THE INCIDENCE OF POST TRAUMATIC STRESS DISORDER AMONG POLICE OFFICERS

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SUMMARY

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This study investigates the relationship between traumatic events and PTSD among police officers in KwaZulu-Natal and the mediating effects of coping and social support.

The aim of the study was to determine the incidence of PTSD among police officers and whether coping and social support structures act as mediating variables in the stress-illness relationship. In order to achieve this aim an assessment battery containing Biographical Checklist, the Ways of Coping Checklist, The Index of Social Support and the Dutch Post Traumatic Stress Scale was distributed to a sample of police officers in Kwazulu-Natal.

The findings indicate a high incidence of PTSD, among policemen although no significant relationship was found between exposure to traumatic events and PTSD. Further, emotion-focused coping strategies, namely, self-blame and wishful thinking, were found to be predictive of PTSD. No significant relationship was established between the availability of social support and satisfaction with social support and PTSD.

Key Terms: PTSD, Coping mechanism, Coping repertoire, Stress, Social support, Availability of social support, Satisfaction with social support.

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CHAPTER 1

INTRODUCTION AND MOTIVATION

Police work has been identified as the most psychologically dangerous profession in the world (Axelbred & Valle, 1978). Violence in a suggestive or concrete form seems to have been ever present in the history of policing (Oliver, 1993). Policemen are constantly exposed to various traumatic situations ranging from threats to themselves, their lives and the lives of their fellow police officers to witnessing criminal activity, riots, corruption, injury or death of citizens, bombings, shootings and often even killing people (McCafferty, Godofredo, Domingo and McCafferty,1990). Exposure to these types of situations can put police officers at risk of developing a stress reaction, referred to as Post-Traumatic Stress Disorder.

Research shows that approximately 12% - 35% of policemen suffer from Post-Traumatic Stress Disorder with various levels of psychological disabilities (Boyle, 1987; Haddock, 1988). Post-traumatic stress disorder is also quoted as the 5th most common overall referral problem presented to police psychologists (Mann, Howard, and Reilley, 1990).

In South Africa, the extraordinary high levels of violence and crime, escalating execution and killings of policemen, large number of murders, hijackings, robberies and shootings have created an unusually dangerous environment for members of the South African Police Services to manage. The increasingly violent environment faced by policemen and women, on daily basis, leaves them at a high risk of developing a stress reaction. In fact, considering the nature of police work in South Africa, developing a stress reaction could almost be considered a natural occupational hazard.

In the province of KwaZulu-Natal, a recent increase in the number of medical boardings of policemen due to psychological injuries is one of the many indicators of the seriousness of the problem. Other indicators, like the increased number of suicides, more frequent psychological consultations for the treatment of stress, depression, alcoholism and marital problems suggest the declining psychological health of police officers.

The problem of police officers developing post-traumatic stress disorder has far reaching implications. When one considers South Africa, as one in transition, with major political, economic and social transformation, it is imperative that we are able to address the psychological health not only of police members, but of the society as a whole. In order to rebuild our nation, as peacefully as possible, the police force has an integral role to play. The almost insurmountable task of curbing crime, violence and corruption requires healthy and effective policing and as such the current problems have to be recognised and managed.

1.1 BACKGROUND TO THE STUDY

The process of selecting a research topic undertook to contribute to a deeper understanding of stress related disorders, specifically post traumatic stress, experienced by South African police members. The following factors pertaining to the topic were considered:

- The increasingly high level of violence in our country and its impact on the police population
- The impact of traumatic events on policemen
- The lack of research on the incidence of PTSD among South African police force members
- The mediating effects of coping and social support on stress reactions

Police work has been recognised as a highly stressful occupation. Some literature identifies policing as the most psychologically dangerous job in the world. McCafferty, Godofredo, Domingo, and McCafferety (1990) recognise that policemen are under stress similar to that experienced by persons engaged in military combat and may suffer infliction often associated with combat, namely Post Traumatic Stress Disorder (PTSD). The incidence of PTSD among policeman reported in the literature is high which leads one to believe that it may be considered a natural occupational hazard for people carrying out policing duties.

The highly volatile situation in South Africa would indicate that South African policemen not only are exposed to extraordinary levels of danger, but their daily duties resemble a battle field. Not only do policemen have to confront the highly stressful demands associated with police work, but also the possibility of death or personal injury. Nel (1994) suggests that at some time or another in every policeman's career he/she is exposed to violence, becomes a victim of violence or uses violence against offenders. This in itself would suggest that stress reactions and development of post traumatic stress disorder might impact on this vulnerable population.

Some of the visible repercussions of police work in KwaZulu-Natal include an increasing incidence of suicides and medical boardings due to stress and anxiety related disorders. The escalating absenteeism form work due to illness is another signal that the general health of the police force in Kwazulu-Natal is declining and needs attention. It is in this light that this research was initiated. It was clear that there was limited local research in this field and the virtual absence of studies on the incidence of PTSD among SAPS members necessitated research into this field.

Results of research into the factors that are thought to mediate the impact of stressful events, suggest that there are individual differences or variations in responses to stressful situations (Endler and Parker, 1990). The factors, which are thought to account for these differences, include coping styles and social support. Presumably the effects of life stress are modulated by the coping responses made; where certain coping styles may be related to reduction in pathology, others may serve to exacerbate it. Similarly social support is thought to benefit

not only as a prevention of illness, but also to alleviate the strain associated with the work environment (Pilisuk, 1986). The evidence for believing that social support contributes to positive adjustment and personal development is theoretical as well as empirical (Sarason, Sarason, Potter, and Antoni, 1984).

1.2 STATEMENT OF THE PROBLEM

The problem statement of this exploratory study reads as follows:

An exploratory study of the incidence of PTSD among police officers following exposure to traumatic events, and its relationship with coping and social support.

Despite the formation of a variety of task groups within the SAPS over the last few years to investigate the high stress levels, suicides, shooting incidents, etc., very little progress has been made in the understanding and combating thereof (Nel, 1995). This research was conducted with the view of increasing the understanding of policemen's experiences of trauma and, based on that, assisting the Police Psychology Unit, in KwaZulu-Natal, to deal with the problem in an appropriate manner.

The investigation was carried out in a high-risk specialist unit of the police force in KwaZulu-Natal. The unit consisted of 90 police members and a commanding officer. The unit is recognised as a high-risk unit due to the fact that its members have high exposure to danger and trauma. Some of their duties include: high speed chases of suspects, 24 hour patrols of the violence stricken townships, pursuit and arrests of criminals, violent clashes with the criminal element, investigations of murders and drug related activities. At the time of the investigation the unit had lost 3 of its members, shot whilst patrolling the local townships.

The selection process into this unit is rigorous involving an initial 2-month trial period, psychometric evaluation and a panel interview. The strict selection criteria followed should aid in minimising the risk of contamination of the data and the results.

This unit, not unlike other police departments, consists of the officer commanding, who represents the ultimate authority and power and is at the top of the hierarchical structure. The unit operates on the principles of seniority and rank and follows a pecking order. The members with lowest rank have limited decision making powers and have to follow the orders of their superiors. The unit is organised into teams of two, so that most duties are carried out in partnerships. All teams work shifts, which are often ten to twelve hours long due to staff shortages. Like most police organisations the members of this unit are confronted by daily hassles associated with the bureaucracy of police services and lack of resources.

1.3 AIM AND OBJECTIVES OF THE INVESTIGATION

Arising from the problem statement, the aim of the study is to investigate the incidence of post-traumatic stress disorder among policemen, following exposure to traumatic events, and establish the role of the different coping skills as well as support systems in moderating its effects. Accumulated evidence suggests that coping strategies play a major role in an individual's physical and psychological well being when he or she is confronted with negative or stressful life events. Presumably, the effects of life event stress are modulated by the coping response made; certain coping styles may be related to a reduction of pathology, while others may serve to exacerbate the effects of the stressor (Hovanitz, 1986). Jones and Barlow (1990) in their model of PTSD refer to two moderating variables in the development of the disorder, namely: coping and social support. Further they postulate that nonavoidant coping strategies (problem-focused rather than emotion-focused) are more adaptive in the long run than avoidance coping strategies. Solomon, Mikulincer and Flum (1988, cited in Jones and Barlow, 1990) found that greater reliance on emotion focused coping and distancing tactics was associated with more severe PTSD.

There also seems to be general consensus amongst researchers that social support moderates the effects of life stress on the individual (Cohen and Syme, 1985). Several studies focusing on war veterans have found social support to be involved in the aetiology, maintenance and development of PTSD (Jones and Barlow, 1990).

On a theoretical level, this study aims to define the concepts of PTSD, coping and social support, and to determine how the police population experiences stress in the context of its environment by discussing literature related to coping styles and social support structures utilised by policemen.

The empirical objective of this study is to investigate the relationship between trauma and the development of PTSD in policemen and find out whether coping styles and social support have any impact on the disorder.

1.4 VALUE OF THE RESEARCH

Research into the relationship between exposure to trauma and the development of PTSD among policemen in South Africa will be of great value to police members themselves and to professionals who look after the psychological health of the police force. This includes social workers, psychologists, general practitioners, psychiatrists and human resource practitioners. These groups of professionals will be in a better position to assist police men and women in improving their psychological health and hence help create a more productive and effective police force.

A greater understanding of PTSD, coping and social support among policemen covered by this research, will aid the process of psychological care in the following areas:

- Design of effective stress management programs
- Implementation of effective debriefings
- Greater recognition and diagnosis of PTSD
- Understanding of the impact of specific coping strategies on the successful adaptation to trauma
- The impact of social support structures on the psychological well being and adaptation to stress

It is of important to realise that the mental health of police officers is the responsibility of all; the individual policemen, their commanding officers, the helping professions, the police organisation and the community (Nel, 1995). The importance of policing cannot be underestimated and Nel (1995) insists that our society will not be able to heal itself without healing the police.

It is in this light that this study aims to increase the knowledge and health of the members of the SAPS, by focusing on the nature and effects of psychological injury due to the high violence levels in our country.

1.5 OUTLINE OF CHAPTERS

Chapter 1: Introduction and motivation

The background, aim, objectives, and theoretical basis of the research are set out.

Chapter 2: Post – Traumatic Stress Disorder

This chapter deals primarily with the clinical picture of PTSD as outlined by DSM IV, including descriptions of what is considered a traumatic stressor and the subsequent exploration of symptoms related to the disorder. A number of conceptual models are discussed in relation to the formation of PTSD and the resultant symptomatic picture.

Chapter 3: Coping

A variety of definitions and models of coping are discussed in this chapter, with a specific focus on coping as a moderator between stressful life events and well-being. The conceptual models are critically evaluated in terms of the Lazarus and Folkman model of coping, utilised in this research.

Chapter 4: Social support.

This chapter focuses on the different functions of social support in mediating stress and outlines the main social support models. Two models of social support are critically evaluated in terms of their effects on health and well being. The models discussed are the buffering hypothesis and direct effects model. Empirical results are discussed in terms of the implications for the two social support models and the effects on the experience of stress. The negative side of social support is also discussed and studies are detailed to offer research findings to support this notion.

Chapter 5: Stress among police personnel in South Africa.

The focus of this chapter in on the nature of police work including the working conditions, the external environment and the nature of the job. The sources of work related stress and the effects of it on policemen are discussed with special reference to the incidence and aetiology of PTSD. Finally mediating factors, such as coping and social support, are discussed in the context of policing.

Chapter 6: Research design.

The design of this research is described with reference to the research hypotheses, sample size and composition, as well as the test battery used and research procedures followed.

Chapter 7: Analysis of research.

This chapter sets out the techniques and procedures used to analyse results, and the results themselves as they relate to the following: the demographic information relating to the sample; analysis of the type of trauma experienced by the participants of this study; the relationship between post traumatic stress disorder and coping, social support and demographic variables; and the analysis of the possible predictors of PTSD.

Chapter 8: Conclusion and recommendations.

The dissertation concludes with a number of deductions based upon the findings of the research relating back to the initial problem statement and hypotheses. Recommendations are made for future research and practical guidelines offered, for police officers suffering from PTSD and for other professionals responsible for the psychological well-being of police officers.

CHAPTER 2

POST-TRAUMATIC STRESS DISORDER

One of the objectives of this study, as referred to in chapter 1, is to analyse the incidence of PTSD among members of the South African Police Services. Many members of the South African Police Services in KwaZulu-Natal lose their lives in the line of duty. For example, approximately 78 policemen died between January and December 1994 in KwaZulu-Natal. Many others have sustained non-fatal wounds or been involved in shooting incidents. In addition to these life threatening events, members of the SAPS witness political and domestic violence, quell riots, respond to armed robberies and hijackings and are often required to use deadly force. The unusually high incidence of violence and crime that policemen encounter may be ascribed to the ongoing "low-intensity" civil war in KwaZulu-Natal. Such a state of affairs generated speculation about the impact of such events on police personnel and the possible incidence of PTSD among police members.

2.1 POST TRAUMATIC STRESS DISORDER (PTSD)

It has been observed throughout history that behavioural and emotional problems following a trauma are part of the human condition (Jones and Barlow, 1990). PTSD has been identified as an anxiety disorder that involves a constellation of symptoms following a traumatic event with historical roots that reach back to the late 19th century (Modlin, 1986).

Over the last 100 years many changes in the concept and description of traumatic disorders took place. Rigler initiated the term "compensation neurosis" as early as 1879. Later as a result of World War I it became known as " shell shock" (Peterson, Prout and Schwartz, 1991). By 1941, Kardiner was using the term "traumatic neurosis". Other terms such as soldier's heart, combat neurosis and fight fatigue became just as common. It was only in 1980 that PTSD was officially recognised in the DSM-III. (Peterson, et al). With few exceptions, virtually nothing was written about PTSD from 1950 to 1970. It was clearly the psychological casualties of the Vietnam War that initiated and renewed interest in post-

traumatic neurosis. The late 1970s and the 1980s saw an explosion in the amount of research and writing in trauma-related disorders. More recently PTSD has been associated with non-combat events such as natural catastrophes, human engendered calamities, deliberately produced disasters such as concentration camps, bombings, torture, rape, detention and assault (Modlin, 1986).

This study primarily references research in combat related stress as the nature of war stressors closely resemble those confronted by SAPS personnel.

The essential feature of PTSD is the development of characteristic symptoms following exposure to an extreme traumatic stress involving direct personal experience of an event that involves actual or threatened death or serious injury, or threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about an unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate (DSM-IV, 1994). Another essential feature is the person's response to the event must involve intense fear, helplessness or horror.

According to DSM-IV (1994) there are other primary features of PTSD:

(i) Re-experiencing the trauma through intrusive recollection, flashbacks or dreams.

(ii) Avoidance of the stimuli associated with the event or emotional numbing to other life experiences and relationships.

(iii) The persistent experience of increased autonomic arousal, depression and cognitive difficulties.

(iv) Symptoms must persist for at least one month, and the disturbance must cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

Although the PTSD questionnaire utilised in this study was based on DSM-III (APA, 1980) criteria, the essential features of PTSD remain the same in DSM-III and DSM-III-R and DSM IV. There are some differences. The first refers to an increased emphasis on avoidance. The second involves the removal of "survivor guilt" from the criteria, to be listed instead as an associated feature in DSM-IIIR and DSM-IV. Due to the similarity of both diagnostic definitions this study will continue to refer to the most recent edition.

2.1.1 The traumatic stressor.

The most crucial aspect of the PTSD diagnosis is establishing the nature of the traumatic stressor. The stressor must be: (1) psychologically distressing; (2) markedly distressing to almost anyone; and (3) outside the range of normal human experience.

The essential characteristics of traumatic events include (but are not restricted to): (1) a serious threat to one's life; (2) a serious threat to one's physical integrity; (3) a serious threat or possible harm to one's children, spouse, relative, friend; (4) sudden destruction of one's home or community; (5) seeing another person seriously injured or killed; (6) physical violence; and (7) learning about serious threat /harm to relative /family (Peterson, Prout, and Schwartz,1991).

Traumatic events that are experienced directly include, but are not limited to, military combat, violent personal assault, being kidnapped, being taken hostage, terrorist attacks, torture, severe automobile accidents or being diagnosed with a life-threatening disease as per DSM-IV (1994). The likelihood of developing this disorder may increase as the intensity of and physical proximity to the stressor increases. The severity, duration and proximity of an individual's exposure to the traumatic event are the most important factors affecting the likelihood of developing the disorder. There is some evidence that social support, family history, childhood experiences, personality variables, and pre-existing mental disorders may influence the development of PTSD. This disorder can develop in individuals without any predisposing conditions, particularly if the stressor is especially extreme.

2.1.2 Traumatic stress reactions.

The following reactions, outlined in DSM IV (1994), may be experienced as a result of experiencing a trauma:

(i) Re-experiencing

The element of re-experiencing the traumatic event is a salient aspect of PTSD (Horowitz, 1974 and 1976, cited in Peterson, Prout and Schwartz, 1991). Re-experiencing the trauma takes a number of forms. For a positive diagnosis only one form of re-experiencing of the original stressor need be present.

- Recurrent/distressing recollection of the event. The most common form of intrusion is involuntary recollection of the stressor. Thoughts, feelings, images and memories of the traumatic event emerge onto conscious awareness and are experienced as disturbing to the individual. Attempts to suppress this material are frequently difficult, if not impossible.

- Recurrent distressing dreams/nightmares. Repetitive dreams and nightmares is another common way in which intrusive thoughts, feelings, images and memories are re-experienced. Usually the dream repeats the event or aspects of the event exactly as they occurred. However, elaboration of the original material is also not uncommon.

- Reliving the event, illusions, hallucinations and flashbacks. Dissociative reactions to extreme traumatization are a less frequently occurring form of intrusion. They have been noted primarily in survivors of concentration camps and combat veterans. Duration of dissociative like states is reported to be from a few minutes to several days in the DSM-DSM-IV description of the disorder. In sum, dissociative phenomena are a more dramatic and serious manifestation of the intrusion of thoughts, affect, images and memories. They appear to be highly correlated with experiences of multiple traumas (Peterson, Prout, and Schwartz,1991).

- Distress at exposure to events symbolising/resembling trauma. The intensification of symptoms following exposure to events symbolising or resembling the original traumatic event were included in the " miscellaneous" list of symptoms in the DSM-III. The DSM-IIIR and DSM-IV grouping of symptoms include this symptom with other intrusive phenomena. External cues may prompt various forms of intrusive recall ranging from distressing recollections and increased nightmares to flashbacks and dissociative phenomena.

(ii) Avoidance and numbing of responsiveness. Most traumatised individuals are fearful of the intense emotions that re-experiencing evokes. They would therefore go to great lengths to avoid the stimuli associated with the traumatic event (Parkinson, 1993).

Usually psychic numbing begins shortly after exposure to extreme traumatization and has the following characteristics:

- Diminished interest in significant activities
- Restricted range of affect.
- Commonly the person may report loss of feelings associated with intimacy, tenderness and sexuality.
- Feelings of detachment /estrangement.
- Psychogenic amnesia.
- The inability to recall certain aspects of the traumatic event is a diagnostic feature that was introduced in the DSM-IIIR criteria for PTSD
- Avoidance behaviour.

In DSM-III avoidance behaviours were considered a separate group of phenomena from the central features of PTSD. The new criteria included in the DSM-IV grouped with the numbing of responsiveness are: efforts to avoid thoughts or feelings associated with the trauma, efforts to avoid activities or situations that arouse recollections of the trauma.

(iii) Increased arousal.

Following a traumatic experience, various physiological changes occur which prepare the individual for a "fight or flight" response. Since mostly neither of these responses is possible, the adaptive mechanism is disturbed causing the individual to remain in a state of hyperarousal. Increased physiological and autonomic arousal can take the form of:

- Sleep difficulties
- Memory impairment/concentration difficulties
- Irritability/outbursts of anger. Increased irritability may be associated with sporadic and unpredictable explosions of aggressive behaviour, even upon minimal or no provocation (DSM III, 1980).
- Physiological reactivity to events resembling the event and the startle response.
- Physiological arousal and the existence of startle responses have been frequently noted with respect to those who have experienced a traumatic event e.g. a woman who was raped in an elevator breaks out in sweat when entering any elevator.
- Hyperalertness/hypervigilance. These features are common of PTSD and are associated with increased physiological arousal.

According to DSM-IV (1994), the following specifiers may be used to specify onset and duration of the symptoms of PTSD:

Acute: this specifier should be used when the duration of symptoms is less than 3 months
Chronic: this specifier should be used when the symptoms last 3 months or longer
With delayed onset: this specifier indicates that at least 6 months have passed between the traumatic event and the onset of symptoms.

2.1.3 Associated features of PTSD.

Usually the clinical picture presented by individuals with PTSD is not restricted to the above symptoms. Many of the primary features of PTSD interact with and are influenced by disorders or symptom clusters. The various associated features of PTSD have been noted for many years and across all patient populations manifesting PTSD (Peterson, Prout, and Schwartz, 1991). The most common are:

- Depression. PTSD is often exacerbated or masked by an underlying depression. Frequently, the symptoms of these two disorders overlap to the extent that it becomes difficult to distinguish between them.

- Anxiety. Anxiety has also been noted over the years as a manifestation of post-traumatic symptomology. Again, generalised anxiety, panic disorders and other anxiety conditions are frequently superimposed on the PTSD.

- Death imprint/death anxiety. Lifton (1979 cited in Peterson, Prout and Schwartz, 1991) indicated that death imprint and death anxiety are cardinal features of survivors of massive traumatization. The concept of death imprint has relevance for the intrusive imagery found in individuals manifesting PTSD. Lifton et al defines it specifically as "the radical intrusion of an image, feeling of threat or end to life. Hence the death imprint encompasses a specific form of intrusion, placing a fundamental emphasis upon death imagery. Not uncommonly the death imprint produces a "permanent inner terror". Encompassed in the concept is the fear that the trauma will recur.

- Substance abuse. The DSM-IIIR description indicates that psychoactive substance use disorders are common complications of the disorder. Self-medication with alcohol is effective in inducing sleep, reducing anxiety, easing muscle tension and suppressing REM sleep (with which post traumatic nightmares are associated) .In some cases it is effective in lifting depression. Initially alcohol use is an effective means of reducing symptoms. However, with continued use tolerance promotes increased consumption.

The result is alcoholism on top of the original PTSD. With time the use of alcohol becomes less and less effective in reducing the troubling symptoms and may indeed exacerbate them.

- Somatization/tension. Herman (1992) noted that traumatised individuals become anxious and agitated over time and begin to complain of numerous psychosomatic symptoms. Common forms of somatization quoted by Peterson, Prout and Schwartz (1991) include:

- excessive tenseness
- exhaustion
- pain in muscle joints
- arthritic like attacks
- allergenic symptoms
- peptic ulcers
- gastric overactivity
- colitis
- respiratory syndromes
- cardiac syndromes
- hypochondriasis

Horowitz (1980, cited in Peterson, Prout and Schwartz, 1991) reported symptoms of somotization in over 50% of his PTSD subjects. These symptoms included :headaches or feeling weak in parts of the body, nausea/upset stomach, pains in lower back, faintness/dizziness, numbness, heavy feeling in limbs, lump in throat, pain in heart and chest.

- Survivor guilt and other forms of guilt. Guilt, either in the form of survivor guilt or other forms, is a common feature of PTSD. However, although it is part of the DSM-III criteria for PTSD, it is considered an associated feature in DSM-IV. It is included here in keeping with historical observations of survivors. Survivor guilt may be

expressed in the form "How is it that I survived while others more worthy than I did not?" (Lifton, 1973 cited in Peterson, Prout and Schwartz, 1991). In addition, survivors often report guilt related to fantasies of having contributed to the cause of the disaster, and responsibility over the death of others. A related issue to survivor guilt is the phenomena of self-blame, a common reaction following different types of trauma and victimisation, such as rape, battering, disease, and accidents.

- Alterations in time sense. The DSM-IIIR criteria for PTSD include the sense of a foreshortened future. Terr (1982 cited in Peterson, Prout, and Schwartz, 1991) notes a variety of other alterations in time sense following a massive psychic trauma. Although these alterations do not occur with the frequency of other PTSD symptoms, their presence may suggest PTSD. The following time distortions and related post-traumatic phenomena were noted: misperception of time duration, time seems to slow down during short traumatic events or speed up during protracted trauma. Gross confusion of sequencing, memories of the traumatic event may be confused with reference to time sequence. Time skew, events that occurred during the trauma were placed prior to it, with a subsequent sense of prediction.

- Retrospective presifting/omen formation: these involve retrospectively formed warnings and appear to be more common than many other time alterations phenomena.

- Sense of prediction: the sense that dreams could be predictive, that patients now had psychic abilities. (Terr, 1983 cited in Peterson, Prout and Schwartz, 1991) emphasises that many of the alterations in time sense are attempts on the part of the patient to gain some control in the face of utter helplessness.

Other secondary symptoms of PTSD include adjustment, disrupted interpersonal functioning, pronounced sexual difficulties, secondary mental illness, minor/significant alterations in life style, intense feelings of mistrust, feelings of being betrayed, feelings of being a scapegoat, regression and a disrupted self-image (Peterson, Prout and Schwartz, 1991).

2.2 COURSE OF THE DISORDER

Horowitz (1986, cited in Peterson, Prout and Schwartz, 1991) provides a model, which delineates the course of PTSD. It is a phase oriented model of stress response syndromes. The different phases are outlined below:

Phase 1: Outcry

It is the immediate response to the traumatic event, e.g. panic, dissociative reactions, reactive psychoses, stunned daze.

Phase 2: Denial

This phase marks the period of denial and numbing including maladaptive avoidance, e.g. withdrawal, alcohol/drug abuse, counterphobic frenzy, fugue states.

Phase 3: Oscillation between denial/numbing and intrusive thoughts, feelings, images.

The intrusive states include flooded and impulsive states, despair, re-enactments etc.

Phase 4: Working through.

Intrusions become less intense and more manageable, denial/numbing lifts.

Phase 5: Relative completion of responses.

Likely never reached, the final state includes various permanent alterations in character structure. The essential feature of this process is the alteration between the intrusion of aversive cognitive affective material and the use of denial and numbing to reduce the aversiveness.

Marmar and Horowitz (1988), elaborate further on the above phases. Following traumatic life events, the frequency of two broadly defined states increases, as compared with the pre-trauma period. One such state is characterised by intrusive experience, the other by denial and numbing. States of intrusion and denial or avoidance do not always occur in a prescribed pattern because individual differences are seen in the oscillation of these two broad states. However evaluation of the trauma victims by the above authors seems to reveal a pattern of phasic tendency in these states (Marmar et al).

At the time of the event, or immediately afterwards, there is frequently an emotional outcry characterised by painful but brief-lived recognition of the salience of the event. Either denial or intrusive states may follow the initial outcry, at times in oscillation with each other. In favourable cases, the intensity and frequency of these states is reduced in a working through process. Emotion-laden meanings of the event are neither blocked from conscious awareness nor are they of such intensity as to overwhelm coping capacity. The result is gradual assimilation, mourning of what has been lost, revision of pre-existing beliefs such as views of the self as invulnerable, investment in new plans and the capacity to form new attachments. Working through may be conceptualised as psychological metabolism of the impact of the traumatic event such as the person is able to resume work, overcome creative blocks that are common during the adaptation phase and reinvest in love relationships (Marmar and Horowitz, 1988).

2.3 THEORETICAL MODELS OF PTSD

A variety of conceptual models have been developed to explain the formation and resultant symptomatic picture of PTSD. They stem from such diverse frameworks as biological, behavioural/ conditioning, psychodynamic, and information processing.

Jones and Barlow (1990) criticise these models for being incapable of effectively explaining the full constellation of PTSD symptoms aetiology or the idiosyncratic response of individual to trauma. The biopsychosocial model proposed by Jones and Barlow (1990), endeavours to take a more of a multi-dimensional and all encompassing approach to the disorder. However, before elaborating on this model, it is important to briefly appraise the contributions as well as the limitations of the remaining models.

2.3.1 Biological model

Van der Kolk, Boyd, Krystal, and Greenburg (1984 as cited in Jones and Barlow, 1990) have proposed a biological model for understanding the development of PTSD. Derived from an animal model, it contends that the development of PTSD parallels the behavioural and biochemical changes that occur under conditions of inescapable and /or unavoidable shock. Using three supportive lines of evidence their primary thesis is that behavioural changes are mediated by neurotransmitter activity.

Because of these changes subsequent exposure to stressors is thought to result in chronic and exaggerated noradrenergic activity which manifests itself in such symptoms as startle responses and aggressive behaviour. They also propose that stress induced analgesia occurs after re-exposure to inescapable shock. This analgesia is thought to provide an illusion of control to individuals experiencing it. They further hypothesise that this analgesic is mediated by endogenous opioids and can eventually become a conditioned reaction (Van der Kolk, Boyd, Krystal & Greenburg, 1984, cited in Jones & Barlow, 1990).

While the primary emphasis in on neurochemical changes it also includes what seems to be an important psychological variable - the uncontrollable and inescapable nature of the stressor. In this model, neuro-biological activity reflects an individual's reaction to these stressors. The variable of controllability is potentially very important. It suggests that individuals with no prior experience of control will go on to develop PTSD following exposure to a traumatic event.

However, Jones and Barlow (1990) criticise the model for its inability to explain adequately the delayed development of symptoms, as well as being unable to accommodate the emotional numbing frequently seen in trauma victims. Finally the model fails to address variables of known significance, such as the extent and severity of the stressor and presence of social support as indicated in research literature.

2.3.2 Psychodynamic model

The primary contribution of psychodynamic models is their conceptualisation of PTSD within the framework of the individual and his/her internal functioning (Peterson, Prout and Schwartz, 1991).

Horowitz proposes one of such models, where PTSD is seen as the consequence of an individual's inability to integrate successfully a traumatic event into his/her cognitive schemata. Its benefit is the ability to explain the development, maintenance, and delayed development of symptoms as well as some empirical evidence to back it up (Jones and Barlow, 1990).

Horowitz (1986, cited in Jones & Barlow, 1990) illustrates it by using strong cognitive and information processing base. Since a traumatic event takes a long time to process, and requires massive schematic changes, active memory repeats its representations of the traumatic event, which in turn overwhelms the individual's coping mechanisms. Consequently, an inhibitory regulatory system is initiated which allows more gradual assimilation of the trauma. If the inhibitory control is not strong enough, intrusive re-

experiencing symptoms occur. If on the other hand it is too strong, symptoms indicative of the avoidance phase occur. Finally he contends that positive and cohesive social support networks may buffer the development o f PTSD.

2.3.3 Cognitive/Information processing models.

Foa, Steketee, and Olasov-Rothbaum (1989, cited in Jones and Barlow, 1990) developed an information processing model of PTSD based on Lang's (1979) analysis of fear structure. An attractive feature of this model is that it incorporates the important variables of predictability and controllability. These factors are central to the development and maintenance of the fear structure. In this model it is speculated that the boundaries between safety and danger become blurred, such that the individual experiences a lack of predictability and controllability and lives in chronic state of fear. It is the first model to have taken steps in recognising the importance of predictability and controllability.

The role of cognitive attribution has become a central factor in understanding the dynamics of PTSD. In fact, attribution theory has added a much needed counterbalance to the growing emphasis on the external role of the environmental stressor. Once again the internal processes of individuals, namely, how they impart meaning to their experiences, are seen as a final common pathway toward the development of PTSD.

Jones and Barlow (1990) have found some limitations of this model, namely that the variables of known importance were not included. In addition the model does not account adequately for the presence of PTSD in some trauma victims and not others.

2.3.4 Behavioural models

The most comprehensive behavioural formulation of PTSD to date is provided by Keane, Zimering and Caddell (1985, cited Peterson, Prout and Schwartz, 1991). The model uses

classical conditioning and instrumental learning from a "two factor learning theory of psychopathology" to account for the acquisition and maintenance of PTSD.

The principles of instrumental learning explain the avoidance behaviour which are learned because they have the effect of terminating or reducing the presence of the aversive stimuli.

A concept of stimulus generalisation proposes that the more similar a novel stimulus to a conditioned stimulus, the stronger the responses will be to that stimulus (Keane at al 1985, cited in Peterson, Prout & Schwartz, 1991). For example, a loud noise may be similar enough to gun fire to evoke a dramatic response in Vietnam war veterans with PTSD. Thus stimulus generalisation helps explain the gradual exacerbation of PTSD symptoms over time.

Keane and Fairbank (1985, cited in Jones and Barlow, 1990) use the principles of higher order conditioning to explain the complexity of PTSD symptomolgy. Since once a cue has been conditioned to elicit fear, it in itself will become fearful. Therefore any cue that consistently precedes the conditioned cue will also be able to elicit the same fear reaction.

Finally social support is seen as a variable important to the aetiology of PTSD. For example, Keane et al suggests that the age of the veteran and the mercurial nature of platoons may have precluded the development of social support networks and coping strategies.

The most important contribution of this model, according to Jones and Barlow (1990), is the fact that it attempts to explain the complex interplay among potentially important variables. However despite considerable support for levels of social support and type of cues available for conditioning, they fail to account for all the variance noted in patients with PTSD. Jones and Barlow (1990) also indicate that the reliance on two factor theory as an etiologic account is inadequate.

2.3.5 Jones and Barlow model of the aetiology of PTSD.

In developing this model Jones and Barlow (1990) took into consideration the nature of anxiety disorders and panic theories and aetiology of the anxiety disorders to develop a more complete understanding of PTSD.

The first variable, which is to play a role in the development of PTSD, is an individual's biological vulnerability to stress. It is possibly genetically transmitted and is likely to manifest itself across many neurobiological systems. Jones and Barlow (1990), propose that the genetic component consists of a predisposition to stress reactions which presents as chronic overarousal and/or noradrenegic liability.

In addition to biological predispositions, psychological vulnerabilities are thought to mediate the development of anxiety disorders. Psychological vulnerabilities include prior experience, sense of control over life events and social support. Psychological vulnerability may also manifest itself in precepts of unpredictability (it might happen again) and uncontrollability (I might not be able to cope with it). Furthermore the sense of uncontrollability may be mediated by variables such as coping skills and social support.

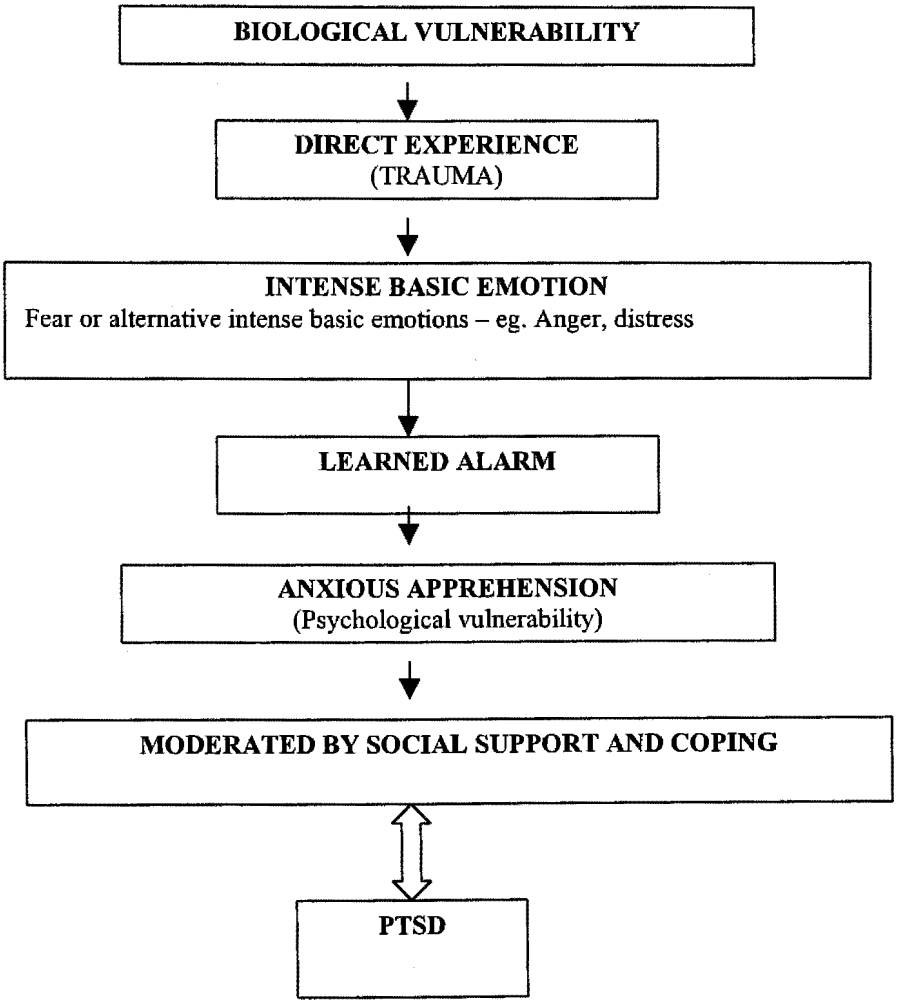
Jones and Barlow (1990) discuss two moderating variables in the development of PTSD, namely: coping and social support. Coping response tendencies have been implicated in the development, maintenance, and exacerbation of a variety of emotional and medical disorders. For example Suls and Fletcher (1985 cited in Jones and Barlow, 1990) postulate that nonavoidant coping strategies are more adaptive in the long run than avoidance coping strategies. Solomon, Mikulincer and Flum (1988 cited in Jones and Barlow, 1990) found that greater reliance on emotion focused coping and distancing tactics was associated with more severe PTSD. They further suggest that individuals who rely on emotion-focused and distancing strategies may view their distress as uncontrollable.

A common thread running through the literature is that social support moderates the expression of PTSD. Several studies focusing on war veterans have found social support to be involved in the aetiology, maintenance and development of PTSD (Jones and Barlow, 1990). Even though most of the research is retrospective, the confluence of results suggests that the absence of social support is detrimental and that its presence can buffer the development of many disease processes.

The process through which these variables interact to produce a trauma reaction can be described as follows: Exposure to the stressor (traumatic event) precipitates an alarm reaction. This alarm may be true (fear response to a life-threatening event) or learned (conditioned response to either interceptive or external cues). Most alarms are learned alarms and as such are often experienced as unpredictable and uncontrollable. Thus prior experience can determine the impact of aversive events later on. The crucial factor in this model is the development of "anxious apprehension" about the learned response. "Anxious apprehension " is a vital step toward developing pathology. It is this process with its strong cognitive components such as distorted processing of information along with marked negative affect, that can account for the symptomology of PTSD. These include the repetitive re-experiencing of learned alarms and executed traumatic memories, as well as the pattern of affective instability associated with alternate numbing and exacerbation of negative emotions and the occasional delayed emotional experience of PTSD symptomology. Anxiety over an alarm becomes self perpetuating since the learned response triggers anxious apprehension through a positive feedback loop. This is essentially determined by the cognitive information processing factors. It is anxiety in the final analysis that contributes substantially to the prediction of who will develop PTSD and who will not.

Simply stated, this model includes biological and psychological vulnerabilities to stress, followed by formation of alarm reaction to real or imaginary threats and the effect of coping and social support as moderating variables in the development of PTSD. This model is presented diagrammatically in figure 1.

FIGURE 1 JONES & BARLOW'S MODEL OF THE ETIOLOGY OF PTSD



2.4 EMPIRICALLY BASED ETIOLOGICAL FACTORS

Research on combat related PTSD has identified six factors which contribute to the development of the disorder, namely: (i) personality factors (ii) prior negative life events (iii) severity and exposure to the stressor (iv) developmental phase, (v) social support (vi) coping strategies. Oei, Lim and Hennessy (1990) and Foy, Carroll and Donahoe (1987) refer to these factor as premilitary, military and postmilitary variables.

i) Personality factors

According to Oei, Lim and Hennessy (1990), stress reactions are as related to how the individual experiences specific combat events as to the objective dimensions of the event. Character is more likely to play a role in PTSD emanating from combat than from other traumatic events, because the soldier is often an active participant in the stress that may eventually overwhelm him. Psychological processing of the event is seen to interact with and be influenced by long standing characteristics of the individual.

ii) Prior negative life events

Individuals with a prior history of traumatization are likely to develop PTSD symptomology in response to later trauma. Green and Berlin (1987) surveyed sixty Vietnam veterans to determine the relationship between symptoms and other psychosocial variables. Their findings indicated that current impact of previously experienced events and current level of life stress correctly classified 75% of the total number of subjects.

iii) Severity and exposure to the stressor

Empirical literature dealing with etiological factors in combat related PTSD continue to identify level of combat exposure as being the most important variable. Foy, Sipprelle, Barrett Rueger and Carroll (1987) in their study of forty three Vietnam veterans found that

the extent of combat exposure was more strongly associated with current PTSD symptomology. Foy and Card (1987) found combat exposure was significantly related to PTSD symptomology. Further it was observed that being wounded, involvement in the deaths of non-combatants, and exposure to atrocities are critical elements in the development of PTSD in combat veterans.

iv) Developmental phase

Psychological development in a safe environment enables one to build up a repertoire of coping skills to deal with stressful events. Van der Kolk (1987) reported that Vietnam adolescents had a greater tendency to become intensely attached to their combat units. They were often found to react to the loss of a buddy by committing atrocities and later developing PTSD.

v) Social support

Solomon, Mikulincer, Freid, and Wosner (1987) conducted a study with 382 Israeli soldiers who suffered combat stress reactions during the 1982 Lebanon war which showed that one year after the war, married soldiers showed higher rates of PTSD than did unmarried soldiers. On the other hand, Card (1987) found evidence that environmental factors such as presence of spouse or being a churchgoer were associated with reduced levels of PTSD.

The symptomology of Hispanic Vietnam veterans with PTSD was explored by Escobar, Randolph, Puente, Spiwak, Asmen, Hill, and Hough (1983) who reported that the PTSD group of veterans was the one with a high proportion of negative relationships with close family members, especially spouses, as well as having smaller social networks and fewer contacts outside close family circle. Powell and Doan's (1992) study results were congruent with other research indicating significant effects of social support in the symptomology of PTSD.

vi) Coping strategies

Fairbank, Hensen and Fittering (1985) studied coping in 30 veterans of World War II. These included: 10 former prisoners of war (POW) with a diagnosis of PTSD; 10 former POW's who were well adjusted; and 10 well adjusted noncombat veterans who were not exposed to traumatic wartime stressors. These researchers found that former POW's with PTSD reported increased emotion focused coping responses compared to the two comparison groups. The well adjusted former soldiers used problem-solving strategies more often.

2.5 SUMMARY

This chapter has explored the nature of PTSD by discussing the nature of a traumatic stressor, and subsequent traumatic reactions and its associated symptoms. The different phases of the disorder are outlined with its associated reactions. The impact of traumatic events on people is often characterised by strong emotions from emotional outcry to denial and intrusive thoughts and finally gradual assimilation and working through. Since PTSD is considered a combat related disorder, it is noted that the nature of war stressors closely resemble those confronted by the police. The incidence of PTSD among police members is considered in view of the stressful nature of their jobs and exposure to traumatic events.

A number of conceptual models that lead to the development of PTSD are critically evaluated. The Jones and Barlow (1990) model, adopted by this study focuses on biological and psychological predispositions to stress and the mediating effect of coping and social support. The function of different coping methods are explored in terms of development, maintenance and exacerbation of disorders, where emotion focused coping is associated with more severe PTSD. Social support is thought to play a role in protecting the individual from the development of the disorder and acts as a buffer when a stressful situation is experienced.

A number of research findings related to PTSD development among people exposed to combat indicate that there are six factors that contribute to the development of the disorder.

These include : personality, prior negative life events, severity and exposure to the stressor, developmental phase and social support and coping. The studies imply that all of these factors are linked to PTSD in one way or another when examining individuals involved in military or combat like activities.

CHAPTER 3

COPING

Contemporary literature has focused its attention on coping as a moderator between stressful life events and well being, both physical and psychological (Hovanitz, 1986; Folkman & Lazarus, 1980; Folkman & Lazarus, 1988; Cronkite & Moos, 1984; Nowack, 1989; and Cohen, 1991). Evidence is mounting in support of the moderating role coping styles play in predicting important clinical and mental health-related outcomes.

Research into the factors that are thought to mediate the impact of stressful or traumatic events, suggests that there is a great variation among individuals and their response to stressful situations (Hovanitz, 1986; Aldwin & Revenson, 1987; Endler & Parker, 1990). Efforts to account for the individual differences in response to stress include taking into consideration the individual's coping style. Presumably, the effects of life event stresses are modulated by the coping response made; certain coping styles may be related to a reduction of pathology, while others may serve to exacerbate the effects of the stressor.

Even though the impact of coping in mediating or cushioning stressors has been widely documented, the literature on coping still lacks coherence, thus creating confusion as to what is meant by the term and how coping actually functions in the process of adaptation (Lazarus & Folkman, 1991; Nowack, 1989; Cohen, 1991).

In the view of the absence of conceptual clarity in much existing coping literature, it is extremely difficult to provide a comprehensive general analysis of the concept of coping in this study. Rather an attempt will be made to extract and highlight some of the major theoretical and research issues which have emerged in the literature on coping, and are of relevance to this research.

3.1 DEFINITION OF COPING

In one form or another the concept of coping has been around for a long time, though it only began to come into its own formally during the 1960s and 1970s with the burgeoning interest in stress (Lazarus, 1993).

Hence, as new ideas on coping have emerged, so the definition has evolved from being initially narrow and restricting, to a broad conceptualisation encompassing a wide range of both adaptive and non-adaptive intrapsychic behaviours.

It has lead to coping being used as an umbrella term delineating a complex set of behavioural, emotional and cognitive processes (Hann, 1982). Any forms of behaviour which reflect resistance to problematic situations, and help an individual maintain a degree of equilibrium, in the face of a stressor may be termed coping.

More recent definitions of coping reflect the trend towards broadness and inclusiveness. For example, Pearlin and Schooler (1978) define coping as "the things people do to avoid being harmed by life strains". Flemming, Baum and Singer (1984) refer to coping as, that aspect of the stress process that includes the individual's attempts to resist and overcome stressors.

It becomes evident that if one tries to define coping, one faces the problem of the very broad and inclusive usage of the concept. In order to avoid the problems of excessive broadness and lack of clarity around the concept, Krohne (1986), based on the work of Folkman and Lazarus (1980), lists the following characteristics of coping which this study adopts:

1. Coping refers to a process, not to the goal of mastery or management.

2. This process comprises behavioural as well as cognitive or intrapsychic acts.

3. Coping focuses on demands that are experienced by the individual as testing or exceeding his/her capacities. These demands may be internal or external.

4. The primary aim of coping is to remove or reduce an experienced imbalance between demands and capacities.

5. There are two essential approaches to coping: one that emphasises process, and one that focuses on dispositions or personality. Recently there has been a shift from conceptualising coping as a stable personality construct to exploring coping as abilities or skills.

3.2 MODELS OF COPING

The problems encountered in defining coping are also prevalent in attempting to present a comprehensive model of coping. It becomes evident that there is not one coherent conceptualisation of the concept because it is not used to refer to a specific process or function. Most models deal with limited aspects of the total possible scope of coping behaviour.

This section will attempt to critically examine the dominant approaches designed to explain the coping concept. It is not however, within the scope of this study to provide a comprehensive review of all the theories of coping. A critical appraisal of the traditional approaches is provided with the intention of focusing on the model proposed by Lazarus and his colleagues as it provides a useful basis for understanding coping efforts in this study.

This section will focus on the contrast between two approaches to coping. One that emphasises static, structural elements such as traits and styles - that is, it treats coping as a personality characteristic - and another that emphasises process - that is, efforts to manage stress that change over time and are shaped by the adaptational context out of which it is generated.

3.2.1 The traditional approaches

Two main schools of thought exist within the traditional framework: one is derived from the tradition of animal experimentation, the other from psychoanalytic ego psychology. Both are critically examined below.

3.2.1.1 The animal model

This approach is heavily influenced by Darwinian thoughts, according to which survival hinges on the animal discovering what is predictable and controllable in the environment in order to avoid, escape, or overcome noxious agents (Lazarus and Folkman, 1991). The animal is dependent on its nervous system to make the necessary survival-related discrimination.

Within the animal model, coping is frequently defined as acts that control aversive environmental conditions, thereby lowering psychophysiological disturbance. Miller (1980 cited in Lazarus and Folkman, 1991) says that coping consists of the learned behavioural responses that are successful in lowering arousal by neutralising a dangerous or noxious condition.

The central theme of this model is the unidimensional concept of drive or arousal, and research centres largely on avoidance and escape behaviour. With this emphasis little can be learned about strategies that are so important in human affairs, such as cognitive coping and defence.

Overall the animal model of coping is considered by most as simplistic and lacking in the cognitive-emotional richness and complexity that is an integral part of human functioning (Lazarus and Folkman, 1991).

3.2.1.2 The psychoanalytic ego psychology model

Lazarus (1993) points out that historically investigations into coping have been shaped by the psychoanalytic view which conceptualised coping and defence as unconscious responses to internal stimuli. Research in this area shifted the conceptualisation of coping as a collection of intrapsychic processes protecting the individual from internal and/or external threat.

Psychoanalytical views define coping as realistic and flexible thoughts and acts that solve problems and thereby reduce stress. Two main differences are observed between the animal model and the one presently being discussed, namely, i) the person's relationship with the environment is perceived in terms of cognition rather than simply behaviour, ii) the present approach differentiates among a number of processes that people use to handle person-environment relationships (Lazarus & Folkman, 1991).

Psychoanalytical views see coping in terms of defensive or ego processes. One aspect of this approach is that defences are usually evaluated on a hierarchical basis. Vaillant (1977, cited in Lazarus & Folkman, 1991) arranges defensive processes in terms of their comparative maturity and pathological significance. Menninger (1976, cited in Lazarus & Folkman, 1991) describes five series of regulatory devises which represent levels of disorganisation. Haan (1977) on the other hand, orders ego processes as reflecting ego - failure, defence or coping according to their adherence to objective reality. What is common to all these formulations is the centrality of ego processes.

The most developed model that looks at ego-processes is Haan's tripartite model of ego-functioning. This is a constructionist view, which posits the centrality of ego processes (as opposed to external stimuli) to any idea of the personality (Haan, 1977).

Haan's (1977) model likens personality to organisational strategies, otherwise referred to as ego-processes. She considers the work of ego-processes concerning interchange with internal and external situations. In developing a classificatory system of ego -processes, this

model attempts to integrate aspects of Freudian and Piagetian ideas, namely the importance of both rational and irrational processes in the person's self-organisation.

In Haan's model, ego processes are organised into four functions:

i) cognitive processing: discrimination, detachment and means end symbolisation

ii) reflexive - intraceptive processing: delayed time reversion and sensitivity

iii) attention - focusing : selective awareness

iv) regulation of affects and impulses : diversion transformation and restraint.

Central to this model is the idea that these ego-processes may be expressed in three modes:

i) coping: reality oriented, conscious, flexible and purposive

ii) defence : a distortion of objective reality and is inflexible and rigid

iii) fragmentation : complete disregard for reality

The above three modes are not seen as behavioural opposites but as representing variations on a continuum of a single generic ego function. They are thought to serve a 'utilitarian hierarchy' whereby a person will "cope if she/he can, defend if she/he must, and fragment if she/he is forced to" (Haan, 1977). Whether a person copes, defends or fragments depends on his/her possibility for maintaining equilibrium or self -consistency.

A number of criticisms and problems limit the usefulness of the traditional approaches to coping and the trait and style dimensions they have spawned.

Lazarus and Folkman (1991), outline four major issues in this regard: the treatment of coping as a structural trait or style; the failure to distinguish coping from automatized adaptive behaviour; the confounding of coping with outcome; and the equation of coping with mastery.

i) coping as trait or style: traditional models tend to emphasise traits or styles, that is, achieved ego-structures that, once created, presumably operate as stable dispositions to cope in this or that way over the life course. Trait conceptualisations and measures of coping underestimate the complexity and variability of actual coping efforts. Most trait measures evaluate coping along a single dimension such as repression-sensitisation or coping-avoiding. The unidimensional quality of most trait measures does not adequately reflect the multidimensional quality of coping processes used to deal with real life situations. However research findings on this issue are mixed and thus recognise that there is both stability and change in coping, but the research emphasis has been overwhelmingly on stable traits compared with coping as a process.

ii) coping vs. automized adaptive behaviour: there is an important distinction that is not made in many traditional approaches to coping, namely, between automatized and effortful responses. The distinction between the two is not always clear. When a situation is novel, responses are not likely to be automatic, but if that situation should be encountered again and again, it is likely that the responses will become increasingly automated through learning. That most people deal with many of the demands of daily living in ways that do not tax or exceed their resources is evidence that many coping responses become automated as learning takes place. However, at one point most such demands of daily living do tax or exceed available resources and therefore require coping.

Put differently, not alladaptive processes are coping. Coping is a subset of adaptational activities that involves effort and does not include everything we do in relating to the environment.

iii) the confounding of coping with outcome: in both the above models, coping is equated with adaptational success, which is also the popular meaning of the term. In the psychoanalytic ego models, there is a hierarchy of coping and defence such that some processes are automatically considered superior to others. When efficacy is implied by coping, and inefficacy by defence, there is an inevitable confounding between the process of coping and the outcome of coping. These conceptual systems are not appropriate to the investigation of the relationship between coping and outcome. In order to determine the effectiveness of coping and defence processes, one must be open-minded to the possibility that both can work well or badly in particular persons, contexts or occasions.

iv) the equation of coping with mastery over the environment: there is an implicit corollary to those definitions of coping that consider certain strategies inherently better or more useful than others, namely, that the best coping is that which changes the person-environment relationship for the better. Coping is viewed as tantamount to solving problems by acting effectively to obviate them. The problem here is not that solving problems is undesirable, but that not all sources of stress in living are amenable to mastery, or even fit within a problem-solving framework, for example, natural disasters, disease etc. Emphasising problem-solving and mastery devalues other functions of coping that are concerned with managing emotions and maintaining self-esteem and a positive outlook, especially in the face of irremediable situations. Coping processes that are used to tolerate such difficulties, or to minimise, accept or ignore them are just as important in the person's adaptational armamentarium as problem-solving strategies that aim to master the environment.

3.2.2 Lazarus and Folkman model of coping

In the late 1970s a major new development in coping theory and research occurred in which the hierarchical views of coping, with its trait or style emphasis, was abandoned in

favour of a contrasting approach, which treated coping as a process. From a process perspective, coping changes over time and in accordance with the situational contexts in which it occurs (Lazarus, 1993).

The cognitive theory of stress and coping on which this model is based reflects its relational and process oriented nature (Folkman, 1984). The relational characteristic is evident in the definition of stress as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his/her resources and as endangering his/her well being. This indicates that stress in not a property of the person or the environment, nor is it a stimulus or a response.

The process orientation indicates that the relationship is bi-directional and dynamic i.e. the person and the environment each acting on the other. Lazarus (1993) elaborates further, saying that coping is highly contextual, since to be effective it must change over time and across diverse stressful conditions.

Folkman and Lazarus (1992), describe three processes that mediate the person-environment relationship, namely, emotion, coping and cognitive appraisal.

i) **emotion**: is seen as complex, organised psychophysiological reactions consisting of cognitive appraisals, action impulses, and patterned somatic reactions. The three components operate as a unit and the patterning of the components reflects the emotion quality and intensity. Cognitive appraisal is an integral part of the emotion state. The term action impulse rather than action draws attention to the idea that the action of emotion can be inhibited as well as expressed. The mobilisation that is often involved in action impulses is an important feature of the third component, the patterned somatic reaction, which refers to the physiological response profile that uniquely characterises each emotion quality.

ii) **coping**: consists of cognitive and behavioural efforts to master, reduce or tolerate the external and/or internal demands that are created by the stressful transaction

(Folkman, 1984). These cognitive and behavioural efforts are constantly changing as a function of continuous appraisals and reappraisals of the person-environment relationship, which is always changing. Lazarus (1993) conceives coping as serving two major functions, that are articulated in two primary modes:

- problem focused coping, involves coping efforts to manage or change the relationship between the person and the environment

- emotion-focused coping, concerns regulating stressful emotional responses, by changing either a) the way the stressful relationship with the environment is attended to (as in vigilance or avoidance) or b) the relational meaning of what is happening, which mitigates the stress even though the actual relationship has not changed. The latter involves a more benign or less threatening reappraisal, as illustrated, for example, in denial and distancing (Lazarus, 1993).

Of the two functions of coping, problem-focused and emotion-focused, there is a tendency in western values to venerate the former and distrust the latter. Taking action against problems rather than reappraising the relational meaning seems more desirable. Nevertheless, there is ample evidence that under certain conditions - particularly, those in which nothing can be done to change the situation - rational problem-solving efforts can be counterproductive, even likely to result in chronic distress when they fail; then emotion-focused efforts would offer the best coping choice (Lazarus, 1993).

iii) **cognitive appraisal** : Folkman and Lazarus (1992), speak of two forms of appraisal, primary and secondary. Folkman (1984) refers to primary appraisal as one through which the person evaluates the significance of a specific transaction with respect to well being, and secondary appraisal as one through which the person evaluates coping resources and options.

- Primary appraisals refer to judgements about transactions, which can be irrelevant, benign-positive or stressful. An appraisal that a transaction is irrelevant is a judgement that it has no significance for well being, and a benign-positive appraisal indicates that a transaction does not exceed the person's resources and signals only positive consequences. Folkman (1984), points out three major types of stressful appraisals:

(i) harm/loss: evaluating damage that has already occurred

(ii) threat: potential harm or loss

(iii) challenge: opportunity for growth, mastery or gain

A primary appraisal, whether harm/loss, threat, or challenge, is shaped by an array of person and situation factors. Among the most important person factors are beliefs and commitments. The situational factors which influence appraisal, include the nature of the harm or threat, whether or not the event is familiar or novel, when it is likely to occur, how likely it is to occur and how clear or ambiguous the expected outcome is.

- Secondary appraisal addresses the question: 'What can I do?' and becomes critical when there is a primary appraisal of harm, loss, threat or challenge. In this instance coping resources, which include physical, social, psychological and material assets, are evaluated with respect to the demands of the situation (Folkman, 1984). Individual differences in these variables help explain why an encounter may be appraised as a threat by one person and as neutral or a challenge by another. Appraisal processes are also influenced by environmental variables such as the nature of the danger, its imminence, ambiguity and duration, and the existence and quality of social support resources to facilitate coping.

Folkman and Lazarus (1988), describe the relationship between emotion and coping in a stressful encounter in the following way. The behavioural flow begins with a transaction that is appraised as harmful, beneficial, threatening or challenging. The appraisal process generates emotion. The appraisal and its attendant emotions influence coping processes,

which in turn change the person-environment relationship. The altered person-environment relationship is reappraised and the reappraisal leads to a change in emotion quality and intensity. Viewed in this way coping is a mediator of the emotion response. A mediating variable is usually generated in the encounter and it changes the original relationship between the antecedent and the outcome variable. Coping, for example, arises during the encounter and transforms the original emotion in some way.

3.2.2.1 Limitations of the coping process approach

According to Lazarus (1993) the process approach to coping has its own limitations. The most important one is that the measures are not usually formulated to link up with the whole person, who has a particular goal hierarchy and situational intentions, belief systems and a life pattern of plans and social connections. Coping process measures would be far more meaningful and useful if we knew more about the persons whose coping thoughts and actions in specific contexts are being studied. Now they tend to be disembodied, as it were, from the person. Thus, an approach that does not supplement contextual measurement of coping with an attempt at synthesis into a whole person is bound to be too limited.

According to Cooper and Payne (1988) no one coping function is seen as more adaptive than another. Rather the individual fitting the right strategy to the situation engineers a successful outcome.

3.3 RESEARCH ISSUES IN COPING.

The increased interest in the field of coping is reflected in the enormous growth of research in this area. However, the search for systematic knowledge about the nature and role of coping, and its antecedents and consequences, has proved to be a difficult one.

Research in this area has covered a wide range of issues and questions reflecting different aspects of the complexity of the coping construct. Research has ranged in its focus from investigating personal coping resources and coping styles reflecting personality attitudes, to

situation specific coping efforts for example, Pearlin & Schooler (1978), and Folkman & Lazarus (1980). This range of research questions and procedures have resulted in no coherent body of findings.

Methods of coping employed by researches in this field can be categorised into three main groups, namely, coping conceptualised in terms of ego-processes, the personality trait approach and the situation specific approach.

The broad approaches to research on coping, have inevitably shaped the style of psychological procedures and research methods employed. Thus one approach to examining research issues in coping is to examine the advantages and limitations of research procedures linked to these different approaches.

3.3.1 Ego-processes approach

This approach to research consists of researcher conceptualising coping in terms of ego-processes or defence used to manage stressful situations (Haan, 1977; Menninger, 1976; Valliant, 1977 cited in Monet and Lazarus,1992). This poses several difficulties for our understanding of the relationship between the coping processes and the adaptational outcome.

Defences are hierarchically organised on an evaluative dimension. Valliant (1977, cited in Monat & Lazarus, 1992) for example, orders defence processes from primitive to mature according to theoretical notions of maturity. Haan (1977) on the other hand, ranks ego-processes as indicating ego-failure, defence or coping accordance with adherence to objective reality.

Folkman and Lazarus (1980) point out the following weaknesses in this approach. The placement of an ego process on an evaluative dimension is often made on the basis of information about how well the person functions. The problem this presents is a confounding between the coping process and adaptational outcomes. Another difficulty is

that much inference is needed on the part of the researcher in the classification and identification of ego-processes, resulting in problems of inter-rater reliability. Finally, by treating coping as a defence system whose purpose is to reduce tension and restore equilibrium, attention is focused in tension reduction rather than problem solving.

3.3.2 Personality trait approach

This approach conceptualises coping as a personality trait. Trait measures are based on the assumption that people are behaviourally consistent across situations. However, according to Folkman and Lazarus (1980) substantial consistency has seldom been found in personality research. The consistency of the coping process has never been addressed systematically in research, but has been in the main assumed.

Further, criticism posed by the above authors involves the unidimensional quality of trait measures which fail to reflect the multidimensional, flexible and shifting nature of coping processes.

3.3.3 Situation specific approach

This approach to coping research usually describes how people cope in response to specific situations. Research in this area is based on the assumption that, to the extent that coping efforts are partly formed by situational conditions, variations in people's efforts can be expected across different situations. Lazarus and his colleagues and Pearlin & Schooler (1978) have made a major contribution in this area.

Folkman and Lazarus (1980) point out that researchers in these studies often group coping strategies into functional categories in terms of their functioning. Although the coping strategies often include defence, they are not organised around defence theory. Instead, defences are described in terms of the particular function they might serve in a specific situation. Research has indicated that people seem to combine types of coping in accordance with the situation and specific problem with which they are coping (Pearlin &

Schooler, 1978), as well as in response to their personalities (Folkman and Lazarus, 1980). It is also argued that by not limiting the definition of coping to defensive or trait-relevant processes a more comprehensive and inclusive description of coping is possible.

The most severe limitation of this approach lies in the area of application. Studies are usually designed to identify coping strategies in unusual situations, and not to analyse coping cross-situationally. Therefore findings tend not to be applicable to other contexts. In other words, the results of situation-oriented research tend to be situation specific.

In response to the problem raised concerning consistency in coping, Folkman & Lazarus (1980) make the following point. As regards expecting high consistency across situations, one would expect substantial variability. And that high consistency could reflect rigidity in responding to different situations and could be indicative of pathology. Coping is not only expected to be variable across situations but also among individuals

3.3.3.1 Empirical evidence concerning the mediating role of coping styles.

Research in the area of adaptive coping with life stresses has dramatically increased in the past decade. The thrust of the empirical work in this area has demonstrated individual differences in coping as a function of the stressful situation encountered, perceived controllability of the situation, and the underlying personality dispositions, Blanchard-Fields & Irion (1988).

Pearlin and Schooler (1978) claim that relatively little is known of the nature and substance of people's coping repertoires and even less of the relative effectiveness of different ways of coping. In their study, they evaluated the efficacy of a number of concrete coping behaviours representing three functions: eliminating or modifying conditions giving rise to problems; perceptually controlling the meaning of experience in a manner that neutralises its problematic character; and by keeping the emotional consequences of problems within manageable bounds. They have been able to demonstrate that the style and content of coping do make a difference to the emotional well being of people. Furthermore, the

greater the scope and variety of the individual's coping repertoire, the more protection coping affords.

But the complete story of coping efficacy must include not only an account of what people do, but where they do it as well, for the same kinds of mechanisms are not equally effective in different situations or role areas. For example, with relatively impersonal strains, such as those stemming from economic or occupational experiences, the most effective forms of coping involve the manipulation of goals and values in a way, which psychologically increases the distance of the individual from the problem. On the other hand, problems arising from the relatively close interpersonal relations are best handled by coping mechanisms in which the individual remains committed to and engaged with the relevant others. On the basis of this evidence Pearlin and Schooler (1978), assert that what people do or fail to do in dealing with their problems can make a difference to their well being.

Folkman and Lazarus (1980), using extensive interviewing, reported that different coping modes are associated with different situational stressors. For example, they reported that work related stressors generated increased problem-focused coping and personal and family related stressors generated emotion-focused coping. Thus whether an individual is effective at coping or not may depend upon his/her ability to accurately perceive the stressor and determine the appropriate response, including generating alternative strategies, implementing the best one and evaluating the implemented strategy.

Billings and Moos (1981) have found that problem-focused coping strategies are more relied upon than inactive emotion-focused ones. The greater the threat, the more the individual resorts to primitive, desperate or regressive emotion-focused form of coping, and the more limited the range of problem-focused options (Lazarus & Folkman, 1984).

Emotion focused techniques are likely to be used when the individual perceives the stressor to be unchangeable. The task of coping here is therefore defined in terms of the need to accept the situation and adjust to it. Emotion-focused coping is described as more adaptive

in uncontrollable situations that have to be accepted, as it lowes distress and somatic disturbance in such circumstances (Lazarus & Folkman, 1984).

The extent to which one type of coping is employed rather than the other is influenced by the type and level of stressors involved. For example, work-related stressors are associated with increased problem-solving strategies, and health related stressors with increased emotion-focused coping (Folkman & Lazarus, 1980). Both problem-focused and emotion-focused coping are used in the majority of stressful situations, so conceptualising in terms of these two process is inadequate (Folkman et al).

Bhagat, Allie and Ford (1991), conducted an investigation which focused on the effectiveness of both problem-focused and emotion-focused coping in moderating stress-outcome relationships. This particular study complements the findings of Folkman and Lazarus (1980), indicating a significant increase in the use of problem-solving techniques when subjects in the study where confronted with work-related stressful episodes. Emotion-focused coping was more prevalent while coping with stressful outcomes of physical disabilities and illness. In another study conducted by Cronkite and Moos (1984), into the stress-illness relationship, the stress-amplifying effects of avoidance coping was relatively consistent. Lazarus (1993) describes frequently replicated findings regarding coping. When a person as refractory to change views stressful conditions, emotion-focused coping predominates; when they are appraised as controllable by action, problem-focused coping predominates.

Aldwin and Revenson (1987), on the other hand, argue that there is no clear consensus as to which coping strategies or modes of coping are most effective, that is how well a coping strategy serves to resolve problems, prevent future difficulties or re-live emotional distress. The few studies that have examined the relation of coping to some outcome measure have produced inconsistent results. For example, some studies have found that problem-focused coping decreases emotional distress, whereas emotion-focused coping increases it. Others however have reported the opposite pattern. Thus we are far from describing a "magic bullet" coping strategy that can instantly solve problems and restore emotional equilibrium.

In a study carried out by the above authors, to determine how individuals can reduce the negative impact of stressful events on their emotional well being, the coping strategies assessed appeared primarily to increase emotional distress. This was especially true for emotion-focused strategies, which are defined as attempts to control or minimise emotional distress, according to Folkman and Lazarus (1980).

This once again indicates that although some of the results are encouraging, there are still many unresolved issues concerning the conceptualisation and measurement of coping and its relation to mental health, as well as the efficacy of any specific coping strategies.

3.4 SUMMARY

The focus of this chapter is on the concept of coping and its related function in mediating stressful events. An analysis of the literature provides a definition of coping where the salient points involve behavioural, cognitive and intrapsychic acts in the coping process. The chapter discusses coping as ability or skill rather than a stable personality construct. The coping models evaluate range from the simplistic animal model to the process oriented model, in particular the Lazarus model of coping. The former approach to coping is trait oriented and sees coping as a personality characteristic. The latter is process oriented and views coping as efforts to manage stress.

The Folkman & Lazarus model conceives coping as serving two major functions: problem-focused coping and emotion-focused coping. The former involves coping efforts to manage or change the relationship between the person and the environment, whilst the emotion-focused efforts are concerned with regulating the emotional responses associated with the stressful situation. Of the two functions, problem-focused coping tends to be perceived by western values as the more desirable; taking action against a problem rather than reappraising the relational meaning seems more worthwhile. However, there is evidence that under certain conditions, particularly those in which nothing can be done to change the situation, emotion-focused coping becomes a more effective coping strategy.

CHAPTER 4

SOCIAL SUPPORT

Most of the interest in the concept of social support can be ascribed to its effects on individuals' health and well being (Cohen & Syme, 1985). Many researchers agree that the nature of the social environment is significant for the health and emotional well being of people confronted by stressful events (Turner & Noh, 1983; Schafer, 1992). Literature emphasises the belief that connections with significant others (be it spouses, friends, co-workers, supervisors or the community) have positive effects on personal adjustment and health (Sarason, Pierce and Sarason, 1994). According to Pilisuk (1986), social support appears beneficial not only as a prevention of illness but also alleviation of the strain associated with the work environment. The evidence for believing that social support contributes to positive adjustment and personal development is theoretical as well as empirical (Sarason, Sarason, Potter, and Antoni, 1985).

Manroe & McQuid (1994) argue that not all people who experience major forms of life stress develop mental or physical problems, therefore it became increasingly common to develop models via which stress may eventuate in disorder. A great amount of interest has been generated in vulnerability factors, for example, aspects about the individual's social world that may increase the likelihood of problems in the face of stress. These are often referred to as buffering hypothesis, wherein the lack of a vulnerability factor or the presence of a buffering factor mitigates the effects of stress (Manroe et al).

Three scholars laid much of the groundwork for discussion and research of social support over the past decade, Caplan, Cobb and Cassel (Vaux, 1988). Cobb's major emphasis is on social support as a stress buffer, concluding that adequate social support can protect people in crisis from a variety of physical and psychological disorders, presumably through the facilitation of coping and adaptation, (Vaux et al).

Although there is an extensive body of research to support the theory that social support does indeed have salutary effects on health, the mechanisms that underlie such effects are poorly understood (Swan and Brown, 1990; Sarson, Pierce and Sarason, 1994). To date we know little about the aspects of support that are protective and the mechanisms and conditions that make support attempts beneficial or harmful (Thoits, 1986). The question is asked: What role does social support play in how people handle stress? (Sarason, Pierce & Sarason, 1994), is social support a buffer, and/or is it a reducer of vulnerability to stress? An additional factor which contributes to the confusion regarding the mechanisms of social support, is the problem of comparability of results across studies that have been conducted relating to the effects of social support on stress (Lieberman, 1982).

Although social support is a promising idea, it is also in many respects a new idea that has been conceptualised differently by different people. It has not yet been explored extensively in empirical research. This section cannot be a straightforward presentation of well-established theoretical propositions and empirical facts. Rather an attempt will be made to assess the varied ideas and present the scattered empirical facts, as well as discuss their relevance to this study.

4.1 THE CONCEPT OF SOCIAL SUPPORT

Pearlin (1985) speaks of social support as a construct that helps to make sense out of the differences observed in peoples' responses to common problems. For example, it is well known that not everyone facing the same circumstances are adversely affected by them. The very conditions that produce distress in some people leave other people seemingly untouched. Variations in the consequences of difficult life conditions therefore lead to posit the presence of factors that mediate the relationship between these conditions and their outcome. The concept of social support - along with that of coping - serves this function.

Social support has been defined in nearly as many ways as it has been studied. In one sense, social support is a catchall phrase reflecting that "right stuff" that is gained by being socially connected. In another sense, social support consist of those interactions in which functionally meaningful support occurs between people (Hobfall, 1988).

One of the original thinkers to discuss the importance of social support was Caplan who wrote that social support is helpful because it provides the individual with feedback, validation, and a sense that one can master one's environment. Cobb another early theorist, argued that social support is beneficial because it provides information about being loved, esteemed, and valued members of a social network (Hobfall, 1988). Other, more action-oriented and specific definitions have emerged implying that social support involves an actual transaction between two or more people in which emotional concern, instrumental aid, information or appraisal transpire (Hobfall, 1988).

The concept of social support has been variously addressed in terms of social bonds, social networks, meaningful social contacts, availability of confidants and human companionship, as well as social support. Although these are hardly identical concepts, they share a focus upon the relevance and significance of human relationships (Turner & Noh, 1983). Despite the diversity, most definitions have focused on the helping elements and the processes of the social-relational system in which the individual is located. Social support, like stress and coping, is a concept that everyone understands in a general sense but it gives rise to many conflicting definitions and ideas. Social support has been around for many years, it just had different names: love, caring, friendship, and sense of community. Thus in some ways social support is an old concept with some new implications. What is distinctive about the new from the old, is the claim that support may reduce stress, improve health and, especially, buffer the impact of stress on health.

There has been no dearth of attempts to define social support. They range from such parallel concepts as social integration, ego strength and surrogate empirical variables like marital status, to the more elaborate conceptualisations and syntheses in the works of Cob, Caplan, House and others. Indeed, although definitions continue to display

confusion and diversity, clearly converging elements are apparent (Lin, 1986). Lin et al offers a definition which represents a synthesis of most other concepts. She sees social support as consisting of these two components. The social component reflects the individual's linkage to the social environment at three distinct levels: (1) the community, (2) the social network; and (3) intimate and confiding relationships. The support component reflects the essential instrumental and expressive activities. This definition recognises that both perceived and actual support is important to the individual. The social aspect of the definition singles out the individual's community, social networks and confiding partners of sources of support. Those in turn represent three different layers of social relations. The outer and most general layer consists of relationships with the community, and reflects integration into, or a sense of belonging. A layer closer to the individual consists of the social networks through which a sense of friendship and bonding is provided. Finally, the innermost layer consists of relations among confiding partners, which tend to be binding in the sense that one anothers well-being is understood and shared by the partners (Lin, 1986).

Discord and diversity with respect to the definition of social support have concentrated around three issues: the range of social ties that are relevant to support the relative importance of objective features of social relationships and supportive behaviour versus the individual's perception or appraisal of these, and the variety of forms that support might take (Vaux, 1988).

Several general approaches to social support can be discerned from the literature. They include attention to the structure of a person's social network, the functions of social support, and the distinction between the perception of social support availability and the perception of receipt of social support (Sarason, Sarason and Pierce, 1990).

4.1.1 The structure of social networks

Vaux (1988) describes a social network as representing a compromise between two approaches, namely: the integration approach and the intimacy approach. The social

integration approach usually examines the individual's degree of social integration in terms of such factors as marital status, contact with friends and relatives and membership in voluntary associations. The intimate relationship approach represents an extreme of the former, since it focuses on the availability of intimate relationships. Social network incorporates both these views allowing for a broad range of social ties to be examined.

Definitions that emphasise interpersonal connectedness lead to inquiries concerning the structure of individuals' social networks, including such characteristics as network size, density, proximity, etc. This approach is based on the assumption that structural features of a social network influence the impact that social interactions have on network members. It calls attention to differences in the patterns of social interaction characterising different support networks. In addition, this approach proposes several distinctions among categories of network members, including those who are family members, confidants, spouses and sources of conflict. An especially important finding stemming from this perspective is that certain types of networks are associated with poor outcomes under some circumstances. Sarason, Pierce and Sarason (1994) believe that these theoretical and empirical contributions outweigh the frequent observation that measures of network characteristics have not been found to be related to psychological adjustment and health status.

Turner (1983) refers to this approach as the social-network analysis, which estimates the capacity or potential of social environments for providing support. It attempts a more complex and comprehensive analysis of social environments. The network characteristics most relevant to personal support are: (1) size; (2) strength of ties; (3) density; (4) homogeneity of membership; and (5) dispersion of membership.

4.1.2 Functions of support

Another source of diversity and confusion in social support thought and research concerns the varied forms and functions of social support. People assist one another in

an astonishing variety of ways, and relationships serve many functions. Unfortunately this richness has been mirrored in the literature by a proliferation of terminology and a host of overlapping typologies, few of which have achieved widespread currency (Vaux, 1988).

A functional approach seeks to specify those aspects of social support that are beneficial to individuals who are experiencing specific types of stressful events. Weiss has stimulated this approach (1974, cited in Sarason, Pierce, & Sarason, 1994) by hypothesising that there are six specific provisions of social relationships: attachment, social integration, opportunity for nurturance, reassurance of worth, sense of reliable alliance and guidance. It has been postulated further that the buffering effect of social support, which serves to insulate or partially protect those who are vulnerable to the effects of stress, is a function of the match between the particular need engendered by the stressor and the type of support given. This approach suggests that mismatched support may explain why many research efforts have produced conflicting findings concerning the buffering effects of social support (Sarason, Pierce, and Sarason, 1994).

Vaux (1988), suggests that some reviewers agree that consensus might be possible around some four to six types of support. They suggest that social networks and support systems serve four general functions: emotional support; task oriented assistance; communication of expectations; evaluations, and a shared world view; and access to diverse information and social contacts.

4.1.3 Support receipt.

Another way of categorising approaches to social support is whether they are focused on support given or support potentially available.

A person's exposure to stressful life events may trigger supportive actions by those in the person's social network because others are aware of the negative event, or they see the person is in need of help, or the stressed person actively solicits support. The last

two contingencies may have an implication different from that of the first. They either may imply a failure in coping, because of the person's ineffective skills or because of the event's overpowering nature. Although measures of received support have to date yielded mixed results, they have led to important theoretical developments, particularly in recognition of the complexity of social support (Sarason, Pierce and Sarason, 1994).

Sarason, Sarason and Pierce (1990), define received support as 'what people get from others'. 'Specific acts of others' can be viewed as either enacted support, in which the focus is on the actions that others perform to assist a particular person, or received support, in which the focus is on the recipient's account of what he or she noted as coming from others that was helpful or intended to be helpful.

4.1.4 Perceived support

The finding that a recipient's evaluation of supportive activity does not necessarily match the reports by others involved, suggests that an individual's report of social support reflects at least two elements: objective properties of supportive interactions, and the respondent's interpretation of the interactions. The importance of the subjective side of social support is evidenced in the highly consistent finding that it is the perception of social support that is most closely related to adjustment and health outcomes. A number of studies have shown that support perceived to be available is consistently related to outcome measures. Support that is actually received may affect outcome measures not because of this support per se, but through its impact on perceptions of support (Sarason, Pierce and Sarason, 1994). Sarason, Sarason and Pierce (1990) indicate that some measures of perceived support stress availability, some stress satisfaction, and some combine both aspects of support on an overall score some keep separate scores for those two.

Turner and Noh (1983) acknowledge that the emphasis upon emotional support is mirrored in such concepts as social bonds, meaningful social relationships, etc. Implicit in all of these is the assumption that they address a core human requirement crucial

aspect of this requirement is the experience of being supported by others, because social support is likely to be effective only to the extent perceived. Cohen and Syme (1985) suggest that types of support may be especially important in understanding when social support buffers the pathogenic effects of stress. Hence, buffering effects may occur only when the kinds of available support match the needs elicited by the stress a person is experiencing.

Perhaps the best-known conceptualisation of perceived or experienced social support has been provided by Cobb (Turner & Noh, 1983). He viewed social support as information belonging to one or more of the following three classes: (1) information leading the subject to believe that he is cared for and loved; (2) information leading the subject to believe that he is esteemed and valued; and (3) information leading the subject to believe that he belongs to a network of communication and mutual obligation. Social support thus refers to the clarity or certainty with which the individual experiences being loved, valued, and able to count on others should the need arise (Turner, 1983).

Schafer (1992) identifies two main types of support: expressive (emotional support) and instrumental (task-oriented). House (1981, cited in Schafer, 1992), defines social support as an interpersonal transaction involving one or more of the following: emotional concern, instrumental aid and information about the environment and appraisal.

Vaux (1988) says that the idea of social support has been described alternatively as rich and subtle or as diffuse and vague. As outlined above support seems to encompass a multitude of activities, relationships and subjective appraisals. In short, social support has been viewed from diverse perspectives involving multifarious relationships, activities and evaluations. The multifaceted nature of social support precluded a simple conceptual definition. Consequently, both the construct and its relationship to other constructs such as stress and disorder remained vague.

Sarason, Pierce and Sarason (1990), refer to social support as an umbrella term that covers a variety of diverse phenomena. Despite the growing consensus that social support research findings have been muddied by constructs based on various definitions. Researchers, paying lip service to this view, continue to use different perceptions of social support for their investigations. Sarason, Levine, Basham and Sarason (1983), come to the conclusion that, regardless of how social support is conceptualised, it seems to have two basic elements: (a) the perception that there is a sufficient number of available others to whom one can turn in times of need and (b) a degree of satisfaction with the available support. These two factors in social support may vary in their relation to one another, depending on the individual's personality.

4.2 MODELS OF SOCIAL SUPPORT AND EFFECTS ON WELL-BEING

Vaux (1988) discusses two models of social support. According to the first model, social support acts to protect individuals from the effects of stressful conditions. Generally, this has been interpreted to mean that the relationship between stressful life experiences and psychological distress or physical illness would diminish under conditions of greater social support. Interest in this stress-buffer model of social support was piqued by several factors. A strong tradition of social epidemiological research had established the role of stressful life events and well being, although consistent, were small in magnitude. Clearly, this relationship was modified by personal and social factors acting as vulnerabilities or assets.

A second general model grew out of research on the buffer model. The direct effect model, views social support as having salutary psychological and health effects independently of the stress process (Vaux, 1988). This view emerged when it became clear that a good deal of social support research either had examined the buffer hypothesis improperly or had done so correctly but not found evidence of a buffer effect. In both cases, the research seemed to link support to well being, but in a way that had little to do with the stress process. Further, it became clear over time that even early discussions of social support had suggested a role for social support quite independent of stress and coping. Schafer (1992) recognises these two models of social support. The direct effect model implies that the greater the social support, the more positive the mental and/or physical health. This type of relationship has been widely studied and supported. The buffering model is referred to as one that softens the impact of potentially stressful events.

The concept of buffering is implicitly or explicitly central in most of the major writings on social support and some authors have gone so far as to suggest that buffering is virtually the only way in which support affects health (Shafer, 1992). The implications of the buffering model are that the deleterious impact of stress on health is mitigated as social support increases. Conversely that support will have its strongest beneficial effect

on health among people under stress and may have little or no beneficial effect for people under little or no stress.

According to Hobfall (1988), the direct-effect model suggests that social support has an equivalent positive impact on well-being under high and low stress conditions, stemming from the overall salutary effect of healthy social relations on individuals. The stress buffering effect, in contrast, suggests that social support has greater positive impact under high stress than under low stress conditions. Stress buffering would occur, accordingly, because under high stress people are especially likely to call on and respond to attempts at aid and the sustenance provided by close ties. Furthermore, it is reasoned that under high stress, supporters would be increasingly likely to offer aid and to provide intensive levels of helping.

Pilisuk (1986), reasons that under highly stressful circumstances supportive ties help reduce the impact of the pressure, perhaps by moderating the meaning of stressful events. The surrounding group of intimate family and friends acts like a filter for harmful events. There is yet another possibility that social support contributes to the successful adjustment and well being of the individual in a direct manner, independent of the assistance such support provides in reducing the impact of external stressors. In the direct effect view, social support protects us by doing something to the type of person we are, providing us with some inner strength to withstand the slings and arrows, and the germs of life (Pilisuk et al).

It is not very easy to distinguish these two views, no less to demonstrate the clear superiority of one over another in scientific studies (Pilisuk, 1986). Supposedly, the buffering theory suggests that support is helpful in reducing the incidence of health breakdowns, or related disturbances, only among those with high levels of stress. Yet those who argue for a direct effect have been able to show that some good comes from social support, whether or not the people studied are living under highly stressful circumstances (Pilisuk et al). Some of the supporters of the buffering hypothesis have proposed that since social support refers to so many different actions, the effects one

might anticipate in protection against stress are likely to be quite varied. The argument is that for a particular variety of stressful experiences to be buffered, a particularly appropriate form of social support must meet it.

Despite the scientific prominence and potential practical importance of the idea of buffering, considerable confusion exists about what constitutes evidence of buffering versus main effects of social support, whether existing empirical data provide such evidence, and whether it matters if support has buffering effects or main effects.

Cohen and Syme (1985), argue that social support enhances health and well being irrespective of stress levels. This direct benefit could occur consequently from the perception that others will provide aid in case of stressful occurrences or merely because of integrated membership in a social network. The perception that others are willing to help could result in an increased overall positive effect and in elevated senses of self-esteem, stability and control over the environment. In contrast to the direct effect model, the buffering hypothesis argues that support exerts its beneficial effects in the presence of stress by protecting people from the pathogenic effects of stress. In this model, support may play a role at the different points in the stress pathology causal chain. First, support may intervene between the stressful event and the stress experience by attenuating or preventing a stress response. In short, resources provided by others may redefine and reduce the potential for harm posed by a situation and/or bolster the ability to cope with imposed demands, hence preventing the appraisal of a situation as stressful.

Second, support may intervene between the experience of stress and the onset of the pathological outcome by reducing or eliminating the stress experience or by directly influencing responsible illness behaviours or physiological processes. House (1981, cited in Cohen & Syme, 1985) suggests three ways in which support may alleviate the impact of the stress experience. Support may reduce the importance of the perception that a situation is stressful, it may in some way tranquillise the neuroendocrine system so that people are less reactive to perceived stress. Alternatively, it may facilitate

healthful behaviours such as exercising or attending to personal hygiene, sufficient rest, etc (House et al).

Lin, Woelfel and Light (1986) consider three possible interpretations of the buffering effect. In the narrowest interpretation, buffering is equated with interaction. Social support is said to reduce mental health problems only in the presence of stressors. In this model, social support shouldn't make any difference if important life events are absent. This is probably the most popular interpretation.

A second interpretation argues that social support buffers through either its interaction with life events or when it counteracts life events directly. In the counteracting situation, social support becomes mobilised as a result of the occurrence of an adverse condition. Statistically, buffering is said to have occurred if the total effect of stressors on mental problems is reduced in the presence of social support (Lin, Woelfel and Light, 1986). Still a third interpretation, and the most liberal one, states that if the direct effect of stressors on mental health problems varies because of variation in social support, then social support serves as a buffer (ibid.). This interpretation of the buffering effect encompasses (1) the interaction effect, (2) the counteractive effect, and (3) the mediating effect, when the stressors and social support are negatively related and each exerts a direct effect on mental health.

Sarason, Sarason and Pierce (1990), argue that studies have shown that social support interacted differently with different aspects of stress. Perceived support served as a buffer to stress when the outcome measure was self-perceived symptoms, depression, or the ability to concentrate on a behavioural task. In contrast, when the outcome measure was somatic distress or urinary epinephrine level, the main effect of social support was produced. The fact that social support and stress related to each other differently depending on what outcome measure was chosen indicated that social support may effect health in various direct or indirect ways.

Blaney and Ganellen (1990), posit that studies of functions or types of support usually find evidence of the buffering effects of social support, and studies of social integration usually find that the main effects predominate. Buffering implies that support protects people from the deleterious effects of stress on health and well being. Specifically individuals experiencing high stress will display lower levels of psychological and physical symptomology if they have strong support than if they have weak support. Conversely, the effects of support on the stress-health relationship are weaker or absent for people experiencing little stress. Gore (1985) argues that the idea of buffering supposes a model in which increases in level of life stress place all people at risk for illness, but the impact of exposure to high levels of stress should be offset or buffered in the presence of adequate social support.

Since the mid-1970s, when social support began to be examined in the context of the psychosocial dynamics of physical and mental health, and conceptually integrated into the stressor-illness model, much effort has been devoted to examining the independent as well as the buffering effects of social support. Recent reviews tend to show that social support does exert a direct effect on a number of mental-health measures, but research examining the buffer hypothesis has yielded inconsistent results (Lin, Woelfel and Light, 1986). Hobfall (1988) concludes that there is increasing consensus that direct effects and stress-buffering effects both occur, but at what point they occur depends on an interaction, as yet not determined, of individual, kind of social support and environmental conditions.

4.2.1 The negative side of social support

In the rush and excitement over social support, Hobfall (1988) claims that researchers and theorists side-stepped information suggesting that social interactions involve both benefits and costs for the provider and recipient of support. It seems important to include the negative side of social support in this discussion, since many social interactions that have a positive intent are actually detrimental. To discuss social support without

discussing the contrary side of social interactions is to deny the true nature of personal relationships.

According to Hobfall (1988), social input may directly lessen one's sense of well-being. Rejection, criticism, exhausting demands, unwillingness to provide help, violation of privacy and social exploitation are all examples of such interactions. Unfortunately, a close relationship is paradoxically more likely to include such a negative input than is a more distant relationship, because if a more distant relationship is negative one has the option of stopping it. Obligations, investment and fear of being alone prevent people from evoking such sanctions in their close relationships. This is one principal reason why some people feel that obliged relationships are negative and not supportive. He argues further, that supporters may also promote unhealthy behaviour because it is consistent with group membership. Drinking friends encourage drinking; cults encourage dogmatic conformity to the group's norms, and families support behaviour consistent with the implied norms of the family.

Vaux (1988) also points to two factors that may influence social support: person factors and social context factors. The person factors include aspects like extroversion, social attractiveness, social skills and style of self-disclosure among others. Social contextual factors, which seem of importance to this study, are the nature of stressors.

Cohen and Syme (1985) also allow for the possibility that support may have negative as well as positive effects on health. It becomes evident that social support is not always supportive. It is important, therefore, to look at what factors might limit the beneficial effects of social support. Hobfall (1988) recognises three such factors: (a) situational factors that obstruct the positive transfer of support; (b) personality factors that interfere with the interpretation of support and how it is provided; and (c) the interaction of stigmatised events and certain individual characteristics.

(a) Limiting situational factors.

The first case whereby situational factors obstruct the positive transfer of support is structural, that is, related to the characteristics of the event. During crises, for instance, social support may not be available to individuals because crises often occur unexpectedly.

Secondly, when stressors become chronic, supportive resources may also dwindle because supporters eventually must return to their own responsibilities. Indeed the burden on those closest to the victim is likely to increase following a crisis, further limiting the ability to be supportive.

A third situational factor that limits the positive effects is that many stressful events occur during transitional periods, for example, moving away to university. At such critical times, one is bound to be physically distant from traditional support providers.

(b) Limiting personality factors.

Hobfall (1988) indicates that there are many personality characteristics causing individuals to reject or denigrate the support they are given, such that even objectively effective support is rendered useless or counterproductive. Simply by focusing on the characteristics of the support provider, one may find some limiting factors. For example, the help provider who is insensitive to the threat involved in the receipt of support or who is motivated by the power that may be gained by giving aid may not provide effective assistance. Another problematic area is the role of the provider of support vis-à-vis the recipient. For example, in a work situation, help from a colleague may put him in the position of an expert. It becomes evident that the intentions of the supporter and the characteristics of the provider may be critical determinants of whether support is effective, benign or detrimental.

(c) Stigmatised events as limiting factors.

Hobfall (1988) talks of illness as one of the ubiquitous stigmatised events. In this case persons often do not understand themselves, perhaps because some people are especially sensitive to negative self-attribution the sick role is particularly avoided by them. Another example is that of shyness, or any trait that is related to a sensitivity to failure, which may interact with stigmatised events to inhibit the likelihood of receiving and benefiting from social support.

Vaux (1988) talks of certain stressors like terminal illness, tragic losses or a serious victimisation, which may temporarily incapacitate supportive relationships. They involve issues so tragic or threatening that an otherwise supportive network member simply cannot deal with it. There are gaps in the member's supportive capacity. Sometimes individuals are contributors to, as well as victims of, stressful conditions. Responsibility for one's difficulties, whether actual or perceived, may lead to stigma and isolation by potential networks.

Silver, Wortman, and Crofton (1990), also indicate that in their research they have been confronted with evidence suggesting that victims of life crises sometimes have difficulty gaining the support they desire and need. They suggest that reactions to a person in need of support are a function of a conflict between (1) the feelings of vulnerability and helplessness that are evoked in potential helpers during an interaction and (2) beliefs about appropriate reactions to display when interacting with people who have experienced life crises. They also believe that victims of life crises are faced with the dilemma regarding how to present their situation to others. If they display their distress and report difficulties in coping they may drive others away. However, if they fail to exhibit their distress, they may not signal a need for support (Sliver et al).

4.3 EMPIRICAL STUDIES

It is considerably difficult to demonstrate the buffer or direct effects of social support on psychological distress. Many suggest and support the buffering model while others

illustrate direct effects, resulting in total lack of consensus as to the effects of social support on well being. Vaux (1988) suggests looking at some specific issues regarding conceptual and methodological problems before attempting to draw conclusions for the direct and buffer effects of social support on psychological distress.

He points to a number of problems with research on this topic, namely:

(i) Ambiguity of construct - the complexity of social support has led to a good deal of confusion about its proper conceptual domain. Studies have addressed different aspects of the support mataconstruct, focusing on subjective appraisal, received support, and components of the social network to name a few. This diversity of focus makes it very difficult to integrate findings.

(ii) Theoretical ambiguity regarding process - much of the empirical work on social support has proceeded without the prerequisite conceptual analysis. Confusion about not only what support is, but also how it is predicted to influence well being, has marred the conclusions drawn from many studies. This problem was visible in the different interpretations of the buffer hypothesis, for example whether the model moderated or mediated the effects of stress.

(iii) Diversity of measures - confusion over the conceptual richness of social support led to an astonishing array of measures. Diversity of measures, particularly in the absence of a theoretical framework for sorting them, makes synthesis of research findings difficult. Further lack of reliability and validity of some measures add to the difficulty of consistent findings. Finally, when multiple measures of support are used within studies, they often yielded inconsistent results, contributing further to the task of integration.

(iv) Samples - study samples have reflected a broad range of populations including college students, community adults, ethnic groups, ex-psychiatric patients, and a variety of groups potentially under stress or undergoing transitions such as poor single mother, new mothers, etc. These groups of people occupy distinctive social roles, experience different hardships and acute stressors, and posses

disparate personal and social resources. Such factors contribute to the inconsistencies in findings.

(v) Stressor variables - not all studies adhered to the notion that variation in both stressor and support variables is a prerequisite to a test of the buffer hypothesis. The examination of stressors that are confounded with support or that are related causally to support present another problem, since these links between stressors and support may be highly problematic in tests of the buffer hypothesis. The issue of variations of stressors examined may account for some inconsistencies in findings.

(vi) Distress variables - relatively little attention has been paid to outcome variables. In the psychological domain, distress and well-being variables have included depression, anxiety, positive and negative affect, happiness, life satisfaction, psychosomatic complaints, and psychiatric and neurotic symptoms, among others. Varieties of health and illness outcomes have also been investigated. Generally, differential predictions regarding outcome have been absent in social support research - it has been viewed as a universal tonic.

Schafer (1990) cites two studies indicating the buffering effect of social support. One study conducted by Lin, Woelfel and Light (1985) found that social support from close friends provided a buffer against depression, given a major undesirable life event, except for marital separation. In a similar vein, Pearlin and Johnson (1977) found that when stressful life events were relatively infrequent or minor, marrieds and unmarrieds had similar levels of depression. However, when social and economic circumstances became more trying, marrieds experienced substantially less depression than unmarrieds did.

Lieberman (1982), conducted an investigation in which he focused on the differences in adaptation between those that did and did not use social resources when confronted with a stressful event. The findings pointed to the expected differences in the sample between those who utilised social resources and those who did not. People's perceptions of how

troubled or bothered they were by the same event were highly associated with turning to kin, kith or professional aid. However, when factors such as event perception, population characteristics like age, sex, race, and social class, access to help, internal resources or general coping effectiveness, perceptions of the self in terms of control over the environment as well as the time the event were statistically controlled so that the groups were equivalent, no evidence was found that obtaining help from kith, kin, or professionals reduced distress for any of the stress events. In other words, no support for social resources as stress buffer was found.

Lieberman (1982), concluded that generalised findings about the effectiveness of social resources might not be within our grasp. Simple generalisations - people who have social resources use them and thereby experience less distress - may not be possible in this complex, multidetermined area of human enquiry.

Cutrona and Russell (1990) reported the results of the role of social support in the psychological recovery of crime victims and other traumatic threats to personal safety. In cases of victimisation, only emotional support buffered the effects of crime. Neither tangible nor informational support buffered the effects of crime on the level of depressive symptoms. A study of Vietnam veterans examined the perceived availability of social support (material aid, physical assistance, availability of confidant, and a positive social contact) to determine whether levels of support were associated with whether or not the veteran had developed PTSD. The availability of a confidant, advice and positive social contact all were associated with the development of PTSD following exposure to combat. Individuals who had undergone the prolonged stress of combat needed relatively broad social support, including all but material and physical assistance. Individuals returning from combat faced strong negative emotions, a devalued identity and the problem of what to do next with their lives.

Vaux (1988) points to several studies that provide data on the link between resources and appraisal, dealing mostly with the network size and support satisfaction. Do larger networks provide support that is more satisfactory? The findings are inconsistent.

College students report more satisfaction with support when they have more people available to provide it, more confidants, but a moderate number of important others. Among a sample of women students Vaux and Harrison (1985, cited in Vaux, 1988) found that network size and support satisfaction were associated both overall and for each of five specific modes of support. Yet, in several other studies quoted by Vaux (1988), satisfaction with support was unrelated to the number of people providing it.

Vaux (1988) says that evidence for the buffer and direct models of social support have been evaluated by a number of commentators. The reviews range from conclusions based on a list of cited studies, through descriptive overviews, to a systematic synthesis of carefully selected studies. The author quotes Mitchell, Billings and Moos (1982) who presented tabular information on seventeen studies thought pertinent to the buffer hypothesis. They concluded that a buffer effect was observed in thirteen of these studies though in some cases only for particular support variables. These authors also reviewed evidence for the direct effects of support on distress. They cite nineteen relevant studies. Sixteen out of those show evidence for a direct effect on support on functioning although in several cases the effect is evident only for some measures.

Vaux (1988), concluded that those two models have guided the majority of research on social support. However, despite the apparent simplicity of these models, it has proved difficult to generate, evaluate, and integrate relevant empirical findings. Reviewers of literature have concluded that convincing evidence exists for one, both, or neither model. Although coherent patterns of findings are more likely to emerge as the quality of studies improves, confusion and/or disagreement persist about how best to conceptualise social support, model its relationship to the stress process, and test such models. There is a good deal of evidence that social support can have a direct and positive effect on well-being, both generally and independently of life stressors. There is also convincing evidence that social support can buffer the effects of stressors. Direct and buffer effects, respectively, tend to occur with measures that focus on affiliation and resources or on appraisals of availability or quality of support. The effects remain

unpredictable, being shaped by personal, social and contextual factors in ways that are still unclear.

Turner (1983) concludes that from the overview of currently available evidence, it can hardly be doubted that social support, variously indexed, is associated with significant variations in physical health, psychological health, and general well being.

Cohen and Syme (1985), indicate that recent research provides evidence for both direct and buffering effects of social support in health and well being. The direct and buffering processes may, however, be linked with different conceptions of social support. Direct effects generally occur when the support measure assesses the degree to which a person is integrated within a social network, while buffering effects occur when the support measures assess the availability of resources that help one respond to stressful events.

The theory that supports buffers, or protects individuals from the pathological effects of stressors generally has been tested with correlational data, which are inherently ambiguous and plagued by threats to internal validity (Lepore, Mata Allen and Evans, 1993).

Sarason, Pierce and Sarason (1994) indicate that after reviewing the literature on social relationships and health, it is evident that there is both a theoretical and empirical basis for hypothesising a causal impact of social relationships on health. It has been found that prospective studies that control for baseline health status consistently demonstrate an increased risk of death among persons with low quantity and sometimes-low quality of social relationships. The evidence concerning the relationship between social support and mental health, physical health and recovery from illness suggests that although social support alone may play an important role, it also may interact with other individual differences and environmental variables that need to be identified and evaluated.

The effectiveness of social support depends on the context in which it is provided, the nature of the problem, and the relationship between the supporter and the recipient of support (Sarason, Pierce, and Sarason, 1994). They believe that supportive efforts are successful under certain conditions but not necessarily others, and that these conditions interact with the nature of the relationship between the provider and the recipient

4.4 SUMMARY

The concept of social support, examined in this chapter, focuses mainly on the impact it has on the physical and psychological health of people confronted by stressful events. The mechanism through which social support is believed to protect individuals from the harmful effects of stress is analysed via two models, namely: the direct effects model and the buffering model. The direct effects model suggests that social support has a positive effect on well-being under high and low stress conditions. On the other hand, the buffering model indicates that social support will have greater positive impact under conditions of high stress. In another words, the support will have the strongest beneficial effects on health among people already under stress, and it may have little or no effect for people under little or no stress.

Although the two models have guided most of the research on social support, no definite superiority has been established of one model over another. Research findings reviewed in this chapter seem to indicate that there is a wide diversity of findings and the only solid conclusion one can reach is that social support has implications for health and well-being. It seems that the effectiveness of social support depends on the context in which it is provided. The context may include variables, like: the relationship between the supporter and the recipient of support; the nature of the stressful situation; the type of support offered; and even the personalities of the people involved.

CHAPTER 5

STRESS AMONG POLICE OFFICERS IN SOUTH AFRICA

In most parts of the world police work is seen as a highly stressful occupation, a view strongly supported by literature. Kroes (1976) was among the first researchers to implicate contemporary policing as a potentially stressful career. Others agree that although policing offers many socially redeeming rewards it is one of the most stress filled jobs in the occupational picture today. In a similar vein, Dash and Reiser (1978) state that police work is not only a high stress occupation, but it also affects and shapes, and at times scars the individuals and families involved. Axelbred and Valle's (1978) statement that police work has been identified as the most psychologically dangerous job in the world indicates the existence of a certain amount of consensus on the matter. Police stress has become a term that encompasses the stress of being a member of a subculture within society composed of people who deal with life and death and they must be willing to put themselves in harm's way to do their job (http://stressline.com).

The higher than average divorce and suicide rates among policemen, as well as the high incidence of alcoholism, seem to point to the vulnerability of this occupational group and the mental stress involved in carrying out such work (Degenaro, 1980; Griggs, 1985). The incidence of psychological disorders seems a lot higher when compared to other occupational groups. McCafferty, Godofrido, Domingo and McCafferty (1990) recognise further that policemen are under stress similar to that of military combat and may suffer inflictions often associated with combat, namely Post Traumatic Stress Disorder (PTSD). The incidence of PTSD among policeman, reported in the literature is high, which leads one to believe that it may be considered a natural occupational hazard for people carrying out policing duties. The concept of occupational stress producing PTSD in police officers, according to McCafferty et al, is readily evident. PTSD is a serious illness and is defined and diagnosed by certain symptoms a person exhibits. It

affects a person physically, mentally and emotionally to the point where it is life altering (McCafferty et al).

It has been estimated that at any given time 15 – 32% of all emergency personnel will be dealing with a reaction to PTSD, and there is a 30-64% chance that they will have a reaction to it during their lifetime. For law enforcement working in urban areas, 20-30% of the officers will develop a reaction to PTSD. These figures are higher than the percentages for the general population and, surprisingly, Vietnam veterans (15-20%) (http://stressline.com).

The situation in South Africa, is rife with crime and violence. In many respects policing in this country is considered more dangerous and stressful than in any other western European or North American country. The combination of first and third world factors, large unemployment, poverty and past apartheid policies create a unique set of circumstances which impact on the law enforcement officials.

The working environment for South African policemen is marked by escalating violence, extraordinary high crime rates and execution of policeman on and off duty. In KwaZulu- Natal 98 policemen were killed in 1994 (an ever increasing statistic) as a direct result of violence. Many others are involved in shooting incidents on daily basis. Understandably it is no easy task to be a policemen in such uncertain and turbulent times in South African history. It is also not surprising that many members of the police experience them as traumatic.

5.1 NATURE OF POLICE WORK

Police work encompasses a wide range of activities from mundane administrative tasks to dangerous, life threatening situations. In fact, it may be said that at some time or another in every policeman's career he/she is exposed to violence, becomes a victim of violence or uses violence against offenders (Nel, 1994).

Most researchers agree with Oliver (1993) who states that violence in a suggestive or concrete form seems to have been ever present in the history of public order policing. Subsequently the most common traumas that policemen experience involve serious threats to themselves, their lives and the lives of their fellow police officers. Policemen witness criminal activity, riots and corruption, injury or death of citizens, bombings, shootings and often even killing people (McCafferty, Godofrido, Domingo and McCafferty, 1990). Additionally working with victims of natural or accidental disasters, domestic violence and high speed chases (Mann and Neece 1990) contribute to many policemen developing stress related problems. In fact Turco (1986), points out that exposure to such events may often impact on the person's personality, personal life and the lives of those close to him/her.

Some police officers work in areas in which they must deal constantly with crime, poverty and despair of people. They witness crime, riots, injuries or death of citizens, bombings, and critical incidents involving the officers being shot or having to shoot at someone (McCafferty, Godofrido, Domingo, and McCafferty, 1990). They are exposed to sadism, brutality, hostility, and carnage either as participant, victim, or spectator. The most dramatic part of every policeman's job, however, is that in carrying out their duties they may have to kill people (Turco, 1986). This horrific aspect of policing may not be omitted since it forms part of the duty list and has many important implications.

Another dimension that impacts on police personnel is the hostility and resistance they experience in their dealings with citizens. This is especially prevalent in South Africa, where the public is distrustful of the police and is often unwilling to co-operate.

Meadows (1981) describes the police function as incredibly broad and complex. Policemen are expected to respond to a wide variety of situations both criminal and non-criminal. At the same time they need to exercise a lot of discretion in carrying out their multiple duties. Being a highly visible part of the criminal justice system they often fall prey to criticism from various quarters which adds to the complexity and stress levels of such a function. Reiser (1974) sees policemen as performing an executive function, with

minimal supervision and little opportunity for research or reflection. A policeman's role requires him/her make extremely critical decisions to intervene and resolve a variegated spectrum of human crises. Often, the immediacy of time in which they must make life-affecting decisions creates situations of great emotional intensity (Silbert, 1982).

The broadness and complexity of the police function is similarly reflected in the SAPS yearbook (1994) which lists the following tasks:

1. The prevention of the internal security of the Republic of South Africa;
2. The maintenance of law and order;
3. The investigation of any offence or alleged offence;
4. The prevention of crime.

This list of duties of South African Police Personnel seems too narrow to truly reflect a policeman's job, and as such is unable to reflect the nature and complexity of police tasks, failing to capture the reality of policing in South Africa.

The environment in which police operate is also an important factor to consider to fully understand the nature of their jobs. In most countries police officers occupy an ambiguous role in the community, where they tend to be respected by some and hated by others (Violanti, 1981). However the community is not only the contingency a policeman must deal with. On the inside is the police organisation, with its quasi-military structure characterised by rigid authority, impersonality and an authoritarian command system. The officer's everyday actions are subject to strict discipline. Violations of rules may lead to anything from verbal reprimand to suspension or firing (Gross, 1980).

Reiser (1974) compares the police department to a family where the chief of police is the father figure with all of the consonant feelings related to power, dependency and independence. The hierarchy involves a pecking order, which operates on the principles of seniority and rank within the family organisation (Reiser et al). Traditionally the chief

is all powerful and rules with an iron hand, treating younger policemen in a paternalistic and patronising fashion. Those who occupy the role of children are constantly striving and competing for recognition, acceptance and adulthood. Consequently, the nature of the organisation forms the basis of a specific police culture evident in police forces around the world (Reiser et al).

Davis (1984) implies that police culture is usually characterised by solidarity, violence, and secrecy. In addition to the set of norms and values the police also possess a distinctive view of the world, a distinctive dress which sets them apart from society and serves as a symbol of police occupational solidarity. The label policeman impacts the personal, social, professional and psychological status of individuals pursuing a career in law enforcement. Westley (1970, cited in Davis, 1984) notes that recruits striving to be accepted by peers are subtly pressured into adopting police mode of thought and action. A camaraderie emerges and officers are insulated and protected against outside threats, and supported in the times of crisis. Davis (1984) reports two factors that influence the formation of the police culture: (a) the complex and ambiguous police role and function and (b) the police working conditions and environment.

Skolnick (1966, cited in Davis 1984) describes how aspects of the police-working environment interact to isolate police officers into a cohesive group. He refers to three elements in the police milieu: danger, authority, and efficiency, combining to develop a unique and distinctive police view of the world. The element of danger is reinforced by the element of authority in isolating the police and fostering police solidarity.

Violanti (1981) therefore argues that policing is not simply a job that one departs from at the end of the day. In essence being a police officer reflects the symbolic nature of restriction to those outside the profession. An individual's total life space is encompassed by the police role.

5.1.1 Policing in South Africa.

According to Olivier (1993), violence in most forms has always been present in public order policing, and the situation in South Africa has been marred with dramatically escalating violence. It seems one needs to consider the historical background of our country as well as that of police systems to really understand the root and extent of the problem.

From a historical perspective, the SAPS has been under the control of the Afrikaner dominated Nationalist party since 1948. As such policing reflected and adopted the apartheid policies of racial segregation and inequality (Brewer, Guelke, Hume, Moxon-Brown, and Wliford, 1988). The SAPS has a strong paramilitary structure with its roots firmly entrenched in its origins as a colonial force and more generally in the cultural tradition of the Afrikaans community which fuse civil and military activities (Brewer et al). The paramilitary character was enhanced by the need of the South African State to control many threats to public order which apartheid by its very nature generated.

According to Brewer, Guelke, Hume, Moxon-Brown, and Wilford (1988), states which govern divided societies, such as South Africa, Israel and Northern Ireland, increasingly face public order problems arising from divisions within the dominant group which intensifies the difficulties of order maintenance. States like South Africa gave police an autonomy which allowed them in practice to have a wider definition of public disorder than the law allows. For example, the Police Act 1958 defined the functions of the SAPS to be the promotion of internal stability in South Africa and its dependent territories, the maintenance of law and order and the prevention of crime (Brewer et al). A job description of this nature allows for a wide interpretation of police duties which in turn allows greater freedom and autonomy in the police force.

Throughout the apartheid regime, most black South Africans were alienated from the police. There were a variety of issues which gave rise to this feeling, such as the SAPS's excessive brutality, their lack of impartiality and the protective attitude of the state toward police misconduct (Brewer, Guelke, Hume, Moxon-Brown & Wilford, 1988).

This has contributed to the division between the police and the people and the strong us vs. them mentality of the black communities.

The recent political changes in South Africa have had a significant impact on the SAPS and created uncertainty and turmoil among the police members. Considering the SAPS's background and culture described by Brogden and Shearing (1993) as consisting of elements universally found among rank-and-file. A sense of mission, in other words maintaining the thin blue line that separates anarchy and order. A combination of suspicion and paranoia, and the isolation of the police as a community-within-a-community, where solidarity with colleagues is the only secure guarantee in a threatening world. This particular culture, views social change as threatening to the established way of doing things, gender based chauvinism as well as stereotypical assumption about race, and qualities of realism and pragmatism.

In other words, the new political ideology required new ways of operating. The tactics used in the past in public order policing, for example excessive use of brutality, have now become punishable on both organisational and legal level, causing considerable role ambiguity and division within the organisation. However the most significant problem faced by the police were apartheid-induced repercussions with regard to community relations. The strong sense of cohesion and propensity to oppose influences disturbing the sense of "family togetherness", so typical of the SAPS since its inception, has also contributed to the us/them mentality and the gap that exists between the police and the community (Nel, 1994). The anger and frustration experienced by the black South African community resulted in mutual distrust, antagonism and hostility. Consequently, policemen became targets of violent attacks. As early as 1985, 65 police officers died in the execution of their duties, most as a result of violence and unrest (Brewer, Guelke, Hume, Moxon-Brown and Wilford, 1988). Since 1991 there have been at least 830 murders of police members (Nel, 1994). Finally, since the process of political change there has been an astronomical escalation in violence and crime, and more people have died in the last four years than in any other corresponding period in the history of South Africa (Nel, 1994).

Subsequently, the political changes, hostility and escalating violence and crime have substantially increased the pressure and experienced stress on individual police members as identified by the high suicide and medical boarding statistics. Nel (1994) postulates that police, as society's guardians of power, have become the symptom bearers of that society in the painful process of adapting to change. It has been difficult for police officers to adapt to all the changes while having to ensure the stability and law and order within a society in the process of change (Nel, 1995).

Table 1, reflects the extent of the consequences of violence, change and uncertainty on individual police members. The high suicide rates are attributed by some to escalating violence in the country and the typical "cowboys don't cry" syndrome, where being tough and not admitting to emotions is strongly entrenched in the police culture.

TABLE 1 SUICIDE AMONG SAPS MEMBERS

YEAR	NUMBER
1991	65
1992	106
1993	134
1994	148

In comparing the incidence of suicide among police officers during 1991 (60 out of every 100 000 police officers), with the incidence of suicide during the same year among the general population in RSA (5 out of every 100 000), the alarming nature of these statistics becomes clear (Nel, 1995). According to Piertese (1993), the highest number of suicides during 1994 were committed by members between the ages of 26 and 29, with an average age of 28. Of the total number of suicides during 1994, 63% of

the deceased were unmarried, 36% were married and 1% were divorced. Those that were married show the highest incidence of suicide when married for less than 5 years

There has also been an alarming increase in medical boarding of policemen on psychological grounds. In fact, in the past, medical boarding statistics indicated that 80% of cases were boarded on physical grounds and the remaining 20% on psychological grounds. In recent years the split has almost been reversed. Nel (1994) provides the following statistics.

TABLE 2 MEDICAL BOARDING OF POLICE OFFICERS

YEAR	TOTAL BOARDED	PSYCHOLOGICAL REASONS	%
1991	517	37	7%
1992	788	236	30%
1993	1166	379	33%
1994	887 (1st 6 mths)	335	28%
TOTAL	3358	987	29%

5.2 SOURCES OF STRESS IN POLICE WORK.

Symonds (1970, cited in Martelli, Waters & Martelli, 1989) proposed two major categories of stress in police work. The first category reflects the actual nature of police work. Stressors that represent this category include, exposure to danger, facing the unknown, unpredictable situations and confronting hostility. The second category of stress reflects the nature of the police organisation. These stressors stem from the structure of the organisation and include rules, regulations, disagreeable job assignments and limited promotional opportunities.

Most other researchers tend to agree with this classification. Violanti & Aron (1993), distinguish between stressors which police officers describe as most bothersome, namely organisational and inherent police stressors. The former types of stressors refer to those events precipitated by police administration that are bothersome to the members. Inherent stressors refer to events generally occurring in police work which have the potential to be psychologically or physically harmful to officers, such as danger, violence and crime.

Kroes (1976), describes them as (a) stressors that policing has in common with other occupations and (b) unique stressors to the police profession. Stressors in common with other occupations are the following: administration, red tape, lack of say, support of policemen by the organisation, job conflict, holding down a second job to supplement income, job underload, job overload, shift work, inadequate resources, inequalities on pay or job status, organisational territoriality, responsibility for people. The latter stressors consist of the following: courts, negative public image, conflicting values, racial situations and finally line of duty/crisis situations.

The crisis situations according to Kroes (1976) encompass incidents like going out on dangerous calls, witnessing human tragedy and other apprehensive situations that policemen often face. He distinguishes further between two type of crisis situations: those that pose a threat to the officer's physical well being, and those where there is no danger to the officer's life, but the situation is emotionally overwhelming. In other words, the lines of duty or crisis situations are one of the few police stressors that are truly inherent in the nature of such work (Kroes et al).

Collingwood (1980) , adds two additional stressors he believes policemen have to deal with. These are stressors due to the individual such as marriage and life style as well as stressors external to the organisation, like public attitudes.

Since the study is primarily focusing on investigating the incidence of PTSD following exposure to traumatic events, it is the inherent work stressors in carrying out police duties that are explored further.

Spielberger, Westberry, Grier, and Greenfield (1981) investigated the stress-related incidents inherent in police work by developing the Police Stress Survey, which listed 60 potentially stressful situations that policemen may be exposed to in the line of duty. By surveying police officers it was found that the most stressful situations policemen had to deal with included violence and the use of deadly force. This was especially true

in fatal shooting incidents. Thus, it was concluded by Spielberger, Westberry, Grier & Greenfield (1981), that due to the nature of stressors in the law enforcement environment, the likelihood of PTSD on police officers may be greater than those in other occupations.

Hill (1984) when speaking of everyday traumatic events, refers to the kind of incident which is the most traumatic of all, post-shooting or post-killing trauma, since of those officers who must shoot or kill, few escape symptoms. A typical shooting incident fits into at least one of four categories: (1) An officer shoots someone (2) An officer gets wounded (3) An officer's partner is wounded or killed by a suspect (4) An officer is present when someone is killed, a witness who does not participate.

Given the physical danger and violent situations which a law enforcement officer often faces, these factors seem a major contributor to the perceptions of stress among police officers. Yet, Reiser (1974, cited in Martelli, Waters & Martelli, 1989) identified the nature of the police organisation as the key contributor to stress. While it is certainly true that danger may be stressful, the police experience other equally stressful situations. For example, administrative issues are more frequently mentioned by police as stressors than life-threatening situations (Violanti, 1981).

5.3 EFFECTS OF STRESS ON POLICEMEN

Given the nature and amount of stressors policemen experience, the effects are many and varied. According to Griggs (1985) and Violanti, Marshall, and Howe (1985), it has been well documented that police officers appear prone to a variety of job-related inflictions such as depression, alcoholism, divorce and even suicide. The psychological tensions experienced by policemen may reach abnormal proportions, causing behaviour from reduced production to suicide (Shook, 1978 cited in Griggs, 1985). Martin, McKean and Veltcamp (1986) report that 29% of police officers experience above average amounts of stress at times leading to suicide. The suicide rate among policemen is higher in comparison to the rest of the population (Meadows, 1981). Kroes (1976), argues that the suicide figure would be even higher had it not been for the fact that they

are often artificially deflated, in order for the families left behind to benefit from insurance policies.

When referring to the inherent job stressors policemen experience, the stress reactions they may suffer may lead to psychological scarring, afterburn or post traumatic stress disorder (Weiss, 1990). It is estimated that approximately 12% - 35% of policemen suffer from PTSD with various levels of psychological disabilities (Boyle, 1987; Haddock, 1988). PTSD is also the 5th most common overall referral problem presented to police psychologists, as reported by Mann, Howard, and Reilley (1990).

The reasons for developing such a severe stress reaction usually relates to the situation experienced by policemen, which may vary from having to shoot someone, being shot, or having their partner or fellow worker shot or injured (Carson, 1982). Stratton, Parker and Snibbe (1984) reinforce this view by pointing out that for some police officers, one of the most difficult situations they may have to face is shooting a suspect to protect other people's lives, or their own.

Since post traumatic stress disorder has been described as a sequel to victimisation, Martin, McKean and Veltkamp (cited in Mann & Neece, 1990) investigated the frequency of PTSD in police following the extreme stress of their work. The results revealed that 26% of the subjects reported symptoms meeting the criteria for PTSD as described in the DSM III, following exposure to psychologically traumatic events in the job. There was a tendency for symptoms of PTSD to be associated with a number of stressful events. The symptoms of PTSD were more prevalent among those suffering the stress of having family threatened, or being personally threatened and also among those reporting the chronic stress of working with child abuse or dealing with rape victims (Martin et al). PTSD symptoms were more likely to occur in officers who shot someone or were shot themselves than in those officers not exposed to those particular traumas.

Even though a few studies reflect the incidence of PTSD among police officers as consistent with the DSM III criteria, Loo (1986) cautions against total reliance on the

available data. He contests the clinical and empirical findings on the basis of those being anecdotal type comments rather than actual events.

Although it is impossible to predict who will get PTSD, several factors are known to contribute to the development of PTSD in police officers (http://stressline.com):

- Personal identification with the event: this can occur on a conscious or subconscious level. Probably one of the more common situations is an officer who has children, handling the death of a child with the child's mother present. One of the effects that can occur from this is the officer unknowingly emotionally and physically distancing himself or herself from their loved ones.

- Knowing the victim: though not very common, officers may end up dealing with individuals they know, who are the victims.

- Lack of preparation: studies have shown that trauma that is encountered as a surprise has more ill effects than trauma that is anticipated. Being mentally prepared at all times is a major component of training throughout an officer's career. Unfortunately there are always events impossible to prepare for. The nature of the job is that officers will occasionally drive or walk into a traumatic situation not knowing what is happening.

- The severity and intensity of the event: certain trauma is so severe and intense it would affect just about anyone. Officers involved in shootings where the suspect shoots one of the officers is one example. A fight for your life with someone who has the ability to take your life is another.

- Accumulative exposure to post trauma stress: over the course of a career officers will inevitably be exposed to a variety of different life/death situations. Most of these they will be able to process. However, once in a while one will come along that will have a minor effect on them. These are the common everyday traumas that

are routine, but for some reason, the officer held onto a certain part of the trauma. As time goes on, the same officer encounters another minor trauma, similar to the previous one or even slightly different. It is not uncommon for police officers to suffer from a combination of accumulative post trauma stress added to the accumulative years of other stressors.

- Helplessness: feeling helpless is an uncomfortable feeling for most people. Police officers are trained to never be helpless, or at least not to show if they are. To a police officer feeling helpless is usually a feeling that is not forgotten, especially if it's in the form of a life/death trauma to oneself or another person. One of the more common helpless feeling traumas are when an officer cannot save a person who is dying or dead.

One of the reasons why policemen experience violent incidents as highly traumatic is the ego-injury associated with the possibility of physical harm (Reiser and Geiger, 1984). The trauma appears to result from the puncturing of the officers' prior illusion of control and invulnerability. Inherent in the authority role is the assumption of being in absolute charge of one's environment (Reiser et al). The officer victim is forced to acknowledge that another person has intruded into his or her seemingly inviolate space and interfered with the officer's control and autonomy. This experience tends to shatter the belief that "it cannot happen to me". The result is "a loss of face" reaction with lowered self-esteem, guilt and depressive symptoms. When a police officer becomes a victim, the psychological crisis that is precipitated critically affects the defences and coping mechanisms necessary for successful adaptation (Reiser et al). This finding is consistent with the Jones and Barlow (1992) model of the aetiology of PTSD (chapter 2). Where the biological vulnerability to stress manifested in labile responsiveness and a psychological vulnerability manifesting as a sense of unpredictability or uncontrollability, then one is vulnerable to PTSD.

Any traumatic law enforcement event, be it shooting, victimisation, homicide, etc. that initiates or crystallises PTSD can be experienced in a variety of ways. The first reaction

is usually diminished responsiveness, often referred to as emotional or psychological numbing (Carson, 1982; McCafferty, Godofrido, Domingo & McCafferty, 1990). The individual will distance himself and make an effort not to feel anything. It is as if he will deny he has an emotional component to his personality and may give the appearance of being in a state of shock. Officers at this point tend to verbalise that they are in control and they aren't having any problems coping with the incident (Carson, 1982). Policemen often complain they feel detached from other people or have lost interest in previously enjoyed activities, or that the ability to feel emotions other than anger is markedly decreased (MacCafferty et al).

Hill (1984) ascribes this state of confusion and emotional conflict to the fact that policemen are usually conditioned, binary thinkers, not used to dealing with conflictual feelings. As a result they tend to deny them or make all the feelings consistent within an ideal way of thinking. Due to the fact that often the feelings cannot be worked out, the resistance and emotional conflict lead to the emergence of trauma (ibid.).

In Turco's (1986) view the frequent confusion may be exacerbated by the fact that the officer is not expected to express emotions and the frequent judgement that comes from citizens or groups within the department. The intended support of fellow officers often results in an intensification of guilt and bewilderment on the part of the officer involved.

Another symptom of the post shooting stress reaction is the advent of intrusive thoughts or even flashbacks (Mann and Neece, 1990). After a traumatic law enforcement event policemen are likely to suffer recurrent intrusive thoughts about the event, feelings of isolation and alienation from fellow officers, anxiety, or specific fears associated directly or indirectly with the trauma, depression, hypervigilance, suspiciousness and mistrust of the public. Because the officer cannot shake the intrusive thoughts it is at this point he may begin to wonder if he is in complete control of his thoughts.

Recurrent and intrusive recollections of the event are one of the most frequently reported symptoms. Associated with intrusive recollections is the avoidance of situations similar

to the trauma (Carson, 1982; Martin, McKean and Veltkamp, 1986; Reiser and Geiger, 1984). The frequent endorsement of helper alertness or exaggerated startle response would also reflect the frequent re-exposure to the potentially traumatic situations. The least frequently endorsed item is avoidance activities that arouse recollections of the traumatic event. Again, the police officer is not given the opportunity to avoid activities. This study suggests that differences in reactions to stressors may be related to the degree of identification with the victims, frequency of exposure to victims and coping styles.

A related symptom to intrusive thoughts is sleep disturbances. These include the inability to go to sleep, nightmares and waking in cold sweats (Carson, 1982). The main theme of nightmares seemed to be fear or guilt. Ideas, fantasies and concerns long since forgotten re-emerge into consciousness and manifest themselves in unconscious functions, for example nightmares. In a study of 11 police officers (Carson, 1982), virtually all of them experienced guilt feelings, often irrational guilt which was negated by peers and family. This feeling may be a spin off of ruminations about the incident or "what-ifing". The guilt in turn may be translated behaviourally into anger or depression (Carson, 1982).

In some instances officers experience dissociative phenomena, in which they behave as though they are re-experiencing the event at that moment. When policemen are exposed to events that resemble an aspect of the traumatic event or that symbolise the traumatic event, such as seeing dead bodies or being shot at, they may re-experience the anxiety. Policemen commonly make deliberate efforts to avoid thoughts or feelings about the traumatic events and avoid activities or situations that arouse recollections of them. This is difficult to do because for the nature of the job and the tendency of other policemen to reminisce about traumatic events (McCafferty, Godofredo, Domingo and McCafferty,1990).

Flashbacks, another post-traumatic reaction occur, although to a lesser extent. Unlike nightmares, flashbacks occur while the individual is awake, when the past event suddenly flashes in front of one's eyes. This replay of the situation is accompanied by

the emotional feelings related to the incident. After a flashback, the individual may be visibly upset, shaking, fearful and weeping.

The sleep pattern disturbances, flashbacks, emotional isolation, difficulty in maintaining relationships, repression and possibly suicidal thoughts, unknown anxieties, unexplained fears, alienation and self-criticism add to the symptom picture observed in police officers (Shaw, 1983 cited in Turco 1986).

In the study of PTSD among police officers involved in shootings, Stratton, Parker and Snibbe (1984), reported the following as the most common symptoms: flashbacks, sleep problems and fear of legal entanglements regarding the shooting. A large percentage also experienced some emotional reactions, such as anger, elation, crying and depression. Anxiety or specific fears associated with the incident may appear. For some time after the incident, officers reported being more cautious in the way they pursued their duties and experienced a heightened cautiousness for those close to them (Carson, 1982).

Gersons (1989) conducted a study of a group of police officers following shooting incidents and found that the most prominent symptom was recurrent and intrusive recollection of the event. Hyper-alterness or exaggerated startle response and constricted affect were the second most frequently occurring symptoms. The study further found that both these symptoms exercised a great influence on the behaviour of the policeman and the relationship with the people in his/her environment. Partners, friends, and colleagues realise that this change in the behaviour or a way of relating is influenced by the experience of the shooting incident. An interesting aspect of this study included the fact that the policemen under this investigation did not look for treatment (Gersons, 1989). This is explained by the fact that most policemen see the PTSD profile in sharp contrast with the police identity and police culture. Policemen do not generally complain about psychological issues nor discuss emotional reactions and feelings with one another, or even share a distaste for events involving a high degree of violence. There is in short, no room for tears.

Many of the officers mentioned an increase in their alcohol consumption. And the final element of stress reaction appears to be reconsideration and reavalation of each person's value system, goals and status. Use of alcohol or drugs frequently become a method of coping (McCafferty, Godofredo, Domingo, and McCafferty, 1990). Some complain of difficulty concentrating, many report changes in aggression. Initial irritability progresses to difficulty with impulse control, and the more frequent the physical confutation with citizens, the more tenuous the impulse control. Anxiety and depressive symptoms are common in police officers and may be of such magnitude as to be diagnosed as anxiety, depression or panic disorders. Impulsive behaviour can occur as PTSD develops; this is noted by activities such as increased charges for citizens resisting arrest, unexplained absences from work, more sick days, sexual affairs, or other frantic attempts to provide stimulation to overcome emotional numbing, or to escape from the anxiety of work.

The development of depressive symptoms is not unusual post-traumatically (McCafferty, Godofredo, Domingo & McCafferty, 1990). These signs may include a loss of energy, a change in appetite, a desire to be left alone and a feeling of alienation. The sex drive typically decreases and policemen who were active sexually prior to the traumatic event feel injured further by the decrease in sexual interest (McCafferty et al). Additionally, withdrawal reactions are often used to protect the policemen from more stress. Everyday happenings can become magnified and problematic for those utilising this defence. Typically the withdrawal reaction is accompanied by feelings of alienation, for example, the department doesn't care, my family doesn't care, etc. (Reiser & Geiger, 1984). Feelings of alienation can progress to a point where the officer harbours considerable anger and resentment toward those who have second-guessed his/her actions.

The officers' reaction to these symptoms seems to be the most acute during the first three days following the incident (Carson, 1982). The symptoms may endure at a lower intensity for several weeks or even months after the incident. The factors that influence the duration include, the stress level of the incident, the officers' personality prior to

shooting, his social support network, the availability of psychological interventions, how the event was handled by the media, and the manner his agency handled the incident.

5.3.1 Incidence and aetiology of PTSD

Symptoms of PTSD frequently begin either immediately after severe trauma or gradually with more mild stresses that occur over prolonged periods. Stress appears to have a cumulative effect. Impairment may be either mild or severe and affects nearly every aspect of police officer's lives.

Why do some police officers have PTSD and others function effectively? According to McCafferty, Godofredo, Domingo and McCafferty (1990), much of this has to do with the interplay between the stress of police work, the type of police department, social support and the personality structure, neurobiologic substrate, psychological strength and the maturity of the individual officer. It is believed that individuals with dissociative mechanisms and a high level of hypnotizablility are predisposed to PTSD (McCafferty et al).

PTSD appears in people who have no significant pre-existing psychopathology, however it appears that a pre-existing psychopathologic condition including a prior history of PTSD, such as might be found among Vietnam veterans, increases the predisposition to this disorder (McCafferty, Godofredo, Domingo, and McCafferty, 1990). The police officer with significant potential for PTSD is the one who becomes "jammed up" and ends up in a conflict with administrators, supervisors, or citizens, becomes alienated from other police officers, or who is involved in the shooting of another officer .

Yarmey (1980) describes and discusses the experiences and adjustment processes of witnesses and victims of deadly force, and the post-raumatic reactions to shootings faced by police officers in three distinctive stages: (1) the impact stage, (2) the recoil stage (3) the reorganisation stage.

(1) Impact Stage

Even in relatively minor victimisation and, especially, in major victimisation involving deadly force, victims often suffer and feel vulnerable and helpless. At the sight of a weapon most victims tend to submit mechanically to the orders of their assailants. Some victims will experience physiological distress lasting from 20 minutes to 60 minutes at a time. Reactions usually take the form of tightness in the throat, lack of breath, upset stomach, feelings of weakness, sleep disturbances and a loss of appetite.

(2) Recoil stage

As part of the attempt to deal with his or her suffering victims will experience a "loss of equilibrium". A victim will re-experience the trauma through obsessive, intrusive thoughts or dreams; fantasise the criminal event and imagine that they are punishing the assailant.

(3) Reorganisation stage

At some point victims re-establish themselves. They may move beyond distress and start to show interest in other activities. Occasional flashbacks will occur but the effects will not be debilitating.

Reiser and Geiger (1984) also recognise different phases of PTSD among police officers. The early phase typically involves a feeling of shock on the part of the policemen. This may accompany a sense of unreality or denial of events that have occurred. Subconsciously these events may be denied or restructured to meet the idealised expectations of what should have happened or of how the officer should have behaved. In certain post-traumatic cases, officers who are normally solid and rock-like may become child-like, emotional and dependent. After an incident they may exhibit extreme fatigue, difficulty walking, and need help to get into a car. Early signs of

depression, including guilt, may also develop. The guilt may be related to being alive, hurting someone else, or having one's partner injured. Guilt is somewhat predictable reaction, because those in police work are mostly conscientious, moral people who have high standards and expectations of themselves.

The secondary reactions to a traumatic event may be delayed. Policemen involved in a traumatic event may seem to be handling it well and not require assistance. Then, a month or a year or even several years later they begin to develop difficulties, psychosomatic illnesses fatigue sleeplessness. This delayed reaction is usually precipitated by new stressors on an already fully loaded system (Reiser & Geiger, 1984).

5.4 MEDIATING FACTORS

Individuals react similarly but also idiosyncratically to stressful situations. An experience that is easily managed by one person may totally disrupt another. There are three major factors that determine how an individual is likely to adapt to a particular situation or combination of stressful events: the nature of the event itself, the coping mechanisms available to deal with the event, and the individual's perception of the event and available support (Levi,1971, cited in Reiser and Geiger, 1984).

A study done by Stratton, Parker & Snibe (1986) which focused on the immediate psychological reactions after experiencing a stressful incident showed that one third of the subjects under study, had minimal or no problems; one third had moderate range of problems, and one third suffered serious problems. He suggested that the intensity of the difficulty is generally related to factors such as personality, current life situation, personal history, available support systems and particular aspects of the incident.

According to Pearlin, Lieberman, Menaghan, and Mullan (1981), it is generally accepted that the intensity of the stress that people exhibit cannot be adequately predicted from the intensity of its sources. People seem to confront stress-provoking conditions with a variety of behaviours, perceptions, and cognition that are often capable of altering the difficult conditions or mediate their impact. Among the elements having an important role in the stress process, are those that can be invoked by people on behalf of their own defence (Pearlin et al). These are referred to as mediators and for the purpose of this study two are distinguished, namely: social support and coping.

5.4.1 Coping among police members

It has been detected that policemen are likely to use a variety of coping mechanisms following stressful incidents such as cynicism, deviance, secrecy, depersonalisation, suspiciousness and alcohol (Graf, (1986); Violanti, (1981); Violanti, Marshall and

Howe, (1985). Each of these coping mechanism will be evaluated below according to its effectiveness as mediators following a stressful event.

In order to understand the coping strategies utilised by police officers it is important to analyse the working context and the culture of a police organisation. For the law enforcement officer, the police academy experience is often a significant contributor to the officers learned resource behaviour (Graf, 1986). New, inexperienced police officers tend to develop, through training and peer contact, defence mechanisms and attitudes that exaggerate their abilities and emphasise physical strength and toughness. Young officers have a need to believe that they are invulnerable and able to handle any kind of danger. This part of a developmental phase labelled the 'John Wayne syndrome' by Reiser (1973, cited in Kroes,1976), refers to a condition in which an individual tends to swagger and talk tough. The person tends to think that emotions are unhealthy, and hence keeps his feelings locked inside under tight control. He feels that he must always be right and cannot admit his fallibility or make a mistake (Reiser et al).

Kroes (1976) refers to this period as one when the officer is feeling his oats, and becomes a victim of the television image, an all though cop, keeping the streets clean from crime. On the one hand, a pattern of macho attitudes and behaviours serves as a survival mechanism to protect the inexperienced officer in a physically dangerous and psychologically threatening environment (Reiser & Geiger,1984). On the other hand, a heavy price is paid in suppressed feelings, in cynicism, and in emotional distancing from useful social supports. These values also support the belief of invulnerability, with fear, anxiety, or any type of strong emotion viewed as a weakness and then consciously and unconsciously banished.

Another aspect of the macho value system is a need to prove one's toughness to other people (Reiser & Geiger, 1984). The need to prove oneself is related to the amount of underlying insecurity within the individual. When the policemen loses in a confrontation or otherwise becomes a victim, the illusion of omnipotence is seriously damaged, forcing the officer to re-evaluate his or her self-image and worth. The alternative to this

inner process is massive denial of injury and a further walling-off of part of the human self. Often, following life threatening situations, policemen tend to utilise the defence of denial to enable them to handle the underlying fear and anxiety and continue performing (Reiser et al).

Another way police officers compensate for anxieties, fears, and frustration emanating from stressful conditions is by telling grotesque jokes or acting out their fears in brief spurts of aggressive physical and verbal behaviour (Davis,1984) acting out the very opposite of what their true feelings are. Gersons (1989) describes the police organisation as a place with no room for tears. Part of the policeman's job is to be tough, to suppress emotions. Making jokes helps policemen survive, and if the stress increases a beer works wonders.

One of the most common coping strategies recognised among police officers is cynicism. Violanti, Marshall and Howe (1985) describe it as mocking disbelief of the police system. As coping, cynicism allows the officer to lessen the effect of job demands by simply disbelieving them. In this way, cynicism psychologically modifies the meaning of stressful job demands.

Niederhoffer (1967, cited in Violanti, 1981) defines cynicism as a loss of faith in people, or enthusiasm for the higher ideals of police work, and of pride and integrity. He further distinguishes between two types of cynicism: one directed at the world and people in general; the other aimed at the police system itself. There are three stages of cynicism related to age and length of service. The preliminary stage is prevalent among police recruits at training school. The young officer barely conceals his idealism and commitment. The second stage, called by Niederhoffer et al the romantic stage of cynicism, is reached within the first five years of service. The most vulnerable policemen at this stage are the ones who were the most idealistic and now are totally disillusioned. The third of aggressive stage corresponds to open resentment and hostility to all aspects of police work and is salient at the ten-year mark.

Violanti (1981) doubts the effectiveness of cynicism as a coping response. Given strongly enforced demands of the police organisation and the subversive nature of cynicism to police ideals, it seems improbable that this method of dealing with stress would be successful.

Alcohol is another "stress management technique" employed by policemen. They seem especially vulnerable to alcohol use in view of the high amount of stress experienced (Carson, 1982). Jellinek (1952, cited in Violanti 1981) refers to policemen as symptomatic drinkers, those who primarily use culturally approved drinking as a relief for individual stress. Alcohol use is reinforced by the police subculture, which often regards the ability to drink heavily as a desirable quality. For example, one who can "drink you under the table" is often admired by peers (Violanti et al).

Violanti, Marshall, and Howe (1985) report that certain stress-related job demands of policing are associated with alcohol use. Emotional dissonance, a psychological separation of job demanded objective and actual experienced emotions, has been found to directly and indirectly affect police alcohol use.

The apparent failure of other coping strategies is another factor which influences the use of alcohol (Violanti, 1981). When other coping fails, alcohol can serve as a convenient back up device to manage existing stress. However, Violanti et al cautions that little is known about the relationship between police job demands, stress, coping and alcohol use.

A study carried out by Violanti, Marshall, and Howe (1985) to examine the impact of occupational factors on coping responses, found that stress has great effect on alcohol use. The results further indicated that the attempts to cope by being cynical did not lessen the stress, and this coping failure increased the use of alcohol. This research suggests that stress and alcohol use do not develop apart from occupational structure. Such structures often prescribe coping strategies that are consistent with occupational goals. The police structure may impede detrimental techniques like cynicism and lead

the individual to seek other coping techniques. For the police officer alcohol appears to be the most convenient and socially acceptable coping alternative. Convenience is an important aspect of alcohol use, its effects are almost immediate and it is available to police both on and off duty.

The combination of PTSD and alcohol can be serious trouble for a traumatised person, although PTSD does not automatically cause problems with alcohol use, people with PTSD are more likely than others to have alcohol use disorders (http://stressline.com). In the case of police officers the culture of self-medicating with alcohol may have some serious implications, since PTSD symptoms are often worsened by alcohol use. Alcohol can provide a feeling of distraction and relief, it also reduces the ability to concentrate, to enjoy life and be productive, to sleep restfully and to cope with trauma memories and stress. (ibid.). Alcohol use and intoxication also increase emotional numbing, social isolation, anger and irritability, depression and the feeling of needing to be on guard.

5.4.2 Social support among police members

Reiser and Geiger (1984) indicate that the policemen's social network usually consists of family, marital partner, fellow officers, friends, professional organisations and social groups. These supports can provide a sense of belonging and feelings of recognition, self-worth, and affection. The officer who does not have adequate external support is more at risk to develop stress-related disorders.

It is important to note that individuals with PTSD often experience problems in their intimate and family relationships or close friendships. PTSD involves symptoms that interfere with trust, emotional closeness, communication, responsible assertiveness, and effective problem solving (PTSD@dartmouth.edu.). There is certain lack of interest on the part of the PTSD sufferer in social activities, and a feeling of distance from others as well as feeling emotionally numb. Partners, friends or family members may feel hurt, alienated, or discouraged and then become distant toward the survivor. Additionally, the symptoms of PTSD, like reliving trauma memories, avoiding trauma reminders and

struggling with fear and anger, greatly interferes with the survivors' ability to concentrate, listen and make co-operative decisions, so problems often go unresolved for a long time. Significant others may come to feel that dialogue and teamwork are impossible.

At the same time for traumatised individuals, intimate, family relationships are extremely beneficial, providing companionship and acting as an antidote to isolation, self-esteem, depression and guilt.

In order to consider the family and work support structures as effective support providers, one needs to account for the specific flavour of the police profession. Violanti (1981), describes police officers as traditionally staunch family persons, valuing the stability of family life. However, the policemen tend to isolate the family from work problems in doing so seeking out autonomy. Under the rigid structure of police bureaucracy, the officer rarely experiences independence and seeks it elsewhere. The family provides the most available means to foster this independence. Thus, the officer learns to shut off emotions towards his family. He becomes afraid to express emotion to his family or anyone else. Compassion is subdued in favour of the macho image maintenance.

As a result, Violanti (1981) suggests that the police officer learns to deal with stress by process of detachment i.e. being emotionally uninvolved. According to Hageman (1978, cited in Violanti,1981) length of service is positively related to family detachment. Continuous exposure to the negative side of life, coupled with frustrations inherent in the police profession, slowly shies policemen away from people (Hageman et al). They begin to consider most non-police as possible adversaries, distrusting any attempts at friendship. Other police are seen as only true friends. A breakdown in communication between the officers, the community and the police family often results. Graf (1986) contends that the nature of police work has led police officers to form close-knit occupational social systems. This bond extends to their off-duty lives, often at the expense of their non-police relationships.

At home the officers tends to shut off emotions toward the family leading to a process of detachment and the seeking of outside relationships (Violanti, 1983). Mihanovich (1980), reports that most policemen admit that police work retards non-police friendships and prevents officers from spending weekends with their families.

Graf (1986), therefore, expects that police officers may experience high levels of peer support and it may assist them in coping with their occupational stress. Graf (1986) express her concern regarding the ability of policemen to be supportive of one another, given the cynicism, suspiciousness, and authoritative predisposition. She points out further that no known studies have investigated the relationship between co-worker support among policemen and the occupational stress they experience. At the same time police are highly unlikely to seek professional help, since debriefings or even showing emotions when handling a trauma is seen as a weakness

Given that police work retards non-police friendships, Mihanovich (1980) studied 48 officers and the impact of their work on their private life. Out of those, 25 complained they did not see enough of their children, 19 said they missed weekends and holidays with family and were unable to plan social events, 11 pointed to pressures of the job being taken home , others mentioned the poor public image of policemen is affecting their wife and children, while still others said that police work hardened their emotions and made them less sensitive to family needs. In Gersons' (1989) study it was found that partners and family members of the troubled police officer, often avoid questions related to what goes on inside, or what was distressing their spouses etc.

Another factor that impacts negatively on the effectiveness of social support is shift work as reported by Kroes, Margolis and Hurrell (1974). These authors learned that changing shift routine affected the homelife of some police officers. The most frequent complaint among policemen on that score was the loss of non-police friendships. Part of the reason for this may be due to the unusual working hours and the inability to maintain

normal social contacts. Also mentioned was a loss of personal friends due to the negative image of policemen.

Another factor to consider when discussing the effectiveness of social support as a mediating mechanism for policemen, is the resistance to seeking professional help (Klyver, 1983). It seems to stem from the officers' stereotyped beliefs that people who seek help are seriously ill, out of control, unmanly, or unfit to work. However, since police organisations tend to foster a highly cohesive in-group feeling among their members, it is common for an officer who is experiencing personal problems to feel more comfortable and trusting discussing matters with a fellow officer rather than a professional.

Graf (1986) notes that the majority of research in the area of social support and stress has attempted to establish a causal link between the two. Because of the unique nature of the occupational demands of police work, and the attitudinal characteristics of police officers, it would seem that such an attempt to establish a causal link between social support and occupational stress would be premature, without first determining whether or not there is a relationship between the two for police officers.

Graf (1986) conducted research with the intent to describe the relationship between police officers' level and source of support, and their perceived occupational stress. From the results it was apparent that there is a significant relationship between number of supports, satisfaction with supports and occupational stress. The strength of these relationships was moderate, but the findings still suggest that policemen who identify a greater number of support persons also perceive their occupation as less stressful. Further, a strong correlation was discovered between the number of supports at work and the satisfaction with that support.

Another important finding by Graf (1986) seems to indicate that contrary to the self-confident image of policemen, most the respondents in this study indicated that they never or almost never dealt successfully with work hassles. Graf (1986) concludes that it

fit with the philosophy of the police, look strong, be in control, and act strong, even if you may be scared or even insecure. The respondents backed up this perception by indicating that they could not openly seek support from persons at work, for fear of being viewed as weak or being ridiculed by other members. There seems to be a suspicion that any personal feeling shared might be misconstrued as weakness or ineptness.

An investigation conducted by White, Lawrence, Biggerstaff, and Grubb (1985), found that the greater the sense of lack of support the more the policemen reported emotional exhaustion and feelings of depersonalisation.

5.4 SUMMARY

This chapter concentrates on exploring the nature of police work and the levels of stress associated with it. The unusually high stress levels experienced by policemen are discussed in the light of the life-threatening situations and violent activities that they are exposed to. Some of the indications of the high stress levels among South African policemen are outlined and the impact of these stressors is discussed in relation to PTSD and the associated symptoms.

The issue of coping and social support is also discussed in relation to PTSD and the nature of the police culture. The effects of these two mediating variables seem to be dependent on the way policemen cope with the experienced trauma and the availability of support from others. The specific coping mechanisms employed by police officers are critically evaluated in terms of their effects on well-being. A similar discussion is followed regarding the support structures usually available to police men and women following exposure to violent/traumatic events.

CHAPTER 6

METHOD OF INVESTIGATION

6.1 RATIONALE

International literature recognises policing as one of the most stress-filled jobs in the world as well as being one of the most psychologically dangerous (Anson and Bloom, 1988). Local police men and women face extraordinary high levels of violence and crime, escalating execution of their colleagues and a drastically increasing number of shootings due to the propensity of criminals to use firearms. Given such a highly stressful environment associated with policing in South Africa, it becomes apparent that police members risk developing some form of a stress reaction. In fact, considering the nature of police work in South Africa, developing a stress reaction could almost be considered a "natural occupational hazard".

Since 1989, the Police Social Support Services Unit has reported an alarming increase in the number of police personnel who have approached them with stress related problems. Many of them reported symptoms of PTSD. Additionally, medical boarding on psychological grounds has increased dramatically, where PTSD symptoms have often been the reasons for such requests. An increasing incidence of suicide among police officers has also been reported, where 1994 saw 148 police members take their lives.

It is in the light of these increasing statistics of psychologically related disorders among policemen, the psychology unit in KwaZulu-Natal undertook to investigate the situation and design appropriate interventions to address the high stress levels. It is to this end that this study was undertaken. There was a need to investigate the incidence of PTSD among high risk groups in the SAPS and find out how effective were social support and different coping skills in exposure to trauma.

6.1.1 Aim

On a theoretical level this study aims to investigate the relationship between exposure to traumatic events, subsequent development of PTSD, and the moderating effects of coping and social support. Accumulated evidence suggests that coping strategies play a major role in an individual's physical and psychological well-being when he or she is confronted with negative or stressful life events. Presumably, the effects of life event stress are modulated by the coping response made; certain coping styles may be related to a reduction of pathology, while others may serve to exacerbate the effects of the stressor (Hovanitz, 1986). There also seems to be general consensus amongst researchers that social support moderates the effects of life stress on the individual (Cohen and Syme, 1985).

On another level, the researcher is aware of the limited amount of studies done locally on the effects that extreme working conditions have on the psychological well-being of police personnel in South Africa. It is with this in mind that the Psychological Support Services of the SA Police Services need to make a concerted effort at assessing the needs of its members and attempt to understand police officers' experience of trauma and stress in order to provide them with the necessary support structures.

6.1.2 Hypotheses

The present study is largely exploratory in nature. The literature reviewed in previous chapters reveals research in the areas of coping and social support as having buffering effects on stress reaction. The author is not aware of any research which directly and specifically investigated the moderating effects of coping and social support among members of the South African Police Services.

The hypotheses formulated for this study are presented as follows:

1. There is a positive relationship between exposure to traumatic events (such as being almost killed or injured, having witnessed other people being killed and/or having experienced a threat to one's family, friends or colleagues) and PTSD.

2. There is a relationship between the types of coping styles employed and PTSD.

3. There is an inverse relationship between the total availability of social support and PTSD.

4. There is an inverse relationship between the satisfaction with the social support received and PTSD.

6.2 SAMPLE

A high risk specialist unit in the SAPS, Durban, was selected for this study. Out of the total number of 90 members, only 60 participated in the study. There were a number of reasons for selecting this particular unit:

1. The Commanding Officer of this unit requested the involvement of the Police Psychology Unit in reducing the stress levels among his members.

2. The Commanding Officer was willing for us to conduct research in his unit.

3. Since the unit is recognised as a high risk group i.e. having high exposure to trauma, the Police Psychology Unit decided to implement a stress reduction programme with this particular unit. The efficacy of this would be investigated by Miss T. Wise as part of her course requirement for a clinical psychology masters. It was envisaged that such a program could be then presented to other high-risk units, e.g. flying squad, internal stability unit, dog unit and collision unit.

4. Selection into this unit is rigorous involving an initial 2 month trial period, psychometric evaluation and a panel interview. The psychological battery used consists of a personality test (16 PF), an aptitude test (B21), selected TAT cards and a complete biographical questionnaire with incomplete sentences. The interview selection panel consists of the unit commander, 3 experienced functional members and a member of the PPU. Therefore the selection procedure should reduce the possible effects of contamination.

The sample consisted of males only. Three language and population groups were represented: English, Afrikaans and Zulu. Ages ranged from 20 to 37 with the average age being 26. In this group the average length of service is approximately 4 years. Most of the members have been exposed to traumatic events, of varying nature. It was impossible to control any other variables as the unit they belonged to defined the constituency of the group.

6.3 APPARATUS

In this study the questionnaire battery consisted of a data sheet to record demographic and situational variables, 1 questionnaire to identify the symptoms of PTSD, a coping strategies questionnaire and a social support inventory. Additionally, a stressor questionnaire as well as an inventory to determine psychopathology was included in the battery due to their relevance to the treatment efficacy study mentioned earlier.

6.3.1 The data sheet

The data sheet was used to record important demographic variables such as: sex, age, rank, population, home language, years of service and marital status. Additionally, situational information regarding subjects' experiences were also included. Questions regarding situational factors elicit data pertaining to the exposure or experiences of violence, e.g. being almost killed or seriously injured, witnessing violence, or having had threats and harm done to family or friends.

6.3.2 Ways of Coping Checklist (WCC) - Folkman and Lazarus (1980)

A 60 item coping scale derived from Folkman and Lazarus' (1980) Ways of Coping Checklist (WCC) and modified by Eagle (1987) was selected for this study. The scale consists of 7 sub-scales covering a wide range of strategies that one may employ when faced with a problem.

The original Folkman and Lazarus' (1980) Ways of Coping Checklist is a 68 item questionnaire concerning a wide range of cognitive and behavioural coping strategies that one might use to deal with a stressful situation.

The strategies described in the WCC were derived from the framework used by Lazarus and his colleagues and from suggestions put forward in the coping literature. Items that are included concern, for example, the area of defensive coping (e.g. suppression, isolation), problem solving, inhibition of action and direct action.

This instrument was constructed with the assumption that coping efforts are responsive to the specific situation in which they occur. This is in keeping with the critical approach, based upon the interactional model but incorporates an understanding of the role that socio-political and material factors play in constituting and producing the experience of stress and coping.

The items of the WCC were classified by Folkman and Lazarus (1980) into two broad categories: problem-focused and emotion-focused. Problem-focused coping includes items that refer to cognitive problem-solving efforts and behavioural strategies that change or manage the source of the stressor. Emotion-focused, on the other hand, consists of items that refer to cognitive efforts aimed at regulating and minimising emotional distress. In emphasising efforts to manage stress regardless of whether they work, the definition of these broad categories avoids confounding coping with outcome.

The WCC has been criticised, by Ray, Lindop & Gibson (1982), for not identifying more specific coping strategies used to deal with stressful situations. For example, the emotion-

focused category contains more specific strategies as wishful thinking, fatalism, and withholding. The problem-focused category would encompass specific categories such as, seeking social support, information seeking, and taking direct action.

Vingerhoets and Flohr (1984) adapted the WCC, in order to try to assess more specific coping strategies, by developing various coping sub-scales. By subjecting the raw scores obtained in the WCC from a sample of 300, to a principle component analysis with varimax rotation, six factors were isolated with eigenvalues above 2.0. These factors were: 1. wishful thinking/escape; 2. problem-focused/help seeking; 3. emotional withholding 4. self-blame and 5. growth. Vingerhoets and Flohr (1984) found that these factors accounted for 44,7% of the variance in their study and that they were well interpretable. The use of these scales resulted in a slightly shortened version (60 items) of the WCC.

Eagle (1987) found that the problem-focused/help seeking scale, appeared to subsume two relatively distinct coping styles. The first, concerned coping strategies which involve direct cognitive or behavioural problem-solving efforts. The second concerns specific help-seeking activity. To address this Eagle et al developed a 4-item scale concerned only with Help-seeking efforts, to allow direct comparison on the help-seeking variable alone.

The reliability (of Cronbach's alpha, corrected for the number of items of the scales) used in the Eagle's (1987) study were, respectively; 0,784 (wishful thinking/escape); 0,647 (acceptance); 0,392 (problem focused/help-seeking);0,603 (emotional withholding); 0,590 (self-blame); 0,680 (growth) and 0,698 (help-seeking).

In response to suggestions made by Billings and Moos (1981), Eagle (1987) made further modifications to the WCC. To avoid constraining the magnitude of the relationship between coping responses and other measures, Eagle (1987) replaced the simple binary yes/no response to a five point Likert scale ranging from (1) Never to (5) Always, thereby indicating the frequency with which a strategy is used.

The scales are briefly defined below:

(1) **Wishful thinking / escape**

This refers to emotion-focused coping strategies, which concern cognitive efforts to escape from emotional discomfort, by using techniques such as humour, wishful thinking and denial:

Example: Joking about it.

(2) **Acceptance**

This refers to emotion-focused coping strategies, which indicate acceptance of stress after it has emerged. This scale concerns both cognitive and emotional strategies for minimising the effect of stress, e.g. compromise, substitute activity and patience. Several items included in this scale are negatively correlated with acceptance and are scored in a reverse direction.

Example: Waiting to see what will happen.

(3) **Problem-focused/help-seeking**

This refers to problem-focused efforts, which seek to change or act at the source of the problem, and emphasise problem solving and direct action techniques. It includes items, which infer seeking advice, finding alliterative solutions, and decisive behavioural planning.

Example: Making a plan of action and following it.

(4) **Emotional withholding**

This refers to emotion-focused strategies that seek to control anxiety through the inhibition of emotional discomfort. This implies an unwillingness to look for or accept emotional support

from others (independence), or to express feelings of vulnerability or dependence. Some items are negatively correlated with emotional withholding and are scored in a negative direction. Example: Keeping others from knowing how bad things are.

(5) **Self-blame**

This refers to emotion-focused strategies that indicate an inclination to respond to stressful situations, by criticising or blaming oneself, for not being able to cope with these situations. Items included illustrate a wish to be a more assertive and strong person, thus indicating a dissatisfaction with one's present coping abilities.

Example: Feeling bad that you can't avoid the problem.

(6) **Growth**

This refers to emotion-focused strategies that attempt to buffer the impact of a stressful situation by controlling the meaning of the problem, thus serving to recognise the creative and growth potential a stressful situation may present.

Example: Being inspired to do something creative.

(7) **Help-seeking**

This refers to a specific problem-focused strategy whereby efforts are directed towards others to obtain information and assistance.

Example: Talking to someone who can do something concrete about the problem.

The score for the scales on this checklist are obtained by dividing the total score from each subscale by the number of items in that scale. If a subject scores highly on the problem focused

scales, this does not mean that this score is relative to the emotion-focused coping scores. The scores are absolute, not relative to each other.

This study employs the WCC in accordance with Folkman and Lazarus' (1980) situation specific model of coping. In other words, subjects are asked how they respond to a specific situation.

An advantage of using this measure is that results can be compared with other studies that have found that specific coping behaviours mediate the impact of traumatic experiences. However, although this scale does provide a useful tool to assess these broad coping approaches, it might have limited application. One limitation is the possibility that there are other coping styles used by this population that are not included in this measure.

6.3.3 The Index of Social Support (ISS)

The Index of Social Support is a 10 item scale developed by James and Davies (1987). Its contents and format were based on the Social Support Questionnaire (SSQ) designed by Sarason, Levine, Basham & Sarason (1983). The SSQ consists of 54 items, half of which concern the number of perceived social support in the subject's life and half the degree to which these supports are personally satisfying. In an attempt to overcome the time constraints placed on the interviewer administering such a lengthy questionnaire and to avoid redundancy in the SSQ the ISS was developed.

Five items were selected from the SSQ which were thought to address the core human requirements of emotional support. A further two items were selected from the ISSI (James & Davies, 1987). Finally three new items were added. The concept of social support is operationalized in terms of, the total availability of support (TAS) and perceived satisfaction with that support (SATIS).

The subjects were required to list (using initials) all those people who provided them with support, be they family, neighbours, friends or others. Often the same people were mentioned in

response to more than one question. To avoid counting these people more than once, each subject's TAS score was calculated by summing the number of different people listed. Where, however a person was also listed as a drain on resources, he or she was subtracted from the subject's total score. A person listed as a drain who was not listed as providing support was not deducted from the subject's score. For the eight satisfaction items the score was satisfied = 1, not satisfied = 0. The total satisfaction score was the total of the eight items on the satisfaction scale.

Using the Cronbach alpha these authors reported an internal consistency for the 10 support items at a coefficient alpha of 0,83 indicating the reliability of the measure. Exclusion of item 10 was found to increase the coefficient alpha from 0.83 to 0.84. The alpha coefficient for the satisfaction items was 0.81 indicating the reliability of this measure. A modest correlation between the availability of support and satisfaction with support measures at 0.43 suggestes that a separate analysis of the scales was required.

6.3.4 The Dutch Post Traumatic Stress Scale

Hovens, Falger, Velde, Meifer, Groen, and Van Duijn (1993) developed this PTSD self-rating scale. The scale was derived from the DSM-III criteria and consists of 28 items. The items are scored on a 4 point Likert scale and the scores can range from 28 to 112. All items were written with expression of war experiences. The scale was thus adapted to address police experiences following conflict situations. This was accomplished by substituting the term wartime with the term conflict(s). In Questions 22 and 28 the word "war" and "war chronicle" were substituted with the term "police conflict". Caution was exercised in maintaining the wording of the original questionnaire as to retain the established reliability of the inventory.

There were a number of reasons for the selection of this particular questionnaire: (1) it was economical in terms of the time needed to complete it (as opposed to the Mississippi Scale for Combat-related PTSD developed by Keane, 1988 or the Diagnostic Interview Schedule developed by Tovins and Helzer, 1985, cited in Keane, Wolfe & Taylor, 1987); (2) the questions were phrased simply and were more personalised (as opposed to the terminology used

in the PTSD Inventory developed by Friedman, 1988, cited in Michelson, 1991); and (3) its availability to the researcher.

Post-traumatic stress is a disorder that develops following a "traumatic" event. A question was included in the demographic section indicating the extent of exposure to violence. The scale is divided into six factors based on the DSM III criteria. The first factor "intrusive memories of the conflict situation and accompanying sleeping problems" consists of eight questions, for example: memories of the conflict(s) can suddenly hit me. The second factor, which also consists of eight items, "physiological arousal" includes questions like: I get easily startled and I have trouble concentrating. The third factor consists of six items and reflects "detachment from people", for example: I feel I am not capable of making contact with other people. The fourth factor indicates "rage" and consists of two questions, for example: sometimes I have fits of rage.

The fifth factor consist of three questions and reflects "active confrontation with police conflict stimuli", for example: I watch police conflict on TV. The last factor indicates "guilt" and consists of two questions, for example: I feel guilty when I think of the people who suffered during the conflict. Coefficient alpha was computed for the items that made up each of the factors. Coefficient alphas were 0.90, 0.80, 0.77, 0.88, -0.06, and 0.89, respectively.

The optimal cut-off score of the PTSD scale was established as a score greater than 59, which gave an overall agreement with the Structured Clinical Interview from DSM III R (SCID, Spitzer & Williams, 1985, cited in Keane et. al.) ratings of 82%. With this cut-off score, the sensitivity of the scale, that is: true positive/ true positive + false negatives was 84% and the specificity, that is true negatives/true negatives + false positive was 79%.

The study on the development of the Dutch PTSD scale indicated that test-retest reliability was 0.91 and the internal consistency had a coefficient alpha of 0.88. These scores were comparable to those of the Mississippi scale (Keane et al). The overall agreement with the SCID, which is still considered to be the gold standard in PTSD-research, demonstrated that the concurrent validity was also satisfactory and comparable to the initial results reported in the MMPI

subscale for PTSD (Keane, Malloy & Fairbank, 1984), in which an overall correct classification of 82% was reported.

6.4 ADMINISTRATION

Due to the nature of police work, i.e. working shifts, data had to be collected over a period of one week on three different occasions. The questionnaires were administered to the three shift groups of approximately 20 members at three different times.

Subjects were given verbal instructions regarding the completion of the questionnaire. It was stressed that personal details were confidential and that the subjects' participation in the study would be anonymous, as they were not requested to furnish their names. Subjects were asked to answer in a truthful and honest fashion.

Following administration of the questionnaire, the groups were given a stress management program prepared by the PPU. This afforded them the opportunity to discuss their experiences with each other as well as familiarise themselves with the type of stress reactions they might be experiencing or have experienced previously. Finally, possible ways of dealing with traumatic situations were explored.

6.5 DATA ANALYSIS

The study follows a criterion referenced design, utilising a statistical package for the Social Sciences (SPSS). Data obtained from this study was subjected to a series of statistical analyses. These are outlined below:

(1) Descriptive statistics were used to obtain means, standard deviations, frequencies and percentages of the independent and the dependent variables.

(2) Pearson's correlation coefficient (r) is a measure of association that indicates the strength and direction of the relationship between the dependent and independent variables on a scale of -1 to +1. When the value of r is positive, then the relationship between two variables is a positive one - as values of one variable increase, values of the other variable generally increase. When the value of r is negative, then the relationship

between the variables is a negative one - as values of one variable increase, values of the other variable generally decrease. In this study Pearson's correlation coefficient was utilised to establish whether any relationship exists between the dependent variable, i.e. PTSD, and the independent variables, such as the demographic and situational factors, coping and social support.

(3) A multiple regression analysis of the multiple correlation coefficient (R) indicates the total correlation between the combination of all the independent variables and the dependent variable. R squared, the coefficient of multiple determination indicates what proportion of the total variation in the dependent variable is explained jointly by or associated jointly with all of the independent variables. The type of multiple regression used in this study is called the stepwise multiple regression. In this procedure the computer output lists the independent variables step by step in a descending order of predictive power, with the independent variable that explains the greatest amount of the variance in the dependent variable. In subsequent steps additional independent variables are added to the regression equation output. Output in each step includes: (1) the unstandardised regression coefficients; (2) the standardised regression coefficient or beta weights;(3) the t-test for the significance of each independent variable; (4) the coefficient of multiple determination R squared, indicating the total variation in the dependent variable explained as each predictor is added; and (5) the F-test for the significance of the coefficient of multiple determination. By using stepwise regression, a researcher is thereby able to identify the relative importance of all predictors and include only the statistically meaningful ones in the overall explanation of variance in the dependent variable.

CHAPTER 7

ANALYSIS OF RESEARCH

7.1 HYPOTHESES REVISITED

The main goal of this study was to determine the incidence of PTSD among police members in KwaZulu-Natal following exposure to traumatic events and analyse the impact of certain coping skills and social support on these stress reactions.

The following hypotheses were tested:

1. There is a positive relationship between exposure to traumatic events (such as being almost killed or injured, having witnessed other people being killed and/or having experienced a threat to one's family, friends or colleagues) and PTSD.

2. There is a relationship between the types of coping styles employed and PTSD.

3. There is an inverse relationship between the total availability of social support and PTSD.

4. There is an inverse relationship between the satisfaction with the social support received and PTSD.

In order to test the above hypotheses the chapter will provide the statistical results in three main sections:

I. Basic descriptive statistics
II. Correlations as inferential statistics
III. Multiple regression results as inferential statistics

7.2 BASIC DESCRIPTIVE STATISTICS

7.2.1 Demographic profile.

Table 3: Age of subjects

Table 1, below, indicates that the majority of the subjects in the sample (35.6%) are between 23 and 25 years old. Another 28.9% of subjects fall between the ages of 26 and 28. A further 11.9% of the sample are between 20 and 22 years of age, 10.2% are between the ages of 29 and 31. Additional 8.5% are 32 and 34 years old. A final 5.1% fall into the 35 to 37 age category.

AGE GROUPS	N	%
20- 22	7	11.9%
23 - 25	21	35.6%
26 - 28	17	28.9%
29 - 31	6	10.2%
32 - 34	5	8.5%
35 - 37	3	5.1%

Table 4: Rank of subjects

The majority of the subjects, 50.8%, hold the rank of a sergeant. Another 35.6% of the sample are constables, and only 13.6% hold the rank of warrant officer.

RANK	N	%
Constable	21	35.6%
Sergeant	30	50.8%
Warrant officer	8	13.6%

Table 3: Population groups represented in the sample

Majority of the subjects are white as indicated by the figures in the table below. White subjects comprise 76.7% of the sample, with only 13.6% Asian and 8.5% black subjects respectively.

RACE	N	%
White	46	76.7%
Asian	8	13.6%
Black	5	8.5%

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Asian	8	13.6%
Black	5	8.5%

Table 6: Language groups

Most of the subjects in the sample are English speaking (81.8%). The remaining 10% and 6% are Afrikaans and Zulu speaking respectively.

LANGUAGE	N	%
English	45	81.8%
Afrikaans	6	10%
Zulu	4	6%

Table 7: Length of service

The largest percentage, 33.3 % of policemen have been in the SAPS between five and seven years. There is an equal number of subjects who had between two and five years service and those who have been in the force for longer than ten years, comprise 21.7%. Only 3.3% of the members have been in the SAPS less than one year. The remaining 20% have served between seven and ten years in the force.

YEARS OF SERVICE	N	%
less than 1 year	2	3.3%
2-5 years	13	21.7%
5-7 years	20	33.3%
7-10 years	12	20%
Longer than 10 years	13	21.7%

Table 8: Marital status of subjects

The majority of the subjects, 55%, are married; a further 10% are involved in relationships. Single subjects account for 28.3% of the total sample, while only 6.7% are either divorced or separated.

MARITAL STATUS	N	%
Married	33	55%
Single	17	28.3%
Divorced	3	5%
Separated	1	1.7%
Relationship	6	10%

7.2.2 Traumatic events indicators

The following tables reflect the exposure of subjects to a range of violent (traumatic) events, and analyse the recency or the time of the experience.

Table 9: Exposure to traumatic events

The table below indicates that only three of the total numbers of 58 respondents have not experienced a traumatic incident of any nature. It is important to note that 24 out of 58 subjects have been exposed to more than one traumatic event tapped by the questionnaire. In another words, 41.4 % of the sample have been almost killed or seriously hurt themselves, had their family and friends threatened and they have seen other people injured or killed. The remaining respondents have all experienced traumatic events of varying nature.

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Recurrent person-environment transactions could show up as coping styles with long-term consequences of adaptational efforts. It is important to distinguish between problem-focused coping which involves the practical aspects of seeking information and support, taking problem solving action, and emotion-focused coping which is affective regulation, emotional discharge and resigned acceptance (McCammon, Durham, Allison & Williamson, 1988). The function of problem-focused coping is to change the troubled person-environment relationship by acting on the environment or oneself (Lazarus, 1993). The function of emotion-focused coping is to change either the way the stressful relationship with the environment is attended to or change the relational meaning of what is happening, which mitigates the stress even though the actual conditions of the relationship have not changed. The latter involves a more benign or less threatening reappraisal, for example, denial and distancing (Lazarus, 1993).

Wishful thinking seems to be utilised frequently in this particular sample. This coping strategy falls into the emotion-focused category which aims at controlling emotional distress, once it has manifested itself, and at accommodating existing stress without being overwhelmed by it. Emotion-focused coping is directed towards the emotional regulation of a problem and consists of attempts to manage or reduce emotional distress (Folkman, 1982). These strategies are employed to change the meaning of a stressful situation, via the maintenance of hope and optimism, denial of both facts and implication, refusal to acknowledge the worst, acting as if what happened did not matter (Lazarus & Folkman, 1984).

Wishful thinking is more typical in high-stress situations in which resources are insufficient to deal with the stressor being experienced (McDonald & Korabrik, 1991). This strategy refers to cognitive efforts to escape from emotional discomfort by using techniques such as humour, wishful thinking and denial.

Although problem solving seems a relatively frequent strategy utilised by the sample, help seeking is less utilised. As discussed in chapter 6, Eagle (1987), developed a four item scale concerned with help seeking efforts to allow direct comparison with problem solving. The

problem-solving category refers to problem-focused efforts, which seek to change or act at the source of the problem and emphasise problem solving and direct action techniques. On the other hand, help seeking refers to strategies whereby efforts are directed towards others to obtain information and assistance.

7.2.4 Incidence and severity of PTSD.

Table 12 gives the mean PTSD score of the sample while table 13 reflects frequency distribution of the actual PTSD scores across the participants. The optimal cut-off score of the PTSD scale was established as a score greater than 59, which gave an overall agreement with the Structured Clinical Interview ratings of of 82% (Hovens, Falger, Op De Velde, Meijer, De Groen & Van Duijn, 1993). With this cut-off score, the sensitivity of the scale, that is true positive/ true positive+ false negatives was 84% and the specificity, that is true negatives/true negatives+ false positive was 79%.

Table 12: Incidence of PTSD

The mean score on the PTSD scale was 55.17 with the maximum score being 80 and a minimum score 30.

Variable	Mean	S.D.	Min	Max	N
PTSD	55.17	11.85	33	80	60

Table 13: Frequency distribution of PTSD

PTSD VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
33	1	1.7	1.7	1.7
35	1	1.7	1.7	3.3
36	2	3.3	3.3	6.7
39	1	1.7	1.7	8.3
40	2	3.3	3.3	11.7
41	1	1.7	1.7	13.3
42	2	3.3	3.3	16.7
43	1	1.7	1.7	18.3
44	3	5.0	5.0	23.3
45	1	1.7	1.7	25.0
46	2	3.3	3.3	28.3
47	5	8.3	8.3	36.7
50	2	3.3	3.3	40.0
51	1	1.7	1.7	41.7
52	1	1.7	1.7	43.3
53	1	1.7	1.7	45.0
54	1	1.7	1.7	46.7
55	2	3.3	3.3	50.0
56	2	3.3	3.3	53.3
58	3	5.0	5.0	58.3
59	1	1.7	1.7	60.0
60	1	1.7	1.7	61.7
62	1	1.7	1.7	63.3
63	5	8.3	8.3	71.7
64	3	5.0	5.0	76.7
65	3	5.0	5.0	81.7
66	1	1.7	1.7	83.3
67	1	1.7	1.7	85.0
68	1	1.7	1.7	86.7
70	1	1.7	1.7	88.3
71	1	1.7	1.7	90.0
72	2	3.3	3.3	93.3
73	1	1.7	1.7	95.0
75	1	1.7	1.7	96.7
76	1	1.7	1.7	98.3
80	1	1.7	1.7	100.0

7.2.5 Social Support

Table 14: Means and standard deviations of Social Support

The mean score on the total availability of support (the number of people one recognises as a perceived source of support) is 4.55, with a maximum score of 14 available others and a minimum of one With reference to satisfaction with social support, the average score of satisfaction is 6.8. The maximum perceived number of supportive relationships is eight and minimum two.

	Mean	SD	Min	Max
Total availability of support	4.55	2.4	1	14
Satisfaction with support	6.8	1.47	2	8

7.3 INFERENTIAL STATISTICS: CORRELATION RESULTS

7.3.1 Correlation of PTSD with the WCC coping scales

Table 15: Correlation analysis between PTSD and WCC coping scale

This analysis suggests a significant positive correlation of self–blame coping efforts and PTSD ($r = 0.5276$, $p = 0.000$).

COPING	CORRELATION	N	SIGNIFICANCE
Acceptance	0.3707	60	P = 0.004
Wishful thinking	0.0442	60	P = 0.737
Problem solving/help seeking	0.1025	60	P = 0.436
Emotional withholding	- 0.0601	60	P = 0.648
Self–blame	0.5276	60	P = 0.000
Growth	0.0418	60	P = 0.751
Help–seeking	0.1261	60	P = 0.337

7.3.1.1 Discussion of findings

Self-blame refers to emotion-focused strategies that indicate an inclination to respond to stressful situations by criticising or blaming oneself, for not being able to cope with these situations. This may be illustrated by a wish to be a stronger person, more assertive etc. thus indicating dissatisfaction with one's present coping abilities.

This emotion-focused coping strategy which aims at controlling emotional distress, once it has manifested itself, is expressed as passive efforts directed inwards rather than toward the problem. Aldwin & Revenson (1987), confirm that these type of coping strategies have been found to increase emotional distress. Similarly, Lazarus (1993), when discussing stressful conditions which are viewed by the person as refractory to change, states that emotion-

focused strategies tend to predominate. Additionally, coping strategies such as problem solving and positive reappraisal are associated with changes in emotion from negative to less negative or positive. While strategies such as confrontive coping and distancing correlated with emotional changes in the opposite direction, i.e. toward more distress (Lazarus, 1993).

When one considers the police culture, where it has been said that expression of personal feeling is severely limited (Pogrebin & Poole, 1991), it does not seem surprising that a coping strategy which aims at inwardly criticising oneself is responsible for significantly increasing distress among police officers.

Policemen set themselves uncompromising standards for managing emotions related to trauma (Pogrebin & Poole, 1991). Externalising pain, guilt or fear by talking about it is considered taboo in the police culture. The emotions policemen experience therefore of trauma, are perceived by them as an occupational weakness or hazard with the potential to impair their ability to perform (Pogrebin et al).

The uncompromising attitudes related to the expression of emotions following traumatic events, go back to the police academy experience, which is a significant contributor to the officer's learned resource behaviour (Reiser & Geiger, 1984). Through training, officers tend to develop defence mechanisms and attitudes that exaggerate their abilities and emphasise physical strength and toughness (Reiser et al). On the one hand, the training serves as a survival mechanism to protect the officer from physically and psychologically dangerous situations. On the other hand, it leads to suppressed feelings, cynicism and emotional distancing from social support (Reiser, et al).

It seems that when an officer loses in a confrontation or becomes a victim, the illusion of omnipotence and control is damaged, forcing the officer to re-evaluate his/her self-image and worth, according to Reiser et al. The alternative to this inner process is massive denial of injury and walling off the human self. Such a combination of body and ego injury may result in an officer believing that he/she may have lost control over himself and engage in

self-doubt. These perceptions further feed into the self-criticism tendency and guilt feelings that are already present (Reiser et al).

Mann & Niece (1990) recognise that when police officers do not perform well in an emergency or experience an uncommon amount of fear they often have an inordinate amount of guilt or shame about this. Fear of not measuring up in the eyes of the peers may influence officers to continue to block the expression of feelings or to act without thinking.

7.3.2 Correlation of PTSD with the Social Support variables.

Table 16: Correlation analysis between PTSD and social support

SOCIAL SUPPORT	CORRELATION	N	SIGNIFICANCE
Total availability of support	-0.0938	58	P = 0.484
Satisfaction with support	-0.0268	59	P = 0.840

The results do not show a significant correlation of the availability of social support and PTSD nor do they indicate any significant correlation between satisfaction with social support and PTSD.

7.3.2.1 Discussion of findings

The role of social support in PTSD can be defined as information leading the subject to believe that he/she is cared for and loved; he is esteemed and valued or he belongs to a network of communication and mutual obligation (Powell & Doan, 1992).

Whilst this study failed to identify and significant correlations between social support and PTSD, results of research conducted by Powell & Doan (1992) reported that individuals with high social support had fewer PTSD symptoms, when compared to those with lower social support. The authors however indicate that not many studies point in the same

direction. Consequently, they recommend that more specific validated measures of social support are essential for more accurate research regarding social support and PTSD.

According to Solomon, Mikulincer & Hobfall (1987), research on PTSD has pointed to the ameliorating effects of supportive network. Social support has been seen as helping the individual through the prolonged adjustment period and limiting the occurrence of secondary stress (Solomon et al). In research conducted by Solomon et al, the predictive power of the perception of social support was modest. However, this magnitude of explained variance was consistent with most reports of the effects of social support on psychopathology. Other studies conducted by these researchers found that higher rates of PTSD were associated with low expressiveness, low cohesiveness and high conflict families.

Although the majority of studies report a significant direct relationship between social support and mental health, the evidence on whether inadequate support magnifies the association between stress and poor mental health remains mixed (Kirmeyer & Dougherty, 1988).

According to Graf (1986), who investigated the effects of social support on stress levels among policemen, with the SSQ (questionnaire utilised in this research), she found a significant relationship between the number of supports, satisfaction with support and occupational stress, although the strength of these relationships was moderate. Graf (1986) however, cautions when analysing findings, to distinguish perceived support from actual support received. Graf (1986) suggests that personality factors colour the perceptions of available support. The Social Support questionnaire utilised in this study taps the psychological sense of support, however one needs to be cautious when interpreting it. The measures of perceived support cannot serve as proxies for actual supportive exchanges, as they are based on assumptions that people are fully conscious of the way they use their social environments (Graf, 1986).

When one considers Catherall (1986), suggestion that dealing with the effects of trauma is largely a social process and occurs in the natural social groups in which people live, in the light of the results it becomes necessary to discuss the social support structures available to the police officer. The social support groups, according to Catherall (1986), are often family but can also be other groups of individuals who have a significant meaning for the trauma survivor. A social context contains two elements i) a consistent system of values and beliefs in which a survivor can move though the process of self-examination and ii) a sufficiently supportive affective environment such that the survivor can feel safe engaging in the process of self-examination.

In order to understand the social context for a police officer in terms of the two elements it is interesting to analyse the police social environment. For one it is clear that the SAPS is no longer a cohesive organisation and as such no longer fulfils the role of the "parent" that protects, and supports its members. Many individual officers may be left feeling abandoned and find their current circumstances anxiety provoking. Police officers no longer enjoy the support of the organisation or the community (Nel, 1995).

Secondly, as reported by Mihanovich (1980) and Violanti (1983), most policemen admit that police work retards non-police friendships and prevents officers from spending weekends or free time with their families. The nature of police work has led police officers to form close knit occupational social systems. Policemen tend to spend a lot of time with fellow police officers, drink together, joke together and one may expect high levels of peer support. A finding by Graf (1986) seems to indicate that contrary to the self-confident image of policemen, most respondents in her study, indicated that they never or almost never dealt successfully with work hassles. Graf (1986) concludes that it fits with the philosophy of the police, look strong, be in control, and act strong, even if you may be scared or even insecure. The respondents backed up this perception by indicating that they could not openly seek support from persons at work, for fear of being viewed as weak or being ridiculed by other members. There, seems to be a suspicion that any personal feeling shared might be misconstrued as weakness or ineptness. Graf (1986) concludes that police officers seem to

perceive the organisation as a whole as nonsupportive of them in any personal difficulties they experience (Graf, 1986).

Regarding the police culture and the policemen identity, it is clear that police officers do not generally complain about psychological issues, nor discuss emotional reactions and feelings with each other. Consequently, it seems that the occupational values strongly oppose the expression of feelings, attitudes, or admitting to experiences of stress and promote adherence to the "cowboys don't cry" syndrome (Nel, 1994). It also becomes questionable that a group described as "cynical, suspicious and deviant" by Graf (1986) is able to provide support to their fellow members.

Finally, the effects of stress on the police family is exacerbated by shift work routines of the police officer. Fewer non-police friends, missing social event, and inability to plan activities all tend to reinforce isolation (Violanti, 1981), and make it difficult for police officers to maintain close and meaningful relationships.

7.3.3 Correlation of PTSD with the trauma indicators.

Table 17: Correlation analysis of PTSD with the trauma indicators

TRAUMA VARIABLES	CORRELATION	N	SIGNIFICANCE
Been almost killed or seriously injured	0.1634	58	P = 0.220
Having witnessed others killed or injured	0.2376	58	P = 0.072
Having family, friends threatened	0.1387	58	P =0.299
Time Variable	- 0.2157	55	P = 0.114

The results indicate that the experience of trauma and the time of its occurrence do not correlate significantly with PTSD, except for a weak correlation between "having witnessed others being killed or injured" and PTSD ($r = 0.2375$, $p = 0.072$).

7.3.3.1 Discussion of findings

The results in this study fail to indicate that trauma is positively correlated with PTSD, as indicated by most of the studies accessed by this research. The severity and exposure to a stressor is among the six factors identified by Oei, Lim & Hennessy (1990) and Foy, Carroll & Donahoe (1987) which contribute to the development of PTSD. The other five are: personality factors, prior negative life events, developmental phase, social support and coping.

Foy, Sipprelle, Barrett, Reuger & Carrol (1987) identified the level of combat exposure as being the most important variable in the development of PTSD. Further, studies conducted by Foy & Card (1987) confirm that combat exposure, such as being wounded, being involved in the deaths of non-combatants and exposure to atrocities are critical elements in the development of PTSD in combat veterans.

Results of studies conducted in the police environment by Mann & Niece (1990) revealed that a large percentage of police officers reported PTSD symptoms following exposure to psychologically traumatic events. The PTSD symptoms were mostly prevalent among those whose families have been threatened, or they themselves have been threatened (Mann et al).

In a study conducted by Powell & Doan (1992) which investigated the association of combat and social support with perceived symptomology of PTSD, a non significant relationship was found between PTSD (measured by the Impact of Events Scale) and combat. This was attributed to misleading instruction and the sensitivity of the scale. The non-significant association with exposure to trauma could indicate that the verbal instructions were not clear or the written instructions were misleading, according to Powell et al.

7.3.4 Correlation of PTSD with demographic variables.

Apart from the correlations reported above, correlations were also calculated between other demographic variables such as, for example, 'rank of officer' and PTSD.

Table 18: Correlations of PTSD with demographic variables

These demographic variables were correlated with PTSD and the correlations are given below:

VARIABLE	CORRELATION	N	SIGNIFICANCE
Age	0.0700	59	P = 0.598
Marital status	- 0.0984	60	P = 0.454
Population	- 0.0451	59	P = 0.734
Rank	- 0.0279	59	P = 0.834
Years of service	0.0380	60	P = 0.773

The variables listed in the table above are not significantly correlated with PTSD.

7.3.4.1 Discussion of findings

Contrary to Denny, Rabinovitz & Penk (1987) who postulate that demographic and disposition characteristics readily influence how a person goes about coping with the trauma, no such relationship was found in this study. Denny et al, refer to demographic characteristics as surrogate variables and carriers of potentially moderating and suppressing subvariables that actively influence PTSD symptom formation and symptom reporting. Although demographic variables do not directly cause PTSD, it is recommended that they are included in PTSD research (Denny et al).

7.4 INFERENTIAL STATISTICS: MULTIPLE REGRESSION RESULTS

A stepwise multiple regression analysis was carried out, using PTSD as the dependent variable and the following set of variables as possible predictors:

- The Ways of coping scale coded as :

COPE 1: Wishful thinking
COPE 2: Acceptance
COPE 3: Problem-focused/help seeking
COPE 4: Emotional withholding
COPE 5: Self-blame
COPE 6: Growth
COPE 7: Help-seeking

- Social support coded as :

AVAIL : availability of social support
SATIS: Satisfaction with the support

- Trauma indicators:

KILL : having been almost killed or seriously injured
WITNESS: seeing someone else being seriously injured or killed as a result of an accident or violence
THREAT: there was a serious threat or harm to your family, friends or colleagues
TRMTIC: how long ago did you experience the traumatic event?

- Demographic variables

RANK: rank of police officer

AGE: age of police officer

MARITALR: marital status

POPREC: population group

SERVIC2: Length of service

The only variables not included in this set of independent variables were:

- Language (as the group was predominantly English speaking)
- Sex (all respondents were male)
- Population group (as the subjects were predominately white)

The following stepwise regression analyses were performed with SPSS:

- Setting an F-test probability criterion of 0.05 for the inclusion of a variable, and 0.10 for the removal of a variable and performing 'listwise' deletion of cases because of missing values.
- Setting an F-test probability criterion of 0.10 for the inclusion of a variable, and 0.15 for the removal of a variable as well as 'listwise' deletion of missing cases.

7.4.1 Multiple regression results

In the case of the dependent variable PTSD, only one variable namely COPE 1 was entered by the program into the equation, when the stricter level of 0.05 for the inclusion of a variable is required. Table 17 below gives a summary of the statistics of COPE 1 as predictor in the equation. However, when the less strict inclusion criteria of 0.10 is used, the stepwise program was able to include four other variables into the equation in the case of PTSD. The results are displayed in table 18.

Table 19: Regression results for cope 1 as predictor of PTSD

Variable	B	Beta	T	Sig t	R-square corrected
Cope 1	**9.480637**	**0.501280**	**4.055**	**0.0002**	**0.23600**
(constant)	**30.581341**		**4.963**	**0.0000**	

*(N= 51 and inclusion probability = 0.05)

7.4.1.1 Discussion of findings

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This analysis suggests that wishful thinking (COPE 1), as a coping strategy is conducive to high PTSD. Wishful thinking which consists of a subset of items falling within the broader coping factor of escape-avoidance, concerns cognitive efforts to escape from emotional discomfort by using techniques such as humour, wishful thinking and denial. As such it may have positive adaptational value but, according to Lazarus (1993), it seems never to have been the case in research. After all one will normally not try to do anything about a negative person-environment relationship if one's coping strategy is to dream or wish that it would go away. Lazarus (1993) is reluctant to make a generalisation, however, that wishful thinking, as a coping strategy is bad, because like denial if there is nothing to be done then wishing should not be harmful. The principle should still be that when denial or wishful thinking prevents a person from trying more productive strategies in a situation that can be ameliorated, these strategies should have negative consequences (Lazarus, 1993).

Health related stressors have been associated with increased emotion-focused coping (Folkman & Lazarus, 1980). Reliance on emotion-focused coping has been associated with depression and dysfunctional symptoms (Hovanitz, 1986). It is also more typical of high stress situations, in which resources are insufficient to deal with the stressor being experienced that individuals use emotional coping strategies (McDonald & Korabrik, 1991).

This finding has been confirmed by Latack (1986) who argues that individuals have also been found to abandon problem-focused coping strategies in favour of emotion-focused coping at higher levels of stress. Suls & Fletcher (1985, cited in Jones & Barlow,1990) postulate that nonavoidant coping strategies are more adaptive in the long run than avoidance coping strategies.

It is interesting to consider the coping strategies favoured by police officers, namely denial and humour, jokes and alcohol (Violanti 1981; Nel, 1994), all of which fall within the wishful thinking/escape category. Police officers use what is often referred to as "black humour", to avoid being perceived as vulnerable for displaying emotions, so they often couch their feelings in humour (Pogrebin & Poole, 1991). In this way they are able to soften the immediate impact of tragic experiences and vent their emotions in an acceptable and indirect manner. Pogrebin et al notes that what police officers fail to comprehend is that they rationalize tragic events through humour and subsequently fail to recognise a genuine need to share their emotional experiences.

Officers involved in life threatening events commonly utilise the defence of denial. This manoeuvre enables them to handle underlying fear and anxiety (Reiser & Geiger,1984; Yarmey, 1988). Due to the fact that police officers are typically conditioned binary thinkers, not used to dealing with conflictual feelings, they try to deny them or make all feelings consistent with an ideal way of thinking (Hill, 1984). Following a traumatic event officers tend to deny any emotions and simultaneously confirm that they are in control and are not having any problems dealing with the incident (Carson, 1982).

Other favoured coping techniques favoured by policemen, such as alcohol seem to have been entrenched in the police culture. Alcohol is often used for the relief of psychological strain when the use of other coping strategies has failed, and it serves as a convenient back up device to manage stress (Violanti, Marshall & Howe, 1985). Police officers are recognised as symptomatic drinkers, those who use alcohol for the relief of psychological strain (Collingwood, 1980; Violanti, Marshall & Howe, 1985). Emotional dissonance, a psychological separation of job demanded objectives and actual experienced emotions has

been found to directly and indirectly affect police alcohol use (Violanti et al). The apparent failure of other coping strategies is another factor, which influences the use of alcohol. The convenience of the use of alcohol as a coping technique is another important aspect, its effects are almost immediate in relieving symptoms and it is available to police officers on and off duty (Violanti, 1981).

Table 20: Regression results for PTSD when an inclusion criterion of 0.10 is used.

VARIABLE	B	BETA	T	SIG T	R-SQUARE CORRECTED
Cope 1	7.228599	0.382206	2.779	0.0079	0.37652
Cope 2	-8.36265	-0.283827	-2.381	0.0214	0.37652
Cope 5	6.778341	0.367189	2.613	0.0121	0.37652
TRMTIC	-1.195069	-0.244372	-2.178	0.0345	0.37652
Constant	51.09587			4.432	0.0001

*(N= 51 and inclusion probability = 0.1)

When the less strict inclusion criteria of 0.1 was used four variables were entered into the equation as predictors of PTSD, namely, wishful thinking (COPE 1); acceptance (COPE 2); self-blame (COPE 5) and time of the trauma (TRMTIC).

7.4.1.2 Discussion of findings

It seems that emotion-focused strategies such as wishful-thinking and self-blame tend to be predictive of higher PTSD. This finding is consistent with earlier discussion regarding emotion-focused strategies which predominate in highly stressful situations and are

associated with increased pathology and distress (Aldwin & Revenson, 1987). Solomon, Mikulincer & Flum (1988, cited in Jones & Barlow, 1990) found that greater reliance on emotion focused coping and distancing was associated with more severe PTSD, and individuals who rely on these may view their distress as uncontrollable.

Acceptance is also an emotion-focused coping strategy, which indicates acceptance of stress after it has emerged. This scale concerns both cognitive and emotional strategies for minimising the effect of stress, e.g. compromise, substitute activity and patience. The results indicate that the less likely one is able to accept the circumstances the more predictive this coping strategy is of increased PTSD levels. This seems consistent with Lazarus & Folkman (1984) and Folkman & Lazarus (1980) who indicate that it is more adaptive in an uncontrollable situation that has to be accepted as it may be successful in lowering distress and somatic disturbances.

Mann & Niece (1990) imply that it is necessary to understand the personality of the police officer in order to determine the dynamics involved in the officer's mental injury. When one considers the police population who consider themselves emotionally stronger than most civilian people (Yarmey, 1988) and whose life centres around the issue of self-control (Mann et al), it may be possible that acceptance of the strong emotions associated with trauma may be difficult for them. The reactions that are experienced by police officers involved in a traumatic incident range from denial, isolation, anger and resentment to depression (Carson, 1982) and more often than not are either blocked out entirely by the officer or medicated with an increased intake in alcohol which offers short–term relief (Violanti, 1981).

The recency of the trauma is the fourth variable, which accounts for the variance in the prediction of PTSD. This seems consistent with the finding of Carson (1982) where the officers' reaction to traumatic circumstances seems to be most acute during the first three days following the incident. This is usually accompanied by a disbelief by the police officers that they were having difficulty handling it and some officers harboured fears that they were emotionally losing control. The symptoms may endure at a lower intensity for several weeks

or even months after the incident. The factors that influence the duration include, the stress level of the incident, the officers' personality prior to shooting, his social support network, the availability of psychological interventions, how the event was handled by the media and the manner in which his agency handled the incident (Carson, 1982).

In this research 43.7% of the sample participants have experienced a traumatic incident within 4 to 5 weeks of their assessment. This may indicate that for most of the subjects the trauma is still very real and recent in their minds. As a result they may be experiencing post-trauma stress reactions, describes by Carson (1982) as denial, anger and resentment or even depression. This first reaction of an officer involved in traumatic incidents is psychic and emotional numbing. The individual distances himself and makes an effort not to feel anything. An almost simultaneous experience is the feeling of isolation. The feeling is one of being alone and nobody knows what the individual is going through (Carson, 1982). Irritability, agitation, abruptness and depression may also form part of the early picture. At the time of the event, or immediately afterwards, there is frequently an emotional outcry characterised by painful but brief-lived recognition of the salience of the event (Marmar & Horowitz, 1988). Either denial or intrusive states may follow the initial outcry, at times in oscillation with each other (Marmar et al).

7.7 SUMMARY AND CONCLUSION

The results of this study indicate that there is a high incidence of PTSD among members of police in KwaZulu-Natal. Of the total sample of 60 participants, approximately 40% met the criteria for PTSD. It is important to note that no significant relationship was established between exposure to traumatic events and PTSD, however the recency of the experience was found to be predictive of PTSD.

The relationship between coping, and PTSD among police officers yielded the following results:

- Self-blame, an emotion-focused coping strategy was significantly correlated with PTSD. In other words, with the increase in reliance on this inward directed coping strategy more distressed, an increase in PTSD was experienced.

- Other emotion-focused strategies, namely, wishful thinking, acceptance and self-blame were identified as predictive of PTSD

- No significant relationship was established between the availability of social support and decreased PTSD nor was a significant relationship between the satisfaction with social support and less PTSD.

Whilst these findings are supported by the findings of a number of researchers, several are contradicted by other researchers. Such contradictions as well as the limited number of studies relating directly to police officers and PTSD, lead one to suggest that further research is needed.

CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

8.1 SUMMARY OF INVESTIGATION

This study consists of eight chapters. The focus of chapters 1 to 7 and the conclusions drawn from each are as follows:

Chapter 1: Introduction and motivation

The introductory chapter for this study focused upon the motivation, aim, objectives and theoretical basis for this research.

In discussing motivation for researching the incidence of PTSD among SAPS personnel, and its relationship to coping and social support, reference was made to:

- Evidence pointing to the fact that police work is one of the most psychologically stressful and dangerous occupations

- Research indicating high incidence of PTSD among police officers

- The escalating level of violence in our country and the propensity to use firearms by criminals

- The lack of research on the incidence and effects of PTSD on South African policemen

Chapter 2: Post Traumatic Stress Disorder

The diagnostic criteria for PTSD were explored in this chapter as well as the theoretical models relating to the aetiology of PTSD. A discussion of the nature of the traumatic stressor and the type of traumatic stress reactions one may experience as a result of exposure to trauma was outlined.

The conceptual models critically evaluated in this chapter range from the biological and psychodynamic to the behavioural models, all of which attempt to explain the formation and symptomology of PTSD. The Jones and Barlow model of aetiology is consequently adopted by this study. This particular model bases its assumption about the development of PTSD on the inherent biological and psychological vulnerabilities to stress. The former refers to a genetic predisposition to stress and the latter focuses on prior experiences, sense of control over one's life, etc. The actual exposure to trauma causes an alarm reaction and this is followed by coping and social support, which act as the moderating variables in the formation of PTSD.

Chapter 3: Coping

The concept of coping and its role as a moderator between stressful life events and well being is explored in this chapter. In defining coping, it highlighted that there are many varied definitions of this concept. Coping has been defined, inter alia, as a personality trait, a sequence of stages, and a process comprising of behavioural and intrapsychic acts. The main approaches to the concept of coping, namely, the static process which sees it as a stable personality construct, and the process approach which defines coping efforts as a way to mange stress depending on the context, are examined.

The Lazarus process model is evaluated in more detail and the efficacy of the two modes of coping is discussed. The two modes of coping outlined in this approach refer to problem-focused and emotion-focused coping. The former relates to coping efforts aimed

at changing the relationship between the person and the environment, whilst the latter regulates stressful emotional responses by reappraising the relational meaning of what has happened, for example by avoiding the stimuli or denying there is a problem. Evidence regarding the effects of both types of coping strategies on health/illness outcomes are discussed and evaluated.

Chapter 4: Social Support

This chapter examines the role of social support in the stress-illness relationship. It becomes evident from the discussion that although there is extensive research to support the fact that social support has mediating effects on health, the mechanisms that underlie such effects are poorly understood.

The two models used to explain the effects of social support on health are termed the main effects model and the buffering model. The former implies that the greater the social support the more positive the mental and physical health, whilst the latter suggests that the strongest benefits of social support are among people under a lot of stress. People under little or no stress experience no beneficial effect. Both models are critically evaluated in this chapter.

Chapter 5: Stress among police personnel in South Africa

The fifth chapter explores the nature of police work and discusses its effects on police personnel. The focus of this section is on policemen in South Africa who have become victims of violence and crime. The increasing incidence of suicides and medical boarding of policemen due to stress and anxiety related disorders contributes to the contention that many police officers experience their circumstances as traumatic.

In comparison to many western European and North American police agencies, the number of policemen involved in shooting incidents in our country is far greater, and as a result PTSD incidence is far more frequent. The impact of police work, in a country

undergoing transitions and political changes, is discussed in relation to the nature of police work, the police culture and the type of coping and social support structures available to this group of people.

Chapter 6: Research Design

In setting out the design of this research, reference was made to the aim of the study and the main hypotheses. The sample was described in terms of the type of work environment of the subjects, the selection process into this particular unit and other demographic characteristics, like population group, age, etc.

The assessment battery, consisting of biographical sheet, the Ways of Coping Checklist, the Index of Social Support and the Dutch Post Traumatic Stress Scale were discussed, as was the administrative procedure and the rationale for incorporating each assessment instrument. The test procedure and the statistical techniques used in assessing the incidence of PTSD, and the relationship to coping and social support, were explained.

Chapter 7: Analysis of research

This chapter focused upon the techniques and procedures used to analyse the results of the research. The results were grouped and discussed in the following way:

I) This section emphasised the descriptive profile of the sample. This included the demographic profile, the trauma indicators, coping strategies used, and the incidence of PTSD and social support.

II) The inferential statistics section encompasses the correlational results of PTSD with other independent variables.

III) Stepwise multiple regression results are included in the section. The regression results include only the statistically meaningful predictors in the explanation of variance in the dependent variable.

The results are summarised in section 8.2.

8.2 SUMMARY OF RESULTS

The problem statement of this study reads as follows: "An exploratory study of the incidence of PTSD among police members in Kwazulu-Natal, following exposure to traumatic incidents and its relationship to coping and social support. The aim and primary objective of the study is to establish the incidence of PTSD among police members of a highly specialist unit and to establish the relationship between coping, social support and PTSD.

The results suggest a high incidence of PTSD among police members but no significant relationship was found between exposure to traumatic events and the development of this disorder. However there is a significant relationship between the recency (time) of the traumatic event and development of PTSD.

Emotion-focused and not problem-focused strategies were found to be significantly related to PTSD. Wishful-thinking, self-blame and acceptance were significant predictors of PTSD, and increased reliance on self-blame as a coping strategy led to an increase in PTSD symptoms.

Finally, no significant relationship was found between social support and development of PTSD. In other words, increased levels of availability and satisfaction with social support did not lead to reduced levels of PTSD.

A number of conclusions were drawn regarding the incidence of PTSD among police officers and the role of coping and social support in reducing the development of the disorder. Results indicate that a large number of police officers suffer from PTSD in South Africa. The percentage of PTSD sufferers is significantly higher than in other countries. Policeman tend to cope with PTSD by employing emotion-focused coping

strategies, like wishful thinking, self-blame and acceptance. This suggests that these techniques are ineffective in dealing with this disorder and lead to further distress. Finally, the social support structures available to the police officers seem ineffective in buffering or mediating the development of PTSD.

These results have implications for future research as well as for police officers, the police organisation and the society as a whole. These implications are discussed below.

8.3 RECOMMENDATIONS

8.3.1 Limitations of this research and recommendations for future research

This study is not without limitations. These will be discussed and suggestions made on how they can be overcome in future research.

Firstly, the study population was not representative of the South African police population as a whole. The majority of policemen studied were white males residing in Durban and belonging to a specialist unit with a unique set of working conditions and circumstances. Considering the increased number of women into the police force, as well as black South Africans, this particular sample places limitations on the generalisability of the findings.

Secondly, the sample size was limited to 60 participants (the total number of members in this unit, so it was impossible to enlarge the number of cases in this sample. A larger sample size would have increased the representativeness of the findings, and hence the external validity.

Thirdly, although the questionnaires were confidential (the participants were not required to give their names) the honesty in which the questions were answered remains doubtful due to the following factors:

- The police culture does not acknowledge psychological injury and perceives is as a weakness
- The low level of trust in the organisation makes policemen wary of supplying sensitive information about themselves for fear of being exposed
- Psychologists in the police force are perceived with a certain amount of fear and anxiety by police members

One may therefore assume that there is a possibility that the data supplied by the participants is not a true reflection of their current psychological well being. Additionally, the research was based on retrospective measures, which tend to rely on perceptions and memory as opposed to objective observable behaviour. It cannot be known with certainty whether clinical interviews and physiological monitoring would elicit similarly high levels of PTSD. It is possible that some verification of retrospective data would provide additional support for the veracity of the subjects' reports (Keane, Scott, Chevoya, Lamparski & Fairbank, 1985). It is therefore recommended that interviews be conducted with subjects as opposed to using questionnaires only.

Fourthly, the constructs of "PTSD", "coping" and "social support" were measured via three self-report scales namely, The Dutch Post-traumatic, the Ways of Coping Checklist and the Social Support. The heavy dependence on self-report criteria increases the possibility that the correlations are in some unknown degree, confounded by overlapping antecedent and consequent measures (Lazarus, 1993). The additional lack of available norms for the tests used in this study compounds the problem.

There are some limitations in the diagnosis of a disorder like PTSD. Denny, Rabinowitz & Penk, (1987) suggest that measures of disorders other than PTSD are essential in order to avoid confusing PTSD with criteria for other disorders that may be present. There is evidence to suggest that manifestations of PTSD may vary as a function of type of psychiatric disorder. Additionally, measures in PTSD research must assess the stage in the development of PTSD as a diagnostic condition (Denny et al). The assumption that PTSD evolves by stages is implicit in the diagnostic distinction between "acute" and

"chronic" phases yet, this has not been tested empirically. Consequently, PTSD research must introduce a time dimension along with symptom onset and symptom manifestation (ibid.). There are also a number of methodological issues to consider when attempting to understand the complex literature on trauma and PTSD (Schurr, 1996). Because all of the data is correlational, caution must be used in ascribing a causal role to either trauma or PTSD. This caution is no different from that which must be used in making causal interpretations for the effects of trauma and PTSD. Another methodological issue centres on the nature of the control group that is used to ascertain differences in traumatised or PTSD groups. It is critically important, according to Schnuur (1996) that the control groups are as similar to the target group in age, gender, race and other known variables. This study did not use a control group for the diagnosis of PTSD.

8.3.2 Recommendations

Nel (1995) sees it as of the utmost importance to realise that mental health of police officers is the responsibility of all: the officers themselves, their commanding officers, the helping professions, the police organisation, the community and politicians. The recommendations are aimed at all of these levels.

An important step is to employ enough resources, such as psychologists, social workers, and human resource practitioners to address and study the issues related to policemen's psychological health. This is especially important in the rapidly transforming organisation and country. Since the importance of the policing role within a society should not be underestimated, it is not far fetched to state that our society will not be able to heal without also healing the police (Nel, 1995).

It is essential that other organisational stressors, often referred to as the inherent job stressors, are addressed on all levels in the SAPS. The following stressors would need to be eliminated in order to have a better functioning police organisation and its members:

- Financial rewards

- Elimination of the bureaucratic systems and procedures
- Long working hours
- Lack of policing resources, for example, not enough police vehicles, two-way radios, understaffed police station etc.
- Change reporting structures allowing for more flexibility and improved decision making
- Implementation of interventions to address and foster a culture of trust and openness. This may improve policemens' reticence to admit psychological injury and reduce resistance to seek help from police psychologists
- Flexibility for leave in the event it is needed. Police officers should be allowed time off following traumatic incidents but it need not be compulsory (Hill, 1984).

The police organisation needs to take responsibility to design and implement interventions addressing stress on both an organisational and an operational level. Some of the interventions to consider would be debriefing sessions for all policemen; compulsory educational programme so that the stigma attached to issues of psychological injury could be addressed. The content of these educational programmes should address the following areas:

- Understanding and recognition of PTSD symptoms
- Recognition of potentially traumatic situations and the possible reactions the individual can expect
- Differentiation between stressors which are avoidable and those which are beyond the individual's control
- Practice an activity, which helps reduce the psychological and physiological consequences of stress.

Critical incident stress management procedures need to be established in all police units. This is a process of educating, preventing or mitigating the effects from exposure to an abnormal or highly unusual event. A comprehensive CISM (critical incident stress management) programme would include (http://stressline.com):

- Preventative/educational/informational programmes for all police officers
- On scene support
- Advice to command/administration
- Demobilisation services
- Formal debriefings
- Resource referral services
- Family/loved one support services
- Support to emergency management
- Support to EAP programmes
- Community awareness programmes

The CISM process is considered one of the most important mechanisms to reduce the potential of PTSD (http://stressline.com). It allows people to verbalise their distress and form appropriate concepts about stress reaction before false interpretations of the experience are fixed in their minds. The core focus is the relief of stress in normal, emotionally healthy people who have experienced a traumatic event.

The secondary objectives of the above process may include:

- Emotional ventilation
- Reassurance that the stress response is controllable and that recovery is likely
- Forewarning people about signs and symptoms which might show up in the future
- Reduction of the fallacy of uniqueness or feeling that one has been singled out as a victim
- Reduction of the fallacy of abnormality
- Enhancement of group cohesiveness
- Screening for people who need additional assessment of therapy

Although the CISM methods do not always prevent PTSD, there is no excuse for law enforcement agencies not to ensure that all police officers involved in traumatic incidents are offered assistance.

Other direct rehabilitative efforts may include the following options:

- Therapy sessions with qualified professionals
- Support groups, which allow for cathartic release and peer support
- Relaxation therapy

Hill (1984) proposes some preventative measures a police organisation could employ. This includes making the right selection decision. The best ways of reducing the extent of traumatic effect is to select personnel who are least stress susceptible and most trauma resistant. Another idea is the inter-departmental stress teams, which consists of specially trained personnel who respond to help involved officers with after-math details, like peer counselling.

Police work offers a fertile area for stress research. The present study was of exploratory nature and relied heavily on international research, mostly in developed countries, in making assumptions. These assumptions need to be further validated in order to address psychological illness among South African men and women. A few potential areas of study are outlined below:

- There is a need to research for significant contributing factors to the development of PTSD. There are numerous research questions which can be formulated. For example, are there any personality predispositons that are related to the development of PTSD? How do the developmental stages affect the course of PTSD? What role does coping, locus of control and cognition play in maintaining or preventing PTSD? Finally, how exactly does social support contribute or alleviate the PTSD symptoms?

- International research recognises alcohol abuse, cynicism and emotional distancing as playing an integral role in the stress process among policemen. This should be investigated in relation to SA police members and PTSD.

Finally, the impact of family and other relationships on policeman and their subsequent experiences of stress offer a wide field of study and intervention. The significance of family relationships in the treatment of PTSD (Solomon, Mikulincer, Freid & Wosner (1987) could be investigated by:

- Assessing the differences in the support provided by family and by work friends
- Assessing the implications of family division of labour, power and responsibility in the treatment of PTSD
- Examining the role of the extended social network in the course and treatment of the disorder

8.4 CONCLUSION

High levels of stress among policemen are well documented and researched. As one author puts it:

"It would be difficult to find an occupation that is subject to more consistent and persistent tension, strain, confrontations and nerve wrecking than that of a police officer" Mihanovich (1980).

Trauma leaves a lasting imprint of terror, horror and helplessness on the body and mind. The world no longer seems a safe, manageable, and happy place. People no longer seem trustworthy or dependable. Self-doubt and guilt eat away at your self-esteem. Faith and spirituality are shaken or lost. The consequences of undetected and unmanaged traumatic stress have serious implications for individual police officers as well as the police organisation. Therefore, the extent to which the stress associated with the nature of police

work is controlled and managed depends upon the level of understanding of its course and consequences by the police organisation and its individual members.

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Http:// stressline.com.

APPENDICES

ASSESSMENT INSTRUMENTS

DEMOGRAPHIC INFORAMTION

THIS IS A CONFIDENTIAL QUESTIONNAIRE.

1)	SEX	MALE		FEMALE
2)	AGE			
3)	RANK			
4)	POPULATION	WHITE		ASIAN
		COLOURED		BLACK
5)	HOME LANGUAGE			
6)	YEARS OF SERVICE	LESS THAN 1 YEAR		
		1 – 2 YEARS		
		2 – 5 YEARS		
		5 – 7 YEARS		
		7 – 10 YEARS		
		LONGER THAN 10 YEARS		
7)	MARITAL STATUS	MARRIED		SEPARATED
		SINGLE		WINDOW/ER
		DIVORCED		RELATIONSHIP

8)	HAVE YOU EXPERIENCED A TRAUMATIC EVENT(s) IN WHICH:	
*	You were almost killed or seriously hurt?	
*	There was a serious threat or harm to your family, friends or colleagues?	
*	You saw another person being seriously injured or killed as a result of an accident or violence?	

9.	HOW LONG AGO DID YOU EXPERIENCE THIS TRAUMATIC EVENT (if you have experienced more than one, this refers to the most recent event)?				
*	One week ago		*	One month ago	
*	Two weeks ago		*	One year ago	
*	Three weeks ago		*	Tow years ago	
*	Four weeks ago		*	More than two years ago	

Instructions:

This questionnaire is about some of the things that you may be or have experienced after a conflict situation. Please make a CROSS next to each question in the appropriate column.

1 = HARDLY EVER
2 = SOMETIMES
3 = OFTEN
4 = VERY OFTEN

1.	Memories of the conflict(s) can suddenly hit me.	1	2	3	4
2.	My experiences of the conflict(s) come back in my dreams.	1	2	3	4
3.	I sometimes appear to find myself in a conflict situation again.	1	2	3	4
4.	I have the feeling that I really can't be bothered about my hobbies.	1	2	3	4
5.	I dream about conflict experiences.	1	2	3	4
6.	I feel I am not capable of making contact with other people.	1	2	3	4
7.	I go to social parties.	1	2	3	4
8.	I can express my emotions.	1	2	3	4
9.	I can suddenly get the feeling that I am in a conflict situation again.	1	2	3	4
10.	Sometimes I have fits of rage.	1	2	3	4
11.	I am afraid.	1	2	3	4
12.	I am cheerful	1	2	3	4
13.	I get easily startled.	1	2	3	4
14.	When I start thinking about what happened during the conflict(s), I find I can't stop.	1	2	3	4
15.	I sleep badly.	1	2	3	4
16.	I am interested in my job.	1	2	3	4
17.	I feel guilty when I think about those people who didn't survive the conflict(s).	1	2	3	4
18.	I have the feeling that I am completely detached from other people.	1	2	3	4
19.	My emotions are bottled up.	1	2	3	4
20.	My memory is failing me.	1	2	3	4
21.	Fits of rage occur with me.	1	2	3	4
22.	I read about police conflict.	1	2	3	4

Continued /...

23.	I am afraid to go to sleep.	1	2	3	4
24.	I am on my guard.	1	2	3	4
25.	I avoid situations which remind me of the conflict(s)	1	2	3	4
26.	I feel guilty when I think of people who suffered during the conflict.	1	2	3	4
27.	I have trouble concentrating.	1	2	3	4
28.	I watch police conflict on TV.	1	2	3	4

INSTRUCTIONS:

Listed below are a number of statements concerning how people deal with problems or difficulties. Please indicate on the five point scale how often you use these approaches with the problems you are presently experiencing.

1 = NEVER
2 = VERY SELDOM
3 = OFTEN
4 = USUALLY
5 = ALWAYS

1.	Waiting to see what will happen.	1	2	3	4	5
2.	Just taking things one step at a time.	1	2	3	4	5
3.	Standing your ground and fighting for what you want.	1	2	3	4	5
4.	Talking to someone who can do something concrete about the problem.	1	2	3	4	5
5.	Blaming yourself.	1	2	3	4	5
6.	Feeling you change or grow as a person in a good way.	1	2	3	4	5
7.	Criticising or lecturing yourself.	1	2	3	4	5
8.	Avoiding being with people in general	1	2	3	4	5
9.	Asking someone you respect for advice and following it.	1	2	3	4	5
10.	Getting away from it for a while, trying to rest or take a vacation.	1	2	3	4	5
11.	Getting the person responsible to change his or her mind.	1	2	3	4	5
12.	Telling yourself things that make you feel better.	1	2	3	4	5
13.	Wishing you were a stronger person, more optimistic and forceful.	1	2	3	4	5
14.	Concentrating on something good that can come out of the whole thing.	1	2	3	4	5
15.	Maintaining your pride and keeping a stiff upper lip.	1	2	3	4	5
16.	Making light of the situation, refusing to get too serious about it.	1	2	3	4	5
17.	Accepting understanding and sympathy from someone	1	2	3	4	5
18.	Coming up with a couple of solutions to the problem.	1	2	3	4	5
19.	Rediscovering what is important in life.	1	2	3	4	5
20.	Feeling bad that you cannot avoid the problem.	1	2	3	4	5

21.	Wishing that you could change the way that you feel.	1	2	3	4	5
22.	Talking to someone to find out more about the situation.	1	2	3	4	5
23.	Hoping a miracle will happen.	1	2	3	4	5
24.	Wishing that you could change what has happened.	1	2	3	4	5
25.	Thinking about fantastic or unreal things that make you feel better.	1	2	3	4	5
26.	Bargaining or compromising to get something positive from the situation.					
27.	Changing something so things will turn out alright.	1	2	3	4	5
28.	Feeling that time will make a difference, the only thing to do is wait.	1	2	3	4	5
29.	Feeling that you came out of the experience better than when you went in.	1	2	3	4	5
30.	Accepting your strong feelings but trying not to let them interfere with other things too much.					
31.	Trying to make up for some bad things that have happened.	1	2	3	4	5
32.	Feeling bad that you cannot avoid the problem.	1	2	3	4	5
33.	Trying to make yourself feel better by eating, drinking, smoking or taking medication etc.	1	2	3	4	5
34.	Realising that you bring the problem on yourself.	1	2	3	4	5
35.	Letting your feelings out somehow.	1	2	3	4	5
36	Doing something totally new that you never would have if this had not happened.	1	2	3	4	5
37.	Looking for the silver lining, looking at the bright side of things.	1	2	3	4	5
38.	Just concentrating on what you have to do next - the next step.	1	2	3	4	5
39.	Keeping others from knowing how bad things are.	1	2	3	4	5
40.	Going over the problem again and again in your mind to try and understand it.	1	2	3	4	5
41.	Feeling that you find new faith or important truth in life.	1	2	3	4	5

42.	Taking a big chance or doing something really risky.	1	2	3	4	5
43.	Daydreaming or imagining a better time.	1	2	3	4	5
44.	Getting angry at the people or things that caused the problem.	1	2	3	4	5
45.	Turning to work or substitute activity to take your mind off things.	1	2	3	4	5
46.	Accepting the next best thing to things that you wanted.	1	2	3	4	5
47.	Being inspired to do something creative.	1	2	3	4	5
48.	Talking to someone about how you are feeling.	1	2	3	4	5
49.	Sleeping more than usual.	1	2	3	4	5
50.	Knowing what has to be done; doubling your efforts and trying harder to make things work.	1	2	3	4	5
51.	Taking it out on other people.	1	2	3	4	5
52.	Getting professional help and doing what they recommend.	1	2	3	4	5
53.	Drawing on your past experiences.	1	2	3	4	5
54.	Making a plan of action and following it.	1	2	3	4	5
55.	Refusing to believe what had happened. Keeping your feelings to yourself.	1	2	3	4	5
56.	Joking about it.	1	2	3	4	5
57.	Having fantasies or wishes about how things might turn out.	1	2	3	4	5
58	Trying to forget the whole thing.	1	2	3	4	5
59.	Keeping your feelings to yourself.	1	2	3	4	5
60.	Not letting it get to you/refusing to think too much about it.	1	2	3	4	5

INSTRUCTIONS:

Below are some questions about the people in your environment who provide you with help or support. As you read each question, place an X in the appropriate (Yes/No) Column. If your answer was YES, then list the people (initials) and their relationship to you that you know you can count on for help or support in the manner described.

		YES	NO
1.	Do you have close friends that you meet or contact regularly (at least once a month)? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
2.	Of all the people you know, whom could you count on to help you with a problem (even though they might have to go out of their way to do so?) INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
3.	Of all the people you know, to whom can you talk frankly without having to watch what you say? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
4.	Of all your family, friends, neighbours and acquaintances, who do you think cares about you and appreciates you as a person? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		

5.	Of all the people you know, who would comfort and reassure you when you needed it? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
6.	Do you feel, that you are an important part of your family's (or anyone else's) life? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
7.	How many good neighbours do you have that you meet or talk to regularly (at least once a month)? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
8.	How many people with similar views and interests to yourself do you meet and talk to regularly? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
9.	Whom would you say that you help or support in some way in day to day life? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		

10.	Do you think any of your family, friends, neighbours, or colleagues ask or expect too much from you in any way (eg. to be in control and never show your emotions)? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		
11.	Who can you really count on to listen to you when you need to talk? INITIALS RELATIONSHIP SATISFIED/ NOT SATISFIED		

THE POLICE PSYCHOLOGY UNIT

STRESS ASSESSMENT BATTERY

(FORM A)

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