately. Trustworthiness and reliability of the research depended on the correct interpretation of data (Steward & Shamdasani 1990:94). The following communication techniques described by Okun (1987:76-77) were used:

- encouragement by nonverbal techniques such as head nods and eye contact
- minimal verbal responses, such as "yes" and "uh-huh"
- paraphrasing a statement or repetition by the use of a synonym
- following up open-ended contributions by questions from the moderator such as "What?" or "Tell me more"
- reflection, by asking, "Do I understand you correctly?", thereby ensuring reliability of data
- summarising the most important cognitive and affective themes at the end of each focus group interview

Recording the participants on videotape was restrictive, especially when recording all the respondents' behaviour including close-ups of the individual and facial expressions. A coding system for behaviour was developed in advance so that the video recording operator knew what to record and how to record specific behaviours. The moderator used paraphrasing, reflection, pausing and probing (as discussed by Leininger 1995 and by King 1984 in Steward and Cash 1988:18-28).

The researcher, who was also the moderator, used the following techniques:

- She anticipated the flow of the discussion.
- She encouraged the participants to be honest.

The moderator clarified the concepts relevant to the research: these were conscious awareness and debriefing.

The following research questions were posed to the participants:

- "Please describe how CCNs' levels of conscious awareness can be enhanced."
- "Please identify and describe the current situation in critical care nursing regarding debriefing".

Data were collected according to the designed protocol (see Annexure A).

(e) Time management

The moderator was aware of the time schedule. A large amount of information needed to be recorded mentally or written down, by dealing with one issue at a time until data were saturated, and then proceeding on to the next issue (Steward & Shamdasani 1990:95). Nonverbal responses and gestures made by the participants whilst being audio- and videotaped were jotted down in conjunction with verbal responses, as well as behavioural responses from the video recordings. This augmented pertinent information relevant to the research and was done in accordance with the time allocated for the group interview.

(f) Recording the group discussion

The focus group participants were told about the audiotapes and videotape recordings and that observers were present. The assurance was given that all information would be treated confidentially and anonymously. No force, coercion or manipulation was used prior to or during the focus group interviews (Steward & Shamdasani 1990:92).

Both focus group interviews 1 and 2 were recorded on the audio cassette recorders to ensure that no data would be lost. Two audio recorders were used. Tapes, which were 90-minute tapes, were turned over after 45 minutes by the assistant operating the audio recorders. One tape recorder worked with batteries and the other with electricity. Both the audio cassette recorders were tested prior to the arrival of the participants, but one audio cassette recorder failed to function during the first focus group session.

Video recording from behind a one-way mirror avoided disruptions of the discussions (Morgan 1988:62). The use of a video recording allowed the information obtained to be triangulated with visual material and with findings from the field notes (Morgan 1988:62).

Transcriptions were done by a person skilled in dictaphone typing. The researcher recognised participants' voices and checked these against the field notes and the video recording. The sentence construction, language errors and stuttering were transcribed as audiotaped. These verbatim transcriptions constituted the raw data of the focus group interview and are included as Annexure A to this thesis.

(i) Advantages of video recordings

Video recording for later coding was essential in this research, as the researcher could play the videotape in slow motion so that brief events could be recorded. Behavioural processes could be coded in more than one way. If the researcher had omitted any code or made any coding error, she could make corrections at later stages while viewing the video recording and comparing these observations with the field notes and the transcriptions from the audio recordings.

(ii) Disadvantages of video recordings

- Video recording, video operators, camera equipment are expensive.
- Video tapes are expensive.
- They can be intrusive in the environment. In this research this was limited by using a video recorder from behind a one-way mirror which was invisible to the participants, although they had consented to the video recording and were thus aware of its operation.
- Not all behavioural images can be caught on video recording (Woods & Catanzaro 1988:280).

The researcher conducted the focus group interviews at a venue where a video recorder was available behind a one-way mirror. Good quality video tapes were used. Not all behavioural images were caught on the video recording, as participants moved about. As some of the participants cancelled on the morning of the sessions, the groups were smaller than anticipated. However, informative data were obtained by triangulating the audiotapes with the video recordings.

2.6 ETHICAL CONSIDERATIONS

The position paper of the South African Democratic Nursing Association (DENOSA) (1991:1-5) on ethical standards for nurse researchers was followed in this research and included:

2.6.1 Quality of the researcher

The researcher and the promoters maintained the highest possible standards. The researcher engaged in the research being aware of the possible influences of personal biases and subjectivity. The research was assessed by highly skilled and specialised nursing researchers to identify potential moral and ethical issues to be addressed during this research.

2.6.2 Consent

Written informed consent was obtained voluntarily without duress, coercion or bribery. The aims, objectives, methods, and duration of the research and participation needed were described to the participants. During the discussion, first names were used. Names were then replaced by numbers in the transcriptions.

2.6.3 Privacy

The researcher conducted the research in a nonjudgmental manner. All information obtained was treated in a confidential and private manner. Anonymity was protected as all raw data were destroyed after compilation of the final thesis. No participant and/or group and/or institution was named in the research report which presents the research findings from all the participating CCNs from all five participating hospitals combined.

2.6.4 Protection of the rights and property of the participants

The rights and property of the participants were protected at all times. In this research the perceptions, views and attitudes were protected from public disclosure. The utmost confidentiality was maintained at all times.

2.6.5 Right of termination

Any member could terminate his or her participation despite having provided consent to participate, without suffering any negative consequences whatsoever. A few CCNs did not turn up for the focus group interviews. In some cases the researcher was informed telephonically on the morning of the session; in other cases no excuses were offered.

2.6.6 Data

The researcher assured all participants that all data collected would be destroyed after the data had been analysed and the research report compiled. No person, except the researcher and the data analyst, would be able to access the raw data. Even the transcriptions of the raw data contained no names, only numbers of participants.

2.7 TRUSTWORTHINESS OF THE RESEARCH

Guba and Lincoln's (1985:231) model of trustworthiness was utilised to ensure validity and reliability.

2.7.1 Criteria for trustworthiness

The four aspects of trustworthiness comprise truth value, applicability, consistency and neutrality (see Table 2.1 for application of strategies that ensured trustworthiness in this research).

2.7.1.1 Truth value (credibility)

Truth value was the first criterion used to assess to what extent the findings provided a true representation of current occurrences as described and experienced by the CCNs. The criterion for establishing truth value was credibility, and was vouched for by the following:

- Prolonged engagement, the trust prevailing between the CCNs because they work as a

team for many hours, peer examination, the interview technique, establishing the authority of the researcher, structural coherence and referential adequacy (see Table 2.1) all assured credibility. When using focus group interviews the researcher made use of the fact that the understanding of other people and their interactions depend on a number of interpretive skills which might be learnt and exercised unconsciously (Minichiello, Aroni, Timewell & Alexander 1990:61).

2.7.1.2 Techniques of trustworthiness

The techniques used in this research to enhance the trustworthiness of the research results included triangulation, member checks, transferability and confirmability.

(a) Triangulation

Triangulation includes multiple investigators, multiple theories, sources of data and multiple methods to conform with the emerging findings (Guba & Lincoln 1985:306).

◆ **Multiple investigators**

The researcher was the only investigator but she utilised an independent assistant moderator and co-analyst at different phases of the research (Guba & Lincoln 1985:301). The promoter as well as the joint promoter were also involved in the research from the initial planning phase until the final report.

An independent researcher was utilised to validate and confirm the analysis from the findings of the focus group interviews and to assist with the coding using the QSR NUD*IST 4.0 program, together with an experienced nurse researcher. Final conclusions were reached after joint discussions between the researcher and the coder.

◆ **Multiple sources of data**

The researcher utilised multiple sources for the exploration and description of the literature review, conceptual framework and the model. Several national and international published and

unpublished primary and secondary sources were referred to (see bibliography). Many sources on conscious awareness, stress, burnout and PTSD were utilised. The CCNs and the critical care environments in the various hospitals, as natural settings, were multiple sources utilised to provide evidence/data. A panel of experts was utilised as a source of evidence in the evaluation, testing, validation and refinement of the framework which was developed on the basis of the research results.

◆ **Multiple methods**

Guba and Lincoln (1985:306) describe triangulation by multiple methods.

- Focus group interviews of CCNs were proposed to explore and describe how CCNs' conscious awareness could be raised.
- Direct observations by the researcher during the focus group interviews constituted another method, validated by field notes and video tape recordings.
- Contact sessions between the researcher, promoter and joint promoters enhanced trustworthiness and truth value.
- Evaluation criteria by Chinn and Kramer (1991:138-139) were also used to enhance trustworthiness of the research.

(b) Member checks

Member checking refers to a process whereby data obtained from the participants are referred back to the participants for evaluation and validation of data obtained during the focus group interviews in Phase I of this research. Inaccurate or unclear findings, interpretations and presentations were corrected and clarified prior to compiling the final research report.

(c) Peer examination

The research process and the outcomes of the research were discussed with a colleague who is an experienced researcher, and with the promoters from its inception to the final outcomes.

(d) Authority of the researcher

The researcher had undergone a postgraduate educational programme in research methodology and critical care nursing. The researcher had completed a Masters degree and acquired previous experience of qualitative research. Supervision by two promoters enhanced the objectivity and trustworthiness of the research.

2.7.1.3 Applicability (transferability)

The term "transferability" or "external validating of research" is concerned with the outcomes of a specific research. Guba and Lincoln (1985:298) support providing sufficient descriptive data, that is a thick or a rich description, with a magnitude of information so that this dense, thick description can be used by another researcher in a different research project (Guba & Lincoln 1985:16). This research was contextual, exploratory and descriptive in order to explore and describe CCNs' conscious awareness. The aims and objectives, methodology and strategy of the research were described in detail so that transferability could be possible using it as a framework for future similar research projects.

2.7.1.4 Consistency (dependability and reliability)

According to Merriam (1988:170-171), consistency refers to the extent to which the outcomes can be replicated and still represent reliable, dependable data. Human behaviour is dynamic and has various interpretations and therefore the outcomes of one research project might not necessarily be able to be replicated in similar subsequent research projects.

According to Merriam (1988:170-172), the following strategies enhance consistency:

- a description of the metatheoretical and methodological assumptions (refer to Chapter 1)
- triangulations as discussed in this chapter
- an audit trail, including the following records: raw data, field notes, data reduction and analysis and protocols, designs and strategies

Characteristics which enhance trustworthiness of the researcher:

- familiarity with the phenomenon and environment
- interest in conceptual or theoretical knowledge
- experience in qualitative skills (Naude 1995:39)

2.7.1.5 Confirmability (neutrality)

Neutrality refers to the objectivity of the data, and Guba and Lincoln (1985:318-319) state that the technique for establishing confirmability is the audit trail, during which an inquiry audit is conducted. The following records were included in this research:

- raw data (field notes from the focus group interviews)
- data analysis and summaries
- outcomes and conclusions
- protocols, designs and strategies

The following annexures to this thesis are available to any other person wishing to conduct an inquiry audit:

- questions posed to the focus groups; field notes, analysis and conclusions
- the research proposal for intention and disposition purposes (Guba & Lincoln 1985:318)

Merriam (1988:172-173) indicates that the audit trail includes the details of how the data were collected, how categories were derived and how decisions were reached through inquiry. In this research the research methodology, design methods and strategies were discussed to enhance consistency and reliability of the research results.

The preceding discussions of the concept of trustworthiness apply to both phases of the research. Where additional aspects emerged, appropriate to a specific phase, the researcher incorporated such specific aspects of trustworthiness in the research report for that specific phase.

Table 2.1: Measures for ensuring trustworthiness

STRATEGY	CRITERIA	APPLICABILITY
· Credibility	· Prolonged engagement	· The researcher worked for many hours with the participants. · Understanding and interaction at grass-roots level enhanced credibility of CCNs' perceptions.
· Triangulation	· Multiple investigators · Multiple sources · Member checks · Peer examination · Authority of the researcher	· The researcher utilised independent researchers, a promoter and joint promoter from the initial planning phase to final report · Focus group interviews, an audio and a video recording as well as field notes were used as data collection methods. · Follow-up interviews were done with CCNs. A literature control regarding conscious awareness was done. · The research was discussed with a colleague, a supervisor and joint supervisor and two independent researchers. · The researcher had a Master's degree and acquired experience in qualitative research; attended methodology workshops.
· Applicability and transferability	· Sample · Dense description · Peer evaluation · Code-recode procedure	· A purposive sampling method was used. · Peer checking by colleagues and supervision by experts. · Independent checking by colleagues and supervision by experts. · Consensus discussion between the researcher and independent coder.
· Consistency and dependability	· Audit trail	· Full description of research methodology was provided.
· Confirm-ability	· Audit trail	· The researcher utilised raw data from the focus group interviews with CCNs. · Data analyses and conclusions were formulated.

(Guba & Lincoln 1985:306)

2.8 RESEARCH METHOD AND INSTRUMENT: PHASE II

Phase II of the research process involved conducting interviews with nurse managers to confirm/refute CCNs' perceptions portrayed during focus group interviews. Initially the data obtained from the interviews conducted with the nurse managers had been presented as a separate chapter of this thesis. However, numerous duplications arose. After consulting with a number of nurse researchers and authors, it was decided to present the information obtained from the nurse managers in the same chapter as the data derived from the CCNs' focus group interviews so that data from these two groups of participants could be compared and contrasted in meaningful ways. This section explains the objectives, population, sample, sampling method and trustworthiness pertaining to Phase II of the research process.

The objective of Phase II was to describe the perceptions of nurse managers as they reflected on CCNs' experiences disclosed during focus group interviews.

◆ Individual interviews

Individual interviews as described by Polit and Hungler (1993:437) were conducted in this phase of the research.

(a) Description of the individual interview

Polit and Hungler (1993:437) describe an individual interview as an unstructured or semi-structured interview in which the interviewer guides the participant through a set of questions focusing on a topic. General questions and topics were posed and the participants relate their experiences (Burns & Grove 2001:307; Miles & Huberman 1994:47; Morse & Field 1996:26-27). The intention is to avoid "yes" or "no" responses. According to Holloway and Wheeler (1996:148), individual interviews may be effectively used alone or in conjunction with focus group interviews.

(b) Application of the individual interview in this research

A semi-structured interview schedule (see Annexure B) was used in this research to interview eight

nurse managers who supervised CCNs at five hospitals in the Pretoria region. The questions related to findings explored and described during the CCNs' focus group interviews. Two of the participants were active in Employee Assistance Programmes and one other participant was a personnel recruitment officer.

◆ **Method of selection**

- Nurse managers from five private hospitals of Tshwane were selected for this research due to the inclusion of CCNs from these hospitals.
- A letter, explaining the relevant aspects of this research project, was delivered by hand to each nurse manager from the participating five hospitals.
- Due to the nonresponsiveness of the nurse managers, one week later the researcher telephonically obtained voluntary consent and scheduled a 20-minute appointment with each nurse manager.
- Three other senior professional nurses volunteered to participate in this research as they found the topic to be challenging and interesting.

◆ **Selection criteria**

Identified nurse managers were selected according to the following criteria:

- Nurse managers could be of either sex; however, in this research, only female nurse managers participated.
- They had to be employed full-time, with a minimum of five years' experience in critical care nursing.
- They had to be registered with the SANC.
- They had to voluntarily consent to participate in the research.
- They had to speak English.

◆ **Significance for this research**

Phase II of this research focused on reflections of nurse managers on data obtained from the focus group interviews with CCNs.
Assurance was given to the nurse managers that the ethical considerations described in section 2.8 would be maintained at all times. The interviews were audiotaped and no tapes would be released to anyone. Only the researcher and the data analyst had access to the audio and video tapes and to the transcribed materials. These were kept under lock and key and would be destroyed once the research report had been finalised.

All the individual interviews were recorded. The researcher labelled the audiotapes for coding. Each tape was listened to several times. A transcription of the interviews was made.

Field notes were made immediately and included pauses, interesting remarks and contradictions.

◆ **Data analysis**

The data analysis procedure was as follows:

- Key ideas, phrases, and actual quotes were highlighted and were categorised.
- Ideas and keywords were placed in these categories or units.
- Categories and subtopics were clustered.
- Data that did not contribute to the categories were eliminated.
- Meanings were given to statements and formulated in order to develop understanding and insight.
- Each interview was reviewed repeatedly, after which the responses to individual questions were transcribed manually to allow for structure of the data.
- The data were organised to highlight recurrent regularities and variations of data collected.

Questions asked in individual interviews were as follows:

1 Does conscious awareness exist and does nursing management acknowledge that the:

a *CCU workplace stress is a reality?*

b *problem is getting worse?*

c *problem can and must be addressed?*

2 *How does nursing management manage emotional reactions of CCNs?*

3 *Does anyone recognise the kinds of decisions nurses make in ICU?* (Probing questions/explanations included whether nurse managers, doctors and/or patients' relatives do recognise the complexity of decisions made by CCNs. These CCNs might perceive a lack of support from nurse managers and a lack of respect from doctors. The CCNs might also require greater expertise to enhance their levels of autonomy as team members.)

4 *Recruitment and retention of CCNs are major problems in South Africa due to the emigration of nurses. Factors such as lack of acknowledgement, poor remuneration and doctors' attitudes to CCNs in stressful ICU environments could contribute to the loss of skilled ICU nurses from the RSA. How do you perceive this issue?*

5 *How do CCNs deal with their own experiences when a patient dies or other traumatic incidents occur? What supportive strategies are in place at the workplace?*

6 *Are there written policies concerning any supportive strategies for CCNs?*

7 *Who are the people who counsel/support/debrief the CCNs?*

8 *How can CCNs' and nurse managers' resiliency be enhanced?*

9 *Who supports nursing management?*

The above list of questions is also shown in Annexure C.

2.9 CONCLUSION

This chapter addressed the aim, objectives and rationale of this research project and attempted to deal with elements of theory building such as concepts, statements and theories. Analysis, synthesis and derivation are approaches used for theory building. Data collection and analysis were also described. Implementation of ethical standards was maintained. Reasoning strategies were discussed as well as the evaluation and refinement of the framework.

The following chapter describes the research results of Phases I and II and compares and contrasts these results with those reported in the literature reviewed.

Chapter 3

Research results, findings, statements and supporting literature

This chapter describes the qualitative findings of the research, including the results of the focus group discussions, field notes and individual interviews. The data analyses are discussed with reference to literature in the preceding chapters relevant to the research findings. The data analyses provide greater clarity on the facilitation of conscious awareness among critical care nurses.

Attention is drawn to the following significant aspects of the different categories, subcategories and sub-subcategories that follow:

- Statements contained in the individual categories were made, and are quoted, in relation to the facilitation of conscious awareness among CCNs.
- Categories and subcategories were derived from the raw data. Literature support was obtained after categories and subcategories were established.
- Statements are quoted without being edited, with the result that language, style and grammar may be colloquial and non-academic.
- For the sake of clarity, Table 3.1 depicts the categories, subcategories and sub-subcategories obtained from open coding of data from the sample of CCNs. The same data texts are sometimes found in different categories, if categories overlap.

3.1 INTRODUCTION

The objective of this chapter is to explain the findings of the research. A comprehensive description of the coding approach and research methodology was given in Chapter 2.

The findings are discussed in the light of previous research findings in order to identify similarities and differences between this research and previous research. A comprehensive literature review is included in this chapter to support specific findings.

3.2 DISCUSSION OF RESULTS OF THE QUALITATIVE DATA

The discussion focuses on facilitating conscious awareness among critical care nurses. Findings of this research are divided into major categories and subcategories and will be discussed under the following headings:

- Results
- Statements
- Supporting literature

The findings of this research are divided into five categories, namely:

(1) Perceptions about stress
(2) Stress experiences
(3) Needs of CCNs
(4) Contributory factors to stress in the critical care environment
(5) Effects of stress

Table 3.1: Summary of major categories, subcategories and sub-sub categories obtained from coding of data from the sample of CCNs

CATEGORY	Subcategory
(1) Perceptions about stress (3.2.1)	· Eustress or distress (3.2.1.1) · Stress measurement (3.2.1.2) · Physical and emotional symptoms (3.2.1.3) · Personality type (3.2.1.4) · Inability to function (3.2.1.5)
(2) Stress experiences (3.2.2)	· Critical care environment (3.2.2.1) — Physical environment (3.2.2.1.1) — Psychological environment (3.2.2.1.2) · Frequency/intervals of pressure (3.2.2.2) · Inevitability (3.2.2.3) · Circumstances (3.2.2.4) · Role uncertainty (3.2.2.5)
(3) Needs of critical care nurses (3.2.3)	· Operational support systems (3.2.3.1) — The environment (3.2.3.1.1) — Resources (3.2.3.1.2) · Emotional support systems (3.2.3.2) — Critical incident stress debriefing (3.2.3.2.1) — Supportive interrelationships (3.2.3.2.2) — Communication (3.2.3.2.3) — Assertiveness (3.2.3.2.4) — Teamwork (3.2.3.2.5)
(4) Contributory factors to stress in the critical care environment (3.2.4)	· Interpersonal relationships (3.2.4.1) · Patient profile (3.2.4.2) · Workload (3.2.4.3) · Demands (3.2.4.4) · Lack of trained personnel (3.2.4.5) · Shift work (3.2.4.6) · Absenteeism (3.2.4.7) · Family factors (3.2.4.8) · Doctor-nurse relationships (3.2.4.9) · Migration of nurses (3.2.4.10) · Cultural diversity (3.2.4.11)
(5) Effects of stress (3.2.5)	· The perception of control (3.2.5.1)

3.2.1 Perceptions of stress

This category refers to data obtained form participants about their perceptions of stress. Sub-categories further emerged from the data indicating how nurses perceive stress in the CCUs. The subcategories (as indicated in table 3.1) will be discussed.
A person's response to any stressor will be influenced by his or her perception of that event and the ability to process the experience, attach meaning to it and integrate it into existing belief systems, to act positively, and to adapt to it (Rutter 1985:597). Resilience does not lie in the avoidance of stress, but in dealing with stress in an appropriate, responsible and confident way. However, findings indicate that developmental links play a significant role in the prevention of and therapeutic intervention in stress management (Rutter 1985:597).

Negative affect as a response to unpleasant emotions and pessimism could account for a personality style such as hardiness. The hardiness theory predicts a strain reaction that differentiates itself from negative affectivity at the level of measurement. The hardiness questionnaire's results might indicate the resiliency of individuals as reflected in the dimensions of commitment, control and challenge (Maddi & Khoshaba 1994:274).

Vulnerability is expressed by the use of ineffective and maladaptive coping patterns that lead to immuno-suppressive behaviours. Adverse life experiences reflect personal involvement in negatively perceived circumstances. Such experiences include negative life events, social identities and strains in interpersonal relationships. The person is more likely to experience adverse life circumstances if adequate personal coping patterns are lacking. The inability to control distressful circumstances, or the dysphoric affect that accompanies such experiences, is reflected in the characteristic use of inadequate or maladaptive coping patterns.

Some of the major tenets of stress theory include the following:

- Stress is neither an external stimulus, nor an internal response, nor an intervening variable, but a general label for a whole area of problems that include the stimuli that produce stress reactions and the processes that intervene between the stimuli and responses.
- Psychological stress is distinguished from other types of stress by the intervening variable of threat that leads the person to anticipate some harmful condition.
- Areas about the harmful condition are assessed by cognitive processes of appraisal. The first level of appraisal determines whether a threat exists and whether or not the person is under stress, the second level of appraisal assesses and directs coping mechanisms (Rapa 2000:49-53).

Perceptions of stress will be discussed under the following five subcategories:

- Eustress or distress (3.2.1.1)
- Stress measurement (3.2.1.2)
- Physical and emotional symptoms (3.2.1.3)
- Personality (3.2.1.4)
- Inability to function (3.2.1.5)

3.2.1.1 Eustress or distress

- **Results**

Participants related their perceptions about stress and vaguely described eustress (good stress) as being able to cope with stressors within an adrenaline flow, and distress (bad stress) as being unable to cope with stress. The majority of the participants experienced their work environment as posing challenges and being stimulating, whereas other participants regarded the work environment as being a high-risk environment where they were exposed to internal and external stressors on a daily basis. Anxiety states caused an inability to function

effectively and efficiently.

➢ **Statements**

CCNs made the following statements regarding eustress and distress:

> (*Vir my is daai tipe stres, 'n goeie stres. Ek leef op daai stres, op daai adrenalien.)*
> *For me that stress is a good stress. I live on that stress, on that adrenaline.*
>
> *I think there is a difference between good stress and bad stress, hmmm, keeps you on the go, keeps you going, it makes you, you know, you keep deadlines, you keep going.*
>
> *I think, hmmm, bad stress is what comes out in you physically, you know, you are inevitable, you know, you scream at people, may be".*

➢ **Supporting literature**

Cooper (1999:540) states that the meaning of the concept "stress" is unclear and there is no specific universal acceptance of this meaning. Cox (1978) adds that stress is comprehended by all when used in a general context, and by few people when used in a specific context (Cooper 1999:540).

Stress is not entirely bad or good; Selye (1974) distinguished between good, growth-producing stress, also known as "eustress", and bad or harmful stress known as "distress". Moderate amounts of stress could be significant stimuli or growth-producing challenges for some people. A certain level of stress is

necessary for people to function productively.

However, Buggy (1999:26) describes individuals who feel driven, focusing on work only and mentally preoccupied with work, unable to switch off. These individuals develop physical and emotional symptoms because they experience stress as distress. Everly and Lating (1995:3) maintain that excessive stress (distress) and its various physical manifestations account for more than 80% of all visits to health-care professionals. Distress also accounts for approximately 14% of all occupational disease workers' compensation claims, while the benefit payments for stress-related disorders average more or less twice those of physical disorders. The authors describe excessive stress as a plague to health-care workers and to society.

Buggy (1999:26) discusses how people could be unaware that they might be forcing their bodies and minds to their absolute limits, misunderstanding the flow of adrenaline for energy. This author adds:

> ... It's a jungle out there in the workplace, only the strongest survive ... In order to remain competitive and survive the workplace, we drive and push ourselves into an endocrinological state that profoundly impacts on our mind and body system ...When adrenaline and all the other chemicals that are released to enhance our performance are triggered and flood our system, we get a quick fix to help us cope and it affects our whole system. The problem is in too many quick fixes which gets us literally hooked on our own adrenaline. It becomes a habit and we become stuck in a groove, perpetually pushing, perpetually buzzing, caught in an endless series of temporary highs.

Stress is a complicated, individualised and personal experience (Mitchell & Everly

1996:18). As we have pointed out, Selye (1974) refers to positive, motivating stress arousal as eustress, and stress which leads to dysfunction or disease as distress. He is of the opinion that not all stress is bad; in fact the absence of stress may lead to death. Strümpher (1999c:7) associates distress with physical disease and dysfunction, which result in absenteeism in the workplace.

Not all people experience stress equally. Veith (1997a:30) contends that while critical incidents may affect only one or two individuals, other events may affect everyone in the situation. Mitchell (1983:36-38) refers to studies in which 85% of personnel who experienced acute reactions recovered within a few weeks, while others took several months to recover from critical incidents. However, 2% to 4% experienced harmful emotional symptoms that affected their jobs, their families and themselves.

People who are naturally more anxious, uncertain, dependent, non-assertive, or inflexible are apparently less likely to cope with stressful events in their lives than others (Allan, Robertson, Orr & Levenstein 1999:138). Disasters for one individual might be perceived as challenges by others, depending on their cognitive perceptions (Allan et al 1999:138).

3.2.1.2 Stress measurement

- **Results**

Difficulty in measuring stress has a subjective meaning for many CCNs; their perceptions of stress indicate that stress is difficult to measure and cannot be understood or controlled by the quantity experienced.

Measuring the amount of stress is difficult, since CCNs perceive, react and interpret critical incidents differently and are affected in various ways (Harvey 1996:4; Walker 1990:121).

Events that are interpreted and understood by CCNs and other health-care workers who have experienced similar critical incidents will change their perceptions on life and how stress may be measured and the abilities for coping or non-coping (Harvey 1996:4).

- **Statement**

> *How do you measure the stress you know, you can't say ... but you only work twice a week, you can't have stress. You work six days a week, you can have stress, hmm, you do, but how do you measure the stress.*

- **Supporting literature**

The APA (1994:236) gives the following distinctive criteria for an acute stress disorder (see Table 3.2).

Table 3.2: Diagnostic criteria for posttraumatic stress disorder: DSM-IV

A	The person has been exposed to a traumatic event in which both of the following are present: (1) The person has experienced, witnessed or been confronted with events that involve actual or threatened death or serious injury or a threat to the physical integration of oneself and others. (2) The person's responses involved intense fear, helplessness or horror. In children this may be expressed as disorganised or agitated behaviour.
B	The traumatic event is persistently re-experienced in at least one of the following ways: (1) Recurrent and intensive recollections of the event, including images, thoughts or perceptions. (2) Recurrent distressing dreams of the event. In young children, there may be frightening dreams without content. (3) Acting and feeling as if the traumatic events were recurring (including a sense of reliving the experience, illusions, hallucinations and dissociative, flashback episodes, including those that can occur upon awakening or when intoxicated. **Note:** In young children, trauma-specific related dreams may occur. (4) Intense psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the trauma. (5) Physiological reactivity upon exposure to internal or external cues that symbolise or resemble an aspect of the trauma
C	Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following: (1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma. (2) Efforts to avoid activities, places or people that arouse recollections of the trauma. (3) Inability to recall an important aspect of the trauma. (4) Markedly diminished interest or participation in significant activities. (5) Feeling of detachment or estrangement from others. (6) Restricted range of affect, ie unable to show any emotion. (7) Sense of a shortened future (does not expect to have a career, marriage, children or a normal life).
D	Persistent symptoms of increased arousal (not present before the trauma) as indicated by at least two of the following: (1) Difficulty falling asleep. (2) Irritability or outbursts of anger. (3) Difficulty in concentration. (4) Hyper vigilance. (5) Exaggerated startle response.
E	Duration of the disturbance symptoms B, C and D is more than one month.
F	The disturbance causes clinically significant distress or impairment in social, occupational or other important areas of functioning.

Specify if:	
Acute:	If duration is less than three months
Chronic:	If duration of symptoms is three months or more
Delayed onset:	Onset of symptoms is at least six months after exposure to stressor

(APA 1994:236; Morrison 1995:269-270)

- **Maslach Burnout Inventory**

Van Servellen and Leake (1993:169) describe a survey done on 237 nurses from 18 units in seven hospitals using the Maslach Burnout Inventory. Nurses on the AIDS, SICU, oncology SICUs, medical ICUs and general medical nursing units exhibit similar levels of distress on the burnout subscales. Medical ICU nurses scored on the personal accomplishment subscales (PL 0,05). Job tension was a predictor of exhaustion (PL 0,001). Working in a medical ICU indicated that race was controlled (PL 0,05) and working in an AIDS SICU was predictive of exhaustion in a multivariate context (PL 0,05). Working in an ICU environment resulted in negative feelings of accomplishment that were independent of cultural and racial effects.

Foa, Cashman, Jaycox and Perry (1997:445) report that several structured interviews and self-report measures have been developed to diagnose PTSD or to assess its severity. Psychometric properties of the traumatic diagnostic scale assess the diagnostic criteria for PTSD in the DSM-IV (APA 1994:236). The most commonly used interviews include the PTSD Symptom Scale - Interview (PSS-1) done by Foa, Riggs, Dancu and Rothbaum (1993), the PTSD Interview (PTSD-1) by Watson, Juba, Manifold, Kucala and Anderson (1991) and referred to in Foa et al (1997:451). The Structured Clinical Interview and Diagnostic Interview Schedule provide data about the severity of posttraumatic stress symptoms. Although these psychometric tests have indicated adequate reliability and validity on combat veterans, validity and reliability for other trauma victims require further investigation in order to justify these scales on persons other than war veterans.

Laws and Hawkins (1995:32) point out that the advantage of the PTSD over other

self-report measures lies in using the criteria of the DSM-IV in the examination of psychometric properties in a large sample of male and female victims of multiple causes of trauma, as well as in the duration of symptoms, characteristics of the trauma and dysfunctions in daily living. If CCNs cannot work through the stress of the death of one patient before the next patient dies, their levels of stress might be cumulative and become unbearable. Such stress could be addressed during debriefing sessions. Laws and Hawkins (1995:32-33) state that multiple critical incidents may have a cumulative effect on a nurse's emotional psyche, making it difficult to trace the origins of psychological stress to any single event. The diagnosis of PTSD remains a complex phenomenon. Effective assessment must be completed before crisis intervention, debriefing or long-term planning and evaluation are implemented. There are clinical, financial, legal and theoretical demands for accurate diagnosis of PTSD. Misdiagnosis is costly for the individual and the health organisation.

A rating scale is used in conjunction with the semistructured interview for assessment and diagnosis of PTSD. The General Health Questionnaire - 28 (CG HQ-28) and the Impact of Events Scale (IES) are used to assess PTSD. A score of 9 or more is indicative of PTSD. A corrective assessment could lead to an effective therapeutic intervention (Finnegan 1998:218).

3.2.1.3 Physical and emotional symptoms

- **Results**

The effects of stress on physical and emotional health were described by participants as negative and were highlighted as frustration, irritability, anger, and becoming emotional, fearful, over-sensitive and temperamental.

- **Statements**

These were captured in the following statements:

I think the burnout period, it's only the ashes that's left and now to try and fix a thing that's already being burnt out, you're going to take ten times more effort to fix a person that's already being burnt out than seeing a person going through the phase on his way to being burnt out. They first wait and see that you're burnt out and then want to fix things ...

Due to the stress and things, I must tell you, there's ten times more friction. You can see every now and then, people are at each other's throats, and that's the worst because you hurt a person because of the frustrations you've got inside of you, not that you have anything against anyone.

... you damage your own persons around you.

You are irritable, you know you scream at people may be.

You don't even know who's where anymore and you have to keep your head and not forget anything, please don't forget anything.

... the temper gets shorter.

One gets more weepy ...

... and they were actually scared of me, know and well I'm not somebody to be scared of.

(Dit moet iewers uit, uitbars of uitlek, of iewers moet jou gedrag wys dat jy hierdie gevoelens het.)
It must burst or break out, or your behaviour should show that you

are having those feelings.

(Nee hulle is very highly stressed en amper hmm, die woord wat 'n mens kan gebruik gevoelig, oorgevoelig.)
No they're very highly stressed and nearly, hmm, the word one can use is sensitive, over-sensitive.

One participant relates this to pent-up physical and emotional feelings that need to be expressed:

(Dit moet iewers uit, uitbars of uitlek, of iewers moet jou gedrag wys dat jy hierdie gevoelens het.)
It must come out burst or break out, or somewhere your behaviour must show that you are having these feelings.

➢ **Supporting literature**

During the past few decades mental health professionals have gradually become aware of the stressors that negatively affect emergency personnel. As a result of this increasing awareness, several mental health professions have developed interest in emergency and critical health workers' coping strategies (Kaplan 1991:916-917).

Selye's (1974) general adaptation syndrome (GAS) is the first of a series of reactions the body exhibits when exposed to prolonged stress. This model has placed influential emphasis on stress research, owing to the provision of a general theory of physiological reactions to a wide range of stressful situations over time, and a physiological mechanism linking stress and illness (Baum 1994:653).

During a stress response, the hypothalamus is stimulated, which activates both

the anterior pituitary gland and the autonomic nervous system causing the release of epinephrine and norepinephrine. The anterior pituitary gland releases adrenocorticotropic hormone (ACTH) which is a stimulant to the adrenal cortex and allows the release of steroids or anti-inflammatory hormones. Somatotropin (STH) stimulates the adrenal cortex and causes the release of steroids that trigger an inflammatory response. The sympathetic part of the autonomic system is activated when the body reacts in a “fight or flight” response. This is identified by an increase in heart rate, increase in respiratory rate, an elevated blood pressure and a redistribution of the blood from peripherical areas of the body into the head and trunk of the body.

The GAS (Selye 1974) consists of three stages.

- *The first stage*, the alarm reaction, is similar to the fight or flight response, mobilising glucosides and adrenalin to energise the body. After a period of time the body’s reserves become depleted, leading to fatigue and exhaustion.
- *The second stage* of the GAS implies resistance to the stressor, when the body attempts to adapt, but is physiologically unable to do so due to a depletion of its reserves. Thus the ability to resist or fight off new stressors is impaired. The individual becomes vulnerable to health problems, resulting in impaired immunity.
- *The third stage* includes chronic stress which results in a stage of exhaustion when cellular responses and immune functions are compromised (Baum 1994:653).

When CCNs in distress experience unpleasant experiences in response to stressors, internally or externally, too often and too intensely, the GAS becomes less effective. A pathological process develops which compromises the immune system. Selye (1980:274) postulates that each person is born with a particular amount of adaptation energy (Lancaster & Lancaster 1982:364), and when the

supply of adaptation energy has been exhausted, death occurs. When human bodies are in distress too often or too intensely, the GAS becomes less effective and a disease process may occur. Cumulative stress over a prolonged period may deplete the CCN's adaptive capacity.

Selye's model has been criticised for a number of reasons, including the criticism that physical responses do not seem to be as uniform as the Selye model implies; a person who responds to stress is influenced by his or her personality, constitution and perceptions and Selye's model fails to accommodate all these personal characteristics (Baum 1994:673).

Strümpher (1995:81) discusses Antonovsky's concept of salutogenesis. The Latin word *salus* means "health" and the Greek *genesis* means "origin", implying that salutogenis studies health instead of disease. The pathogenic orientation in stress research has prevented a distinction from being made between good and bad stress, because of hypotheses that stressors are bad and lead to disease. Salutogenesis advocates a search for resistance resources between psychosocial, physical and microbiological environments. It hypothesises generalised resistance resources that maintain the healthy end of the health-disease continuum, and that may initiate recovery. The results are indicative of salutogenesis, the sense of coherence. Antonovsky (1979:123) defines this as the limits for endurance and a feeling of confidence about the internal and external environments, an internalisation of an affective-cognitive way of viewing the stressor. The generalised resistance resources which are available determine the health-disease continuum. Homeostasis may be disrupted by stressors where inadequate regulatory mechanisms are present.

Sustained stressors in the internal and external environment of CCNs may lead to psychosomatic symptoms followed by serious organic disease. Emphasis is placed on the health-disease continuum.

Antonovsky believes that the reductionistic nature of science and medicine to a multitude of variables cannot represent the complexity of life processes:

- The pathogenic model is dichotomous, meaning that an individual is either sick or well. The concept of a health-illness continuum cannot be accommodated. States of absolute health/stress-free and disease/stressful situations do not occur.
- Health care integrated with medical care avoids the reality that important determinants of improved health are behavioural and environmental rather than medical.
- The equating of scientific medicine with the biomedical model, in which health, disease and psychotherapy are understood in physical and chemical terms, is limited. The psychosocial environment and the subjective states of persons are reduced to minor technicalities.
- The biomedical, pathogenic model fosters dependence on medical care (Antonovsky 1979:123).

A holistic reconceptualisation of health and stress is described in the salutogenic model of health. Stress and coping are characteristic of a nonmedical holistic approach. In contrast to a pathogenic model, a salutogenic model concerns itself with the causes or sources of health.

Corley (1995:281) found that inadequate diagnoses by physicians, prolonging of life, and performing of unnecessary tests and treatments caused 69% of CCNs to compromise their values and 22% to adhere to hospital policy or standards, 15% because of physicians' requests and 7% due to nursing administration requirements. This caused CCNs stress, anxiety and an unhappy work environment. Ethical dilemmas involving death and dying, being forced to act against ethical standards, and disagreeing with physicians about patient care caused ineffective coping behaviours such as crying, withdrawal, anger, guilt, resentment, avoidance of patients and later resignation.

In research conducted by Appleton (1994:25), nurses working in critical care and emergency situations were found to experience critical incidents differently. Their reactions varied from physical to emotional reactions following the incidents. A large number of CCNs and emergency workers experienced headaches, decreased concentration, nausea, crying, nervousness and agitation (Spitzer & Neely 1992:45). During the first few days and nights following a critical incident, they reported feeling angry, frustrated, disgusted, fearful, anxious and concerned. However, others felt exhilarated, relieved and hopeful.

Guidotti (1995:1349) emphasises that the effect of stress on physical health may have an impact on mortality from cardiovascular diseases in the early years after employment. Physiological/biological, cognitive, emotional and behavioural responses can occur either as involuntary reactions to a stressful event or as adaptive mechanisms.

A number of different emotions occur in response to stress, including fear, anger, anxiety and depression. The type of response may vary according to the nature of the stressor experienced. Difficulties with a colleague may provoke anger. If the problem is not resolved, then anxiety about work and depression occurs. If stressors are concerned with anger, then irritability, aggressive outbursts and withdrawal from others are experienced. Involuntary cognitive responses include memory and concentration difficulties (Baum 1990:653).

3.2.1.4 Personality type

- **Results**

Participants viewed the personality type of CCNs as being significant in coping with stress. Factors that emerged from this subcategory indicated that personality traits and styles were determined by coping abilities, attitudes and

behaviours towards team development.

➢ **Statements**

I think it also depends on your personality type, do you know how do you manage stress.

I withdraw totally, I lock myself in my room or in my home, see nothing, do nothing, almost a type of escape.

... I would say that the permanent staff should get their attitudes right and you know because we need people in ... we need the agency people we can't do it all. So they have to get their attitude right first towards new ones that come in ...

One participant mentioned:

But I also think, what you say, everybody must have respect for each other. Nurses can be so mean sometimes

➢ **Supporting literature**

Personality refers to traits or attributes that determine how people perceive, think about, and relate to themselves and the environment (APA 1994:236). Various studies have been reported in which individual differences among people are examined in relation to their experiences of stress. These studies include those of Rutter (1985:598-611) and Hjelle and Ziegler (1987:14), who attempt to understand why some people experience distress and others show resilience in the face of adversity.

Rutter (1985:598) is of the opinion that traits such as personality hardiness, self-esteem, Type A personality, optimism, extroversion, a sense of coherence

and internal versus external locus of control impact on behavioural responses to stress and coping.

Personality traits that impact upon the coping process include:

- *Personality hardiness*, which has the following elements: commitment, control and challenge. Commitment means getting involved and finding purpose and meaning rather than feeling isolated from life's experiences. A challenge evokes a belief that change is a norm and that change is growth rather than a threat. Hardiness embraces the construct of feeling and acting as if in control, rather than behaving helplessly in the face of adversity.
- *Self-esteem,* which means a sense of self-worth, self-respect and self-acceptance and relates to self-confidence and control. "Factual" is a term used by Higgins (1990) (cited in Turton 1994:92) to indicate self-knowledge stored in the long-term memory which is processed easily if it is congruent with self-knowledge.
- *Type A personality*; Garden (1995:207) states that personality traits that influence an individual's response to stress, such as those in the Type A personality, are exactly the same traits as those that cause stress. Different occupations attract different personality types. Sheier, Weintraub and Carver (1986) suggest that optimism develops coping responses and expectations rather than failure and withdrawal.
- *Extroversion*, which as Parkes (1986) reports, correlates positively with data on direct coping and interacts with neuroticism to predict coping by suppression (high-extroversion-low neuroticism respondents use suppression the least).
- *A sense of coherence*, which as Antonovsky (1979:123) perceives it, is associated with components of comprehensibility, manageability and meaningfulness. Comprehensibility is the perception that experiences will

be predictable and orderly. Manageability is the confidence that the resources needed will be at hand. Meaningfulness is the sense that demands are challenges worth responding to. The sense of coherence is not a personality trait but an individual perception of the world (Turton 1994:92).

Numerous reports about psychosocial correlates of immune system functioning are interpreted in terms of vulnerability. This is seen as the absence of a coping personal disposition, including hardiness. The three components of hardiness, as we have seen, are control, commitment and challenge. People low in control feel powerless in the face of overwhelming forces. Commitment is reflected in finding meaning in work, values and relationships. To be high on the challenge phase is to interpret potentially stressful events as challenges to be met with expected success, rather than as threats to be feared. Effective coping mechanisms could help CCNs to cope with potential stressors in the ICU environment as challenges to be addressed successfully, to find meaning in the ICU environment and in their personal and professional lives, and to improve their control of and power over stressors. By enhancing their levels of control over and commitment to the ICU environment, and by facing challenges rather than fearing threats, CCNs will enhance their hardiness. This capability will help prevent CCNs from experiencing exhaustion and burnout.

Individuals are vulnerable to the adverse effects of negatively perceived life circumstances to the extent that they lack adaptive coping patterns. This confirms that taking action to alleviate stress has a positive influence on immunological status (Kaplan 1991:916-917). Psychological change may mediate different effects in the immune system by the release of hydrocortisone. Suppressor cells may enhance certain functions of immunity. Psychosocial factors which have been associated with the stress process include changing coping styles with stressful life events, increased reliance on social support, negative moods, increased alcohol and/or tobacco consumption, drug abuse,

changed dietary patterns, use of medications and changed sleeping patterns (Kaplan 1991:916-917).

Garden (1995:212) is of the opinion that there is an over-representation of certain personality types in specific occupations. This indicates that various characteristics and causes of burnout could be personality-specific. Girdano, Everly and Dusek (1997:174) describe the challenges that might be enjoyed, but emphasise the need for control.

Adler, Keane and Ducette (1985:231-236) state that the First National Conference on Burnout presented data that indicated the reason for burnout was due to a loss of control over events. Nurses who were more committed to their careers felt more in control of their situations, perceived their jobs to be challenging and were less likely to suffer burnout. None of the demographic variables were significant in the scores: the number of years in the current job, the nurse's age, the number of weekly hours worked did not affect burnout.

Hardiness neutralises effects of stressful situations and enhances beneficial effects which reduce burnout, but hardiness does not necessarily prevent increased levels of stress that could lead to burnout. Experiences of shift work include disrupted circadian rhythms and sleep patterns, which increase stress levels. Pearson's correlation was used to analyse relations of work stress, hardiness and burnout. A small negative correlation was found between hardiness and nursing stress (r = -0,22, PLO,01). This indicated that nurses with higher levels of hardiness experienced less nursing stress. A moderate negative co-indication was found between hardiness and burnout (r = -0,56, PLO,01). Nurses who showed higher levels of hardiness experienced less burnout. Nursing stress and burnout were related positively, indicating that with increased stress more burnout is likely to occur (r = 0,39, PL0,01). Shift work was correlated with work stress, hardiness and burnout. However, nurses working 07:00 to 19:00 shifts indicated a positive correlation between hardiness and

nursing stress (n = 16) (r = 0,45, PL0,05). Nurses who experienced less work stress and less burnout possessed higher levels of hardiness. Although psychological support and personal life event stressors were not measured directly in this study, a lack of psychological support and personal life stressors affected the levels of burnout. By gaining insight and implementing adaptation techniques, personnel may reduce the effects of job stress and burnout (Collins 1996:81-85).

Miller, Griffin and Hart (1999:8-18) refer to recent theories that regard work stress as an interaction between personal traits which may influence a person's subjective/individual experiences of the work environment.

People who are naturally more anxious, uncertain, dependent, non-assertive or inflexible are apparently less likely to cope with stressful events in their lives than others (Allan, Robertson, Orr & Levenstein 1998:138). Disasters for one individual might be perceived as challenging by others, depending on each person's cognitive perceptions (Allen 1998:138). Strumpher (1999a:1-7) mentions that some people manage a negative situation as best as they can, as opposed to an individual who has less resilience and is thus more vulnerable to the negative impacts of stress.

A reluctance to acknowledge that stress exists may further contribute to more stress (Cooper 1995:21). Harvey (1996:6) points out that individuals are not equally vulnerable to nor equally affected by potentially traumatic incidents. On the other hand, Moran and Britton (1994:580) refer to the hardiness that prevents most CCNs and emergency workers from taking advantage of stress management.

Personality traits and coping styles are part of a larger set of personal attributes that includes intelligence, motivation and values. These are often referred to as personal dispositions. External resources such as social support characteristics

of a person may interact with stressful events and situations in various ways, either contributing to psychopathology or acting as a deterrent against it (Dohrenwend & Dohrenwend 1998:377-378).

3.2.1.5 Inability to function

- **Results**

Participants agreed that an inability to function resulted from various causes, from ongoing stress levels to an incompatibility in leadership styles and collegial relations which created inadequate direction and support. Staffing shortages resulted in inefficient personnel being available to assist. Personnel were stretched to the limit, which resulted in modifications and staff restructuring which in turn led to conflict. The lack of acknowledgement and rewards for nursing services resulted in stressful relations between management, doctors and CCNs. The severity of stress intensified when patients' conditions worsened and resuscitations were unsuccessful. Interpersonal conflict heightened staff shortages. Inflexible norms suppressed communication between physicians and supervisors, which led to difficulty in conflict resolution. Conflicts resulted from personal and professional advocacy roles, values and ethical dilemmas being faced daily.

- **Statements**

This subcategory generated some colourful responses from the CCNs:

> *You get a tolerance for your stress level and you must try not to exceed that ... so don't think that stress is the problem, but the amount. Ongoing can be a problem.*
> *It doesn't matter how much you try avoiding it ... exactly the same and tomorrow it will be there, there will be a shortage of staff, there*

will be very sick patients, incapable staff ... you have to handle this.

There's other colleagues, there's patients that are waiting, screaming ... but if you scream you cause a lot of stress to other people, nobody understands what you need. Doctors become furious and angry.

They tell you to see a psychiatrist or a psychologist.

I think the burnout period, it is only the ashes that's left and now to try and fix a person that's already being burnt out than seeing a person going through the phase on his way to being burnt out. They first wait and see that you're burnt out and then want to fix things.

➢ **Supporting literature**

Keijsers, Schaufeli, LeBlanc, Zwerts and Miranda (1995:523) described the purpose of their study as being twofold: to investigate the relationship between objective and subjective performance indicators in ICUs; and to explore the relationship between both types of performance indicators and burnout.

It was found that subjective ratings (such as perceived personal and unit performance) were positively correlated. The relationships with objectively assessed performance were either absent (personal performance) or negative (nil performance). Burnout was positively related to objective performance evaluations. Higher burnout levels were found among nurses who worked in objectively improved performing units. The negative correlations of the two burnout components with subjective performance were stronger for perceived personal performance than for perceived unit performance. Keijsers et al (1995:513) consider personal performance as a dimension of the burnout

syndrome. This research supported the perception that unit performance indirectly relates to burnout through the perception of personal performance.
Nurses and midwives who work in emergency departments, CCUs, delivery rooms and chemotherapy units are regarded as being in stressful job environments. South African society has experienced increases in violent injuries, deaths, road rage, anger and depression. Caregivers are affected as a result of caring for their patients 24 hours a day (Geyer 2001a:20).

Exposure to stressful events over a prolonged period may result in an inability to cope both at home or at work, a resort to inappropriate defence mechanisms, and development of physiological and psychological symptoms such as recurrent images or nightmares. Such symptoms should diminish within 48 to 72 hours, the period being determined by the duration and number of exposures to stressful events. Stress symptoms which last for several weeks or months and compromise functioning will meet the diagnostic criteria for either acute stress disorder or posttraumatic stress disorder, as defined by the DSM IV, 4th edition (APA 1994:236).

Secondary traumatisation of nurses has serious implications for employers and the professional performance of personnel. Nursing service managers need to be aware of the increase in the number of sick days taken and such symptoms as indecision, difficulty in problem-solving, isolation or withdrawal and behavioural outbursts. These compromise the cohesion of the team and the quality of patient care (Geyer 2001a:20-21).

Herman (1992b:10) states that the inability to function is a result of invasion of the structures of the self. The image of the body, the internalised images of others, the values and ideas that lend a sense of coherence and purpose are invaded and systematically broken down; while the victim of a single trauma “may say she is not herself since the event, the victim of chronic trauma may lose the sense that she has a self”.

Orasano and Bacher (1996:115) indicate that:

- The presence of certain stressors leads to decrease in performance, including physiological and affective reactions.
- Different stressors have different effects.
- Stress levels vary in each individual.
- Various personalities are differentially vulnerable to various stressors.

Somer, Keinan and Carmil (1996:208-219) have reported that psychiatric disorders caused by an inability to cope with stress will be triggered in stress-vulnerable people who experience a lack of resources, social support or personal coping skills. People who use indirect coping may attempt to perceive the significance of the stressor events, and alcohol and drug abuse are often resorted to as an indirect coping mechanism.

Prince, Bowers and Salas (1994:286) point out that effects of stress on human performance need to be taken into account. Stress may result in physiological changes (Goldberger & Breznitz 1993:13); emotional reactions such as fear (Palmer & Dryden 1996:50-51); motivational loss (Juniper 1996:62); cognitive effects such as a loss of interest (Topping 1997:7), and changes in social behaviour. Performance accuracy declines and errors made in stressful situations increase.

Plant, Plant and Foster (1992:1057) examined the levels of stress amongst 600 qualified nurses in the Lothian Region of Scotland (UK). The findings indicated that the highest levels of stress amongst females were reported by medical nurses, while the lowest levels were identified in psychiatric nurses; no comparable differences emerged for males working in various fields of nursing. The study indicated a possible association between stress and the use of alcohol, tobacco and illegal drugs. Amongst females, pertinent results indicated

an association between stress, the use of alcohol in the previous week and conflict with other nurses. Total stress scores amongst males positively correlated with alcohol use. Illicit drug use by females resulted from uncertainties concerning treatment. The greatest single predictor of total stress was concern about AIDS.

3.2.2 Stress experiences

This category refers to data indicating how the participants acquired knowledge about tension and pressure in the workplace, and the effects resulting from such knowledge.

Subcategories further emerged from the data, indicating the causes and consequences of stress. Stress experiences will therefore be discussed under the following five subcategories:

- Critical care environment (3.2.2.1), further divided into
  - physical environment (3.2.2.1.1)
  - psychological environment (3.2.2.1.2)
- Frequency/intervals of pressure (3.2.2.2)
- Inevitability (3.2.2.3)
- Circumstances (3.2.2.4)
- Role uncertainty (3.2.2.5)

3.2.2.1 Critical care environment

- **Results**

Participants described their stressful experiences in a critical care environment as situations calling for immediate attention and decision-making. Conflict and disintegration resulted from an unsupportive environment. Their statements are

discussed under the physical and psychological environments.

3.2.2.1.1 Physical environment

➢ **Statements**

CCNs made the following statements regarding stress experiences of the critical care environment:

> *Hmm, I think what's stressful in the coronary unit, it's a very big unit and we get many admissions.*
> *The place is too big, it's an open venue, we've had talking about a six bed unit ... there is stress in a six bed unit as well as with sick people. You've got no time to get to every individual ...*
> *(Vir my is dit hoekom moet dit so sleg wees by die werk? Hoekom moet daardie stres so sleg wees by die werk as dit reg hanteer word en moenie vra hoe nie.)*
> *For me, why must the stress be so bad at work? if it is handled correctly, but don't ask how.*

➢ **Supporting literature**

Descriptions of what constitutes a physical critical care environment in Clochesy et al (1996:90) indicate that the central features of the critical care units that make up the physical environment are related primarily to the surveillance function for which critical care units were developed. Beds may be close together in smaller or larger units, permitting simultaneous observation of more than one patient by the CCN. Monitoring equipment surrounds the critically ill patient with the unique tones and intensity of various continuous or intermittent alarms, generating confusion and noise when sounding together. The physical environment may therefore be experienced by the individual in varying ways,

ranging from a feeling of reassurance to extreme stress.

Goll-McGee (1999:8) describes the critical care environment as a challenge to every CCN to practise with accuracy and skill, whilst caring for the most acutely ill patients during various stressful fast-paced and demanding clinical events.

An important aspect of the physical critical care environment is described by Baggs (1993:100), who supports the involvement of nurses and physicians in decision making about highly complex technology, specialised and advanced monitors and computerised mechanical ventilation, as increased responsibility and accountability affect ICU nursing practice.

3.2.2.1.2 Psychological environment

- **Results**

This research found that other factors such as:

- interpersonal relations
- lack of support systems after critical incidents
- submissive roles
- patient profiles
- lack of knowledge
- pressure in the work environment
- emotions of CCNs

have an impact on nursing practice and these are therefore mentioned as additional stress experiences.

A few participants perceived the psychological environment in terms of unsupportive interpersonal relationships with management, seniors, colleagues and/or physicians, and expressed their views that support systems need restructuring. CCNs regard good human relations as being important. A process of self-awareness is needed to explore relationships with others. Data that emerged state that CCNs do not work independently of others; despite professional and personal differences, they need one another.

- **Statements**

Good interpersonal relations are valued, as illustrated by the following statements:

> *Fortunately I can say, the person that I met ... in the unit, she's a positive person, she's an approachable person, you don't battle to work with her and that made me feel so good.*

One participant expressed her view as follows:

> *If there isn't support, if the sisters don't work together and help each other it becomes very stressful, especially with very sick patients, that you have to turn, bath and so on.*

Another participant relates:

> *If there isn't cooperation between the staff, if you find yourself looking after a sick patient or a difficult patient and there's no one to come and help with admissions and also with a very sick patient.*

In the work environment CCNs can act as a surrogate family to one another, providing support, constructive feedback and friendship, which maintain positive interpersonal relations and buffer individuals from stress (Palmer 1993:11). In a study of 1 400 participants, Margolis, Kroes and Quin (1997:654-661) found that a lack of interpersonal relations and non-participation were significant predictors of work stress.

Strümpher (1999b:1-5) points out that there are two sides to support, namely seeking support and receiving support. All humans actively seek contact with other human beings, but highly resilient individuals are particularly good at forming and maintaining relationships for survival, because they have the need to be valued, loved and respected. Individuals consciously seek out others in order to receive instrumental, emotional, informational and appraisal support. Individuals, on the other hand, provide caring support to others whom they perceive as needy and distressed in an attempt to prevail over inordinate demands or adversities.

◆ **Lack of support systems after critical incidents**

➢ **Results**

From their negative experiences participants felt that other CCNs, management and/or senior personnel were reluctant to assist them after critical incidents. Support services continued to be underutilised because individuals lost interest and motivation for seeking professional support, which was often viewed with suspicion and mistrust.

➢ **Statements**

(Ek gaan, ek kan vir julle 'n voorbeeld gee as julle wil. Ek het op 'n stadium 'n man versorg wat in 'n ongeluk was, het die oggend toe ek hom oorneem, het hom letterlik dood gebloei in my hande, daar was niemand wat my ondersteun het nie.)
I will, I can give you an example. I took care of a man who was in an accident, when I took over that morning, he literally bled to death in my hands, there was nobody to support me.

(Samewerking.)
Cooperation.

(Hulle hoef nie vir my tee aan te dra nie, hulle hoef nie eens vir my te sê is jy oraait nie, so moenie vir my vra of ek oraait is, gee vir my 'n kateter aan, want dit help.)
They don't have to bring me tea, they don't even have to ask if I'm okay, so don't ask if I'm okay, just pass me a catheter, because that helps.

(As jy so kan werk, dan steun ons, 'n mens mekaar. Maar dit bestaan nie, hmm, in die ICUs nie.)
If people can behave like this, then we, people, can support each other. But it doesn't happen in the ICUs.

But if there isn't then?
If you're working in a stressful situation like that, you've got to have support for each other.

Say for instance, you've got to work with someone that died, say you nursed a girl that died, then you're ... the other people on duty with you should support you.

(... daar was niemand wat my ondersteun het nie.)
... there was no one who supported me.

(Hulle sien my as mens ook nie raak.)
They don't even see me as a human being.

- **Supporting literature**

Beaton and Murphy (1995:140) and Raphael and Wilson (1993:91) document the percentage of emergency workers who experience an inevitable range of stress reactions to emergency work at some stage. Techniques need to be provided to prevent or mitigate the development of PTSD symptoms. Support systems such as defusing and debriefing require 24-hour services that need to be in operation (Mitchell 1994:3-4).

Everly (1995b:131) mentions that it is imperative for team members who have resolved their own critical incident experiences to talk about them and listen to other experiences while they relive their own critical incident or emotions – thereby becoming a more supportive individual.

Everly (1999:78) holds that a peer support team usually has more credibility if team members are selected by their colleagues. Everly, Lating and Mitchell (2000:77-79) state that CISD peer debriefers in the teaching phase spend time on providing information and suggestions which can reduce the impact of the stress. Everly (1995b:130-131) points out that the integration of professional and peer intervention improves recovery and assists with identification and clarification. Peer supporters help by being supportive, assist in normalising others' experiences and complement professional and lay perspectives in enhancing recovery.

Teamwork includes the sharing of experiences which spontaneously lead to a

reflective consciousness and introspection (Ivey, Ivey and Simek-Morgan 1997:197). Sound management and understanding from management alleviates interpersonal relationship stressors in the critical care environment (Palmer 1996:550).

- **Submissive roles**

- **Results**

Crucial aspects of the roles of the CCNs were found in the decision-making process. Participants indicated they were perceived as being submissive in their roles, even though they provided pertinent information to the doctors regarding treatment decisions.

- **Statements**

Representative comments concerning this issue include:

> *(Ja, ons is so grootgemaak, 'n dokter is 'n godjie.)*
> *Yes, we were brought up this way, [to think] a doctor is a god.*
>
> *We're willing to do everything for the doctor.*

A nurse manager made the following comment:

> *There are some doctors that are extremely critical and they do take out a lot of frustrations on nurses, and it is really the top girls that, hmm, will get the most wind ... they are rude, racialistic ...*

One nurse manager poses the question:

> *Could you say that it is our fault because we always spoilt and*

placed the doctor on a pedestal?

➢ **Supporting literature**

The selected literature suggests that increased stress in critical environments is related to insufficient participation in decision making, resulting in a lack of job satisfaction and submissive roles. Lack of support from management and medical personnel create difficulties related to decision making, as nurses perceive a lack of respect and confidence in their skills and knowledge.

Cartwright, Steinberg, Williams, Najman and Williams (1997:86) recommend that CCNs should play a significant role in decision making and this role should legally bind health professionals. Such participation would improve CCNs' levels of confidence and comfort in making decisions and advocating on medical, legal and ethical issues. CCNs see important roles for themselves as patient advocates, especially with respect to their ability to reflect patient and family wishes in discussions involving critical treatment decisions. Managers should include the opinions of CCNs in policy and legislative processes.

Baggs (1993:110) indicates that nurses in the USA perceive ethical decision making as a problem area in their relationship with doctors. Nurses and doctors from a medical ICU and an oncology department often encounter ethical problems and nurses often disagree with doctors about ethical issues. However, the doctors report not having had such disagreements. In interviews with critical care nurses, 74% reported that hospital policies and the taking of ethical decisions by doctors limited roles for patients, nurses or families in the decision-making processes. Furthermore, nurses perceived themselves as being powerless in making decisions about patient care (Baggs 1993:110).

Florence Nightingale (quoted in Pilliteri & Ackerman 1993:113) remarked that the chief qualities doctors expected in nurses were "devotion and obedience", and pointed out that the definition would do as well for a porter or even a horse.

Sarah Dock, in the American *Journal of Nursing* stated in 1917 :

> In my estimation obedience is the first law and the very cornerstone of good nursing. And here is the first stumbling block for the beginner. No matter how gifted she may be, she will never become a reliable nurse until she can obey without question. The first and most helpful criticism I ever received from a doctor was when he told me I was supposed to be simply an intelligent machine for the purpose of carrying out his orders (Pilleteri & Ackerman 1993:113).

If a nurse made her own suggestion for care, it had to appear to be an idea initiated by the physician. Has the doctor-nurse game changed? According to Pilleteri and Ackerman (1993:113), this game has changed, because one of the players (the nurse) has unilaterally decided to stop playing the game and is aware of how nurses relate to other health professionals. Pilleteri and Ackerman (1993:113) investigated the tendency of nurses to follow orders without questioning them by staging an incident in which a telephonic order for an obvious overdose of an unfamiliar drug was given to a nurse by an unfamiliar physician's voice. Of the 22 nurses who responded to the staged incident, 21 said that they would have given the drugs ordered without questioning the order. A similar research design by Hodes and Crombrugghe in 1990 staged a scenario in which a nurse called a physician at 01:00, which the nurse perceived as normal behaviour. Nurses disagreed on the management of the problem in the scenario but reached a consensus that nurses must be able to use more independent clinical judgement.

Scribante, Muller and Lipman (1995a:421) imply that a CCN has progressed from

being the doctor's right arm to being a colleague. The modern CCN has the unique capacity to evaluate unstable patients continuously and holistically and to critically diagnose changes needing immediate intervention. The professional ethical responsibilities of the CCN make her a significant player in the critical care team. Scribante et al (1995a:420) state that to be accountable several prerequisites should be fulfilled, including ability, responsibility, authority and accountability.

Authority is legally given to the CCN to practise in terms of the South African Nursing Act, the Scope of Practice (R2598), as amended, and Acts on Omissions (R387), as amended. Managerial responsibilities and day-to-day duties of the CCN are authorised by a job description and standard unit policies (Scribante et al 1995a:421).

The problem lies in many unavoidable overlapping or grey areas between the professions. As each one performs a unique competency in its own practice domain, while undertaking these actions the CCN functions as a nursing sister and not as a medical doctor, but like a doctor she must take full responsibility. The "grey areas" in critical care patient management are addressed by unit policies (Scribante et al 1995b:437-441).

◆ **Patient profile**

➢ **Results**

Some participants described the severity of illnesses which caused a tremendous amount of stress and were categorised as follows:

- the severity of illness
- dying patients

◆ **The severity of illness**

➢ **Results**

Participants expressed the fact that that critically ill patients are completely dependent on CCNs, who have a caring and an advocacy role to fulfil. The severity of illness and the need to initiate quick responses or plans of action and to alert physicians to a rapid change in events maximises stress.

➢ **Statements**

> *(Maar, as jy nou die vreksiek pasiënt opneem en daar is te min seniors, daar is te min hande, dan is dit ook baie stresvol.)*
> *But, if you admit a critically ill patient and there are too few seniors, too few hands, that is also very stressful.*

> *... you find yourself looking after a sick patient or a difficult patient and there's no one to come and help with admissions and also with a very sick patient.*

> *(Ja, die eenheid wat ons in werk ... daar is 'n klomp faktore, jy sien siek pasiënte, die ouderdomme van die pasiënte en die mense se naasbestaandes.)*
> *Yes, in the unit where we work, there are a lot of factors, sick patients, the age of the patients and their families.*

➢ **Supporting literature**

Cudmore (1996:122) describes the critical care environment as dealing with situations that range beyond usual human experience. A critical incident may involve serious injury, critical illnesses or death of patients. The continuous

occurrence of stressful events could result in cumulative excesses of stress, referred to as “excess baggage”, as described by Triori (in Cudmore 1996:122).

◆ **Lack of knowledge**

➢ **Results**

A tremendous amount of stress was experienced due to unskilled personnel who had no knowledge about various procedures and protocols. This resulted in work overload and additional stress on permanent personnel. A few procedures/protocols were mentioned in which agency personnel needed to update their knowledge and skills, namely:

- electrocardiographs
- anti-clotting-time procedures
- medication procedures

➢ **Statements**

The following statements reflect this problem of unskilled/agency personnel:

> *... they walk in, they expect the experienced sister [to instruct them], well I’m expecting an experienced sister, and I don’t have time to teach them small things. Things that you know from your last year in training ... you know what’s an ECG, you know what’s a QRS complex, ...*
>
> *Basic things, basic things. I have no problem to teach them the ECG machine, because I know there’s a lot of difference. But I have a problem to teach them how to switch it on. They are switched on the same way, there is no difference.*

You have to teach her exactly the same thing, you have to do the act the whole time yourself ... you show her the first time, the second time, the third time ...

The thing is, if you get a full unit with patients and you have three or four sisters that don't know what to do ... you say that an anti-clothing time needs to be done, that everyone must know and the sister asks you what that is? But at the same time, you have a patient with chest pain that must get immediate attention.

There's no time, I'm dealing with an emergency situation, I cannot teach you ...

This place is too big ... you've not time to get to every individual, you don't [know if] ... whatever is prescribed on the medication chart is being handed out correctly, if the potassium is correct, the vacolitre is correct ... even if you try your best ... there's still mistakes ... these are registered people ... that is we are just loaded with more stress ...

I think the whole problem here is we have too little permanent trained staff, or permanent staff with experience.

➢ **Supporting literature**

Watson (2002: 229-230) explores educational nursing programmes and questions whether they prepare nurses for the complexities and demands of health care. The nursing profession depends heavily on nurses to carry out direct care activities. Technology decreases the burden of nurses' work, which should ensure safe patient environments. On the other hand, not all technology

decreases the work burden; some adds to the complexity of work.

Interpersonal relationships cannot be overlooked. Staff development, to maintain a sense of competence and safe work environments and to address increasingly complex patient care, is significant. Neophyte nurses or nurses in new roles often are left without the benefit of mentors or training programmes to help them become secure, competent and confident.

Kirsch (1999:3) describes the chronic shortage of nurses. Service needs have changed, the emphasis being on moving health care from hospital to community, except for the acutely ill patients. There are more patients who are very ill, who stay for shorter periods but are being cared for by the same number of nurses. The need for more intensive care in hospitals and community-based nursing requires nurses with greater clinical and analytical skills. Equipping people with lifelong learning skills is essential to enhancing their coping skills, including coping with stress.

Chaboyer and Creamer (1999:66-67) describe the worldwide shortage of critical care nurses. As the need for trained CCNs increases, it is necessary for strategies to be put in place to recruit, propose and support neophyte nurses entering the field, as well as encourage nurses to remain in critical care. These authors emphasise the specific intellectual work critical care nurses are required to perform. Adequate orientation and socialisation of nurses is important for enhanced staff retention. Other studies have confirmed that neophyte nurses who underwent preceptorships and orientation programmes had greater knowledge, gained more confidence, had fewer burnout symptoms, maintained better interpersonal relationships and experienced greater job satisfaction and loyalty towards organisational outcomes. Continued educational opportunities are important for ensuring quality patient care in the critical care environment. A strong climate of educational support is needed for new and inexperienced

critical care nurses. Continuing education is aimed at challenging, teaching, supporting and nurturing the critical care nurse (Chaboyer & Creamer 1999:66-67).

Boyle, Bott, Hansen, Wood and Taunton (1999b:361) predict shortages of nurses in America. The Bureau of Labour Statistics projects a 25% increase in positions for registered nurses by 2005 in the USA. The mean age of registered nurses has increased to 44 years, leading to an increased retirement rate of nurses expected between 2005 and 2015. Management style, control over practice, group cohesion, autonomy and work stress are important contextual factors that contribute to job satisfaction, intention to stay in the organisation and retention of personnel (Boyle et al 1999b:361-362).

◆ **Pressure in the work environment**

Pressure in the work environment is illustrated by the following aspects:

- the lack of skilled personnel
- the lack of mentorship due to the busy environment
- a shortage of staff
- large units
- a lack of destressing systems

➢ **Statement**

A participant stated:

> *I think the whole problem here is we have too little permanent trained staff or permanent staff with experience.*

➢ **Supporting literature**

Boychuk-Duchscher (2001:435) describes the stressful experiences of and pressure on neophyte CCNs in the work environment, as they had to rely on others but received a lack of support from other experienced CCNs. They felt overwhelmed by the sense of responsibility and accountability bestowed upon them, leading to low self-confidence and a need for acceptance by their peers. Attention needs to be given to continuous assessments and communication between preceptors, senior nursing staff and nursing management. There needs to be an awareness of clinical safety issues when combining the new graduate's level of confidence, skill, and intellectual and emotional development with the acute, fast-paced clinical areas of critical-care nursing that require unusually high levels of problem-solving, critical thinking and clinical judgement.

The recommendation is to create ways to introduce senior nursing students to the professional nursing practice environment. Consideration might be given to a senior assistant role for third-year (if it is a four-year baccalaureate nursing programme) completion students to work as nursing assistants under the direction and support of registered CCNs. This would create less pressure in the work environment, especially where understaffing is a problem, by providing a critical work environment and a nursing orientation to neophyte nurses. Programmes which include supernumerary employment of graduate nurses allow for integration into professional CCNs' roles.

◆ **The lack of mentorship due to the busy environment**

➢ **Statement**

A CCN exclaimed:

There's no time, I'm dealing with an emergency situation, I cannot teach you.

- **Supporting literature**

Pressure in the work environment could be reduced by implementing formal and informal preceptorship or mentorship for functional and emotional support to unskilled workers. Incentives should be given to senior nursing staff in the form of time-in-lieu, financial incentives or credit towards continuing education for efforts and commitment shared with their colleagues (Boychuk-Duchscher 2001:435).

The introduction of preceptorship (UKCC 1993) of the Project 2000 programme identified the significance of support and guidance in maintaining neophyte nurses' confidence in practising in clinical areas, including CCUs. Preceptorship enhanced coping skills and reduced stress among newly qualified nurses in the UK. However, preceptorship requires further exploration to support these indications of its importance (Charnley 1999:36), Educators need to plan and ease the transition from student to qualified nurse, and introduce new nurses to the realities of practice. Experienced qualified personnel must support and guide neophyte nurses in adjusting to the ICU work environment and enhance positive socialisation in the critical care environment (Charnley 1999:33-36).

Burns (1992:14) states that the national shortage of CCNs was reflected at the local level at a 550 bed hospital in San Diego, California. Mercy Hospital and Medical Center had problems recruiting experienced CCNs to the critical areas. A percentage of 20% to 30% of the critical care patients were assigned to agency nurses. This level was costly to the health organisation both financially and in patient outcomes.

There were, however, students who could be trained. Eight available positions

were advertised and candidates were interviewed on specific criteria. Preceptors of the trainees were placed on day and night shifts. After the first few training programmes, several preceptors requested formal classes and coordinated these with other speciality areas. The initial goals of the programme were to improve patient care by minimising use of agency staff. During the first year three programmes were offered and 18 nurses were trained. Agency nurse use dropped by 50% after the first year and by the end of the third year had dropped by 95%.

- **Shortage of staff**

- **Statement**

Another participant stated:

> *... every time it's a different agency, which also frustrates the doctors.*

According to Ingersoll, Olsan, Drew-Cates, DeVinney and Davies (2002:250-252), the nursing shortage is limited to specific speciality areas in which insufficient nurses are available to meet health care demands. Concerns about professional nurses' workforce availability and increasing workforce demands in the Central Finger Lakes region, New York, prompted the creation of the Finger Lakes Nursing Workforce Collaborative (FLNWC). The group is composed of representatives from schools of nursing, employers of nurses, professional associations and health insurance providers. The purpose of the FLNWC is to provide a community-wide forum for the examination of current and future trends in the professional nurses' workforce. A random sample survey was conducted of professional nurses practising in the Central Finger Lakes region, to determine workforce characteristics and measure their perceptions of the work environment and how these related to a short (one-year) and a

long-term (five-year) career commitment. Findings indicated that the organisational environment, educational preparation and personal traits of currently employed professional nurses affect job satisfaction, organisational commitment and willingness to continue to practise as professional nurses.

- **Large units**

- **Statement**

CCNs work in large units, which adds to the pressure and tension in the work environment.

> *... I think what's stressful in the coronary care unit, it's a very big unit ... we get many admissions.*

- **Supporting literature**

Seago (2002:48) reports that a California Title 22 mandated minimum licensed nurse-to-patient ratios for critical care and coronary care units as one licensed nurse to two patients. In 1990 Liberty Medical Center in Baltimore, Maryland, negotiated a ratio of one registered nurse to eight medical-surgical patients for daytime and a one to ten ratio for nights. Cape Cod Hospital in Hyannis, Massachusetts, negotiated a ratio of one registered nurse to five medical-surgical patients and a skill mix of 85% registered nurses and 15% of minimum licensed nurses. New York and Massachusetts have passed or are considering legislation requiring staffing formulas to be developed that ensure sufficient staffing for safe patient care. A staffing formula is an alternative to describing nursing care in the context of a nursing unit in terms of nurse workload, staff expertise, patient acuity, unit physical layout, work intensity and workload, staff ratio, bed occupancy and high patient turnover.

◆ **A lack of destressing systems**

➢ **Results**

Participants acknowledged the lack of destressing systems. Although some health organisation implemented destressing systems, this was not done consistently.

➢ **Statements**

There are no systems in place to support, say, listen ... you must go and talk to such a person who does proper counselling.

There must be rules because there is no supportive process between colleagues.

➢ **Supporting literature**

Spencer (1994:1143) states that the importance of providing support for nurses is widely accepted (cited by Farrell 1992; Nganasurian 1992). It is thus acknowledged that some sort of support is needed but not regularly provided. Hockley (1989) (cited in Spencer 1994:1143) found that it was difficult to provide the bereavement counselling that nurses needed. Murphy (1986) (cited in Spencer 1994:1143) states that much work has been done over the decade in attempting to minimise the amount of stress and death anxiety in nursing. Blezard (1984) points out that nurses deal with their emotions unhealthily. The literature reviewed identified the fact that support groups and education are a necessity.

◆ **Emotions of CCNs**

- **Results**

The experience of participants was that keeping their emotions in control was a norm expected by their colleagues and management. The view was that the most capable and efficient nurses were those who did not express any feelings. Assuming a lack of interest and an uncaring attitude resulted in an unawareness of how these feelings could be explored and managed. Participants advocated that they should be allowed to express and explore the emotional domain through appropriate techniques. The following quotes supported this:

- **Statements**

I think the burnout period, it's only the ashes that's left and now to try and fix a thing that's already being burnt out, than seeing a person going through the phase on his way to be burnt out. They first wait and see that you're burnt out and then want to fix things ...

... the temper gets shorter ..."

... one gets more weepy.

... you are irritable, you know you scream at people ...

... and they were actually scared of me ...

(... toe ek so gewerk het, was ek miskien bietjie van 'n "bitch" gewees, en "gemoan" en "gegroan" en op die ou end was ek dalk lelik met die mense sonder om dit te bedoel het.)

... when I worked like that I was perhaps a bit of a bitch and moaned and groaned and behaved badly without intending to .

(Maar dit is wat stress aan 'n mens doen.)
But this is what stress does to one.

➢ **Supporting literature**

Berk (1998:20) states that several studies agree that it is not the work environment nor the individual, but their interaction, which is responsible for the type of stress experienced by workers in a specific environment. Stress is therefore seen as an event arising from the difference between the demand on the person and person's ability to cope. An imbalance between the demand and the ability gives rise to the experience of stress and to the stress response. The stress response attempts to cope with the source of stress. If coping is ineffective, stress is prolonged and abnormal, reactions occur which can lead to functional and structural damage. When stress is handled ineffectively and fails to adapt, the individual is exposed to a prolonged stress reaction and will develop a psychiatric or physical disorder.

Adaptation occurs in three ways:

- No adaptation at all: the stress reaction continues, causing physical and psychological disease
- Adaptation using defence mechanisms such as denial, which gives relief to the stress reaction, but a psychological illness can occur because a defence mechanism is a maladaptive way of coping with stress
- Adaptation by developing appropriate behaviour to cope with stress in an effective way

Stress factors inhibit adaptation and enhance behaviour modifications such as an

inability to function, chronic physical illness and emotional disorders such as anxiety or depression (Robertson 1998:46).

McInnes (1999:53-54) describes the feelings of anxiety in an unsupportive environment. Stress responses may increase, such as self-doubt and negative talk: "they don't like me" or "I'm not coping", which may be associated with feelings of a low mood or depression over a period of time; defensiveness or avoidance of certain colleagues; feelings of inadequacy creating more feelings of an inability to cope.

Emotion should be perceived as normal and expression of it need not be taken personally nor be misinterpreted as such, thereby increasing the severity of the feelings. Having been trained to save people, nurses have a natural tendency to consider death as "the enemy". Death can be very frustrating when everything humanly possible has been done and the patient still dies.

Increased feelings of frustration and anger may be resolved with vigorous physical exercise within 24 hours of the incident. If sleep disturbances occur at some time after the incident, a counsellor is needed. If there are intensive thoughts and hallucinations, a psychiatrist or psychologist should be summoned. Guilt due to doubts about performance can be a major stressor and must be coped with. Depression and sadness felt by the patient may transfer onto the critical care worker. People working with critically ill patients may experience discomfort and may become depressed. A lack of confidence and a feeling of inadequate performance may be due to uncontrollable events.

Turnipseed (1992:377) states that the unique interactions of personality and the constantly changing situation evolve in various perceptions and behaviours, from productive, satisfied workers to dissatisfied, dysfunctional ones due to personal attributes and/or the work environment.

Referring to studies of behaviour with regard to organisational frustration, Spector (in Chen & Spector 1992:177-178) describes frustrating events as interfering with employees' goal attainment and the smooth functioning of the organisation, and possibly evoking aggressive behaviour, theft and substance abuse. Most stressors had the same indications as frustrating events, but were not correlated with substance abuse. Feelings of frustration and stress about jobs were correlated with interpersonal aggression, hostility and complaints, and wanting to resign.

3.2.2.2 Frequency of intervals of pressure

➢ **Results**

This research found that CCNs experienced the frequency of intervals of pressure and tension in the workplace as causing a steady build-up of stress, which is therefore not identifiable at first until a crisis occurs and the individual is completely devastated.

➢ **Statements**

Work experiences were reflected in the following views:

> *(Veral die mense wat so baie werk, nê, ... dies wat oortyd werk, vyf dae aanmekaar werk.)*
> *Especially those people who work a lot ... those that work overtime, work five consecutive days continuously.*
>
> *You get a tolerance for your stress level and you must try not to exceed that ... so I don't think that stress is the problem, but the amount. Ongoing can be a problem.*

I withdraw totally, I lock myself in my room or in my home, see nothing, do nothing almost a type of escape.

So learn to rather keep quiet, to hold back more and more ... don't try and cope with it anymore.

(Dus 'n ander doel hoekom werk hulle oortyd, die salarisstrukture is nie reg nie.)
Therefore another reason why they work overtime, the salary structures are not correct.

A nurse manager mentions:

There are certain doctors who complain and that is the doctor that causes the build-up, build-up ... the whole time.

... outbursts do not just happen, but you know, this one is starting to climb the ladder ... it's normally a build-up ... it starts to build-up, you can see it and address it before it becomes an outburst.

➢ **Supporting literature**

Zimmerman, Standley, Captain and Foxall (1990:577) describe a comparison and frequency of nursing job stress perceived by 33 intensive care nurses, 30 hospice and 73 medical-surgical nurses. Findings indicated that ICU and hospice nurses perceived more stress related to death and dying than medical-surgical nurses. Stress levels were measured among 181 nurses working in programmes for mentally handicapped and hospice nurses. The results indicated that stress was primarily due to death and inadequate preparation for meeting the emotional demands of patients and their families. Nurses working with handicapped persons reported stress related to workload

and conflicting interpersonal relationships and nursing environment. The nursing speciality could be a major factor in causing work stress (Zimmerman, Standley, Captain & Foxall 1990:379). All five groups of nurses working in medical-surgical, cardiovascular, surgical, oncology and hospice units experienced stress from workload, inadequate preparation and experience with death and dying. The inevitability of such stressor factors in the nursing role indicated significant determinants of nursing stress. Strategies to avoid burnout include self-preservation, based on self-assessment by using nursing stress scales. Scores on the questionnaire will indicate the need for in-depth analysis and maintaining a basis for implementing and evaluating self-care strategies to develop a sense of control.

The frequency and intervals of pressure result in cumulative stress reaction. This is described by Ray and Miller (1994:361) as a loss of feeling and concern, a loss of trust, a loss of interest and a loss of spirit, resulting in decreased job performance and negativity.

Girdano et al (1997:174) state that work stressors are a challenge whilst one is in control of the stress. Time urgency, deadlines for work and stress-related decision making depend on the complexity of the decision, the amount of information available and the time prescribed for the decision and the outcome of its success (Girdano et al 1997:178).

Paton and Violanti (1996:13) state that increased work demands that require long working hours, and immediate decision-making are just as damaging as a work environment that is boring and creates a lack of interest and fatigue.

3.2.2.3 Inevitability

- **Results**

The inevitability of stress, given the context in which participants function, was

clearly identified. The critical care environment changes moment by moment, and occurrences are unpredictable and inevitable.

- **Statements**

The following statements describe the inevitability of the work environment:

> *Hmm, I think what's stressful in the coronary, it's a very big unit, ... we get many admissions.*

> *There's no time, I'm dealing with an emergency situation ...*

> *And when you go home, I sometimes wake up, but not to think. I, goodness, I haven't done that, or I should have told someone that.*

A nurse manager remarks:

> *It's a very big reality, if I think about, especially in our specialised environments, I think there are a lot of stress factors.*

- **Supporting literature**

Harvey (1996:3-4) indicates that the inevitability of the work environment includes variables such as the extent and severity of illnesses, deaths, the number of people involved, and the cumulative effect of critical incidents in the past. Walker (1990:127) states that CCNs exposed to critical incidents must expect to experience volatile emotional reactions such as intense bursts of ventilated grief, expressed feelings of helplessness and persistent psychological consequences in the aftermath of unsuccessful resuscitation.

Tedeschi and Calhoun (1995:40) describe that by empowering oneself and confronting inordinate demands one "can produce a subjective sense that life has improved in a fundamental way despite the unfortunate event".

Snow (2002:393) states that an "inevitable" organisational climate depends on the perception of what constitutes a work environment. Snow describes the organisational climate (2002:393) as an "atmosphere" of the workplace, which includes a mixture of norms, values, expectations, policies and procedures.

3.2.2.4 Circumstances

- **Results**

Participants expressed concern about the circumstances under which CCNs function. The significance of work stress and the consequences suffered were raised.

- **Statements**

The following statements reflect this:

> *(Daar is sommige dae wat jy voel jy kan nie "cope" nie en dit is net as gevolg nie omdat jy self nie, hmm, genoeg vertroue het of jy voel jy het nie genoeg kennis, dis omstandighede.)*
> *There are days that you feel you cannot cope and this is not only because you yourself do not have confidence or knowledge, it is the circumstances.*
>
> *(Ja, ek, die stres, hmm, meeste van die stres wat ek ervaar het in die ICU, veral toe ek 'n bestuurder was vir vier jaar, was omstandighede want weet, hmm, weet, jou mense daag nie op vir*

werk nie.)

Yes, I, the stress, hmm, most of the stress I experienced in the ICU, especially when I was a unit manager for years ... circumstances, because ... you know, people do not come to work.

But then again under the different circumstances, you know, if you've got no staff, you know, you've been told or been taught to cope.

➢ **Supporting literature**

Absenteeism, decreased job satisfaction and an increased turnover are circumstances in which CCNS find themselves; the support systems cannot be relied upon. Mitchell and Dyregrow (1993:114), Georgiou (1997:81) and Stevens (1999:249) maintain that management wait for individuals to succumb to reactions to stress out rather than preventing such an occurrence. Many stressors leading to burnout and compassion fatigue are due to poor management style, lack of support and understanding from management, lack of adequate equipment, long working hours, public disharmony and lack of remuneration. In their studies on stress in emergency services personnel, Figley (1999:6) and Mitchell and Dyregrov (1993:114) state that workers that are exposed to duty-related trauma will experience secondary traumatic stress some time or the other.

The burnt out person detaches himself or herself from those whom he or she has to work with by losing interest, intellectualising, becoming cynical and distrustful and sinking into the depths of deep depression. Burnout also results in physical diseases such as cardiovascular and respiratory conditions (Sonnetag, Brodbeck, Heinbokel & Stolte 1994:327-329).

3.2.2.5 Role uncertainty

Participants experienced role uncertainty, as CCNs have various commitments and have to fulfil a multitude of roles. This resulted in role conflict and role stress due to inconsistent, contradictory and mutually exclusive expectations. This was agreed by all the participants and the following aspects were mentioned:

- student CCNs
- work/family conflict
- male roles
- roles and responsibilities of CCNs

◆ **Student critical care nurses**

➢ **Results**

Unavoidable role conflict and role stress were experienced due to the lack of knowledge, values and skills of student CCNs having to cope with the theoretical and the practical critical care environment, which caused role socialisation problems.

➢ **Statements**

This was supported by the following statements:

> *You know, because I know what it feels when I did my training when I worked in ICU, it was like that, but then I forgot about the young sisters, you know ...*
>
> *Because we have so few trained sisters ...*

(Maar ek moes gaan sit en dink hoe om hierdie meisies nou die stres, nou minder te maak en hulle te ondersteun dat hulle 'n bietjie langer bly of u weet bietjie lekker te kan werk, of die "stress", hmm, om te "destress" in 'n ICU. Ek dink veral net die jonger mense wat begin, die wat net in 'n ICU begin.)
So, I had to sit down and think about how to reduce the stress for these girls and support them, so that they might stay a bit longer, or, you know, enjoy working a bit and the stress – to destress in ICU. I'm thinking especially about the younger people who are beginning in an ICU.

- **Supporting literature**

Munro (1999:12) points out that patients in critical care units might be mostly sedated and ventilated. One nurse is allocated to each patient. The scope of nursing within critical care is increasing.

Cooper (1999:541) identifies the training issue as a major reason for stress. Nurses are inadequately trained for management functions, changes in technologies and developments in clinical practice. New technologies bring new techniques and equipment, but adequate training is not provided. Nurses learn by trial and error.

The Woza network, www.iclinic.co.za, in Geyer (2001b:26; 27) indicates that nursing and midwifery face a worldwide crisis. International experts met in Geneva in December for the sixth meeting of the World Health Organization's (WHO's) multi-disciplinary Global Advisory Group for Nursing and Midwifery. Nurses recruited into developed countries from developing countries resulted in a "skills drain". The number of nurses from around the world going to the UK increased by 48% in 12 months. New recruits were from South Africa, Australia, the Phillippines, New Zealand and the West Indies. A Zambian hospital needed 1 500 nurses to run effectively and only had 500 nurses. Ten years ago in

Poland more than 10 000 new nurses graduated yearly; this figure had decreased to 3 000 nurses. In Egypt, most nurses and midwives were trained and employed in the public sector, but were being recruited by private health care services for higher salaries. Experts ensured that these significant worldwide crises were on the public and political agenda's (Geyer 2001b:26-27).

Role uncertainty due to the transition from an academic world to that of the real world of clinical practice was overwhelming for neophyte CCNs who had never faced the burden of patient care as student CCNs and therefore were unable to cope effectively. The transition from observing as student CCNs to practising as nurses caused role uncertainty (Boychuk-Duchscher 2001:434).

Oermann and Moffin-Wolf (1997:22) found no significant relationship between social support and stress, but established positive correlations between social support and practice stimulation, and the development in clinical practice. Similarly a lack of support and guidance from preceptors stunted learning. However, Boychuk-Duchsher (2001:435) currently found that senior nursing practice, practice decisions and problem-solving greatly influenced the practice base of the newly qualified CCN.

- **Work/family conflict**

- **Results**

Participants viewed themselves as functioning people with family, personal and other role commitments, which resulted in high fatigue levels due to the long working hours. Occupational and personal roles were experienced as conflicting and often caused role conflict. Role overload was the result of insufficient time spent between work and home.

- **Statements**

I don't think it's worth taking the stress home ... they were prepared to listen to it, five months, six months, these things are carrying on for years. So the moment you start talking about it, just shut up please, because we're fed up ...

But if you take your work stress home with you, it can cause a lot of problems.

- **Supporting literature**

Clegg (2000b:18) further explored time management behaviour that might buffer role conflict and the effect of work/family or family/work conflict for various reasons. The study clearly indicates the importance of setting goals and prioritising, which is based on value judgments. The results of the study are consistent with recent research that time management may have a positive impact on the mental health of workers.

Kirchmeyer and Cohen (1999:59-73) studied the conflict between work and non-work roles due to the increased role demands on men and women who are part of dual-earner families. They found that absenteeism positively correlated with work/non-work conflict in some studies. A change in job may be an escape from the disharmony of work/non-work conflict and also cure symptoms such as tiredness, feeling "under the weather", and a lack of interest. Their findings were consistent with recent studies done on female nurses. Kirchmeyer and Cohen (1999:59-73) stated that these nurses used personal coping mechanisms and had greater control over non-work roles. Previous studies have found that frequent absenteeism is motivated by a need for free time to meet non-work demands. Job change to a less demanding job should reduce the disruptions from work but not from non-work, and changed work roles do not change the demands of parenting. It was found that work/non-work conflicts affect job

attitudes through stress symptoms. Variables that were used in the methodology of the study included:

- Children: number of children as an indication of family size
- Income: this variable was measured in a monetary value
- Personal coping: managing the work/non-work roles
- Work site support: flexitime or rigid absence-keeping hours
- Interference from non-work: not home enough
- Stress symptoms: headaches, tiredness and mood swings, feelings of depression and nervousness

The findings of this study have practical implications for human resources management with regard to female workers. Employer support for non-work demands, whether in the form of respecting and accommodating women's special non-work needs, or assisting women to acquire life management skills, appear to affect work/non-work conflict directly and in turn absenteeism from work. Employers require successful practice in assisting workers to manage the work/non-work roles, emphasising the type of interference and the type of behavioural coping skills (Kirchmeyer & Cohen 1999:59-73).

Cooper (1999:541) indicates that many nurses work full time, yet still have to meet family commitments. Conflicting pressures from home and work can cause a tremendous amount of stress. Emotional problems at work may be taken home and family commitments can inhibit promotion. If the main responsibility is for managing the home and maintaining the family, then work shift may create stressors often found among female nurses.

A survey about job satisfaction among nurses working full time and part time obtained data using a confidential mailed questionnaire to almost 3 900 hospital nurses in Ontario, Canada. According to the research results, most respondents (97%) were females, half worked full time, over 86% had a registered nurse

qualification, 80% were married or living with a partner and about three-quarters had children. Two-thirds of the respondents worked in medical/surgical intensive care/coronary units (Burke & Greenglass 2001:32-33).

Results indicated greater work-family conflict, less family involvement and less family satisfaction among the full-time nurses, thereby indicating the risk of poorer psychological health due to work and family demands. Full-time nurses preferred to work part time and indicated that nursing management in-service training could be implemented on issues such as work/family matters, and management could be more supportive of employees (Burke & Greenglass 2001:32-33).

Seymour and Buscherhof (1991:118-119) studied the median age – the sample average was 46 years. A fifth of the respondents had experienced negative attitudes as young women and felt that they had pursued nursing for incorrect reasons. Most participants expressed the view that regardless of how they had entered nursing it was worthwhile and satisfying. Five participants described the long-term effects of internalising traditional female roles expectations, under-achieving, fear of success, sexism and ageism by doctors or hospital administrators.

◆ **Male roles**

➢ **Results**

A male participant related that the sex role was differentiated and approached uniquely due to the socialisation perspective of male and female CCNs. The experience that male nurses were overworked, overloaded and often had to work with the largest patient, the most difficult or confused patient, resulted in feelings of frustration, abuse and sexual discrimination.

➢ **Statements**

This was evidenced by the following statement:

> *We always had to deal with the more butcher kind of things, persons that are disorientated ... why, because you're a bigger punching bag than the rest of the staff.*
>
> *... you have to sort out the patient that's standing with the drip in the hand and wants to bash up everyone in front of you. Then push the Etomine in your hand. You have to give it to the patient ... because you're a male and bigger ... that's one of the things that builds up the most stress in the unit.*

- **Supporting literature**

According to Hilton (2001:1) 6% of nurses today are male, and although discriminatory practices against men in nursing are lessening, male nurses continue to tell stories about unfair treatment. Terry Miller (PhD, RN) Dean and Professor in the School of Nursing at Pacific Lutheran University in Tacoma, Washington, and a Professor Emeritus at San Jose State University, has experienced and witnessed discrimination against male nurses throughout his career. In the early 70s, as an undergraduate student at a clinical rotation in theatre at Mercy Hospital in Oklahoma City, Miller wore his hair long. "It was characteristic of the era," he said. The shift supervisor made Terry Miller leave the theatre every few hours. A surgeon noticed the abuse and reprimanded her.

> The thing to focus on in men and in nursing is that men and women are both nurses. There is not much basic difference between them. Men are sometimes stronger than women, and in the past they often got stuck with turning patients more. I think all you do is treat both men and women equally.

To understand the plight of her male colleagues and students, Karen Morin (DSN, RN), Professor of Nursing and Professor in charge of graduate nursing programmes at the Pennsylvania State University, joined the American Assembly for Men in Nursing (AAMN), which made her aware of the discrimination and bias that men, including nurses, physicians and patients suffer.

Sylva Emodi (PhD, MSN, MPH) was so distraught over the discrimination he experienced in 1996 teaching a group of students on rotation in labour and delivery at a California Hospital that he left due to the environment being too hostile.

- **Roles and responsibility of critical care nurses**

- **Results**

CCNs with advanced degrees in specialist and leadership roles personified themselves as independent, assertive, confident health professionals who worked collaboratively with physicians and other health care workers. It was their view that the acceptance of such roles was slow and that health professionals, physicians and their colleagues continued to view the nurse in the traditional role as the handmaiden of the physician.

- **Statements**

The following remarks were made:

> *... and the doctors place a heck of a lot more stress on us ...*
>
> *We're willing to do everything for the doctors and the doctors just come in and say, put in this, put in this.*

(Gee hulle net 'n kans en hulle kan maak net soos hulle wil.)
Just give them a chance and they will do as they please.

... the doctors overseas are not seen as boss, that is one thing! Because they will do the same work that we do, they will put in the catheters.They will also clean up afterwards.

... like when we were at college we'd say, yes sir, no sir, three bags full sir ...

- **Supporting literature**

CCNs have expanded roles. Are CCNs practicing medicine rather than nursing? The responsibility of the CCN to use individual judgement has been tried in cases that held nurses accountable for using independent judgement (Fraije versus Hartland Hospital 1979; Cooper versus National Motor Bearing Company 1955). The court's interpretation of these cases forms the basis for interpreting the legal liability of expanded roles (Clochesy et al 1996:31).

Health care policies and protocols give guidance to nurses. If the protocol of the unit is to act on presenting symptoms in emergency situations, then the CCN is acting within the scope of nursing practice when a lignocaine infusion is administered to a patient with multiple premature ventricular contractions and short runs of ventricular tachycardia.

Hospital protocols should be established by a joint committee representing both nursing and medicine, and such acts of intervention should be considered. Unit and hospital protocol should be reviewed and updated regularly in the light of changing technology and standards of care. This will ensure that practice follows the guidelines of the protocols for medicine and nursing. An emergency

situation therefore gives the skilled and experienced CCN legal standing to implement immediate treatment, on the basis of the following criteria:

(1) The nurse's level of expertise and skill is not exceeded by taking the necessary steps.
(2) There is no one more skilled or qualified in the immediate situation to take control and start therapy.

A nurse may not proceed if a person more qualified under the Medical Practice Act is present. However, CCNs who have the necessary skills and expertise but fail to carry out an emergency procedure could incur a malpractice lawsuit on the grounds of non-response. A California lawsuit indicated that the nurse in such a case was not acting as a patient advocate and would be held liable for non-response (Clochesy et al (1996:31).

Clochesy et al (1996:31) contend that certification is the process of granting recognition to individuals who have attained a specific level of expertise and knowledge in a specific field and may weigh favourably in the event of a lawsuit.

Bowman (1993:268) points out that nurses have often found that they are not actively part of the decision-making process, yet nevertheless face the consequences of the physician's decision although they were not actively involved. Individuals who are acutely ill require a large number of technological interventions which might be prescribed by doctors and administered and monitored by nurses. How far should nursing go in the assumption of medical tasks? Circumstantially, nurses take on roles and responsibilities beyond those traditionally assigned to nursing. Physicians apply pressure to have nurses accept more responsibility for technological tasks. Yet nurses experience physical and psychological stress in caring for patients, and many might be experiencing burnout. Newly qualified nurses might experience "reality shock" upon entering the profession, and some might not survive in the profession.

Nurses should personally and collectively nurture the individual strengths each of their colleagues brings to the environment and should avoid victimising and blaming of individuals for a negative outcome, when the causes really lie outside their control.

3.2.3 Needs of critical care nurses

This category refers to data indicating the needs of CCNs. Subcategories further emerged from the data, indicating the need for operational and emotional support systems. The subcategories, as delineated in table 3.1, will be discussed.

3.2.3.1 Operational support systems

- **Results**

The CCNs expressed strong views on their need for more supportive strategies and education from professional organisations and teaching institutions. CCNs emerged as very concerned professionals who clearly felt that they needed to be empowered in order to cope effectively.

- **Statements**

  ... but I think it comes back to the cooperation that you get between people and the doctors as well.

  (Hulle sien my as mens ook nie raak.)
  They don't see me as a human being.

(... daar was niemand wat my ondersteun het nie.)
... there was no one who supported me.

➢ **Supporting literature**

Turnipseed (1992:376) emphasises that the operational needs in the critical care environment are an important aspect of the work climate, job performance, job satisfaction and employee morale. Job satisfaction has been associated with a work environment perceived as being orientated towards peer cohesion, supervisor support and self-autonomy. Employees show less emotional exhaustion and report minimal depersonalising behaviour when the work environment rates high on involvement of superior support, autonomy, task orientation and clarity.

Thompson (1997:56) regards organisational support and commitment as imperative, because these factors allow the individual, as part of a group, to maintain a sense of security. Various strategies have been suggested by Freedy and Donkervoet (1995:3-28) and Lundin (1995:385-389) for the treatment and prevention of stress in the workplace. Although the stressors experienced may be reduced, eliminated or prevented, Williams (1993:923) mentions that this is usually impossible in the critical care environment as CIS is an aspect of the work itself and is therefore inevitable. The provision of direct services, for example, debriefing following CIS experiences and prior to the onset of the adverse effects of PTSD symptoms could be utilised as a secondary preventive strategy in high-risk occupations.

Organisations have a responsibility to reduce stressful situations. Where the CIS is inevitable and unpredictable, programmes, procedures and self-care strategies for dealing with the aftermath must be provided (Mitchell & Dyregov 1993:114).

Through peer support, EAPS, counselling, self-care strategies, empowerment of coping mechanisms and the normal process of healing can be facilitated to avoid compromising the organisation's functioning, personnel development and financial strengths (Mitchell & Dyregov 1993:114).

Sub-subcategories emerged from the data:
The environment (3.2.3.1.1)
Resources (3.2.3.1.2)

3.2.3.1.1 The environment

- **Results**

The majority of the participants stated that management was not perceived to be supportive, was frequently unavailable, and maintained uninvolved attitudes in the work environment. The constant pressure that the participants were exposed to was perceived to be partly due to unrealistic expectations on the part of management. Participants perceived an inadequate learning environment, in which agency personnel, critical care students and new appointees were dependent on the unit managers for teaching, guidance, observation and support. The need for management to get involved with those suffering from stress was seldom recognised.

- **Statements**

> *Yes, I think the sister in charge of the ward, she is the person that everything revolves [around] ...*
>
> *(Sy moet verstaan wat is daai persoon se probleem.)*
> *She must understand what that person's problem is.*
>
> *Ek dink die susters van ons hospitaal laat dinge maar net gaan, hulle eie vergaderings, hulle eie sigaretjies, hulle eie tee drink, hulle eie*

dinge, is so vol van hulleself dat hulle nie uitreik na, 'n nuwe mense toe nie...)
I think the sisters in our hospital let things go, their own meetings, their own cigarettes, their own tea times, their own things, and so full of themselves, that they don't reach out to a new person ...

I think to myself if I'm looking after a very sick patient, (ek verwag nie van my eenheidsbestuurder om haar hande uit te steek om my werk te help nie. Maar dit sal baie lekker wees as sy net nou en dan verby kom en sê, haai is jy nog oraait).

... I don't expect my unit manager to put out her hand to assist me, but it would be very nice if she came around now and again and said, "Hi, are you still okay?"

(As jy so kan werk, dan steun ons, a mens mekaar, maar dit bestaan nie, hmm, in die ICUs nie.)
If you can work so that we support each other, but this does not exist in the ICUs.

Say for instance you've got work with someone that died ... the other people on duty with you should support you.

Nurse managers acknowledged that pressure and tension exist in the workplace and are getting worse. The perception is that specialised areas have more stress and CCNs have to have unique qualities to work in such stressful environments.

... It's a very big reality. If I think about, especially in our specialised environments, I think there are a lot of stress factors.

Yes, I agree with you wholeheartedly ... there is most definitely more stress.

There were clearly expressed viewpoints made by nurse managers of what CCNs perceived as stressful. Pertinent data from independent nurse managers enabled the researcher to formulate the following aspects: long working hours, shortage of personnel, private sector involvement and business orientation, status versus need, the sick syndrome and migration of nurses.

- **Long working hours**

Nurse managers perceived long working hours to be stressful and cause exhaustion and an inability to cope. One participant described them as such:

> *What is causing the stress for instance? If they feel that working from 07:00 to 19:00 for instance, it is very stressful, then they get tired and hmm, they can't cope with that ...*

- **Shortage of personnel**

That the personnel shortage has become a crisis was explained by a nurse manager, who stated that it led onto more pressure on colleagues and management:

> *... one of the biggest causes of this is of course the lack of nursing staff ... and more pressure is placed on other staff members.*

- **Private sector involvement– business orientated**

Private sectors have a tremendous awareness of financial matters as compared to a state hospital. Staying within the budget, acuity levels of patients and nurse-patient ratios increases stress levels in nurses.

> *Workers work under stress, if you compare the state with the private*

hospitals it concerns money, everything is worked according to certain levels, patient acuity levels ... we still have to work within a budget so you cannot lower your budget and improve the salaries.

◆ **Status versus need**

A few nurse managers expressed the point of view that CCNs strive to attain a status or a higher standard of living in a shorter period of time:

Somebody said to me today, you know, the olden days nurses didn't drive cars ... but if you look at what they are driving now ... smart cars ... are they, are they not living outside their budgets? ... not managing our lifestyles properly; are we wanting what the Joneses want, hmm, something that must be looked at.

◆ **Sick syndrome**

Overtime has become a disease, nurses are hooked on overtime; it has become a part of their budgets and they have become accustomed to this:

... then suddenly your patient numbers drop, then you say, ahh, there's no overtime, you need that overtime, it becomes part of your budget.

A nurse manager stated:

(Daar is net nie werk vir almal in die Blanke situasie nie.)
There is just not enough work for everybody in the White situation

➢ **Supporting literature**

Huysamen (1997:34) states that according to research done by Gilbert, 85% of

performance barriers occur within the work environment in which the employee performs his or her task. These are negative barriers that will cause negative performance outcomes in one individual but not in another individual. The desire or willingness to perform is affected by intrinsic or extrinsic motivators and demotivators. Therefore, employees may either work above the line which he describes as being the level of normal functioning or performance or below the line of normal functioning. The organisation's efficiency is fundamentally based on three elements: the employee's skills; the environment's effect on the employee; and the employee's desire and willingness to perform.

Hofmeyr (1997:32) describes employee negativity, as many employees in various organisations perceive themselves to be remunerated inadequately for the work that they do. He states that South Africans are much more negative than those in Canada, the USA, Germany or the UK. A decrease in cooperation between work groups since 1994 and reorganisation and uncertainty have caused further deterioration in working relationships.

Almost half the employees surveyed indicated feeling that they were seldom recognised by their supervisors for work well done. Some frustrations were also expressed about job satisfaction, due to empowerment and a lack of involvement of management. Morale was lower and employees experienced more stress (Hofmeyr 1997:32).

Boase (1997a:37) states that local and international research done indicates that stress in the workplace has increased over the last few years. Managers tend to work under constant pressure, although the pressure to manage personnel and to be successful can have a positive effect on the worker and the organisation. The following are common causes of stress in the workplace:

- Work overload – too much work and too little time
- Too much responsibility and too little authority

- Promotion beyond ability and competence
- Personality conflicts with superiors and subordinates
- Frequent absence from home
- Job insecurity
- Unrealistic expectations for personal achievements (Boase 1997a:37)

Boase (1997a:37) further indicates that employers must acknowledge that:

- Workplace stress is a reality.
- The problem is escalating.
- The problem needs to be addressed.

Remedies include

- regular training
- providing support systems such as counselling services and employee assistance programmes
- rewarding overtime causing absences from family life
- communication with employees.

The stressed individual should be encouraged to:

- be realistic about abilities
- control time
- prioritise work demands
- delegate
- use available support systems
- reassess goals and ambitions
- achieve a balance between social, physical and mental needs (Boase 1997a:37).

The Economic and Social Research Council conducted a British Household

Panel Study, with yearly interviews of 5000 respondents. It studied the causal relationship between long work hours, individual health and well-being. It identified a relationship between longer working hours and poor family interpersonal relationships, especially at a risky stage of the children's developmental phase; respondents reported difficulty in managing their children and talked very little to them (Scase 1999:43).

McInnes (1999:54) discusses the need for support both personally and professionally. This is a complex issue, especially when employees have to ask for the support (feeling they somehow don't deserve support). The perception is that there will be no support when it is asked for. Professional assistance is very significant, whether it is the assistance and support of a counsellor, general practitioner, psychologist, psychiatrist or community psychiatric nurse. According to the Baldwin's 1998 study (cited in McInnes 1999:54), nurses were reluctant to consult formal support groups due to the perception that there was a stigma attached to requiring support as health professionals themselves.

Brauteseth (1993:785) suggests the following avenues for relieving stress:

- Frequently we take on too much and must be able to say “no” appropriately if this undermines responsibility and accountability.
- A vacation or a few days off will alleviate fatigue, which reduces one's ability to cope, and induces poor judgment, cloudy thinking and lowers the immune system.
- Exercise, or effective workouts use up the excess adrenaline produced under stressful events.
- Support groups consist of people of the same occupation who vent frustrations, sharing how colleagues have similar experiences and how they have overcome them.
- If one is religiously inclined, spiritual beliefs enhance strength.
- Resist unreasonable demands on others and on one's self.
- Focus and stay in touch with one's feelings.

- Catharsis is found to be beneficial after a critical incident (Brauteseth 1993:785).

Clegg (2000a:44) holds that employees will not stay absent for longer than necessary if the workplace is pleasant and is based on effective management practices and the skills to create a healthy attitude towards attendance at work. Managers who interrogate those on sick leave as if they were criminals are in danger of making attendance at work much worse. However, if the workplace is pleasant and the manager shows positive interest in personnel, work attendance will improve. In the event of a short or long absence, employees need to be interviewed on their return positively to identify reasons behind the absence; this should be included in standard policies in every organisation.

3.2.3.1.2 Resources

- **Results**

Effective management of situations and reactions provides key insights for CCNs. Trapped between environmental tasks and the structure of relationships lie the needs of CCNs to acquire resources to facilitate skills development, a supportive work culture and a collaborative work environment.

- **Statements**

This was reflected in the following statements:

> *(Daar moet reëls wees van wat jy vir mense, omdat daar nie 'n omgee proses is tussen ouens wat saamwerk, dis 'n ding wat ingestel is ...)*
> *There must be rules, because there is not mutual support between colleagues, it must be put in place.*

But I also think on a daily basis if there's really a crisis. But the people involved should be supported.

Even if they don't want to say anything, they could feel that there's somebody here ... I am not alone.

There are not systems in place to support, say listen, hmm, you must go and talk to such a person who does proper counselling.

When I had a problem they told met it's my problem. It's not the unit, it's not the workload, it's me, myself ...

She's too busy with meetings and sits chatting to people instead of supporting their own staff.

Most nurse managers implemented interventions or resources in the workplace to assist in professional and personal growth and handling everyday dysfunctional emotional reactions. However, skill or competence in emotion handling does not guarantee success in dealing with stress-related issues. The following statement bears testimony to this:

I think there's a lot of stress factors, we have to pinpoint what it is and what we have to do about it, you know. Things that I am aware of at this stage is for instance ... If I think of one thing, for instance, hmmm, that sometime back we got the results back from a climate study and ... realised that the people feel there is racism in the hospital, we've done something about it, we have our cultural months so that we can understand one another better. I think that's very positive, it's working very well, but that's only one facet, you know, we have to get to the real problems and do something about

it.

◆ **Questionnaires**

Interaction between nursing management and personnel included the use of questionnaires as a feedback mechanism on factors causing stress in the workplace, and the following unstructured strategies were implemented:

Well, what has been done in the past is, hmmm, there was a questionnaire that was given out and feedback from first talking to people that there is a problem between the doctors and the nurses. What I've done so far is I've given through to the ... who is the hospital manager, who has monthly sessions with the doctors and discussed the problems with the doctors ... it has improved ... nurses also verbalised that it has improved.

◆ **Interaction at grassroots level**

A nurse manager of a specific hospital described how managers sometimes worked overtime in specialised units. In such a case situations are viewed more objectively as personnel are more open and trusting in their interactions with nurse managers as a workforce and at grassroots level.

... the nursing managers also sometimes put themselves down for overtime, that they can work in the situation ... I like to see what goes on, on ground level and by working overtime in the unit you are actually observing ... I find that people are much more open with me ... and say, you see, this and that is happening ...

◆ **Climate meetings**

Climate meetings are in place in one other hospital. The information involved includes:

We do have climate meetings during on duty time, you know, because some of the nurses have advanced psychiatry, meaning they can definitely help us to look after our staff. Sometime in climate meetings they just verbalise their problems, it becomes a moan session ... sometime too superficial, I don't think much of it.

◆ **An open-door management system**

An open-door management system is in place for the nursing personnel of one other hospital so that personnel are freely encouraged to verbalise feelings and emotions:

I have an open door management system, anyone can come and see me ... I also refer this person to someone that can give them the correct advice, such as a psychologist.

Depending on the situation ... I will go to the unit and speak to the people and calm them down, and/or decide if we must have further sessions and having given them the opportunity to verbalise whatever they want to ... if it's not settled I can also get the social worker in to do some groups ..., the social worker came with the idea of having certain workshops for PTSD ... Well, unfortunately so far it hasn't happened that a workshop was held ...

Well, we've had outside people, ... we realised especially in CCU that there is a big problem, we have burnout among nurses ... and it is very stressful to work ... we get feedback. I wasn't very pleased with the feedback ... I could have gotten the same feedback, there

was nothing constructive that came from that.

- **In-service training**

Stress levels may be decreased if in-service training is available to all levels of staff. Subcategories of staff or non-ICU trained personnel need to be included in the in-service training programmes.

> *We've also looked at training our subcategories, hmm, to get them more equipped ... to be able to nurse the acute patient ... training for the high care, hmm, subcategory, so that it is more meaningful, you understand what you are doing and why you are doing it. It is going to be more job satisfying, we've just started this recently.*

Nurse managers acknowledge the various needs for formal strategies and referral to professional people where the utilisation of informal strategies has been ineffective and when critical incidents have been overwhelming. Nurse managers implemented the following strategies:

- **Psychological services**

> *What we are starting in ICU is actually using the services of a psychologist on a monthly basis ..., you have to see to the emotional aspects.*
> *... so we are going to try psychology sessions, if that doesn't help, we need to strategise other methods.*

> *... we've got a counsellor, who is a psychologist ... we haven't got sessions, say, on a monthly or two monthly basis, when we think they are not coping, verbalising not able to cope then they are referred to the psychologist.*

- **Social services**

... I've given them also an opportunity to verbalise whatever they want to, and if it's settled ... I feel if it's settled I can get the social worker in to do some groups ... there are certain dates that have been put aside to have workshops, hmm, with her help and expertise to help in situations like that, well so far it has not happened that a workshop was held, people said they were too busy ...

- **Employee assistance programme services**

... there is a lot of stress, especially in the specialised units but in the wards as well and then we decided on the employee assistance programme (EAP) ... it's not only one person, but a combination of social workers, psychiatrists and psychologists, so I think they will identify the person to support ... unit managers make use of these services so that stressors can be handled.

They don't take responsibility for themselves and that's what the people from the EAP say as well. Because the people come to them, when they get there they get their first interview, then they don't come back for the second and third one ... they thought that maybe the EAP will give what they need, it's not going to happen like that ...

I think that's something in the South African culture for people, they always want somebody else to do something about their problem, they don't take responsibility for themselves, and that's what the people from the EAP say as well ...

◆ **Pastoral psychologist**

We also had facilitators from outside that came to see all the staff in the hospital. She had sessions with the staff. I got positive feedback about that, although not everyone was very positive ...

➢ **Supporting literature**

Carlson (1999:22) describes the individual within an interpersonal environment and includes emotions such as love, companionship, betrayal and envy among others, which may influence work effectiveness and behavioural change. This author argues for better integration between organisational and psychoanalytic theories. Centered between the organisational tasks and the structure of relationships lie the psychological needs of individuals for a safe environment, a decent salary for themselves and their families, optimal growth and to be acknowledged, admired and rewarded. The needs of individuals are ingrained within organisationally influenced relational structures, psychological organisational outcomes, and interactions with people. Strümpfer (1995:65) mentions that stress management in South Africa is significantly relevant for enhancing physical, psychological and social survival strategies.

As organisations struggle as a result of the fluctuating South African economy, employees are becoming fewer and fewer and are placed under more pressure. They have to work longer hours with fewer resources and are expected to remain competitive with their colleagues. This attitude commences at the top and seeps down through the complete organisation.

Blegen, Goode, Johnson, Maas, McCloskey and Moorhead (1992:57) found that a lack of recognition was associated with decreasing job satisfaction and lack of nurse retention. Nursing personnel indicate that it is significantly more important that senior personnel recognise outstanding performance than competent

performance or achievement. The most valuable recognition that senior personnel could provide is salary increases associated with performance levels. Verbal feedback to subordinates is important as well as written acknowledgement. Recognition on the spot acknowledges a good job. Positive reinforcement, recognition of work and feedback are meaningful. Monetary rewards are significant ways to communicate to subordinates that their work is noticed and appreciated. Nurse managers must take the time to provide verbal feedback to personnel, which involves little cost and requires no change in hospital structure and policy. Writing letters giving descriptive work profiles for distribution to the nurses and nurse administrators and placing them in personnel files is worthwhile. Time off and payment to attend workshops and seminars are reinforcers which improve working relationships, as well as positive evaluation forms sent to the nursing director. Opportunities for growth, professional involvement and participation in decision making enhance autonomy and accountability (Blegen et al 1992:57).

Employees in work conditions that do not afford opportunities to exercise control over the environment must exercise individual coping methods. Relaxation and cognitive therapy might decrease burnout. Management must be committed to addressing issues about burnout, which includes enhancing the quality of task environments. Aspects of a healthy work environment include

- reduction of workload, patient-nurse ratio
- providing effective personnel for the job, including flexibility of agency personnel
- improvement of work-related training and skills in working effectively within an organisation (Simoncelli 2000:44)

Every organisation has positive and negative aspects to it. Mutual understanding and agreement on the human qualities are necessary and translated into observable on-the-job performance. Personnel who are highly

competent and skilled will be mismatched if they lack human qualities. Resolving this problem may decrease absenteeism, latecoming, poor productivity, low morale and personnel turnover (Simoncelli 2000:44).

Stress management or resilience building incorporates positive performance efficiency, strengths and goal directing, using internal and external resources to cope effectively. Workshops introduce lectures to relevant experiences.

3.2.3.2 Emotional support systems

Sub-subcategories of this section include

- CISD (3.2.3.2.1)
- Interrelationships (3.2.3.2.2)
- Communication (3.2.3.2.3)
- Assertiveness (3.2.3.2.4)
- Teamwork (3.2.3.2.5)

➢ **Results**

Most participants agreed that no emotional support was given to cope with pressure and tension in the workplace. A few participants suggested a system for debriefing. However, they valued acceptance and being recognised as competent working team members and felt that interprofessional collaboration depended on specific supportive strategies.

➢ **Statements**

> *... you must do something, especially when you are not coping emotionally.*

> *... yes, but there should also be a way of debriefing people.*

Hmm, I'm not interested in what goes on behind those doors.

... you need time to recover.

... the other people on duty with you should support you.

When I had a problem they told me, it's my problem. It's not the unit, it's not the workload, it's me, myself ...

A nurse manager observed that CCNs are a part of a large number and therefore need emotional support, and described this as follows:

A nurse is part of 600 people and because of this the nurse feels replaceable and I think that may be a factor that they can take into consideration ... one of the many that need recognition.

Nurse managers also felt unacknowledged in their endeavours. They felt helpless when a concerted effort was made and described some of their coping mechanisms:

... and we find solace every single day at handover times about what's going on if there is any frustrations, and overtime you learn to know each other and you get your frustrations sometimes you can't help each other, then you have to go further ...

Nursing managers are feeling people.

I don't discuss work at home ... laughs ... I'll be kicked out. I must say that the clinical psychologist is outstanding. She's done building sessions which has also helped.

> *... because a lot of the time why you, why you feel a lot of stress for a certain situation is because you don't know, hmm, how to handle it or you haven't the knowledge to help in your own stress environment.*

Another nurse manager said:

> *If I feel I need emotional support or stress management, I can always go to the hospital manager. He is available to me. The social worker is also available, and then we have a group service manager, hmm, that if I really need help with certain aspects in the hospital or with personal aspects and I can always contact her and I would think that she will also be available ...*

➢ **Supporting literature**

Personal and professional support

Constant support, understanding and empathy from colleagues are significant in coping with CIS. Collegial support can provide a sounding board for all traumatised individuals, allowing them to express what they are feeling, or share what they have experienced (Wilson & Lindy 1994:7).

Teamwork

Teamwork provides a solid basis for gaining perspective, sharing and understanding the principles of the work, evoking a sense of security and instilling confidence in critical situations (Thompson 1997:57).

Friendships

Friends enhance a person's emotional survival by sharing, understanding and providing humour, compassion, sympathy, empathy, support, non-judgemental attitudes, creativity and insight and by being a powerful source of strength (Thompson 1997:57).

A supportive family

Ford, Shaw, Senhauser, Greaves, Thacker, Chandler, Schwartz and McCain (1993:73) identify the role of the family in providing help in dealing with traumatic and critical incident stress. The family is advised about stress-related information through stress awareness workshops.

Therapeutic support

Therapeutic supportive interventions such as psychotherapy, medication, counselling, relaxation techniques and stress debriefing are valuable (Wilson & Lindy 1994:7).

Breaks

Minirth, Hawkins, Meier and Thurman (1990:5) suggest that regular breaks and vacations provide "time out" from chronic occupational stress. Goldberger and Breznitz (1993:67) emphasise the effects of time pressure and work overload on stress symptoms, causing a state of hyper-vigilance, with defensive and avoidance behaviour.

Escapes

Thompson (1997:57) suggests that small escapes are a crucial aspect of "shutting off" and feeling "Nothing can touch me here, nobody can phone me".

Cinemas, books and trips to pleasant places, focusing on something else and meditating all provide such escapes.

“Risk management” involves developing educational programmes for emotional safety, as well as for the physical safety of workers, to create an environment where CCNs can function at optimum levels and where they are nurtured by an environment that provides emotional and physical safety before stressful events occur (Hudson 1995:13).

Critical care nurse, Lynette Fagenous, informed the Hobart Stress and Trauma Conference that support for nurses working in high stress areas remained a relatively new concept. Out of 74 nurses who received questionnaires, 62,1% responded, and indicated that:

- 91% wanted a support group of some kind.
- 80% of the nurses’ supporters (relatives and others) did not understand the stress involved in CCNs’ jobs.
- 72% said talking to colleagues was the best method of resolving stress.
- 43% felt that work schedules caused more stress than the critical care environment.
- 37% wanted monthly meetings to discuss stress-related issues (Hudson 1995:13).

Providing effective stress debriefing sessions for CCNs could help them to address all these needs.

Robinson and Mitchell (1993:367-371) describe the impact of critical incidents and psychological debriefings on 172 emergency, welfare and hospital personnel in Australia. Psychological debriefing attempts to reduce stress symptoms in most personnel. The effectiveness of debriefing is inherent in talking with others who experienced similar situations.

Cudmore (1996:124) describes critical incident stress debriefing between 24 to 72 hours after the incident and proactively preventing emotional and physical symptoms shortly after the incident. Critical incident stress debriefings are highly structured and facilitated by people skilled in debriefing, including mental health professionals. There is minimal psychological support for nurses, irrespective of escalating figures of illness and absenteeism.

Thompson (1997:56) describes some of the coping mechanisms used as conditions in El Salvador deteriorated. Most workers for international humanitarian agencies implemented the following coping mechanisms:

- Personal and professional support. Colleagues gave their constant support, hospitality and understanding. Individuals provided a soundboard for releasing some of the buildup tension and stress, with energy, humour and compassion.

The close interrelationships are an important source of support, personally and in the work situation.
Reflection leads to the release of emotions and negative feelings, acknowledgement of stressors and creates a reality for our vulnerabilities and a way of overcoming them (Thompson 1997:54-55).

Ostell, Baverstock and Wright (1999:31) describe emotional reactions of people at work to the behaviour of their colleagues, managers and subordinates. Taylor (in Ostell et al 1999:31) states that managing emotions effectively needs skill and is not a matter of uttering certain words. Wright and Taylor (1994, cited in Ostell et al 1999:31) state that if the tone, pitch and tempo of speech and a person's facial expression and gestures are inconsistent with what is said, the latter will have no significance. Principles and tactics to use are as follows:

- Deal with the emotional reactions before the resolution of the incident. People who are emotionally upset are not rational, logical problem solvers. Reflective phrases by colleagues gain credibility.
- Avoid behaviour that increases negative emotional reactions. Wright and Taylor state that experiencing angry emotions might not create more negativities but will intensify their state by confrontation.
- Bring about behaviour without causing negative emotional reactions. Empathising with other people involves nonjudgemental questioning and reflecting their views, understanding thoughts and feelings.
- Recognise and acknowledge various types of emotions; the right moment and correct handling tactic is imperative.
- Give advice to subordinates in a nondirective way whereby the manager aids the subordinate in finding solutions.
- Accepting reality. There are certain incidents that are inevitable such as death. When people manage their emotions, the underlying problem is simple to deal with and they deal with circumstances in a constructive manner (Ostell et al 1999:30-33).

Stroebe and Stroebe (1996), cited in Strümpfer (1999a:10), refer to data of social support availability, associated with coping effectiveness, physical and psychological wellness and adaptive mechanisms. Studies indicate that the perception of social support "derives from the general appraisal that individuals develop in the various domains of their lives, in which they believe that they care for and value others who might be available to support them when and if the need arises" (Bavera 1986 cited in Stroebe & Stroebe 1996).

Human beings are actively involved in making contact with other resilient, strong or motivated persons for survival. Individuals consciously select persons for support, whether this be instrumental, emotional, informational or appraisal. There is a belief that support will be available within the support network (Strümpfer 1999a:15).

Schaefer and Moos (1992:71) found that good working relationships are crucial to a staff's well-being. Team building to improve work groups and training programmes to enhance supervisors' management and interpersonal skills might enhance improved working relationships and staff coping.

Wolmarans (1998:24) describes emotional intelligence as the wisdom to understand and relate to oneself and to others at an emotional level, for the general well-being of everyone. Emotionally intelligent leaders have the ability and acumen to motivate employees to perform beyond their own expectations. They communicate on a continuous basis with these employees and instill a sense of ownership, belonging, security and a joint commitment in uncertainty and change. They are trusted by their employees and are loyal to the organisation. Teamwork, mutual support and cooperation are needed for creating an innovative environment. Recognition must be given where it is due, encouragement is enhanced by appreciation and good morale. People who have complete well-being produce effective results in the workplace.

Nursing staff at the Helen Joseph Hospital's intensive care unit are being debriefed by a psychologist in an effort to assist them to cope with the growing number of deaths. The Assistant Director of Nursing at this hospital was aware of the need for supportive strategies and helping nurses to realise that they were not at fault when patients died and had to deal with this as a system in crisis. The hospital has a 10-bed adult intensive-care unit with four sisters on night duty and eight during the day, some of whom are ICU trained and others experienced. Since the intensive care unit has been full at times, patients on ventilators have been nursed on general wards by less experienced personnel. She states that "nurses are burnt out and getting sick. They are not able to give the standard of care they would like to be giving" (Thom 1999:20).

Studies by Farell (1992) and Nganasurian (1992) emphasise that support for nurses is broadly accepted. Bond (1991) identifies in Spencer (1994:1142) the questions that need to be considered when setting up a support group:

- Should the group provide only peer group support?
- Should the group be facilitator led?
- When should the group meet?
- Is it necessary to have a fixed regular time for meetings? (Spencer 1994:1142)

3.2.3.2.1 Critical incident stress debriefing

- **Results**

Participants expressed the need for formal supportive programmes as coping mechanisms set up by the employer for employees working under stressful conditions. An unsupportive environment results in symptoms that cause lack of control and further enhance stress. Management is viewed as being unaware of or ignoring such events. Supportive programmes are held in some of the hospitals but are not held on a continuous basis. Professional support groups are perceived as a stress reducer.

- **Statements**

Psychologically she has to debrief.

There are no systems in place to support, say listen, hmm, you must go and talk to such a person who does proper counselling.

(Daar moet reëls wees van wat jy vir mense omdat daar nie 'n omgee proses is tussen ouens wat saamwerk, dis 'n ding wat

ingestel is ...)

There must be rules, because there is no supportive process in working between colleagues.

➢ **Supporting literature**

The CISD and defusing process can be described as a group meeting on discussions about traumatic events. This form of intervention is based on crisis intervention theory and is an educational form of intervention.

Mitchell and Everly (1996:79) mention that the core focus of CISD is to minimise PTSD. The objectives of CISD mentioned by several authors are the following:

- to minimise the impact of distressing critical incidents (Hollister 1996:44; Mitchell & Everly 1996:79; Sowney 1996:36; Zeilig 1998:124)
- to speed up the recovery process before adverse stress reactions damage the performance, careers, health and families of personnel (Mitchell 1994:3)
- to return personnel to normal functioning and performance after dealing with traumatic events (Lane 1994:304)
- to respect and acknowledge that the need exists to depend on a support system (Mitchell 1994:3)

According to Mitchell and Everly (1996:10) good management means good stress management which maintains the integrity of the health organisation. Debriefing may render a sense of cohesion, broaden images of the incident and have a healing effect. How individuals view the success or failure of what might be called team mission appears to be a factor in the perception of distress and the decision to seek help through debriefing to experience the event as a group until control is regained.

Robinson and Mitchell (1993:375-378) assessed the value of debriefing by

personnel. Ratings were done on a five-point scale: 1 = none, 2 = minimal, 3 = moderate, 4 = considerable and 5 = great. Hospital ratings were 3,6 and 4,5 respectively.

Managing emotional reactions by debriefing processes does not imply suppressing of emotions but rather effective functioning and avoiding negative effects (Ostell, Bavastock & Wright 1999:30-31).
Dietrich and Hattingh (1993:947) state that emergency service organisations should make counselling services and critical incident stress debriefing programmes available. Continuous education and coping mechanisms must be readily available to critical incident workers experiencing stress.

Bergmann and Barnett-Queen (1986:52) suggest that for posttraumatic programmes to run successfully, support must be given from within the organisation. Without this support, the confidentiality, the willingness to discuss personal issues and the full participation in training for implementing the programme will not take place. Some organisations only have post-trauma training and peer support to avoid long-term problems. Peers selected to provide support must equip themselves with skills and have the insight to assess the need for debriefing and post-trauma counselling.

Studies of debriefing programmes after the Hillborough disaster (Dietrich & Hattingh 199b:947), where 95 people were crushed to death, indicated that hospital staff benefited from debriefing. Out of 205 people attending debriefing programmes, 139 found them effective. Emergency organisations need policies that identify stressful circumstances and teach staff coping skills. An effective safety net of debriefing and counselling strategies must be implemented to avoid long-term morbidity, and should include the development of programmes such as critical incident stress debriefing within the first 24 to 72 hours after an incident or an event.

Jinks (1999:57) explores the experiences of clients in long-term counselling and reviews changes in the clients, their outlook and the understanding of how those changes have come about. Unstructured interviews were carried out with four clients who were extensively involved in counselling. An analysis of the emergency categories of data was done. All clients seem to feel more in control of their lives, with an increase in awareness, confidence, insight, the ability to make decisions and assertive techniques by adopting and attributing the respective aspects from counselling. The counsellor-client relationship includes a trust relationship.

Finnegan (1998:214) states that various schools or models of counselling emphasise certain qualities, attributes and skills. Popular models such as the Rogerian model place emphasis on client empowerment and base intervention on the current situation. All counselling should include good communication skills, trust and empathy. Ley (1993) in Finnegan (1998:214-218) discusses posttraumatic stress disorder counselling techniques. Scott and Stradling (in Finnegan 1998:214-218) discuss counselling models. Flexibility and counsellor self-awareness are important in accurately recognising posttraumatic stress disorder using a simple five-stage assessment plan, thereby identifying the causative factor and creating an effective interaction.

- **Buddy system (peer debriefing)**

Mitchell and Everly (1996:168) state that "nurses understand nurses and in most cases are more easily accepted as support personnel than mental health professionals or clergy". Personnel who maintain coping styles use peer social support to help them work through and relate to feelings and lessen the impact of cumulative stress. The debriefing process focuses on the processes of self-help behaviour (Lane 1994:308).

CISD allows the sharing of factual information between peers and colleagues at

the time of the event and explores the nature of emotional responses in a nonjudgmental environment. The persons involved need to be educated in constructing a plan of action to deal effectively with specific elements of the incident(s).

In Australia, stress-related studies were conducted among large numbers of emergency service personnel. Almost all emergency personnel who experienced critical incident stress benefited from debriefing sessions (Laws & Hawkins 1995:17).

The expression of positive and negative feelings may be enhanced by a collegial or buddy system designed to encourage open lines of communication and peer counselling (Kennedy & Barloon 1997:67). The 1990 Consensus Conference on fostering more humane critical care recommends nonmandatory peer support groups as a significant aspect of care for the health caregiver. Individual health-care facilities should develop peer support programmes that allow for training of peers as counsellors to assist each other with work-related stressors. The efficacy of a formal programme of voluntary peer support for staff nurses could assist CCNs to recognise the significance of statements, such as “I am so burnt out” and “I am not objective”. Detection of early symptoms is imperative and indicates a change in patient assignment and opportunities to verbalise positive and negative feelings (Kennedy & Barloon 1997:67). Effective debriefing has the objective of reducing the incidence of psychological complications and disequilibrium processes caused by traumatic incidents. Attitudes towards intervention depend on social, cultural and personality influences. Members can identify with others’ experiences and deal with others’ feelings, attitudes and emotions (Furey 1987:82).

Hospital personnel (84%) described the ways in which the peer debriefing had been helpful to them:

- Talking with others about the incident helped them to cope.
- Talking about the incident in a group of people allowed them to come to terms with it.
- Awareness of how other people perceive and cope with stressful situations helped them.
- Talking through the event and listening to the feelings verbalised by others helped them to see that the emotions experienced were normal.
- Expression of views and feelings was healthy.
- Feelings were commonly shared.
- They found that others who appeared normal also had coping problems.
- It gave them a chance to get things out in the open.
- Expression of feelings and saying them out aloud was a help.
- Innermost feelings were brought to the surface.
- They encouraged expression of emotions, felt and realised they were a normal reaction to events.
- There was more talk with less preoccupation with thoughts.
- There was more understanding of self and of the situation as the group gained strength, finding solutions, support and guidance. A common bond was felt between participants (Furey 1987:82).

3.2.3.2.2 Supportive interrelationships

- **Results**

Participants described several principles that characterised a supportive environment and formed a basis for effective supportive interrelationships.

- **Statements**

And you know, at peer group level they could sort out problems, we could lash out at each other as we wished but at the end of the day it was still effective. You could see there were changes from those who were almost negative ... so at unit level it is also important.

But I also think what you say, everybody must have respect for each other ...

(So as jy met daai ou "catty" was of iets, moet jy na daai ou gaan en vir hom sê ek is nou vreeslik jammer.)
So if you have been "catty" or something ... you must go to that person and say that you are terribly sorry ...

(... Ek het eintlik 'n fout gemaak, sy moet nou sit en sien hoe sy dit kan regmaak.)
I have actually made a mistake, she should sit down and see how she can put it right.

(En ek dink as iemand my meer positief vind en vir my wys dat hulle in my vertroue het dan werk dit vir my makliker.)
And I think if people find me more positive and show that they have confidence in me, then it is easier for me.

- **Supporting literature**

According to Simoncelli (2000:44) enthusiasm, drive and commitment to enhancing competence is largely due to the efforts and team spirit and the promotion of supportive interrelationships between team members; together everyone achieves more. Nobody works in isolation and therefore all depend on the support and encouragement of the team. An upgrade in knowledge and

skills performance towards acquiring valuable attitudinal and behavioural traits is integral to motivation and success.

Several principles characterise a supportive environment which promotes supportive, healthy interrelationships and team spirit. These include

- respect for oneself
- acceptance of individual differences and personality types
- interpersonal verbalising and effective communication skills
- caring for oneself and others
- belonging
- avoidance of negative aspects
- support - collegial and managerial
- assistance and helpfulness
- cooperation
- coordination, delegation, supervision, leadership qualities, responsibility and accountability
- approachability
- politeness
- involvement
- trust
- interest
- listening skills
- positive criticism
- analytical approach
- a humane and god-fearing attitude (Simoncelli 2000:44)

Barczak (1996:74) points out that supportive interrelationships are influenced by the following major factors:

- External conditions, such as the larger organisation outside the group, can affect the group's ability to function; these include policies and a physical

work environment.

- Resources which are limited constrain the group in reaching its goal.
- Group members' skills and expertise contribute to the group's effort.
- Members need to be open in their communication, to share information, be trustworthy and trust others.

The structure of the group shapes the behaviour of the group members and how they interact with each other. Group structure also includes the roles and responsibilities of the members, as well as accountability for the work done. Another valuable component includes the norms that develop within the group and conformity to these norms.

A group process therefore focuses on developing clear goals accepted by the whole group. Group commitment and cohesion are necessary for team productivity and satisfaction and enhance supportive interrelationships.

Simoncelli (200:44) believes that one cannot work in isolation and therefore needs the support and encouragement of the team. In the South African context the desire for empowerment, acceleration of career advancement, adult education, training and development are important to motivate group spirit and for an integrated, coordinated and participative approach in the work environment.

3.2.3.2.3 Communication

- **Results**

The need for effective communication between CCNs and other health professionals was expressed by the participants. Certain feelings, emotions and attitudes towards others went unacknowledged. Good human relations are important; participants felt a process of self-awareness was needed to explore

relationships with others. CCNs experience vulnerability and often have to cope without showing any emotion, tension or pressure. It was felt that communication barriers between employers and employees were experienced.

- **Statements**

Communication levels is a problem, I'm very angry with you and you know being angry, I'm not going to talk ... to be able to come to you, to be able to talk with you!!

Let me go to somebody senior or let me go to my senior and say you know ..., I was not impressed about this and this, and this has been happening with me ...

Can't you do something. You know I want to reconcile with her and now ... has to take responsibility, to take onus on her to come to you, ... to sort that out.

But if you scream you cause a lot of stress to people, most definitely nobody is going to understand what you want ...

If you want us to decrease the stress levels, most of the situations ... you should be able to accommodate each other.

You had a good thing to say about everybody, everyday and you had basic respect for people, you know, you must ...

(Hulle draai maklik om en sê vir jou, respek moet verdien word, jy weet.)
They turn around and say to you, respect must be earned, you know.

... and one other thing is that communication, do you have the proper communication skills, that how things are being said ...
Be open to communication, you know ...

➢ Supporting literature

Katz (1997:49) views trust as an open and honest communication channel. A culture of high trust is conducive to the type of working environment that creates the sharing of information. Trust embraces

- achieving results
- acting with integrity
- showing interest and concern.

South Africa has not been immune to the insecurity in their jobs that people experience due to change. Trust between employees and their superiors includes openness, honesty, fairness and motivational skills. The prime value lies in the people; human resources should be the most important asset.

Gerard and Teurfs (cited in April 1998:85) state that through dialogue and communication, community is created and culture transformed in three ways:

(1) *Behavioural transformation*. People learn how to interact differently, and practise skills and guidelines that influence new norms. In practising these new norms interaction becomes the start of community.

(2) *Experimental transformation*. Dialogue and conversation set out the conditions of community. Individuals learn what a culture based on community principles means and integrate it at an intuitive level.

(3) *Attitudinal transformation*. Group members give meaning to the effects of dialogue. Attitudes are transformed from inflexible individuality to collaboration and teamwork. Beliefs strengthen the value of the group as a whole and as dialogue inspires the group, they reflect on their experiences and learn from them (April 1998:85).

Richards (1998:26) significantly addresses the need for communication in a transitional Southern Africa. The radical changes in the economic, political, social and technological fields affect every nurse, nurse manager and health organisation. The rate at which organisations change requires flexibility in knowledge, levels of skills and behavioural processes in the work environment. Nurses need to be regarded and treated as human beings, but want to be involved and belong. The ultimate aim of communication is to share meaning, because of cultural differences and diversity. On a daily basis there are misunderstandings that result in confusion, disagreement, and conflicting interpersonal relationships. The main philosophy of the new Labour Relations Act (No 66 of 1995) is to improve communication in the workplace.

Attitudes change as a result of persuasion. This form of social influence motivates people to reassess specific attitudes and beliefs. Attitude change will promote behavioural change. Nurses are in the position to provide effective health education towards this change (Clarke 1999:45).

Persuasive communication is effective when the communicator has personal contact with the recipient. Health education is effective when there is a personal interaction between the communicator and the recipient. Nurses who implement the principles of persuasive communication increase the probability of success in behaviour change. Strategies range from altering the characteristics of the message source to a change in the nature or content of the message itself (Clarke 1999:45).

3.2.3.2.4 Assertiveness

- **Results**

A few participants stated that they were not able to be assertive in the work environment because of victimisation.

- **Statements**

(... hulle word op ‘n later stadium vir jou gesê, maar jy het so en so gesê, en jy maak so en so en, en dit word heeltemal later uit verband geruk.)
They tell you at a later stage that you said this and this, and you did this and this and in the end it is taken completely out of context

(So, jy leer lateraan om nog meer stil te bly, nog meer in te hou en nog verder dit net te probeer wegpak en nie, jy probeer nie eers meer daarmee to “cope” nie.)
So, you learn to rather keep quiet, to hold back more and more and put it away and you don’t even try to cope with it.

(So hulle hou dit teen jou en dan ...)
So they hold it against you and then ...

(Wel en hulle gebruik dit weer as ammunisie vir hoekom jy anders moet optree.)
Well they must use it as ammunition why you must change your behaviour

- **Supporting literature**

CCNs need to assert themselves. There is value in expressing feelings openly,

directly and honestly. People are not able to act on feelings unless the feelings are recognised. Professional relationships are enhanced by assertive styles of interaction. Power is gained through behaviour that enhances self-esteem and projects an image of confidence. Assertive behaviour is defined as "standing up for personal rights and expressing thoughts, feelings and beliefs in direct, honest and appropriate ways which do not violate another person's rights" (Lange & Jakubowsky 1976 in Lancaster & Lancaster 1982:406-407). There is no need to humiliate or degrade the other person in order to relay a message clearly and confidently (Lancaster & Lancaster 1982:406-407).

Silen-Lipponen et al (2002:17) discuss the assertiveness of operating employees. These employers are flexible, assertive and self-confident, communicate openly, give positive feedback on skillfulness and acknowledge weaknesses or shortcomings.

Ripley (2001:576) states that power is the potential to get someone to do something they don't want to do. Assertiveness is the ability to get things done with respect for others and the "self". The pertinent aspect is knowledge of power and the implementation of power in the most effective way. When power is used to threaten, abuse and bully people around, it is called aggression and most people do not respond kindly to aggressive behaviour. But, when power is not used, people do as they please, especially to a person who is passive and shows little power. The assertive person gets done what needs to be done, with respect for and of team members.

3.2.3.2.5 Teamwork

- **Results**

CCNs described the current situation concerning teamwork and supportive interrelationships as caring for and understanding each other. People do not

work in isolation, and therefore depend on other people to fulfil roles. Effective teamwork is a complex issue. Teams require leaders who are responsible for assisting the group to adhere to its common goal and maintaining the unity and shared vision of the team.

- **Statements**

Because there's very, you know, little support ... we started pastoral support ... I find or what I see there is very little support, hmm, for the girls who got the sickest patient, who will always have to be on the top ...

After this you know, we open up , we'd sit and have tea and talk about it ... even if they didn't feel they didn't want to say anything, they could feel that there's somebody here, there's somebody with me and I am not alone.

(So voordat die basiese dinge nie reggestel is nie, reggesê, van samewerking nie ... die ouens in 'n sekere eenheid werk lekker saam ...)
So before the basic things, things are not corrected about teamwork, put right ... the people in a specific unit work pleasantly together ...

(Dit kom altyd terug aan samewerking.)
It always comes back to teamwork

- **Supporting literature**

Snow (2002:394) emphasises that a team commitment is one where there is trust between the team players and they therefore work toward a common goal. People are loyal and proud to belong to the organisation and will walk the extra

mile and demonstrate initiative to carry out the objective. Where there is no teamwork, team commitment, loyalty and pride are perceived as of no significance.

Teamwork involves a collective group or group intervention, which includes an open sharing of information, group problem-solving and power sharing (Janney, Horstman & Bane 2001:483).

Silén-Lipponen, Turunen and Tossavainen (2002:17) maintain that collaboration in health care includes commitment and decision-making in teams. It demands constant discussion, sharing of knowledge and willingness to take responsibility. Collaboration demands that team members develop themselves and experience work as an "entity", as having pulled together. The authors describe an approving atmosphere when employees work collegially, assist one another and support one another. Teams are built with people and collaboration in teams is regarded as the back bone of the health care facility.

Barczak (1996:73-82) describes teams as effective for problem-solving, creating new ideas, improving quality and escalating productivity. The question is: what characteristics promote effective teamwork? Effective leadership of the team is based on many strategies to maintain efficient teamwork. Major factors that influence the performance and satisfaction of the members include:

- *External conditions*

The external conditions are related to the larger organisation in which the group exists with regard to
rules and policies when financial resources are limited. The team is also limited in reaching its goal.

- *Group member resources*

An open communication system is needed to share information, pool ideas and encourage willingness and trust among the group members.

- *Structure of the group*

The style of leadership and the traits of the leader will influence how the group functions. Group structure also involves the roles, responsibilities and the accountability of each team member, as well as the norms the group conforms to.

- *Group process*

The group process includes the external conditions, group members, resources and group structure. The absence of clear goals is the most frequent explanation for team failure. Commitment and group cohesion are major aspects for creating a sense of identity and productivity. Careful planning, selecting and training of team leaders and members are imperative for the success of the team. Periodic evaluation of the team functions will allow the team to review its progress and improve the degree of effectiveness (Barczak 1996:73-82).

Albertyn (2001:20) discusses empowerment to critically reflect on issues and participation and to bring out change and an awareness of rights. Employees need to be made aware of powerlessness in the work environment which is characterised by team members who are negative, distrustful, unmotivated and uncaring. Education and training can equip the employee with skills to overcome this and strengthen interpersonal communication between team members.

3.2.4 Contributory factors to stress in the critical care environment

This category refers to those contributory factors to stress in the CCU. Subcategories further emerged from the data, indicating those factors that add to stress in the CCU The subcategories identified in table 3.1 will be discussed.

3.2.4.1 Interpersonal relationships

➢ **Results**

CCNs often lack the care, respect, concern and acceptance of their fellow-workers. They perceived good relations between colleagues to facilitate the well-being of individuals and groups in the workplace.

➢ **Statements**

> *(Die mense sal nie uit hulle eie jou help nie, jy weet nie wie het 'n siek pasiënt nie, maar daai persoon, jy moet regtig weer vir haar smeek en sê, asseblief, doen gou vir my dit ...)*
> *People will not help you of their own free will, you don't know who has a sick patient, but that person, you have to beg her and say, please, do this for me ...*

Another participant mentioned:

> *Bear a bit more, see if you can't be more positive even if it's very hard ... helps me a lot and always says nice things ... you could find just one good point in a person ... forget about the negative things, that does help, let me tell you.*

One participant related:

> *I've heard now from people that, hmm, that they were very weary of me.*
>
> *You, as the manager, are very quick to say, ag hmm ...will work there today, that I don't have to worry about her. Next day ... we'll put her there again ... we don't have to worry about her.*
>
> *(So, jy weet as jy kom, môre, jy gaan die siekste pasiënt kry.)*
> *So, you know if you come tomorrow, you are going to get the sickest patient.*
>
> *Sometimes they just leave you with your admissions and things and you must carry on and you must also help them and then after 19:00 they leave and you have lots of work and then you have not started with your things.*

➢ **Supporting literature**

Thompson (1997:57) points out that one's emotional survival depends on good relationships between team members. Relationships in moments of high tension are a great source of strength. Close bonds are formed by sharing extraordinary experiences.

Boychuk-Duchscher (2001:427) explored the perceptions of nursing practice in five newly graduated nurses who were employed on a full-time basis in three acute care hospitals in Canada. Many participants had difficulty in accepting dependance on others. They needed to be accepted as contributing members of the health team, but continuously requested assistance from their nursing peers.

In one study, all 35 participants reported unacceptable views of interpersonal relationships between physicians and nurses, medical students and multidisciplinary health team members. Nurse managers and administrators should be aware of these findings and commit themselves to exploring the basis of such disempowering interactions between health-care workers, so that pertinent changes can take place between medicine, nursing administrators and the multidisciplinary team holistically (Boychuk-Duchscher 2001:437).

3.2.4.2 Patient profile

➢ **Results**

The patient profile affects the demands made upon the nurses and the physical and psychological well-being of the CCN. The human variables involved are:

- severity of illness
- age-related care
- dying patients

Working with these patients caused psychological consequences in nurses after unsuccessful attempts at cardio-pulmonary resuscitation or withdrawal of life-support treatment.

➢ **Statements**

It doesn't matter how much you try avoiding it ... exactly the same and tomorrow it will be there, there will be a shortage of staff, there will be very sick patients, incapable staff ... you have to handle this.

(... en skielik in die koronêre eenheid, baie opnames.)

... And suddenly a whole lot of intakes in the coronary unit ...

(Ek kon sy vrou nie in die hande kry nie om vir haar te sê, kom hospitaal toe, jou man is besig om te sterf, daar was niemand om my te ondersteun nie.)

I could not get hold of his wife, to come to the hospital, just to say your husband is busy dying. There was no one that supported me.

(Ja, die eenheid wat ons in werk ... daar is 'n klomp faktore, jy sien, siek pasiënte, ... die mense se naasbestaandes.)
Yes, in the unit where we work ... there are a lot of factors, sick patients, their age groups and the patients' families.

- **Supporting literature**

Critical care nursing involves total patient care and the caring is more personalised and stressful in the critical care environment. CCNs who become consciously aware of their feelings and the feeling component among team players prompt an active will towards the nurse's own health and further development of the self (Bush & Barr 1997:394-395).

Jones and Fitzgerald (1998:117-119) point out that current technology is capable of maintaining some vital body functions, but the same technology does not always cure the underlying disease process in the acutely ill patients and the aged. Patients who in the past would surely have died can now be maintained on life-support systems for prolonged periods, with very little or no chance of regaining a reasonable quality of life. As a consequence, health carers in ICUs regularly encounter decisions to withdraw treatment from patients who have no chance of recovery. Negative feelings have surfaced in the narratives related to experiences in which there was "no control" of the situation (Jones & Fitzgerald

1998:117-119).

Sawatzky (1996:414) rated the unnecessary prolongation of life as high in the frequency, intensity and threat categories. These findings reflect the need for more positive collegial relationships. The recommendation of this author is that the CCN s change the perception of powerlessness to one of control through increased competence and expertise.

- **Severity of illness**

- **Results**

CCNs face a variety of illnesses daily.

- **Statement**

... there are a lot of factors, sick patients.

- **Supporting literature**

Trauma units in South Africa have been seeing a steady increase of patients who are admitted with severe injuries in the past five years. The causes of injuries include motor vehicle accidents, burns, dog bites, gunshots, stab wounds and severe assaults. Nursing staff experience severe stress and need time off to debrief. With all the stress and pressure present, there are no debriefing or counselling services available. Doctors sometimes attend to distressed nurses; some talk to their spouses while others play sport. However, Netcare has a 24-hour access to a counsellor to assist with debriefing. In 2000 alone, there were 3 247 motor vehicle accident cases, 3 203 assaults, 894 patients with stab wounds and 308 patients with severe burns at a state hospital in Tshwane (Mzolo

2001b:34).

- ◆ **Age-related care**

- ➢ **Results**

CCNs are faced with the dilemma of caring for the aged in the deterioration or dying phase of acute and chronic illness.

- ➢ **Statement**

... there are a lot of factors, sick patient, their age groups ...

- ➢ **Supporting literature**

The increase in life expectancy results in a greater number of elderly persons that need care. Nursing care is regarded as the largest service caring for the aged sick and dying. Clinical issues in caring for the sick aged include immobility due to cardiovascular incidents, and sensory loss, malnutrition, fractures and dying patients.

Projections estimate an ageing population in the first quarter of the 21st century. By 2020 the Japanese population will be the oldest in the world, with 31% over 60 years of age, followed by Italy, Greece and Switzerland (International Council of Nurses Report 2001:13).

Dellasega (1990:15) describes the ageing population as a salient issue, as increased longevity accompanied by an increase in debilitating illnesses such as Alzheimer's disease, diabetes, hypertension (uncontrolled) and heart disease are experienced. Stress alleviating techniques for caregivers have included programmes and stress management techniques by Apgar (1982). Benson (1979), Bowers (1983) and Hamberger (1984) (cited in Dellasega 1990:15) emphasise cognitive and action-orientated strategies to enhance effective coping

and reduce the sense of distress caregivers experience in acute and extended health-care settings.

◆ **Dying patients**

The patient profile affects the demands made upon the nurses and the physical and psychological well-being of the CCN. The human variables involved are:

- severity of illness
- age-related care
- dying patients

Working with these patients caused psychological consequences in nurses after unsuccessful attempts at cardio-pulmonary resuscitation or withdrawal of life-support treatment. The uncaring, unsupportive attitudes of team members were clearly cited:

➢ **Statements**

It doesn't matter how much you try avoiding it ... exactly the same and tomorrow it will be there, there will be a shortage of staff, there will be very sick patients, incapable staff ... you have to handle this.
(... en skielik in die koronêre eenheid, baie opnames.)
... and suddenly a whole lot of admissions in the coronary unit.

(Ek kon sy vrou nie in die hande kry nie om vir haar te sê, kom hospitaal toe, jou man is besig om te sterf, daar was niemand om my te ondersteun nie.)
I could not get hold of his wife, to come to the hospital, just to say your husband is busy dying. There was no one that supported me.

(Ja, die eenheid wat ons in werk ... daar is ‘n klomp faktore, jy sien, siek pasiënte, ... die mense se naasbestaandes.)
Yes, in the unit where we work ... there are a lot of factors, sick patients, their age groups and the patients’ families.

- **Results**

CCNs experience stressors when dealing with death and dying patients. Added stressors are the vulnerability or susceptibility to HIV/AIDS nurses are exposed to daily.

- **Statement**

(Ek kon sy vrou nie in die hande kry nie om vir haar te sê, kom hospitaal toe, jou man is besig om te sterf ...).

I could not get hold of his wife to come to the hospital, just to say your husband is busy dying ...

- **Supporting literature**

HIV/AIDS transmission through occupational exposure of health-care workers has occurred in needle-stick injuries and blood splashes to the oral mucosa in a study done by McMahon and Suterer (1988) in Clochesy (1996:1232). Needle-stick is the most common route. Thousands of health care workers have been studied, but only 32 cases of well-documented infection have been reported in the USA. The risk of infection through this route is estimated to be 0,02% (Clochesy et al1996:1232).

In a forum for professional nurse leaders, a conference (the Durban AIDS 2000) held in South Africa presented startling figures on the HIV status of nurses and

nursing staff. Dr A van der Merwe, from the Hospital Association of South Africa, reported that 35 000, or nearly 20% ,of registered nurses are HIV positive, and further reported that 50% of nursing students at one of Gauteng's four nursing colleges are HIV positive; one student a month dies of AIDS-related complications. Eileen Brannigan, a Netcare group nursing manager, gave the findings that in one college 70% of students were attending a local HIV clinic, while a further 21% were HIV positive (Fourie 2000:8).

Sue Roberts, head of the HIV clinic at Helen Joseph Hospital, reported that by 2005 approximately 12% to 25-30% of the staff would be HIV positive. However, various unions doubt the HIV status of nurses. The National Education Health and Allied Workers Union (Nehawu) reacted by saying that caution should be taken when reading these figures and that research among its own people would be carried out. The Democratic Nurses' Association of South Africa (Denosa) questioned the sources of the figures and stated that they were not aware of research being conducted. The South African Nursing Council (SANC) had no access to the figures quoted. Whether the research is 100% accurate or not, AIDS has become the biggest threat to the health and welfare of all South Africans and most at risk are the health workers (Fourie 2000:8).

3.2.4.3 Workload

- **Results**

Participants experienced major stressors due to inadequate staffing, a lack of group interaction, the limiting of information to cliques and reluctance to accept new staff members into the group. Loss of senior personnel resulted in displaced hostility and apprehension. They experienced physical exhaustion, emotional, cognitive and behavioural changes, due to heavy workloads.

- **Statements**

(Daar is nie genoeg personeel en skielik is daar in die koronêre eenheid, baie opnames, is die stres meer, maar oor die algemeen is dit 'n stresvolle beroep.)
There is not enough personnel and suddenly there are many admissions in the coronary care unit, the stress is more, but generally it is a stressful occupation.

... there will be a shortage of staff, incapable staff ...

... I think the whole problem here is we have too little permanent trained staff.

Or permanent staff with experience, with real experience ...

I feel drained.

That's why we're just loaded with more stress and that stress is unsolved stress.

You build on, it's snowballing and ... no one can cope.

It can work if you have more staff that can carry on, on their own.

- **Supporting literature**

Jex and Elacqua (1999:182) studied time management behaviour moderated by relations between stressors and strain and found that the work overload was a great stressor, largely including role conflict, role overload, work/family conflict and family/work conflict.

Erlen and Sereika (1997:959) identify aspects related to work factors. These include keeping up with new developments, having too much to do, too many interventions and not enough personnel.

Coombs (1999:81-82) describes data published by the Royal College of Nursing (RCN, 1997) and the Institute of Employment Studies (1997) in the UK as indicating:

- Nurses account for one-third of the revenue expenditure in the health service and almost 50% of the total salary expenditure.
- There are more than 640 000 employed registered nurses, midwives and health workers in health care and over 60% of these work in National Health Service (NHS) in the UK.
- Between 1992 and 1995 there was a 2,8% reduction of nurses employed in acute care, and 60% increase in community care.
- The number of student nurses in training has dropped by 33% over the past decade.
- National (UK) turnover rate was estimated to be 21%.

Warren and Rozell (1995:51-57) state that health care in the USA is in crisis due to health-care costs increasing rapidly, declining quality of care, and part-time staff working in an unstable health-care structure. Nurse managers are in the difficult position of minimising costs, yet maintaining high standards of patient care. In the past, nurse managers staffed units based on the average patient census. Currently management and nurses acknowledge that flexibility is necessary, to deal with the unstable patient workload. However, nursing personnel must respond to these unpredictable workloads in cost-effective ways, irrespective of a reduction in turnover rates of 18% to 11% in 1989 and a decrease in registered nurses' vacancy rate from 6% to 0,6%. Savings of $12,00 to $14,00 per hour were realised by using hospital-based rather than

agency resources. There is considerable expenditure on continuous recruitment and orientation.

Sawatzky (1996:41) point out that management-related stressors such as workload and a lack of reward have been reported as the primary sources of work stress. The ability or inability to meet the needs of clients and their families are affected by the CCNs' workload.

3.2.4.4 Demands

- **Results**

Most participants experienced a diversity of emotions with regard to the demands and the coping efforts needed for working in a critical care environment.

- **Statements**

... one of the sisters in her probation month, she gave twenty-four (24) hours' notice.

> *How much more money does management want to save ... because you run around, hope to catch everything that goes wrong.*
>
> *(... Net stoor toe stap en terug stap, daai paadjies soontoe en terug.)*
> *Just to the store and back, that way back and forth.*
>
> *(Maar ICU, aag, assistent in ICU gaan nie werk nie, gaan nie werk nie en dit het gewerk.)*
> *But ICU ... assistants in ICU will not work, will not work, but it worked.*

(Net iemand om, jy kan omdraai en sê, hoor hier, gaan haal vir my dit, hmm, of maak vir ons tee, toe.)
Just someone, you can turn to and say, just fetch met this, hmm, or make us some tea.
(Dit is wat jy nodig het weet, want soos jy sê, jy kan nog nie, jy't net twee hande, jy het net twee hande).
That is what you need, you know, because you can't, you only have two hands, you only have two hands.

- **Supporting literature**

Palmer (1996:550) refers to a study done by Quick and Quick (1984) who maintain that peer pressure, leadership style, different personalities, social incongruence and social density add to the demands in the workplace.

Demands of the critical care environment include management style, the impact of environmental changes, job strain and staff turnover. The work climate and the type of work produce a great deal of stress, especially in interpersonal relationships, nursing knowledge and skills. The role of the nurse manager is characterised by being flexible, responsible, innovative, efficient and patient focused. Nurse managers are expected to lead others to the vision and mission of the health organisation by transforming their own roles, identities and functional skills, promoting teamwork and growth of the profession, whilst managing their own personal growth. This causes frustration for the nurse manager trying to satisfy both the demands of the health organisation and the needs of personnel. The public trust in the nursing population needs to be maintained and its confidence and respect need to be preserved (Fletcher 2001:324-328).

Health care environments frequently change and are characterised by corporate upheaval and "hyperturbulence", which is defined as a time "when the collective

adaptive capacity of the organisation is exceeded by environmental demand", increase in physician disharmony, employee stress, culture clashes, inadequate communication, inadequate procedure and policy. Nurse managers have been ill-equipped to deal with staff uncertainty, stress, low morale and turnover. The participants in this survey realised that time was a barrier to their professional development and struggled with the need to balance the scope of responsibilities to the work environment with their own personal, professional development needs (Mathena 2002:136, 141).

3.2.4.5 Lack of trained personnel

- **Results**

This research found that the lack of trained personnel resulted in too few trained personnel per shift that had to work with student critical care nurses and agency personnel who were not experts in the specific units. The shortage of highly skilled personnel created complex pressures for skilled personnel. Unskilled personnel were not knowledgeable about various procedures and protocols.

- **Statements**

> *(Ek het 'n ervaring gehad met 'n klomp "girls" wat begin het om na twee maande het hulle na my toe gekom en gesê, maar hulle kan nie meer, jy weet hulle, hulle, die stres in 'n ICN is net, net te veel.)*
> *I had an experience with a group of girls that started in the ICU and after two months came to me and said that they couldn't, not anymore, you know, the stress in an ICU is just, just too much.*
>
> *If a sister walks in here that says, "I'm experienced", you want her experience, not her non-experience.*
>
> *But why must we do it with session workers, they walk in, they*

expect to be paid as an experienced sister, well I'm expecting an experienced sister and I don't have time to teach them.

(... maar as ek nou dink aan toe ek begin het in die koronêre eenhed, was dit vir my baie meer stresvol as nou, want toe het ek nie die protokol geken nie.)
... but if think back, when I started in the coronary unit it was much more stressful than now, because then I did not know the protocols.

A few nurse managers stated that agency staff had been mentioned as creating a problem and stated:

... every time it's a different agency, which also frustrates the doctors.

One of the biggest causes of this is of course the lack of nursing staff ... and more pressure is placed on other staff members.

➢ **Supporting literature**

Warren and Rozell (1995:52) mention a study in which 32 hospitals were represented in the southern and eastern states of the USA. In a response to the first research problem, 59 of 89 responding nurse managers had used supplemental or (agency) registered nurses. Eighty-one percent of the 89 respondents stated that the use of supplemental or agency staffing would not decrease or would remain constant (28%) or increase in the future (53%). Seventy-six percent of respondents indicated that they did not believe that it was a cost-effective practice. Thirty respondents not using supplemental staffing were asked their reasons for non-use: these were perceived poor quality of care (60%); lack of orientation to and knowledge of speciality units (33%); perceived cost (23%); and insufficient numbers available (20%). In response to the second

research problem, 76% of 84 respondents stated that agency personnel were not cost effective and there were pertinent differences between them and permanent staff such as dependability (32%), quality of care (31%), continuity of care (16%), loyalty (13%) and cost (6%).

Seymour and Buscherhof (1991:109) describe the implications of the current nurse shortage and lack of job satisfaction and general dissatisfaction described by 252 members of the American Nursing Association. One thousand nurses, randomly drawn from the membership of American Nursing Association and requested to complete a 22-page questionnaire, identified two serious consequences of staff shortages: a decline in the quality of patient care and the increase in health risks for both patients and nurses. A limited time span for patient care was related to enormous administrative tasks assigned to nurses.

Maintaining hospital departments smoothly is difficult with reduced numbers of qualified nurses, inadequate ancillary support and lack of practical support. Novice nurses expressed a reality shock at discovering the gap between high standards of professional practice taught in schools of nursing and low standards of patient care in practice. The recurrent argument that nursing shortages would improve their bargaining position, remuneration scales and working conditions was seen as an unreality.

Charnley (1999:33) explains that occupational stress exists in all professions. The aim of Charnley's (1999) study was to explore the perceived stress experienced by newly qualified nurses who completed the Project 2000 course in the UK. A qualitative approach was implemented, using grounded theory. The study revealed that the first six months of practical experience was a stressful period because of perceived

- work overload
- limited practical and management skills

- evidence of a theory-practice gap between educational priorities and the reality of clinical practice
- lack of qualified support in clinical practice (Charnley 1999:33-36).

Critical care units are affected more by a nursing shortage than are general care areas, due to the need to employ registered nurses to render patient care. This level of expertise is required due to technology, the complexity of interventions and the critically ill patients' demands for constant vigilant and competent care. Mandates from licensing agencies, such as the Joint Commission on Accreditation of Health Care Organisations, and state regulations regarding staffing ratios, also stipulate the expected number of CCNs to be available for two to three patients in the RSA (Cone, Conner, Barnard & Riegel 1995:67).

A professional practice model for care delivery was implemented in the State of California in September 1989, in two 10-bed critical care units situated directly opposite each other. This programme was in operation for an 18-month period. The professional practice model was designed by a committee of nurse volunteers from critical care and management who focused on three main areas. Firstly, critical care assistants were hired and trained to assist the registered nurses in the physical care of critically ill patients. Secondly, nurse patient ratios increased from using one nurse for every patient to one registered nurse for every two or three patients, thereby reducing the number of nurses needed. Thirdly, professional practice was improved through joint decision making and eliminating hierarchical relationships, when the role of charge nurse was replaced by that of a facilitator (Cone et al 1995:67).

The professional practice model tested in this programme supported the nurses and provided nursing care to a specific population in exchange for improved salaries and self-management. The programme increased and maintained levels of job satisfaction. However, the workload increased and was identified as a major stressor. The programme prepared critical care assistants in

providing complex support for nurses, thereby freeing nurses from ordinary, daily routine activities and so retaining experienced clinicians. Findings of the evaluation demonstrated that the nurses, patients and families experiencing this model were satisfied with the care provided (Cone et al 1995:69:73).

The shortage of CCNs is more severe in South Africa due to the fact that adequate and effective manpower planning is not adequately carried out in South Africa. Training needs are not monitored and do not receive the attention they deserve. According to Dr Slabber (Director- General, Department of National Health and Population Development), the lack of manpower policy and plans for the production and development of health personnel as part of the National Health Plan is the cause of the shortage of nurses. Addressing a DENOSA function, he said that the pool of well-qualified nursing personnel is diminishing while there is a high demand for nurses (Collins1990:15).

Critical care services in South Africa have always been in a state of crisis due to the shortage of trained nurses. In 1999 critical care training facilities were reduced (Gillespie 2000:4). Critical care courses were offered by the provincial nursing colleges in the Western Cape (which trained an average of 50 students per year) and the University of Stellenbosch (training an average of 15 students per year). Major financial difficulties and rationalisation of services and training have led to the suspension by the provincial colleges of post-basic training in critical care, trauma and operating theatre technique. Many trained nurses have been lost from the public sector to the private sector and to attractive overseas nursing opportunities offered to well-trained ICU nurses. The need for critical care services in South Africa is increasing, due to large numbers of road accidents and high levels of trauma, violence and stress experienced daily by South Africans throughout the country. Financial constraints in the teaching hospitals have decreased nursing posts, making it difficult to grant study leave to candidates wishing to pursue CCN training.

It is essential to educate more CCNs and to keep them in South African hospitals. Registered nurses need study leave to enhance their skills and improve their qualifications. Collegial support and encouragement are also needed from experienced CCNs to help students complete their ICU training successfully, as many ICU students terminate the ICU course due to the stressors experienced, as well as the lack of support (Gillespie 2000:4).

3.2.4.6 Shift work

- **Results**

A few participants pointed out that their colleagues frequently worked on their days off, often as a result being less productive, overworked, irritable and therefore creating disharmony in the work environment. They were also exposed to more physical, accidental and psychological problems due to shift work and sleep deprivation.

- **Statements**

> *(Dus ‘n ander doel hoekom werk hulle oortyd, die salarisstrukture is nie reg nie.)*
> *Therefore there’s another reason why they work overtime, the salary structures are not correct.*

> *(Ja, hulle moet nogal kyk na die salarisstruktuur, om duidelik te verstaan, verdien ons op ons beste dieselfde salarisse as persoonlike sekretaresse, dalk daarna kyk.)*
> *Yes, they must review the salary structure to understand, at our best we earn the same salary as that of secretaries, maybe they should look at that...*

(Veral al die mense wat so baie werk het, die ouens kry nou en dan 'n baie siek pasiënt en dies wat oortyd werk, wat meer as vyf dae aanmekaar werk.)
Especially the people who work so much, now and then they get a very sick patient and those who work overtime, who work more than for five days non-stop.

One participant suggested that colleagues need to live within their budgets and their life-styles:

(Tot 'n mate leer 'n mens om met jou budget te leef, daar is mense wat regtig nie kan ophou koop nie, dan eindig hulle oortyd te werk om hulle skuld te betaal.)
To a certain extent one learns to live within one's budget, there are people that cannot stop buying and then they end up working overtime to pay their debt.

➢ **Supporting literature**

Shift work is part of a nurse's work, especially to the people employed in hospitals. The employer and the employee suffer adverse repercussions, such as physical, emotional exhaustion and nodding off during work hours, chronic sleep deprivation and the abuse of medications to stay awake or to fall asleep (Thurston et al 2001:34-35).

Geyer (2001c:30-31) describes the South African law with regard to working outside of "normal" routine working hours stipulated in an employment contract.

The South African Basic Conditions of Employment Act (No 75 of 1997) stipulates that an employee may only work forty-five hours per week, nine hours per day, and twelve hours per day for not more than five days. Overtime may

therefore not exceed three hours per day or ten hours per week. Chapter 2 of the Act makes it illegal for employees to work 8 to 12-hour shifts unless there is an agreement between the employer and Trade Union or an exemption has been granted by the Minister of Labour (Wöcke 1998:4).

The Occupational Health and Safety Act (No 85 of 1993) stipulates that the employer has a responsibility to ensure that the patient is within a safe environment, that employees are not overworked and adhere to the health and safety regulations. The South African Nursing Act (No 50 of 1978) states that the nurse and midwife is accountable for his/her acts and/or omissions. Transgressing ethical and legal obligations may result in the loss of a licence to practise nursing, and so may exceeding the legal number of hours overtime.

The Hospital Association of South Africa (HASA) formerly known as the National Association of Private Hospitals (NAPH) gave employers permission to make nurses work their current arrangements, that is a 12-hour shift. The current exemption in the private sector counts a 12-hour shift as two 6-hour shifts and has reduced nurses' leave arrangements such as sick and annual leave. Implementation of long shifts followed by three rest days is an alternative to 8-hour shifts and has raised concerns.

Thurston, Tanngauy and Fraser (2001:34-35) state that a sleep deficit occurs when the period of sleep is insufficient. Physiologically, shift workers have seven hours less sleep per week on average than day workers, resulting in a cumulative sleep deficit. This may have adverse effects on memory, intellectual capacity, motor coordination and moods. Shift workers are not able to use mechanisms that will enable quick adjustment of their circadian rhythms, a process that is critical to job performance and accident prevention. External sources adversely cause readjustment of circadian rhythms from daytime to night-time, resulting in the shift worker having problems with sleep, health, social and emotional functioning.

Erasmus (1997:10) explains that internal and external changes place a variety of stresses on the human being and affect adaptation to shift work. Occupational demands and passive stress-coping mechanisms contribute to the experience of burnout and stress. Continuous stress associated with the attempt to cope with shift work can lead to a loss of physical and psychological well-being.

Shift maladaptation syndrome (SMS) has a variety of symptoms such as

- sleep disturbances with chronic tiredness
- gastro-intestinal complaints
- alcohol and drug abuse
- proneness to accidents
- depression, fatigue, mood disturbances, malaise and personality changes
- inadequate interpersonal relationship handling (Erasmus 1997:10).

Collins (1996:82-84) describes significant differences when work experience and shift work are taken into consideration. The circadian rhythm may have an effect, especially when sleep patterns are disrupted and an increase of stress arises. Shift work was correlated with work stress, hardiness and burnout. As indicated elsewhere, nurses working the 19:00 to 07:00 shift indicate a positive correlation between hardiness and nursing stress ($n = 16$) ($r = 0,45$, $p<0,05$). This indicates that an increase in hardiness also meant a decrease in levels of nursing stress.

Iskra-Golec, Folkard, Marek and Noworol (1996:251) indicate that objective stress, arising from the displacement of the normal sleep/wake cycle, can affect one's work efficiency, health, psychological and social well-being. The extent of these effects is measured by job-related variables such as shift work, workload, individual personality traits of the worker and the environment.

Studies carried out (Iskra-Golec et al 1996:251) indicate that specific features of work scheduling such as extended workdays lasting 9 to 12 hours should not be used in the workplace, especially where the work is physically or mentally demanding such as in CCUs. Since this may cause increased fatigue, decreased performance and errors in judgement might occur. Studies (Iskra-Golec et al 1996:251) carried out among nurses indicate that there is still a debate about the advantages and disadvantages of 8 and 12-hour shifts. CCNs are responsible for critically ill patients and for the use of complex specialised equipment. The need for sudden decision making with regard to patient status, and potential equipment failures, place an emotional and psychological strain on CCNs. These variables, in association with shift work, may adversely affect the health and well-being of CCNs.
A study was undertaken in the UK concerned with shift work and the effects of organisation and management on the effectiveness of intensive care nurses. A group of nurses working 12-hour shifts (n = 96) and a group of nurses working 8-hour shifts (n = 30) were compared. This study was carried out to examine the effect of shift work on health, sleep disturbances, burnout, job satisfaction, social and family life and cardiovascular and digestive disintegration (Iskra-Golec et al 1996:252).

Findings indicated that 12-hour shift nurses experience more chronic fatigue and cognitive anxiety than 8-hour shift nurses. Job satisfaction depended on the duration of the shift. Emotional exhaustion increased among nurses working longer shifts, and the increased number of rest days was insufficient to negate that fatigue. Several consecutive 12-hour shifts enhanced fatigue which could result in its chronic stage. High scores of cognitive anxiety found among nurses working longer shifts appear to be related to daily exposure to stressful events in the critical care environment, such as life-and-death situations, increased responsibility and accountability in critical situations demanding immediate effective and skilful interventions (Iskra-Golec et al 1996:225). The effects of

cumulative stress might be more acute for those CCNs working 12-hour shifts than for those on 8-hour shifts.

Increase in social and family disruption of nurses on 12-hour shifts could be counteracted by having three consecutive days off. These findings support studies done among factory workers (Iskra-Golec et al 1996:225).

Baker and Melby (1996:185) describe a study on the attitudes and practices of five staff nurses working in an ICU in Northern Ireland. Small, claustrophobic ICUs cause difficulties in working conditions. Intensive-care equipment is frequently perceived by nurses to be anxiety-provoking, leading to a sensory bombardment and overstimulation, while helping CCNs to observe minute life-threatening changes in patients' conditions.

Environmental pressures and inner distress could result in avoidance of the emotional aspects of the job, especially for the inexperienced CCN. This is identified through denial, schizoid withdrawal and aggressive behaviour (Baker & Melby 1996:191).

3.2.4.7 Absenteeism

- **Results**

Participants expressed their views that a heavy workload had a snowballing effect on their coping abilities, leading to lowered morale, a lowered self-esteem and an avoidance type of behaviour perceived to be the only way out.

- **Statements**

(Ja, ek, die stres, hmm, meeste van die stres wat ek ervaar het in die ICU, hmm, veral toe ek 'n bestuurder was vir vier jaar, was

omstandighede want weet, hmm, weet, jou mense daag nie op vir werk nie.)
Yes, I, the stress, hmm, most of the stress I experienced in the ICU, especially when I was a unit manager for years, was circumstances because, you know, your people do not turn up for work.

Sometimes I feel like phoning in to say that I can't make it, I'm sick ... I cannot, you know, take it.

➢ **Supporting literature**

Arendse (1996:14) discusses the issue of absenteeism in the work environment. Advanced and effective health care continues even though there is a decline in the economy. Health care professionals provide quality care with limited resources, especially limited human resources. This has become a managerial challenge.

Arendse (1996:14) states that nurses in South Africa perceive themselves to be inadequately remunerated, causing an increasing number of nurses to engage in "moonlighting", or taking a second job, which results in tiredness and absenteeism. It has been found that people in senior positions report less absenteeism than other categories of nurses as they feel their roles are vital to the functioning of the organisation or unit, and senior positions earn better salaries, therefore they do not moonlight as much.

Subordinate workers who feel harassed by seniors have a higher absenteeism rate. Factors such as excessive workload, lack of supporting services, shortage of staff, a low self-esteem, negative job attitude and job dissatisfaction in their jobs result in absenteeism. Substance abuse could relate to specific patterns of absenteeism such as being absent on Mondays and the last day(s) of the month.

Absenteeism is very costly to the organisation, as absent personnel must be replaced by overtime personnel or agency personnel and be paid overtime rates. Remaining personnel must perform additional tasks which may adversely affect the quality of care they can render. A negative attitude may arise in the unit/units where absenteeism is practised due to low morale and the culture of absenteeism.

The perceptions could create negative feelings and evoke various withdrawal reactions. Poor organisational commitment could be perceived psychologically as withdrawing and likely to end up in behavioural withdrawal. This hypothesis supports recent studies done by Kohler and Matthew (1993), Aquio, Griffith, Allen and Horn (1997). Hendriks, Robins, Miller and Summen (1999) (cited in Geurts, Schaufeli & Rutte 1999:253-267) perceive inequality in the employment relationship as leading to absenteeism and feelings of resentment and poor organisational commitment.

Absenteeism, decreased job satisfaction and increased turnover are by products of critical incidents found amongst critical workers because they do not have support systems to rely upon (Georgiou 1997:81).

Preventative measures include influencing positive attitudes amongst health-care workers about themselves and their organisations. Caring attitudes encourage improved morale (Arendse 1996:14).

3.2.4.8 Patient family factors

- **Results**

Participants in this study demonstrated the significance of “being there” for their

patients and families. Caring for the family included psychological and physiological aspects, especially in cases of unsuccessful weaning from ventilation, withdrawal of life support and death. These are trying times for CCNs as family members look to them for support. Stressors increase when these uncomfortable feelings are taken home and this results in a stress cycle.

- **Statements**

The participants' views on family factors as a contributory factor to stress are related in the following statements:

> *(... toe ek by die huis kom, my man vertel en besef ek net die man was siek, dit was omstandighede, nie sleg verpleging waaroor hy doodgegaan het nie.)*
> *I discussed it with my husband when I got home and then realised the man was just sick, it was circumstances and his death was not due to bad nursing care.*
>
> *(Toe sy die middag half vyf daar aangestap kom toe moet ek haar hanteer, toe moet ek die res van die familie hanteer.)*
> *When she arrived that afternoon at 16:30, I had to handle her and the rest of the family.*
>
> *... may be you have a problem at home that's not being solved, now you have to work and things aren't right at work, what do you do?*

- **Supporting literature**

Families of patients become secondary victims of stress as they observe another individual's critical situation and suffering. Only by understanding this process can additional subsequent stress among CCNs be prevented (Beaton & Murphy

1995:12).

CCNs need to be involved in family therapy; skills in family care must be incorporated into critical care units. A broad range of skills is needed in the care of families. The concern and need arises when some CCNs are less able to be caring and helpful because of their focus on highly complex technology and time-consuming care of critically ill patients. Nurses might be educated in their basic programmes to see only ill patients: however, their perceptions change when they experience the hospitalisation of a relative or friend, and have minimal access to the patient, minimal information and very little influence over the plan of care. Opportunities to communicate these sensitive issues might awaken the sensitivity of other CCNs to the importance of family care (Chesla 1996:202).

Mitchell and Bray (1990:24) state, "most frequently we find emergency services personnel dumping the work-related stress into the confines of their home ... since families tend to have far fewer conditions for acceptance and love than do their employers. Being in a less vulnerable environment does not make it more correct or suitable for them to divert the stress to the family rather than maintaining it in the work environment".

3.2.4.9 Doctor-nurse relationships

- **Results**

There were many comments from CCNs asserting that the expertise and skills of CCNs were often not recognised by physicians. The lack of communication and respect was also a most frequently cited concern.

- **Statements**

> *You are there with the patient, the nursing staff, twenty-four hours, so*

I mean you are very important. The key factor of that whole situation is respect.
Critical care doctors in state hospitals were more readily approachable, listened, were more respectful and were willing to teach nurses, unlike critical care doctors in the private sector.

(Hulle kan met jou praat soos wat hulle wil en nie groet nie.)
They can speak in whatever way they like and not greet you.

A lot of their responsibilities they first delegate.

I think because it's the private sector.

... because, you know the doctor brings in the money, so there is a different reality.

I think so, we were, we were actually told once at a meeting, at a meeting, hmm, you will do as he says, because he brings in the most money in the ICU.

The doctors overseas are not seen as boss.

(Daar is enkele dokters wat darem bietjie "nicer" is, maar ook nie elke dag.)
There are some doctors that are a bit nicer but not every day.

Most of the nurse managers perceived critical care doctors' appraisals of CCNs to be both positive and negative.

Doctors in critical care treat nurses with respect because of their competency and skills.

From our experiences I don't see that doctors are really rude to the nurses in our ICUs, the reason why I say this is because if the nurse is competent then the doctor treats her with a certain kind of respect ... so sometimes doctors treat a nurse with undue respect or disrespect because sometimes she is incompetent. But in ICU most of the nurses are very competent, especially those who are ICU trained and they have a certain relationship with the doctors. So in our ICUs the relationship is very good between the doctors and the nurses and I do feel that they believe that we are efficient, that we do attend to the problem immediately.

As regards the doctors I think the doctors are also starting to realise, hmmm, that there is a nursing shortage and, hmm, a lot of them are coming around ... it doesn't matter what you say to them, it is your responsibility to see that nurses are trained and know what they are doing.

When there is a higher level of competence involved there is a better relationship with the doctors.

- **Supporting literature: positive experiences**

Scribante, Muller and Lipman (1995a:421) imply that critical care nurses have progressed from being the doctor's right arm to being a colleague. The modern CCN has the unique capacity to evaluate unstable patients continuously and holistically and to critically diagnose changes needing immediate interventions. The professional ethical responsibilities of the CCN make her a significant player in the critical care team. Bergman (1982) (in Scribante et al 1995a:420) states that to be accountable there are several prerequisites that should be fulfilled, including ability, responsibility, authority and accountability.

Authority is legally given to the CCN to practise in terms of the South African Nursing Act, the Scope of Practice (R2598), as amended, and Acts and Omissions (R387), as amended. Managerial responsibilities and day-to-day duties of the CCN are authorised by a job description and standard unit policies (Scribante et al 1995a:421).

Baggs (1993:100) describes the caring role of the critical care nurse in performing her moral functions as a professional person, responsible and accountable for another human being. The nurse-physician partnership influences their roles with regard to respecting each other's professional knowledge and views. Caring is the essence of nursing, a moral ideal where the ultimate outcome is to protect, confirm and maintain human dignity.

Bester (2001:4) reacts to a letter published in the *Medical Chronicle* of April 2001 about a specific doctor and states that she respects and acknowledges the legal responsibility of doctors for their patients, but also that of the nurse ensuring quality care for the patient. Doctors study for a minimum of seven years. As an intensive-care nurse at a private hospital she also spent seven years studying for the professional skills that she has. Teamwork with doctors is a vital component of a caring profession. She questions how teamwork can be effective without the mutual recognition of skills and knowledge; the doctor in question needs to reflect on facts about nursing, the knowledge and critical, analytical and cognitive skills needed to render the highest of care. Doctors need to do some introspection and give nurses the credit and respect they deserve.

Espin, Sherry, Lorelei and Lingard (2001) (cited in Ripley 2001:576), emphasise the adoption of hospital policies that include effective communication, which is critical to the smooth functioning of a multidisciplinary critical care team. The various disciplines are complex and include representatives from nursing, surgery and anaesthesiology. Stereotyping of the omnipotent physician and subservient

nurse must be avoided. Making effective communication a significant policy will change the social, administrative, educational and clinical outcomes.

Laubach, Brown and Lenard (1996:477) describe the experiences of 41 nurses and physicians from both medical and surgical ICUs in Germany, as well as nurses from a medical-surgical ICU in the USA. A cross-cultural, cross-professional and cross-sectional qualitative study design with a semistructured interviewing technique was used by an interdisciplinary research team comprising a sociologist, physician and nurse. Interviews focused on selected events and situations occurring routinely in ICUs. Findings rejected the hypothesis that recalled experiences of professional nurses indicated satisfaction among nursing personnel. The results indicated a significantly high tolerance to ambivalence in perceptions of intensive care routines for nurses and physicians. Despite a high level of competence, some professional training was still needed to enhance CCNs' tolerance, which is a prerequisite for dealing with critically ill, unresponsive patients, who may deteriorate or die at any time. Cooperation necessitates maintaining mental health by exploring positive experiences and enhancing job satisfaction by developing professional competence on a cognitive and emotional level for nurses and physicians. Further research is needed on the appraisal processes by professional nurses and physicians on their experiences of their roles and functions as a team.

➢ **Supporting literature: negative experiences**

Nurse managers perceived doctors to be unhappy when having to work with incompetent as well as with different people on a daily basis. There was no support from higher authorities, complained nurse managers:

> *... but now and again you will get an exception to the rule, that you are not going to get anywhere with and I must say if you don't have the backing of higher authority, then you don't get anywhere.*

In the private sector the doctor is the client and therefore resolving conflict between doctors and nurses are not easily resolved when nurses are unsupported by higher authority.

Baggs (1993:100) supports the involvement of nurses and physicians in decision making in ICUs as these institutions have highly complex technology, requiring interactive personal skills for effective care. Alienation between professions reduces quality of patient care further, as a lack of involvement in decision making causes ethical dilemmas. Biel, Eastwood, Muenzen and Greenberg (1999:285) argue the increased responsibilities in the practical situation, including specialised and advanced monitors and computerised mechanical ventilation. New technology, managed care and increased responsibility and accountability are affecting nursing practice, as populations are better informed. Managed care results in greater cost consciousness, implying a shorter hospital stay with potentially larger numbers of relapses after discharges.

Jack and Prescott (1999:528) discuss the redefining of boundaries between professional groups in health care. This leads to the creation of numerous posts to restructure the roles of the medical and nursing professions, thereby reducing the junior doctors' hours. The Greenhalgh Report (1994) identifies areas of overlap in the work of junior hospital doctors and nurses. The study identifies 35 individual tasks which doctors carry out which could also be effectively rendered by nurses without compromising quality care.

The roles and responsibilities of night nurse clinicians create the "new deal" initiative for junior doctors to decrease the hours of work at night and to develop and expand nurses' skills. The added stresses of night nurses, according to Deacy and Smith (1997) in Jack and Prescot (1999:528-530), support the lack of senior nurses during the night. These senior nurses have to take on the jobs of doctors, which result in reduced time to support junior personnel.

Geyer and Zondagh (2002:32) refer to several complaints lodged by nurses due to doctors' unacceptable behaviour and attitudes towards nurses. Complaints entailed verbal abuse, and the use of belittling words such as "stupid" or "incompetent" by doctors in the presence of patients and their families. Steps were taken by these nurses when families observed remarks documented on the patients' files. The complainants stated clearly that it was the practitioner who usually admitted the most patients or was the "biggest money spinner" (Geyer and Zondagh (2002:32). Since the health facility gains from the number of admissions, management does not get involved. Therefore the unacceptable behaviour is condoned.

The Employment Equity Act (EEA) (no 4 of 2000) states that harassment is equated with unfair discrimination (Section 6 (3)). Section 60 (1) of the Labour Relations Act of 1995 provides that any contravention of the Employment Equity Act by an employee must be reported to management who will then "consult all relevant parties" and take steps to eliminate the alleged conduct.

Equality legislation in the promotion of Equality and Prevention of Unfair Discrimination Act (Act no 4 of 2000) prohibits harassment and communication on one of the prohibited grounds that is hurtful and harmful (referred to as "hate speech" in the Act).

Geyer and Zondagh (2002:33) state that the Human Rights Commission, according to the Human Rights Commission Act (Act 54 of 1994, Section 7 (1) (c)) can investigate the situation in accordance with Section 8, and may be approached for mediation, conciliation, or negotiation to resolve any dispute or rectify any act or omission, threat, violation to a person's human rights. Such unacceptable behaviour should be brought to the attention of management and the Democratic Nursing Organisation of South Africa (Denosa) urgently and a plan of action decided upon.

3.2.4.10 Migration of nurses

➢ **Results**

Two participants confided that they were leaving South Africa to work abroad for a period of two years. The experience of unhappy situations manifested itself in negativism and conflicting value clarifications. They stated that salary was not the only issue, but that professional growth was a priority.

➢ **Statements**

Representative comments concerning this issue included:

> *But here in South Africa, although you work hard, nobody appreciates you, let alone the salary.*
>
> *Basically, I would say money is also enhanced on the part of our suffering, but for professional growth, you know ...*
>
> *... you'll be told about there's not enough money, there's nothing.*

Nurse managers perceived nurses' leaving South Africa as a huge crisis. The nursing shortage, especially in specialised areas, has resulted in much concern. The quality of some nurses that remain has dropped and there are a number of nurses who are HIV positive, which will have an impact on the South African community and nurse population.

> *... they know we have the workforce and they are drawing it away from us, which is a huge problem because we are only waking up now, years later and we're sitting now with a huge crisis.*

I was at a HASA meeting last year where, hmm, there was a speaker. I can't remember from ... she stood up in front of everybody and she said that nursing shortages are huge ... she gave an example of a nursing school in ... where one third left the country and the other third had left the profession to go somewhere else, the other third went nursing and also stated the high rates of the number of HIV nurses that were in this group. So that leaves you with almost no nurses coming out of colleges every year, so we do sit with a huge problem. Yes.

Doctors realise the seriousness of the loss of nurses to other countries, and the certainty of this becoming worse; their attitudes, disrespect and derogatory remarks have indirectly caused nurses to move further and further away. This was said:

... the ethical committee must address those doctors and say listen we can not go on with this whole situation, the nurses can't stand it anymore ....

- **Supporting literature**

The following figures were made available by the South African Nursing Council. South Africa has 173 000 nurses. The South African population has an average growth of 2,8 pa and the bed occupancy for the country is in the region of 1 510 000, which indicates that 933 003 registered nurses would be required to render quality nursing care. The question of why nurses leave South Africa must be addressed. South Africa can no longer ignore significant issues such as the shortage of nurses, and the reasons why nurses invest their skills abroad. The World Health Organization reports that the following factors are responsible for nurses leaving South Africa: inadequate salaries, working conditions, uncertain career aspects or progression, nil acknowledgement for values. Nurses state that they need recognition more than money. They do not

like leaving their families. Nurses trained as specialists are not utilised as such. Education of the nurse means very little to the South African population. Recruiting agencies overseas take advantage of the reconstruction process in South Africa, in which older nurses are laid off work and become potential recruits for overseas. The older, experienced, skilled, knowledgeable nurse should be retained by improving remuneration packages, thereby recognising valuable skills and expertise (Geyer 2001b:17).

Shortage of nursing skills has become a global problem that was addressed by the International Council of Nurses at a meeting in Copenhagen in June 2001. DENOSA held a national workshop at which dynamics surrounding the reasons why nurses are leaving to work abroad were discussed. It was revealed that higher salaries was one of the most important factors influencing nurses to emigrate from the RSA (Geyer 2001b:26).

3.2.4.11 Cultural diversity

- **Results**

A few participants made comments concerning various levels of cultural differences. Afrikaans-speaking people were perceived as having their "own environment" or culture and were perceived as insensitive to different cultures and racial groups. Management was viewed as being either unaware of, insensitive to or disinterested in such inequitable practices in the workplace.

- **Statements**

> "*So with the cultural shock, you know, introduce yourself into the other different cultures, you know that it's very different, very different from yours, so it was a cultural shock and it was very stressful and I realised ... that the Afrikaners were not 'accommodating, not open*

you know, to a newcomer into their environment ...'"

(Afrikaanse mense is geneig om ons huisstres te wil saambring.) Afrikaans people are more inclined to bring personal stress from home.

Discuss one day about the cultural shock and the problems in the unit, that we can't work together and about the stress in the job.

And you know, at peer group level they could sort out problems, we could lash out at each other as we wished but at the end of the day it was still effective. You could see there were changes from those who were almost negative ... so at unit level it is also important.

- **Supporting literature**

Arthur (1996:47) states that people have been socialised within groups with various objectives, and the juxtaposition of subjective cultural characteristics results in a cross-cultural interaction. The unawareness, the unintentional conflict due to misunderstanding and misconceptualisation of culture are associated with culture shock. Anxiety occurs when one is uncertain of how and when to do the right thing. Uncertainty exists when a person does not know what others expect of her, or what she can expect of others regarding behavioural, psychological, emotional and cognitive aspects. Cultural adaptation cannot take place unless there is an awareness and understanding of cultural diversities. Learning enhances involvement, and the responsibility lies with the individual to reflect on what is unique or different about his work environment. Pederson (in Arthur 1996:48) states that current research on culture shock indicates a process of discomfort; it is not a negative experience, but results in new insights and positive human growth. Learning leads to accommodation of differences and adaptation to this group.

Papo (1996:10) states that the nursing profession needs to make some major restructuring of nursing curricula. Ethnocentric values, beliefs and ways reflect a dominant culture. Faculties and nursing institutions need to transform nursing curricular to the various learning theories and methods that emphasise comparative transcultural nursing care, values and practices that include Western, non-Western and traditional cultures. Nurses must move from a primarily unicultural point of view to a dual ethnocentrism of cultural diversities in the workplace (Mzolo 2001:13).

At the end of August 2001, South Africa hosted an important international conference, held under the auspices of the United Nations, on racism and xenophobia. South Africa as well as developed countries such as England, the USA and Australia testified that racism, ethnicity, sexism, political oppression and economic exploitation are very much alive.

3.2.5 Effects of stress

This category refers to the data obtained from participants about the effects of stress. The subcategory which emerged from this category is the perception of control (see section 3.2.5.1).

- **Results**

A few participants described the effects that followed being exposed to pressure and tension in the work environment. This caused them to resort to inadequate coping skills that resulted in vulnerability to burnout. Their inability to deal with their own feelings when stressors occurred obstructed nursing practice and aggravated symptoms of stress. Stress manifests itself physically, psychologically, cognitively and emotionally. Participants often vented displaced anger and hostilities on their colleagues. Denial, withdrawal, projection and rationalisation were used as defences against feelings that caused anxiety and

threatened the self-image and confidence.

- **Statements**

I withdraw totally, I lock myself in my room in my home, see nothing, do nothing, almost a type of escape.

So, learn to rather keep quiet, to hold back more and more ... don't try and cope with it anymore.

(... toe ek so gewerk het was ek miskien bietjie van 'n "bitch" gewees, en "gemoan" en "gegroan" en op die ou end was ek dalk lelik met die mense sonder om dit te bedoel het.)
... when I worked like that I was perhaps a bit of a bitch and moaned and groaned and was nasty to people without intending to be ...

I walked through those doors, that's it, I am not interested what goes on and around those doors.

Two off two and one off two on one off and so then the temper gets shorter.

One gets more weepy and after three 7-7s my children say three dirty glasses in the wash basin are a crises (laughs).

You are irritable, you know, you scream at people, may be.

Aggressive, you shout at people, scream at people, at the end of the

day you end up on the red carpet like I always do.

(Jy moet jouself leer en 'n mens kan nie stres outomaties hanteer nie.)
You must teach yourself and a person cannot automatically handle stress ...

(Huil ek, skree ek, gil ek of is dit vir my beter om kalm daaroor te gaan dink of wat doen ek daaromtrent, en behoort ek daaromtrent te doen.)
I cry or shout or yell is it better for me to stay calm about it and go and think what do I do about it and what should I do about it?

➢ **Supporting literature**

According to the Neuman Systems Model, each individual is composed of five interacting variables – physiological, psychological, sociocultural, developmental and spiritual (Neuman 1995:24). For the purpose of this research, we may describe the effects of stress according to the five interacting variables.

◆ **The physiological variable**

Stimulation of the hypothalmic-pituitary-adrenal axis by a stressor results in a sequence of events recognised by Selye (1975:13) who used the term the "general adaptation syndrome", which occurs in three district phases: the alarm reaction, stage of resistance, and stage of exhaustion.

During the alarm stage and initial response, the body shows characteristic physiological responses such as increased heart rate, blood pressure and respiration, palpitations, nausea (due to delayed gastric emptying and circulating adrenaline), dry mouth and cool sweaty palms. Nurses shake or have tremors

after dealing with cardiac arrest or resuscitations; this is due to the adrenaline effects. Unintentional weight loss as well as gastro-intestinal complaints may occur.

The stage of resistance may be experienced by developing stress-related viral infections such as the common cold and influenza. After experiencing the stage of resistance, the body becomes tired to the stage of exhaustion.

- **The psychological and developmental variables**

The developmental variable is separately identified as one of the five interacting variables contained in the Neuman Systems Model. The developmental variable also forms part of the psychological variable and they will be discussed as one entity.

Spencer (1994:1148) describes the actual symptoms of a nurse when a patient dies. These include sadness, anger, shock, relief, irritability, guilt, restlessness, anxiety, overreacting, loss of appetite, becoming a workaholic, showing forced cheerfulness, changes in sleep pattern, disturbances and aggression.

Fuhrman and Carson (1996:160) describe a healthy individual as a clear, logical and rational thinking person. Individuals affected by any form of disease, stressors and drugs are subjected to interference with the functioning of the brain, resulting in cognitive impairment.

Plaggemars (2000:80) classifies cognitive symptoms as confusion, concentration problems, reduced attention span, problem-solving difficulties and memory lapses.

Neuman's holistic concept of human beings relates to the interrelationship of

variables that determines the amount of resistance a person has in response to any given stressor. If the flexible line of defence is inadequate, the person's normal line of defence is disrupted, causing instability (Fitzpatric & Whall 1996:203).

Sharp (1996:373) states that nurses who are aware of the manifestations of stress are able to anticipate coping mechanisms.

- **The emotional processes**

Keijsers, Schaufeli, Le Blanc, Zwerts and Miranda (1995:513) cite Golembiewski and Munzenrider (1988), stating that a negative psychological climate will arise where there is evidence of burnout. Poor performance is a consequence of burnout.

The emotional processes of the stressors and/or substance abuse may be affected by various adverse feelings such as anxiety, depression, guilt, anger, fear and hostility (Gerace 1993) and Roelens (1983) (in Keijsers et al 1995:513) observed that ICU nurses who worked in technological environments were more likely to experience feelings of depersonalisation. Studies have been done on excessive workload by Caldwell and Weiner (1982), conflicts among ICU staff by Oskins (1979), lack of social support by Cronin-Stubbs and Rooks (1985), negative perceptions of the work environment by Chiriboga and Bailey (1986), confrontation with patient death, and personality characteristics such as self-esteem and hardiness by Topf (1989). Studies on environmental factors such as perceived control, by Landsbergis (1988). and ways of coping with stress by Caldwell and Weiner (1981), found that nurses who have low levels of self-esteem and hardiness, perceive little environmental control, and use passive rather than active coping styles, experience higher levels of burnout (Keijsers et al 1995:513).

◆ **Socio-cultural variable**

The health profile, emotions and behaviour of family members are significant boundaries of quality of family life and the degree to which the system is exposed to stress, and what impact stressors and support have on the family. Family roles include parent, spouse, employee, friend and citizen. Inadequate performances of these roles has a negative effect on the entire network of the social system (Longabaugh, Mattson, Connors & Cooney 1994:121).

◆ **The spiritual variable**

According to Dossey and Guzzetta (1995:6) spirituality is a process that includes aspects of meaning and purpose in life, love, compassion and caring.

Meyer (1989:118) defines spirituality as an interest in the whole person; a philosophy of life or "creative centre of personal values". Learning how to listen, how to speak, how to care, how to encourage, how to assert what one needs while letting others speak of their needs and how to be aware of one's feelings and motivation as they affect the present situation, is a lifelong learning task. It requires openness, sensitivity, objectivity and subjectivity, an intentional effort to reflect on one's self and relationships.

◆ **Other effects of stress**

Ortliep (1998:179) describes how some people alter their state of consciousness, allowing them to distance themselves from the state of unbearably intense recollections associated with the critical incident. They maintain a detachment and block off memory completely from the situation.

Allen (1998:179) states that there is a decreased interest in significant activities, avoidance, isolation and a lack of recreation or pleasure. Williams (1993:927) maintains that the effects of stress on CCNs and other emergency personnel form a framework for understanding and responding to trauma in the work environment; they consist of three phases:

(1) Shock phase

This phase includes aspects related to the physical and psychological shock. The body responds by fight, flight or freezing, which may lead to a perspective distortion.

(2) Impact phase

During this stage emotional distress is experienced and manifested in symptoms of hyper- arousal, anger, anxiety, fear and rage. Symptoms include sleep disturbances, memory impairment, lack of concentration and flashbacks. There may be self-doubt and self-questioning such as: "Did I do the right thing?" (Williams 1993:928). Guilt may arise about having failed to carry out certain acts during the critical incident. Depressive symptoms may emerge in this phase.

(3) Recovery phase

During this phase normalisation is sought. There is acceptance of trauma or the critical event as an inevitable part of the critical care environment. However, being exposed to other stressors, the person re-enters the recovery phase at a higher level of physiological or psychological tension. Not having dealt effectively with previous incidents often causes the person to "stair-step" to more pathological and distressing emotional reactions to cope with another distressing event. Williams (1993:928) advises that professional intervention during these phases will have positive indications for recovery.

Green (1994:351) states that the effects of psychological trauma are associated with the complex nature of psychological outcomes. Cumulative stress or burnout, critical incident stress and posttraumatic stress syndromes are found in health workers who have been exposed to critical incidents.

In research conducted by Guidotti (1995:1348), health care workers were found to be susceptible to developing lung cancer, cardiovascular diseases, aortic aneurysm, and various infectious diseases such as HIV/AIDS and hepatitis.

Pelcovitz, Van der Kolk, Roth, Mandel, Kaplan and Resnick (1994:3-4) refer to the effects of a critical incident, which may manifest themselves in various ways. Individuals who have not previously been exposed to critical incidents, such as neophyte CCNs, perceive themselves to be “personally invulnerable”, and the actual experience has an eroding effect and creates a new sense of vulnerability. Sparrius (1992:90) mentions that extra-organisational stressors include the low occupational status accorded to health workers within South African society, and some families of health workers share this opinion of health care as an inferior occupational status; family support for these health-care workers is therefore minimal or may even be absent.

3.2.5.1 The perception of control

- **Results**

Two CCNs and a nurse manager had the perception that the control they experienced in stressful circumstances by taking time out reduced anxiety, frustration and stress.

- **Statements**

(So, dan stap ek 'n bietjie, ek en die kinders ry fiets of swem.)
So, than I take walks, the children and I ride bicycles or swim.

(Ek is bly ek werk twee dae 'n week en dit help vir my, ek spandeer tyd met my babatjie.)
I am glad that I work two days a week and that helps me, I spend time with my baby.

A nurse manager stated:

... I'm going to run 10 km, the other nursing managers feel the same, I'm sure.

- **Supporting literature**

Strümpher (1999c:2) refers to resilience as part of a paradigm (fortigenesis) which can be learned. Resilience increases the resources people have available to adapt to life's circumstances. It refers to the strength or resistance which one has to the adversity which one encounters. Adults have the power to enhance their potential for growth and strengthening resistance.

Rutter (1985:607) stresses the probable importance of an individual's cognitive appraisal of life's situations and how one responds to the situation. Resilience is characterised by some sort of action with a definite aim in mind and some form of action or strategy to achieve the selected goal:

- a sense of self-esteem and self-confidence
- a belief in one's own self-efficacy and ability to deal with change and adaptation

- a process of social problem-solving approaches.

Girdano et al (1997:1) describe stress as having three components: frequency, intensity and duration. Pearlin and Schooler (1978) refer to coping as behaviour that protects people from any psychological harm. Lazarus (1989) (in Girdano et al 1977:1) states that a person makes a cognitive appraisal of harm, threat or challenge and the extent to which a stressful situation might be adapted or accepted.

Coping with stress is a process of behavioural adaptation to dealing with stress and includes cognitive, emotional and behavioural responses (Dohrenwend & Dohrenwend 1998:377). Moore (1996:22-25) places emphasis on personality; coping strategies which may not be characteristic of a specific personality and therefore not consistent; with functional roles in stressful situations.

Coping is defined by Turton (1994:36) as the ability or potential to deal with a stressful situation. Cohen (1987:283) defines coping as "efforts, both action-orientated and intrapsychic, to manage (that is master, tolerate, reduce and minimise) environmental and internal demands and conflicts among them, which tax or exceed a person's resources". Costa and McCrae (1989:271) refer to coping as "a set of concrete responses to a stressful situation or event that are intended to resolve the problem or reduce stress". Lazarus and Folkman (1984:141) emphasise coping to be "constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as being taxing or exceeding the resources of the person".

3.2.6 Application of the Neuman Systems Model

The Neuman Systems Model is suitable for contextualising this research as it is holistic in nature and wellness orientated. In terms of this model, the "person" could be equated with the CCN working in CCUs being subjected to the care of

critically ill and dying patients and their families.

The conscious perception that CCNs have of themselves and of other people regarding stresses is a reaction in the mind of the perceiver. Nursing curriculums might not include sufficient information on conscious awareness nor on resilience which form the basis of mental health. The focus is on the situation rather than on the response. The perception is that moderate stress is beneficial and can facilitate resilience. The psychology of stress remains common to everyone, but one has to identify and become conscious of one's unique response. As the strain increases the whole system responds in any one dimension described in 3.2.1.3 - *physiologically, psychologically, emotionally and socio-culturally* may show a reaction that will disturb the normal line of defence and decrease effectiveness and result in disorganisaion.

Empowering the self includes mastering skills to bounce back and interact with challenges in an inevitably critical care environment. CCNs have the ability to develop resilience.

Resilience can be learned but not taught. CCNs need to modify their perceptions of stress and focus on developing their personal strengths by becoming an observer of the 'self'. Assess and observe their reactions and create choices by responding in a way that will maintain 'self-control'.

Neuman (1995:30) defines the environment as "... all internal and external factors or influences surrounding the identified client or client system. Stress experiences described in section 3.2.3 view the CCN as being vulnerable to internal and external stressses that may penetrate the flexible and normal lines of defense.

These stresses may affect the CCN negatively or positively because the stressor is a personal subjective experience by the mechanisms of *input, process,*

outcome and feedback. The goal is to gain emotional and physical balance. The personal and subjective experiences depend on the CCN to overcome adversities and rebound from challenging experiences and thereby making conscious choices.

The *environment* comprises all the intra-, inter- and extrasystem forces affecting and affected by the critical care situations. The created environment comprises all those factors which are protective and unconsciously derived and which act as a "shield" or "safety net" against the reality of the critical care environment. In table 3.3 the internal and external and created environments in which the person functions are identified.

Table 3.3 Identification of internal, external and created environmental factors

Internal	**External**		**Created**
Intrasystem	**Intersystem**	**Extrasystem**	**Created**
Interpersonal relations	Relationships with team members	Family factors	Motivation
Communication among members	Communication patterns	Health organisation factors	Resilience
Group values, process	Support systems	Legislation	Hardiness
Resources available	Workload		Conscious awareness
Supportive interrelations	Training		
Perceptions of stress	Shift work		
Stress experiences	Absenteeism		

Perceptions of control	Patient profile		
Personality traits			

The needs of CCNs are embedded in the critical care environment as *internal* and *external factors* which influence and affect the CCNs' *internal (interpersonal)* and *external (inter- and extrapersonal)*
created environments. The interpersonal stresses originate from within the CCN who is in a vulnerable state, in an inevitable critical care environment and who may or may not cope effectively.

The interpersonal stresses originate from the CCN and spread to other team members who experience distress, transferring stresses to the individual CCN. Perceptions of life are filtered through the five senses: hearing, touch, taste and smell - the body forms a minor image of the mind. The way one copes depends on how emotions affect what is perceived in thought and actions in enabling expression of feelings and emotions. Expressions of negative feelings are unacceptable as individuals have been taught to block emotions resulting in physical and mental ill health. Emotional control means an awareness of the most appropriate time that it may be released - an awareness of how one reacts to emotions maintains an emotional control through the constructive process of thinking and action.

CCNs perceive the critical care environment in various ways - the critical care environment is experienced by focussing on the people surrounding the environment and communicate effectively by using emphathetic skills. Support systems may include colleagues, family members and professionals. Supportive systems also include debriefing, counselling and EAPS. Supportive strategies are two-way processes for enhancing good relationships in the critical care environment.

The extrapersonal stresses include obstacles to adaptation such as the external environment. A high self-esteem is a process whereby one separates how people think and feel about the 'self' to how one feels and thinks about the self.

In the created environment the CCN strengthens her inner beliefs and abilities in gaining confidence. A perspective on the 'self' explorer childhood habits and power to minimise painful experiences. CCNs are responsible for their own destinies - do they empower people to cause strain in their lives? Do negative people control CCNs? It is not the attitude of others but one's own response(s) to others' attitudes that cause and/or aggravate stressful experiences. CCNs must stop reacting, stop blaming others for stimulating reactions about their stress and focus on increasing positive experiences. Physically, emotionally and behaviourally conscious awareness enhances resources available within the CCN to enhance resiliency skills as life skills.

Stressful factors in the critical care environment might impact negatively on the *normal and flexible line of defence*, preventing the CCN from effective coping which can be due to inner lines of resistance being ineffective. *The inner lines of resistance* are represented by the inner broken concentric lines between the *normal lines of defence* and the basic structure. Attention drawn to these lines are the maintenance for holistic care to the CCN in the created environment which enhances challenges to overcome adversity.

To enhance resilience, CCNs manage self-control as a *created environment* by positively seeking internal strengths, abilities and coping resources. Self control maintains that a process of disruptive emotions and reactions are kept in check.

Personal responsibility in taking control of the state of mind by resisting the effects of attitudes as attitudes exert a powerful pull on thought, memory and perception. CCNs who react to stress with "hardiness" might enhance their

abilities to remain committed, remain in control and to face the daily challenges in the CCUs.

Health is the ability of the CCN to function at an optimal level (physiologically, psychologically, socially and spiritually) and to maintian a level of equilibrium in which the system is in harmony with the internal and external environment. A healthy person is in a state of stability in which performance is optimal and can be sustained over time.

The Neuman Systems Model (1995:17), as well as the effect of stressors on the lines of defence and resistance, could be adapted to describe the effect of stressors on the CCN.

(1) The physiological variable is affected by the continuous presence of stressors in the ICU, causing a breakdown in organs' functioning, resulting in manifestations of various stress-related symptoms such as burnout and exhaustion, an increased vulnerability to certain diseases such as infections, malignancy and auto-immune disease (Kaplan 1991:909) and burnout (Neuman 1995:17).

(2) The psychological variable includes cognitive and affective dimensions. The effects of accumulated stress in the ICU might include cognitive impairment, adverse emotional feelings such as anxiety, depression, anger, fear, guilt, remorse and a breakdown in communication. All these manifestations will adversely affect the CCN's coping capabilities (Fuhrman & Carson 1996:160).

(3) The sociocultural variable refers to expected social roles such as spouse/parent/ employee and cultural aspects of values, beliefs, customs and language (Norrish 2001:44). Facing stressors on a daily basis may cause exhaustion and burnout which may cause disintegration of family life

and/or rejection by colleagues, affecting the CCN's values, beliefs and customs. Unless the CCN receives help the long-term effects of stressful encounters could destroy the CCN's sense of meaning in life and social support structures.

(4) Bueno and Sengin (1995:278) link the developmental variable to the psychological variable as it is involved in "... cognitive abilities, educational achievements and life experiences". The CCN who experiences PTSD will be unable to cope with stressors due to an affected immunity system and physical illness, impaired cognitive processes and emotional instability (Fuhrman & Carson 1996:160).

(5) Consequences of events specified under the preceding four variables include negative outcomes on the dimension of the spiritual variable, which could be experienced as a negative self-concept leading to a lower self-image with feelings of despair, hopelessness, helplessness and a lack of purpose in life (Dossey & Guzzetta 1995:20).

Stressors have an effect on the CCN's flexible, normal lines of defence and inner lines of resistance. Neuman (1995:21) describes these lines as follows:

(1) The flexible line of defence has a dynamic function, in that it moves away from the normal line of defence, thus avoiding the invasion of stressors on the client system as opposed to the minimal protection offered when it is drawn closer to the normal line of defence (Neuman 1995:21). The protective nature of the flexible line of defence would be ineffective if the client were unable to control the effect of stressors, as the coping mechanisms against these stressors' effects would be impaired.

(2) Neuman (1995:30) refers to the normal line of defence as "... the usual wellness level ...", which occurs over a period of time. Ineffectiveness of

this line allows the invasion of stressors to the inner lines of resistance that may be ineffective in resisting the stressor's invasion of the basic structure of the total system (CCN as totality). The accumulation of stressful events could have similar effects on CCNs. When the CCN's "usual wellness levels" have been compromised or invaded (in Neuman's terminology), then the CCN's coping capabilities will be adversely affected. These effects might be noticeable as symptoms of exhaustion and/or burnout. Debriefing could assist CCNs to strengthen the coping factors in their basic structures, to reverse the effects of stress, to prevent the accumulation of the results of stressful events, and to remain fully functioning persons. In Neuman's (1995:46) terminology, effective debriefing of CCNs could strengthen their "lines of resistance ... to prevent stressor invasion to the basic structure". Thus effective debriefing could help CCNs to maintain their lines of resistance and to remain fully functioning persons without succumbing to severe stress, such as CIS, burnout and PTSD.

(3) Neuman (1995:46) states that the inner lines of resistance are " activated when stressors have penetrated the normal lines of defence ". These lines protect the basic structure from stressor invasion. Effectiveness of these lines is dependent on the strengths of the coping factors in the basic structure to reverse the reaction and maintain stability.

Figure 3.1 (see page 213) depicts how stressors have an effect on flexible, normal and inner lines of the CCN.

Stress experienced some time after encountering a stressful event is referred to as "delayed stress". Much has been published about delayed stress, symptoms of which include intrusive images, physical signs, emotional signs and cognitive signs. Stress reactions do not always show up at the time of the critical incident, and may take effect days, weeks, months or years after it has ended. They are a direct result of a critical incident. CCNs who have the tendency to suppress their emotions might experience delayed reactions.

Management should monitor stress levels in CCNs and encourage debriefings so that trauma nurses can deal effectively with the stressful nature of their daily work, and support staff by interviewing them on an individual basis to assess special requests such as rotation out of a unit for a short period. Professional and student nurses need to become aware of their own stress levels and resilience or inert strengths to manage stress (Robinson & Mitchell 1993:367).

Escalation in the incidence of stress-related conditions, including PTSD, has necessitated the development of new therapeutic strategies and techniques for dealing with psychological trauma (Figley 1984:25-26). A number of studies investigated the impact of trauma on people and therapeutic interventions which could assist them to prevent or overcome PTSD. Research and development of intervention strategies have been noticeable among emergency workers, victims of disaster, combat soldiers and members of the community. Many emergency personnel might be aware of the fact that their jobs involve exposure to traumatic situations, which could motivate them to develop readiness to deal with difficult situations. Thus any understanding of the management of trauma by emergency service personnel needs to bear in mind predisposing and contextual job factors which may prepare the individual to manage trauma at work (Robinson & Mitchell 1993:367-368).

Neuman (1995:33-35) describes three levels of prevention as intervention: primary, secondary and tertiary.

Primary prevention refers to the maintenance of normal wellness by being exposed to stresses and coping with it, which builds resilience and enhances one's emotional immunity. Re-living experiences implies embarking on a journey of knowing and understanding the 'self'.

In *secondary prevention* the inner lines of resistance are strengthened to protect

the CCN when the symptoms of PTSD develop. Reconstitution is maintained by the input, process and outcomes achieved in seeking personal and interpersonal resources either as a debriefer, peer debriefer, counsellor or EAPS.

Tertiary prevention maintains a system of stability after *reconstitution* and includes an ongoing process. This is the return and maintenance of system stability following treatment of stressor reactions (Neuman 1989:71). Reconstitution can lead to a level of stability that is the same as, greater than, or less than, it had been prior to the stressor reaction.

Nursing interventions are those activities that strengthen the flexible lines of defence in the CCN, aimed at strengthening resistance to stressors, such as facilitating conscious awareness and resilient behaviour.

Figure 3.1

The CISD debriefing process provides opportunities for group discussions about critical incidents which might have devastated the person's usual coping strategies, making it impossible to function at the trauma scene or at a later stage. In the USA, Canada and Australia, psychological debriefings are reportedly helpful for emergency service personnel, but there is insufficient empirical evidence about the success which debriefing sessions achieved (Robinson & Mitchell 1993:368-369). Research is complicated in this sphere for the following reasons:

- There is a lack of baseline data on the kinds and duration of stress symptoms experienced by emergency personnel.
- Control groups cannot easily be established as this would entail the withholding of assistance to some victims who might suffer lifelong consequences as a result of a lack of debriefing opportunities.
- Trauma at the time it occurs cannot be controlled.
- Researchers need to be sensitive to the needs of the people who have experienced specific traumatic situations.
- Emergency personnel have a tendency to close up after traumatic events and to resist participating in research (Robinson & Mitchell 1993:368).

Further research should continue to assess the value of psychological debriefings and to develop a better understanding of the mechanisms which facilitate recovery (Robinson & Mitchell 1993:369). Jinks (1999:58) cites a number of UK studies since the early 1970s which developed the method of using interviews to explore the client's subjective experience and understanding of what has occurred, during counselling. This relies on retrospective accounts of therapy which might have happened months ago, further exploring the current expanding field of research into the client's experiences. Much more might be going on under the surface of the client during counselling sessions than is apparent to the counsellor, debriefer or observer. Counselling might thus play an important part in changing clients' perceptions about their problem-solving abilities and enhance

their problem-solving skills, enabling them to feel in control of their decisions, jobs and lives.

Lane (1994:304) describes the CISD activities of emergency medical services in the Baltimore region of the USA as adhering to the following goals:

- decreasing the impact of distressing critical incidents on the personnel exposed to them
- accelerating recovery from traumatic events before harmful stress reactions have a chance to damage the performance, careers, health and families of personnel
- facilitating the return of personnel to their functions in the system (Lane 1994:304)

CISD of health care workers after encountering critical incidents resulting in death emphasised

- the opportunity to express feelings
- maintaining a nonjudgmental attitude
- sharing a sense of loss and talking through the sequence of the stressful events
- creating a CISD format of expression (Lane 1994:306).

Health-care workers became better able to handle their own emotions and uncertainties regarding critical outcomes if they perceived themselves to be functioning within a supportive environment (Lane 1994:306). The competency of the caregiver is affected by loss "as any loss is experienced as a partial or total loss of self-reductive competency in managing one's life, followed by a loss of self-esteem and feelings of guilt". The period taken to work through loss, and how effectively this is done, depends on the available support system in the

surrounding environment. A sudden unexpected change in a patient's status is often a crucial factor influencing the outcomes of critical incidents. When such incidents result in the death of a patient, caregivers might experience grieving processes. Both the patient's family members and the caregivers need time and distance to grieve (Lane 1994:306). When they lack time and/or distance, the grieving process is prolonged.

Lane (1994:308) summarises the advantages of CISD as follows:

- The tension level lowers.
- Participants regain a cognitive orientation.
- Individuals achieve relative emotional control.
- Participants receive help in self-observation.
- There is opportunity for emotional venting.
- There is opportunity for obtaining closure on the incident.

CCNs need to protect themselves from feelings of despair, anxiety, anger, guilt, frustration, overcommitment and overstimulation. Debriefers provide the tools for empowering CCNs through the components of education on the awareness of a spectrum of stress symptoms and stress reduction techniques. Maladaptive coping strategies are replaced by constructive coping skills (Bell 1995:41). Even experienced nurses might suffer from anxiety and stress in the ICU, resulting in errors, increased guilt and anxiety (Baker & Melby 1996:187). Basic difficulties in communicating with nonresponsive patients are compounded by pressures of the working environment (Baker & Melby 1996:187).

Marion, Mathews, Kirkpatrick and Streifel (1995:26) define empowerment "as a process of inquiry, the act of reflective thinking to assess actions and outcomes as opposed to blaming oneself or others when problems arise". The entire project, reported by Marion et al (1995:26) was run over five years with a reassessment plan in 18, 36 and 48 months to assess effectiveness of

interventions and study the degree of autonomy. The following have been implemented to promote and empower staff:

- baseline autonomy assessment for clinical registered nurses
- baseline leadership assessments for nurse directors
- education programmes in conflict resolution, assertive communication, decision making and managing change for clinical staff and teachers
- plan for follow-up in 18 months on autonomy and leadership assessments
- growth and development plans compiled by each nursing leader to address identified growth needs
- expansion of the role of the unit-based council in a shared governance model

3.3 CONCLUSION

This chapter described the research results and compared these with relevant literature. The results indicate the prevalence of stress, the repeated exposure to stressful incidents in the critical care environment and the negative consequences of these stressors for the CCNs and the organisations alike. Effective coping skills and support systems need to be put into place and implemented.

Chapter 4

Conclusions, limitations and recommendations

This chapter deals with the conclusions, limitations and recommendations of the research.

4.1 INTRODUCTION

This study was conducted in the South African context and was restricted to the areas of the Tshwane district. It is therefore not representative of the total population.

The background to the problem (see chapter 1) was viewed against CCNs who traditionally embrace the concept of duty and obligation. The human "self" of the CCN consciously and unconsciously ache for acknowledgement as they have to cope with daily real human crisis of illness, loss and death.

There are several reasons why CCNs choose to leave the acute health care setting: that nursing is a chronically physically and emotionally stressful profession, patient profiles vary daily, personnel stressors, perceptions of a lack of respect, autonomy and advocacy result in profound feelings of powerlessness.

How do CCNs manage their emotions and feelings? Nursing curriculums might not teach enough about the management of emotions. Conscious awareness enhances self-control and resiliency, enhancing the selection of effective coping mechanisms. Traditional nursing educators must accept their share of the blame that critical care students and other nursing students "chilled" to obedience, rather than to use power. Self-assessment enhances a conscious awareness to stressors that are experienced in the work environment. This subjective experience and the perception of severe stress related issues in the work environment depend on a conscious owning of the reaction. Attitudes and behaviour create obstacles or challenges in disrupting change or creating a change.

The literature support provided in chapter 3 indicates that stressors do exist in the critical care environment. CCNs should facilitate a consciousness for dimensions of an internal and external locus of control. An unconscious attitude exists when an individual is dependant and follows orders without questioning and therefore behaves non-resiliently in stressful situations. CCNs with an internal locus of self-motivated, self-reliant, question and challenge management, create an innovative strength towards resiliency in the face of inordinate demands.

Constructive guidelines based on a sound academic knowledge applicable to practice might enhance CCNs' conscious awareness through enhancing their hardiness and resiliency.

4.2 AIMS OF THE RESEARCH

The overall aim of this research were:

- To facilitate conscious awareness in CCNs with the goal of enhancing their hardiness and resiliency. The paradigmatic perspective of this research was based on the Neuman Systems Model and formed the basis of the research. The research findings indicate that resiliency of CCNs is an attribute of professionalism that can be developed through strengths that facilitate a consciousness of life-long, self-motivated learning.
- To achieve the overall aim, objectives were formulated in two phases.

Phase I

- Explore and describe relevant literature that could facilitate conscious awareness of critical incident stress, burnout and PTSD among CCNs.
- Identify and describe how CCNs appraise the critical care environment, using focus group interviews.

Phase II

- To describe the perceptions of nurse managers as they reflected on CCNs experiences disclosed during focus group interviews.

4.3 CONCLUSIONS

The conclusions in this study are based on the findings. It has become evident that CCNs' responses to stressors will be influenced by their conscious appraisal of subjective perceptions of the work environment. Stress management as a traditional concept has focussed on individual approaches such as debriefing, counselling, EAPS and peer debriefing as ways to adapt to or cope with severe environmental stressors. It has become evident that CCNs need more than simple stress management techniques but that environmental resources need to combine in a synergistic way with individual characteristics and environmental resources to overcome severe stress in the work environment. CCNs are responsible for their own well-being by fostering attitudes towards adopting resilient attitudes.

4.4 LIMITATIONS

The results and conclusions drawn from this research can only be applied to the private sector. The nature and size of the sample limit the potential to generalise the results of this research. The majority of the participants were females. Participants of both sexes, cultural groups and various geographical areas would have been more representative of the population of CCNs in the RSA.
It has become evident that further research is needed to explore student CCNs' and doctors'

perceptions on stress-related issues.

4.5 RECOMMENDATIONS

Recommendations of this research were made with specific reference to nursing unit management, nursing education and nursing research.

◆ Nursing unit management

- Conscious awareness among CCNs should be addressed during CCNs' in-service education programmes.
- The guidelines developed should be implemented in the critical care environment.
- The establishment of a formal communication system between CCNs and managers should be established to address critical inconsistencies.
- The development, implementation and evaluation of a support and stress management programme synergistically with resilient enhancing skills and techniques could help CCNs to cope better in the CCUs, and might contribute to decreasing numbers of CCNs leaving CCUs or even the nursing profession altogether.
- Adopt a conscious awareness of one's emotions and their effects, the relationship between feelings and performance and the decision made after an accurate self-assessment.
- Enhance competence by drawing upon all of the biological, psychological and environmental resources available.

◆ Nursing education

The following recommendations are made regarding nursing education:

- Guidelines facilitating conscious awareness among CCNs by adopting resiliency should be incorporated in the basic nursing curriculum, and expanded upon in the curriculum for CCNs.
- Publications in journals, presentations at symposia, workshops and refresher courses for

critical care nurse managers, health care workers and counsellors should address ways of enhancing resiliency, hardiness and conscious awareness.

- Empower nurse educators/mentors and preceptors about resiliency.

◆ **Nursing research**

The following recommendations are made regarding further research:

- This qualitative research only included CCNs working in private hospitals in Pretoria. Guidelines for enhancing CCNs' resiliency, hardiness and conscious awareness should be designed, evaluated, validated and refined further through extensive research by including other categories of nursing personnel in a variety of settings.
- This framework was designed specifically for CCNs but the transferability of this framework should be tested to other nursing disciplines and other health-associated disciplines.

4.6 CONCLUDING STATEMENTS

In this final chapter the research is concluded, limitations and recommendations were made for nursing unit management, nursing education and nursing research.

The overall aims of this research were to facilitate conscious awareness in CCNs with the goal of enhancing resiliency, hardiness and conscious awareness among CCNs. The Neuman Systems Model formed the theoretical framework for this research as the CCN is a holistic being and functions in a critical care environment.

If CCNs could be assisted to enhance their levels of resiliency, hardiness and conscious awareness then they should be more fully functioning persons with better coping capacities in the CCUs, and in their personal lives. These abilities could help to maintain more CCNs within the CCUs and within the nursing profession. As it is extremely costly in time and money to educate and train fully functioning CCNs, the money and time spent on enhancing their coping capacities in the CCUs, might be a most worthwhile investment for individual CCNs, CCUs and hospitals.

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Annexure A

Annexure B

Annexure C

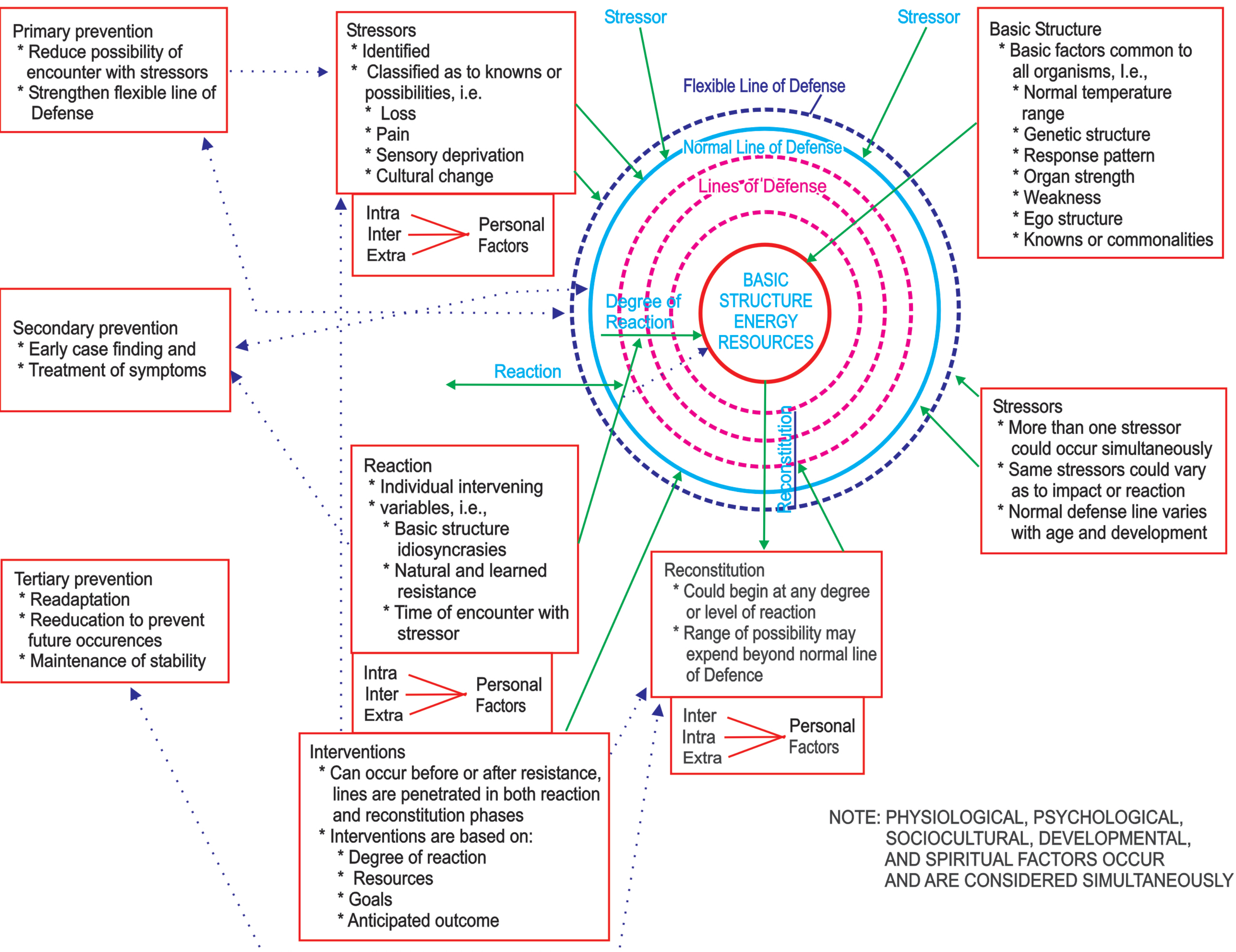

Fig. 1.1 Application Of The Neuman Systems Model To The Critical Care Nurse (Neuman,1998:210)

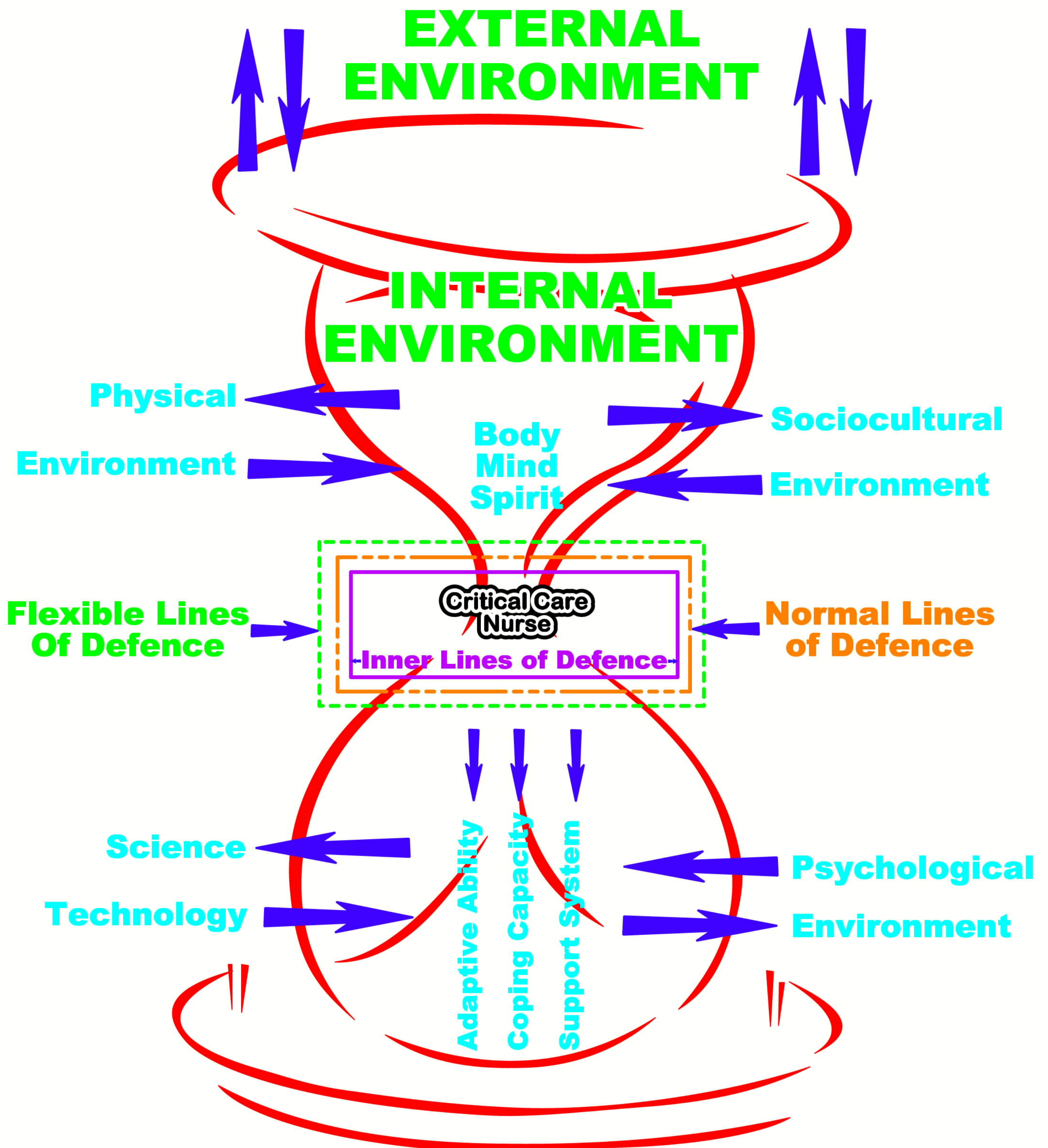

Fig. 1.2 A modified "Hour Glass" model of human ecological interaction (adapted from John Bruhn, Lancaster & Lancaster, 1982:340)

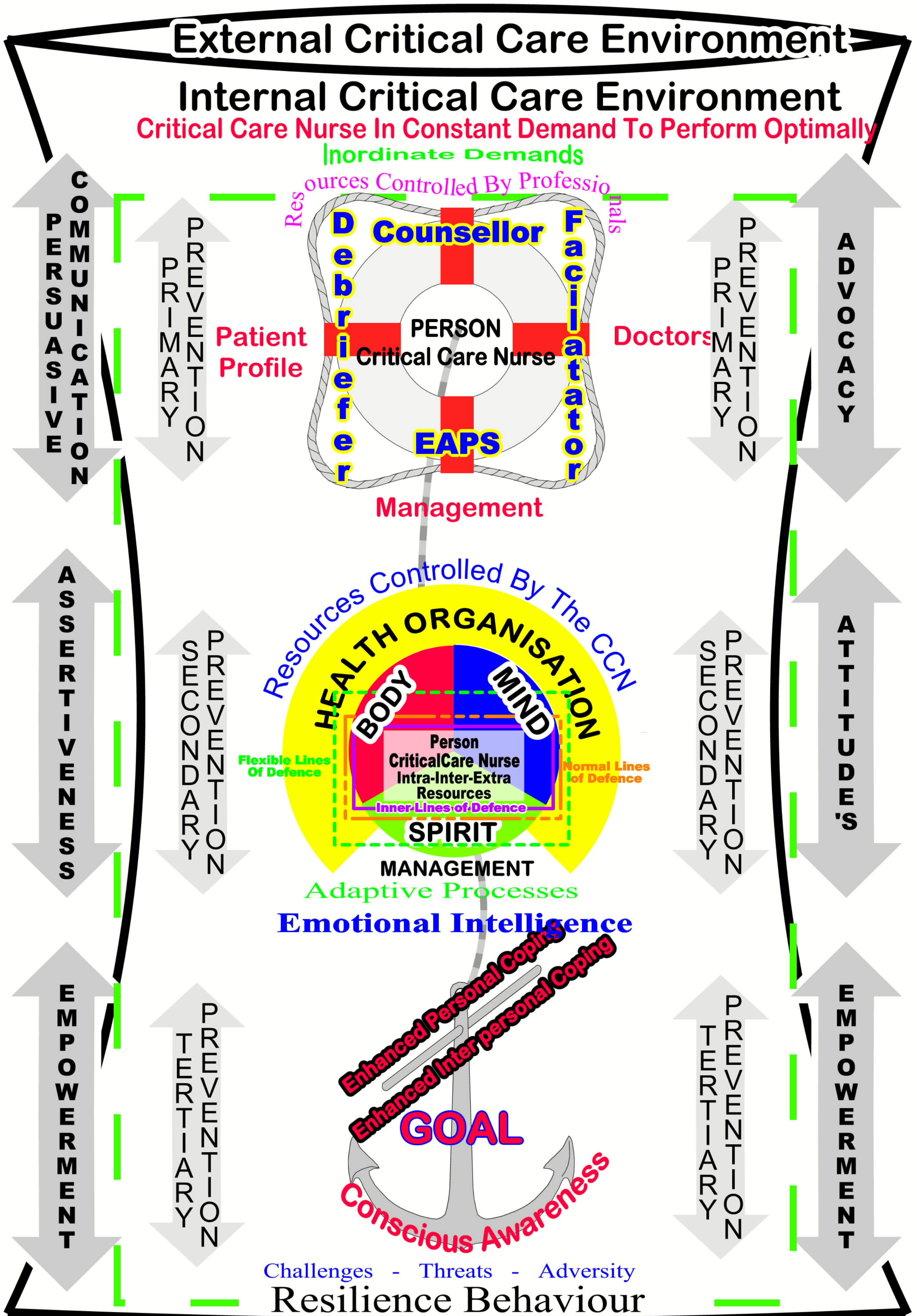

Fig. 3.1 Contextual Framework For The Critical Care Nurse