A MUTUAL AID GROUP PROGRAMME FOR EMERGENCY PERSONNEL

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This study is dedicated to my best friend and brother, Joshua Sphiwe Chiliza, who passed away on Thursday the 08 July 2004. I wish you had a chance to read my work.

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ABSTRACT

This report presents the findings of a study conducted in 2003-2004, involving eight members of emergency services in Stanger, KwaZulu Natal, South Africa. The emergency personnel included five firefighters and three paramedics.

The aim of the study was to develop and evaluate a mutual aid group programme in order to prevent symptoms of trauma, with special reference to anxiety and depression, and promote psychological well-being in emergency personnel.

Emergency personnel are exposed to traumatic events during the line of duty. The study investigated stressors, which were identified as organizational, management style, ineffective communication, stressors relating to patient care (personal loss, traumatic stimuli, high expectations) and low job and high workloads.

The study also investigated psychological, physical and social effects of emergency work. Psychological effects that were identified were mental illnesses such as depression and posttraumatic stress disorder. Symptoms included irritability, anger, frustration, hopelessness, helplessness, fear and anxiety. Physical effects included fatigue, difficulty breathing, startle response, nausea, trembling and racing heart. Social problems such as conflicts with family, friends and colleagues were also identified.

The study provided group members with the ability to identify symptoms of trauma and accept vulnerability, which served as important preventative measures for mental illness. The group created a safe atmosphere where members were able to share their feelings without the fear of being judged. It also provided members with new coping strategies for dealing with their feelings.

Regarding further support systems the group members identified an ongoing need for help via psychologists, psychological debriefing and support from management, family as well as the community.

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1. CHAPTER ONE

This chapter consists of the introduction and motivation, statement of the problem, aim, hypothesis, research methodology and value of the study.

1.1 Introduction and motivation

Disasters such as floods, fire, car/plane crash and earthquakes occur and affect people who experience them. All human service workers have a responsibility to assist people in crisis. Emergency personnel are in a particularly strategic position to influence the *outcome of high risk crisis situations (Hoff, 1989).*

The work of emergency personnel has not been as extensively investigated as other paraprofessionals. They have been misguidedly depicted as being brave, invulnerable and strong (Hodgkinson & Stewart, 1991). However, recent research findings have *revealed that they are also affected by their exposure to traumatic experiences, thus* require psychological intervention (Davis, 2000).

Their work is dangerous, risky and stressful as they are exposed to traumatic stimuli which may tax them physically, psychologically and socially. Emotional and cognitive reactions such as feelings of shock, grief, anger, confusion and disorientation are some of the psychological problems that may result from disaster experiences (Hodgkinson & Stewart, 1991). According to the National Centre for Post Traumatic Stress Disorder (NCPTSD, 2002), depression, anxiety and posttraumatic stress disorder (PTSD) are some of the disorders with which they are normally diagnosed.

For people in crisis, there are various resources that may provide psychological help such as individual counseling, group counseling, self-help/ mutual aid groups, family counseling, lifeline etc. Research has revealed that mutual aid groups are one of the mostly utilized and effective resources. They are used to enable members to feel empowered. These groups help people who are in crisis to deal with their challenges and traumatic experiences effectively. This occurs in a more accepting, supportive and

warm atmosphere which allows them to share their thoughts and feelings about themselves (Dhlomo, 2000; Jack, 1995 & Mthembu, 2001).

1.2 The aim of the study

The aim of the study was to develop and evaluate a mutual aid group programme in order to prevent symptoms of trauma, with special reference to anxiety and depression, and promote wellbeing in emergency personnel.

1.3 Statement of the problem.

Previous research has revealed that the emergency personnel are exposed to traumatic experiences (Hodgkinson & Stewart, 1991) and tend to be affected emotionally and physically. Different stressors have been mentioned. They face danger of death or physical injury, the potential loss of their co-workers or friends. However, they are perceived to be invulnerable and brave and yet expected to deal with their traumatic experiences in their own ways. These perceptions deter them from accepting their feelings as well as expressing them. They tend to suppress their feelings or adopt inappropriate and unhealthy lifestyles in order to survive. Few intervention strategies are available for them as they are a neglected group by both the community and management (Basket & Weller, 1988; Davis, 2000; Du Toit, 1997; Hodgkinson & Stewart, 1991 & NCFPTSD, 2002).

This study found out if a mutual aid group programme was effective in decreasing both anxiety and depression as well as increasing psychological well-being.

1.4 Hypothesis

The research hypothesis was that the mutual aid group programme would be effective in reducing symptoms of trauma and promoting psychological wellbeing.

1.5 Definition of terms

1.5.1 Mutual aid group

Jacobs, Harvill and Masson (1988) describe a mutual aid group as a body whereby group members share thoughts and feelings about themselves. The group enables members to discover that other people struggle with the same issues, feel similar emotions and think similar thoughts.

1.5.2 Emergency personnel

The term involves paramedics (medical personnel) and firefighters (rescue personnel).

Paramedic

A paramedic is a health care professional, a person who has special, well-defined skills and knowledge in pre-hospital emergency care, who is concerned with the well-being of others (Caroline, 1991).

Firefighter

Historically, the first fire brigades were introduced to save life and to protect property resulting from major fires. This role has been extended in modern fire services to the saving of life, in any emergency situation. Firefighters deal with injured people, who may be trapped in or under a motor vehicle, down a hole, over a cliff or any one of a host of situations (Mahon & Jooste, 1980).

1.5.3 Empowerment

It is the process by which individuals, groups and/ or communities become able to take control of their circumstances and achieve their own goals, thereby being able to work towards maximizing the quality of their lives (Adams, 1990).

1.5.4 Crisis intervention

Crisis intervention has emerged in response to a widespread need for immediate help for individuals and families confronted with especially stressful situations. These people are in a state of acute turmoil and feel overwhelmed and incapable of dealing with stress by themselves. They need immediate assistance (Carson, Butcher & Mineka, 1996).

1.5.5 Trauma

Trauma refers to a severe crisis or sequence of crises begun by a life-threatening event (Edwards, 1999). Whereas trauma has many aspects the present research especially focussed on symptoms of anxiety, depression and diminished psychological wellbeing.

1.5.6 Trauma counseling

It is a process whereby traumatized people work through their distressing memories to the point where they feel better (Hoff, 1989).

1.5.7 Mental heath promotion

Alloy, Jacobson and Acocella (1999) define mental health promotion as the enhancement of an individual's wellbeing, including competence, self-esteem and resilience to stress.

1.6 Sample

Participants consisted of Stanger emergency personnel that included firefighters and paramedics. The subjects were selected on voluntary basis.

1.7 Research methodology

The research that was conducted took the form of participatory action research.

A questionnaire was used to collect data pertaining to the experiences and needs of *emergency personnel.*

The group ran for a contracted period of eight weeks. Members met once a week. They provided mutual instruction through presenting topics for discussion which included trauma, anxiety, stress, depression, prevention, promotion, health and wellbeing.

Participants were also pre and post-tested on measures of anxiety, depression and wellbeing.

Data was analyzed using the SPSS statistical programme.

1.8 Value of the study

The research provided a support system for a local group of emergency personnel, which enabled them to provide a more effective work service.

Résumé

This chapter serves as an introduction to the following chapters. The next chapter will deal with findings on previous literature in relation to this study.

2. CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the findings on previous literature in relation to the present study.

Emergency personnel like all workers carry out their duties within an environment composed of a set of various discrete elements. Firstly, there is the emergency itself. Whether it is a forest fire, a tornado or a mining disaster, the emergency imposes certain exigencies upon the responder. Secondly, any social structure exists with specific social units, rules, and relationships. An emergency response, therefore, takes place with a context of prescribed behaviour, expectations and value judgements that are sometimes in conflict with each other. Thirdly, there is a technology that must be understood in order to accomplish group goals. If the technology itself is implicated in the emergency, the entire emergency environment may be impacted. Clearly, a breakdown in any of these elements could result in worker injury and might heighten responder stress (Kowalski & Vaught, 2001).

2.2 Sources of stress in emergency personnel

2.2.1 Sparrius (1992) identified the following stressors for ambulance workers:

a. Organizational stress

Organizational design, management style and disciplinary procedures are more dominant negative stressors for workers than any other stressors to which they are explored. In particular, perception of the structure and operation of the organization as being paramilitary, with a rigid system of discipline, lack of communication and absence of worker participation and motivation, is a common theme in the interview conducted by Sparrius (1992). Respondents blamed organizational structure for slow promotion and salary increases, for limiting autonomy and initiative, and for a rigid and harsh system of discipline with a plethora of rules and regulations. They also mentioned that, while the use of initiative is emphasized during their medical training, they are reluctant to apply initiative in their work for fear of contravening the disciplinary code of their organization.

b. Management style

Sparrius (1992) found that ambulance workers tend to perceive management as being uninvolved with them and not motivating them. They feel that management does not recognize the work being done by operational staff and administrative workers, that they do not treat workers with respect and that they do not understand their problems and difficulties. Respondents in Sparrius's study who were senior officers appeared to be aware of this criticism, but at the same time they perceived workers as being unable to cope with the recent rapid professionalism of ambulance work and as lacking in self-awareness. These clashing perceptions point to a lack of communication between management and workers.

c. Ineffective communication

In dealing with the many complaints received about ineffective communication, Hunter, Jenkins and Hampton (1982) maintain that the development of assertiveness skills among ambulance workers and management may be one way of achieving clear communication channels in the ambulance services. Clear communication channels afford the appropriate and constructive manner, without necessarily producing feelings of animosity. Seminars and workshops for staff members should be held regularly, addressing the importance of recognizing stress and its effects, in order to facilitate early interventions.

d. Stressors relating to patient care

Sparrius's (1992) research reveals that ambulance workers tend to experience stress caused by minor complaints of victims, slow shifts, physical danger like driving at high speed at night, ill-equipped vehicles, poor road conditions, long distances, unpredictable work or flexi-shifts, unrealistic deadlines, lack of job descriptions and role conflict. Hunter et al (1982) point out that ambulance workers are continuously faced with direct patient care responsibilities that are heavy drain on their emotional resources. They all have to deal with a diversity of patients and their families, who are not always aware of their technical training and skills. Because of this ignorance, ambulance workers are often subjected to physical and verbal abuse from family members and bystanders.

In her study of firefighters, police and ambulance workers, Du Toit (1997) found that ambulance workers complained about the long hours they work. Members experienced this as a problem because a higher frequency of exchange with the supra-system (a higher level of input) is required of them. The high levels of input by and energy from the system to the supra- system leave members with very little opportunity to replace that energy.

e. Low job and high workloads

Sparrius (1992) found the low occupational status accorded to ambulance workers by the public and within the South African health services to be a prominent stressor among these workers. They see themselves as professionals whereas they perceive the public to see them as "a glorified taxi service", or even as people who could not find employment elsewhere. Some of Sparrius's respondents reported that their families share this opinion of low occupational status, and that family support for their work is lacking. Furthermore, the majority of respondents complained that their salaries were not commensurate with the responsibility they carry. The most commonly method stated of supplementing their income was through working overtime.

2.2.2 Hodgkinson and Stewart (1991) identified three distinct events that may serve as stressors for emergency personnel

Personal loss or injury may be of several types. The loss may simply be about being unable to do what was expected. Alternatively, rescuers often work in dangerous conditions and are sometimes injured or even killed. Basket and Weller (1988) state that rescue workers are especially susceptible to environmental illness or injuries such as heat cramps, heat exhaustion and other injuries.

Emergency personnel are also exposed to traumatic stimuli. A number of badly damaged human bodies may be distressing for even the toughest and hardiest of emergency service personnel. The deaths of children present particular difficulty. The experience of emotional contact with survivors may lead to feelings of personal vulnerability and fear for loved ones. They also have high expectations about their own

performance. If rescue attempts end in failure, there can be extreme disappointment and intense feelings of personal failure and unworthiness.

A study of firefighters in Germany suggested that specific activities resulting in maximum stress include, first of all, the rescue of children. Other studies of emergency personnel (police, hospital) suggest that the worst stressors are disasters in which children have been injured or killed. The reason may be that they compare the victims with their children and this may heighten the disaster trauma experienced by firefighters (Ursano & Fullerton, 1990; Ursano & McCarrol, 1990). In addition, age is a factor in determining the measurement of stress for firefighters. Van Hallmeyer found that as firefighters became older and more experienced, they perceived the risks differently and more negatively (Van Hallmeyer, Klingbeil & Kohn-Sey, 1981).

2.2.3 Subjects in Du Toit's (1997) study identified the following as the sources of stress:

a. Performing duties they are not trained for
b. Lack of appropriate training
c. Rigid, inappropriate management style
d. No support/communication
e. Disrespect of human rights
f. Long working hours
g. Too little leave
h. Shortage of manpower
i. Dangerous working conditions
j. Poor overtime payment
k. No overtime payment / for public holidays

2.2.4 Difficulties faced by emergency personnel following a disaster

Butcher and Dunn (1981) outline the following difficulties:

- Stress arising from making critical decisions.
- Confrontation with human carnage
- Mass destruction of property and environment

- Distraught relatives and survivors
- Pressure from their own families to return home
- Dealing with situations for which they are not trained or prepared.
- Doubts about their decisions and ability to handle the job.
- Scape-goating by victims as a convenient focus for anger.

2.3 Psychological and physical problems that may result from disaster experiences

The word victim is evocative, conjuring up bloodied faces, damaged bodies and physical suffering. It has been argued that the term victim is demeaning, implying helplessness and that the phrase disaster-affected person is more appropriate. This at least reminds us that there are many types of such persons, amongst who are the rescuers and helpers, whose stresses have often unrecognized, leaving them hidden victims. Victims may be seen as falling into two broad groups, service receivers and service providers, and they may also be categorized on the dimension of direct or indirect involvement (Hodgkinson & Stewart, 1991).

Cohen & Ahearn (1980) and Figley (1985) state that there have been numerous accounts in the psychiatric literature of the impact of disasters on victims. However, apart from anecdotal reports of the impact on rescue workers, there is little in the way of empirical evidence about the psychological consequences of exposure to disasters for rescue personnel (Davidson, 1979). Shepherd and Hodgkinson (1994) point out that those studies, which have been undertaken on disaster rescue personnel have tended to be methodologically flawed.

Emergency personnel face the danger of death or physical injury, the potential loss of their co-workers and friends, and devastating effects on their community. In addition to physical danger, they are at risk for behavioral and emotional readjustment problems (NCPTSD, 2002). Davis (2000) states that rescue workers commonly become traumatized by the things that they have experienced through helping. Problems and symptoms can arise immediately during the rescue work or be delayed for weeks or months, appearing suddenly.

2.3.1 Recent research on stress and emergency

An international conference was conducted during March 1999, in Baltimore, US Entitled 'Work, Stress and Health 99: Organization of Work in Global Economy' (WSH, 1999). This conference presented the latest global research dealing with exposure to stressful situations. Overall, work stress may increase an individual's risk of injury, cardiovascular disease, psychological disorders and other health problems. Stressful working conditions are also associated with increased disability claims, absenteeism and tardiness. An overload of stress can result in burnout, which may manifest itself in emotional and physical exhaustion, emotional withdrawal, depersonalization and aggressive tendencies. The Japanese even have a term for brain and heart disease caused by overwork: '*karachi*'. Overload, fatigue and varying work schedules (all relevant to the worker in an emergency) can lead to unrealistic expectations and a constant demand for high performance. Couple this with a lack of resources (not uncommon in an emergency situation, particularly in the first hours and days of a disaster), the risk to the emergency manager and worker safety increases.

During the Work, Stress and Health Conference (1999) studies showed that 90% of disaster victims exhibit some of the symptoms of posttraumatic stress disorder (PTSD), most commonly defined as intense psychological distress upon exposure to events that symbolize or resemble some aspect of a traumatic event. These symptoms included: difficulty in concentrating, headaches, nervousness, nightmares, difficulty falling asleep or staying asleep, loss of appetite, anxiety, depression, helplessness/hopelessness, irritability or outburst of anger, and feeling of detachment from others. Studies on emergency workers indicate these symptoms, but the percentage of the population of workers suffering has not been extrapolated.

2.3.2 Psychological after effects of emergency service work

The National Centre for Post Traumatic Stress Disorder (NCPTSD, 2002) identifies the following symptoms as arising from disaster experiences.

1. Emotional reactions: temporary feelings of shock, fear, grief, anger, resentment, guilt, shame, helplessness, hopelessness or emotional numbness.

2. Cognitive reactions: confusion, disorientation, indecisiveness, worry, shortened attention span, difficulty concentrating, memory loss or self-blame.
3. Physical reactions: tension, fatigue, edginess, difficulty sleeping, body aches or pain, startling easily, racing heart beat, nausea, change in appetite, change in sex drive.
4. Interpersonal reactions in relationships at school, work, in friendships, in marriage or as a parent, distrust, withdrawal, isolation.

2.3.3 What severe stress symptoms can result from a disaster?

Emergency personnel may experience the following severe stress symptoms, which may lead to lasting Post Traumatic Stress Disorder:

- Dissociation (feeling completely unreal or outside oneself, like a dream, having "blank" periods of time one cannot remember).
- Intrusive experience (terrifying memories, nightmares or flashbacks).
- Hyper arousal (panic attacks, rage, extreme irritability, intense agitation).
- Severe anxiety (paralyzing worry, extreme helplessness, compulsions and obsessions)
- Severe depression (complete loss of hope, self-worth, motivation or purpose in life).

These symptoms may occur during the action phase of rescue and recovery operation. Such symptoms arise very early in the acute phase of the incident, thus nausea may occur within seconds of arrival on the scene. One doctor arriving on the scene of a small air disaster, in which wreckage had been scattered over a wide area, emerged from the back of the ambulance to be greeted by body parts dangling from a tree a few inches from his face. Though familiar with such sights, his first reaction was to vomit. His second reaction was to take a deep breath and say to himself, 'It is only body parts'. From that point onwards, he was able to function symptom-free (Hodgkinson & Stewart, 1991)

McCammon, Durham, Allison and Williamson (1988) surveyed police, fire and medical personnel who were involved in two separate disasters. The first of these was an apartment building explosion and the second a series of tornadoes. They found that 14%

of the personnel involved in the apartment explosion reported subsequent symptom patterns which corresponded with the criteria for PTSD. For the tornado personnel, the figure was 17%.

Michael, Lurie, Russel and Unger (1985) state that firefighters, police and ambulance personnel act to reduce the physical dangers inherent in the event as well as organize and protect individuals and property in the aftermath of the event. An event can be as traumatic for them as it is for victims. For example, a month after the walkway of the Hyatt-Regency Hotel collapsed in Kansas City, rescue workers and police officers recalled vividly their experiences in recovering the maimed bodies: some had nightmares of seeing dead bodies in their bedrooms. Others became physically ill at remembrance of their night's work. In similar fashion after a train crash in Sydney, Australian workers experienced feelings of frustration, helplessness and guilt about their inability to undo the crash or to help the victims in a meaningful way.

Raphael (1986) claims that firefighters expressed feelings of helplessness and guilt for being unable to do more for victims because, in times of disaster, the needs of victims overwhelm the available resources. He also hypothesized that the feelings of helplessness often experienced by difficult types of rescue workers are a response to the victim's unspoken request to return to life as it was before the disaster. Victims and rescue workers may, in fact, share this unspoken feeling.

The NCPTSD (2002) state that in addition to behavioural and emotional problems, emergency personnel face dangers of death and physical injury, the potential loss of their coworkers and friends, and devastating effects on their communities. Palmer (1983) states that on many occasions the death is not a clean and sterile occurrence but is witnessed and/or participated in under the most trying physical and emotional conditions.

The NCPTSD (2002) states that most rescue personnel and medical personnel only experience mild, normal stress reactions, and disaster experiences may even promote personal growth and strengthen relationships. However, as many as one out of every three rescue workers expediencies severe stress symptoms, which may lead to lasting PTSD, anxiety or depression.

2.3.4 Anxiety

We tend to use the term " anxiety" without examining its meaning too closely. We use it for other people even when they deny acting anxiously. We sometimes use it to explain our own behavior after it had occurred. Specialists who study the workings of the human mind generally describe anxiety as a fear due to stress. The stress may be emotional in nature, as when a person is distressed about a death in the family. The stress might be related to physical problems, such as an injury or serious disease, or it may be chemically induced, as when someone is affected by hormonal changes. Any kind of stress can create a state of anxiety (Sadock & Sadock, 2003). In its simplest and mildest form, anxiety is a physical and emotional expression, but the source of these feelings is what sets them apart.

According to Sadock and Sadock (2003), anxiety is an alerting signal, it warns of impending danger and enables a person to take measures to deal with a threat. It is a response to a threat that is unknown, internal, vague and conflictual. It involves anticipation of a negative situation. Fear on the other hand, is a response to a known, external, definite or non-conflictual threat. Nardo (1982) states that if the feeling of apprehension remains after its cause is known it is then referred to as worry. Sadock and Sadock (2003) further assert that whether an event is perceived as stressful depends on the nature of the event and on the person's resources, psychological defenses and coping mechanisms. All involve the ego, a collective abstraction for the process by which a person perceives, thinks and acts on external events or internal drives. A person whose ego is functioning properly is in adaptive balance with both external and internal worlds, if the ego is not functioning properly and resulting imbalance continues long enough, the person experiences chronic anxiety.

2.3.4.1 Symptoms of anxiety

The experience of anxiety has two components: the awareness of the physiological sensations (such as palpitations, sweating, restlessness, dizziness, tremors, upset stomach, numbness, nervousness, feelings of choking, trembling, shakiness, fainting, difficulty breathing etc)) and the awareness of being nervous or frightened. A feeling of shame may increase anxiety- "others will recognize that I am frightened". Many people

are astonished to find out that others are not aware of their anxiety, or if they are, do not appreciate its intensity. In addition to motor and visceral anxiety it affects thinking, perception, and learning. It tends to produce confusion and distortions of perception, not only of time and space but also of perceptions and the meanings of events. According to Hodgkinson and Stewart (1991) and NCPTSD (2002) emergency personnel suffer from physical symptoms such as increased heart rate, shortness of breath, nausea, diarrhea, chest pains and sweating during rescue and recovery operations.

2.3.5 Post Traumatic Stress Disorder

Hodgkinson and Stewart (1991) assert that stress reactions to traumatic incidents, complex as they are, can be understood essentially as the reactions of normal human beings to sudden, unexpected and terrifying events in their lives. Essentially, people are left feeling uncertain about a world that has now become unpredictable, in which the fabric of everyday existence has been torn away to reveal hazard, danger and the risk. Even in the case of combat reactions, the reality of war and killing is quite unexpected to the individual who encounters it for the first time. For the disaster victim, the encounter inevitably involves a loss of innocence. Disasters can turn the most ordinary of human experiences into a nightmare.

The concept of PTSD grew out of work in many different fields of traumatic stress, whether with victims of mass or personal disaster war veterans, holocaust survivors, victims of the atom bomb, hostage taking or armed robbery. It was first described in the 3rd edition of the Diagnostic Statistical Manual published in 1980 and subsequently revised in 1987. The notion of PTSD described nothing new, but it represented an attempt to provide strict and standard criteria, to identify when a normal reaction to trauma becomes "abnormal", and to allow comparison between groups of people experiencing different stressors (Hodgkinson and Stewart, 1991).

2.3.5.1 The DSM-1V –TR criteria for PTSD

A. The person has been exposed to a traumatic event in which both of the following were present:

1) The person experienced, witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or other.
2) The person's response involved intense fear, helplessness or horror.

B. The traumatic event is persistently experienced in one (or more) of the following ways:

1) recurrent and intrusive distressing recollections of the event, including images, thoughts or perception
2) recurrent and intrusive distressing dreams
3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations and dissociative flashback episodes, that occur on awakening or when intoxicated
4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before trauma), as indicated by three (or more) of the following:

1) efforts to avoid thoughts, feelings or conversations associated with the trauma
2) efforts to avoid activities, places or people that arouse recollections of the trauma
3) inability to recall an important aspect of the trauma
4) markedly diminished interest or participation in significant activities
5) feeling of detachment or estrangement from others
6) restricted range of affect (e.g., unable to have loving feelings)
7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children or a normal life span)

D. Persistent symptoms of increased arousal (not present before trauma), as indicated by two (or more) of the following:

1) difficulty falling or staying asleep
2) irritability or outburst of anger
3) difficulty concentration
4) hyper vigilance
5) exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B< C and D) for more than one month
F. The disturbance causes clinically significant impairment in social, occupational or other important areas of functioning.

2.3.5.2 Course and prognosis

Sadock and Sadock (2003) state that PTSD usually develops some time after the trauma. The delay can be as short as 1 week or as long as 30 years. Symptoms can fluctuate overtime and may be most intense during periods of stress.

Disaster workers who were involved in the aftermath of an Avalanche disaster experienced intrusive symptoms immediately after the disaster. About half of the eight workers acknowledged avoiding thoughts about the event. Women experienced more symptoms than men, all reported that feelings had first hit them when they came home, and the operation was over. Anxiety for one's close family was experienced by 60% of workers with one worker developing a habit of entering his daughter's bedroom to check if she was OK and if she slept well. This occurred for a while following the disaster (Hodgkinson & Stewart, 1991).

Sadock and Sadock (2003) maintain that about 30% of patients recover completely untreated, 40% continue to have mild symptoms, 20% continue to have moderate symptoms and 10% remain unchanged or become worse. After 1 year, about 50 of patients will recover. A good prognosis is predicted by rapid onset of the symptoms, short duration of the symptoms (less than 6 months), good premorbid functioning, strong support and absence of other psychiatric, medical or substance-related disorder or other risk factors.

2.3.6 Depression

Depression is the most common mental health problem in the general population and has a higher prevalence in women and older people. It refers exclusively to a lasting state of passivity. It manifests itself in a state of low spirit, which lasts for several days and makes it difficult for the depressed person to carry on his normal everyday activities

(Freden, 1982). According to Edelman and Mandle (1990), each day approximately one person in seven experiences some form of depression. Most commonly, depression is a reaction to one of two general kinds of life events: the loss of status in the group, or the loss of love, companionship and group belonging. Thus, people become depressed and feel worthless and defeated when they receive criticism and experience failure at a task they wanted very much to accomplish. One of the characteristics of depression is that it can intensify itself, thus creating what is called the depressive cycle.

One of the worrisome aspects of depression is that a severely depressed person may become so dejected that the only relief thought possible is suicide. Most of the time, people consider suicide because they feel overwhelmed by some unhappy life situation, and they believe suicide to be their only remaining option in dealing with their extreme distress. According to Sadock and Sadock (2003) about two thirds of all depressed patients contemplate suicide, and 10 to 15% commit suicide. Those recently hospitalized with suicide attempt or suicidal ideations have a higher lifetime risk of successful suicide than those never hospitalized. Some depressed patients sometimes seem unaware of their depression and do not complain of a mood disturbance, even though they exhibit withdrawal from family, friends and activities they were previously interested.

2.3.6.1 Prevalence

Gotlieb and Colby (1990) state that of all the psychiatric symptoms, depression is by far the most common, accounting for 75% of all hospitalizations. It has been estimated that each year more than 100 million people in the world develop clinically recognizable depression, which has prevalence ten times greater than that of schizophrenia. Furthermore, the World Health Organization (WHO, 1946) believes that this number is likely to increase. Lehman (1971) observed that the death rate, from all causes in depressed females is twice and for depressed males three times the normal rate. The difference in suicide rates is even more impressive.

2.3.6.2 DSM-1V-Criteria for Major Depressive Episode

A. Five (or more) of the following symptoms have been present during the same two week period and represent a change from previous functioning, at least one of the symptoms is either 1) depressed mood or 2) loss of interest or pleasure

1) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g. feels sad or empty) or (observations made by others)
2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly everyday
3) significant weight loss when not dieting or weight gain
4) insomnia or hypersomnia nearly everyday
5) psychomotor agitation or retardation nearly everyday
6) fatigue or loss of energy nearly everyday
7) feelings of worthlessness or excessive or inappropriate guilt nearly everyday
8) diminished ability to think or concentrate, or indecisiveness, nearly everyday
9) recurrent thoughts of death (not fear of dying), recurrent suicidal ideation without a specific plan, or a suicidal attempt or a specific plan for committing suicide

B. The symptoms do not met criteria for a mixed episode

C. The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning

D. The symptoms are not due to the direct physiological effects of a substance (e.g. drug abuse, medication), or a general medical condition

E. The symptoms are not better accounted for by bereavement

2.3.6.3 The DSM-1V-Criteria for Major Depressive Disorder, Single Episode

A. Presence of a single major depressive episode
B. The major depressive episode is not better accounted for by schizoaffective disorder and is not superimposed on schizophrenia, schizophreniform disorder, delusional disorder, or psychotic disorder not otherwise specified
C. There has never been a manic episode, a mixed episode, or a hypomanic episode

A study of firefighters who had participated in the Hyatt Regency Skywalk collapse revealed that sadness and depression had been the most common reaction in the period just following the disaster, occurring in 60% with frustration/irritability in 40%, vulnerability in 38%, numbness in 36% and dreams/ nightmares in 35%. Guilt occurred in 24%. It was suggested that the absence of symptoms at 4 months reflected denial and repression, and 60% had infact sought help from family, friends or co-workers. Likewise, in the Granville train disaster, 26% of the rescue workers had depressed feelings and 23% had sleeping problems. Seventy percent had experienced strain and this had lasted for more than a week in half of the group (Hodgkinson & Stewart, 1991).

2.4 Emergency personnel's' strategies for dealing with death and dying

Emergency services are disciplinarians who conceal personal sensitivities: therefore they will not show any disturbance, which may be due to confrontation with the distressing situations they face. Hodgkinson and Stewart (1991) assert that police officers carry with them the myth that they should be able to take anything in their stride. They often distance themselves from the horror of their tasks with humour. New recruits quickly learn from senior officers to bottle up their fears, sorrows and revulsion and to replace these at least publicly with a show of bravado and practical competence.

A participant observation approach revealed that these workers are assisted in their response to death and dying by six principal coping aids: educational desensitization, language alternation, scientific fragmentation, escape into work and rationalization (Coombs & Goldman, 1973; Coombs & Powers, 1975).

Previous research (Coombs & Goldman, 1973; Coombs & Powers, 1975) has revealed the coping mechanisms used by nurses and physicians in their attempts to deal with death and dying. Recent research has demonstrated that emergency personnel employ the same mechanisms (with certain variations) as doctors and nurses.

2.4.1 Use of humour

Humour and comedy may serve as an escape or safety for persons operating in degrading, conflictual or oppressive situations. Emergency personnel joke and laugh about matters that are considered sacred to others. For example, having just delivered a man to the emergency room of a hospital, one emergency personnel said to another, 'You killed him. You know that don't you?' In reply, the other one said, 'Yeah. I guess so'. Just add another one to the list' (both laugh).

2.4.2 Language alteration

Coombs & Goldman (1973) found that 'the frequent use of technical language in referring to death suggested that language operated as another type of coping mechanism. The language of paramedics is composed of a unique and colourful argot surrounding a set of numbered radio codes and terms used for different types of 'runs' or patients. In situations where paramedics are called to the home of someone by a private citizen and the patient is dead upon their arrival, paramedics contact 550, (the call numbers for the Emergency Medical Services (EMS) dispatcher), inform 550 that ' We have a Signal 27 (dead body) at this address', or in some cases just '27'. The EMS dispatcher then contacts Signal 20 (the police department) and the police dispatcher sends a police unit to the address. The police dispatcher then contacts Signal 22, a Justice of the Peace, who must pronounce the person dead and sign a death certificate. Signal 22 may request that the body not be moved until police investigators arrive to complete their investigation. This use of special language involves more than 'signals', in that emergency personnel employ special terms for social situations. Another type of language used by paramedics is medical terminology. Though less verbally profient than physicians, paramedics have absorbed a wealth of medical knowledge and attendant language. They are taught to make primary and secondary 'surveys' or assessments' of patients, but must not (officially) make diagnoses. Therefore, their operational medical verbiage is composed of terminology pertaining mostly to signs and symptoms of the patient that can be relayed to a physician or use in an isomorphic fashion.

2.4.3 Scientific fragmentation and escape into work

Emergency personnel constantly deal with specifics, with the topical, with fragments and with signs and symptoms, bones and lacerations. The patient, as a generic referent, is many times glossed over or ignored. This is demonstrated linguistically such comments by such comments as, 'You remember that MI we brought in the other day? I can't remember his name but ...' or 'Pimpleface is going to be o.k.' Not just linguistically, but procedurally as well, the paramedic does not have time in an emergency situation to respond emotionally or affectionately to the patient. The patient is a machine and some part is broken or needs work to make it go again.

2.4.4 Rationalization

In researching the staff of an Intensive Care Unit, Coombs and Goldman (1973) found that '...death was often rationalized, regarded as a welcome relief from suffering caused by the patient's illness. A typical comment of death was "he's better off that way". This same type of rationalization was found among the emergency personnel-but there are other, rather unique, twists to the rationalization of death among emergency workers. Due to 'rescuer' or miracle-worker role of emergency personnel, they justify their work (and rationalize the death they see) by claiming that if it were not for them, with their average response time, numerous people would stand no chance at all of surviving. After all, many persons are close to clinical death when they arrive. The ambulance contains advanced life support equipment and paramedics with the skills to use this equipment. Without this combination, numerous persons would be doomed. Therefore, even a person who eventually succumbs would have had zero probability of survival had it not been for them. Thinking along these lines makes it easier to 'concentrate on the ones we save and blow the others off. They'd had it anyway'. This does not mean that paramedics are uncaring. There appears to exist, however, a sliding scale of care and concern for patients with different characteristics. All said that seeing a young child injured or sick really 'gets to them'. The innocence of the young apparently strikes a responsive chord in most helping professional.

In the case of firefighters and ambulance workers, responses in Du Toit's (1997) study indicated that the member's most important form of support for managing stress is the

buddy system. The fact that members tend to rely heavily on their buddies for support explains why they tend to become extremely upset when shifts are altered and buddies are separated. Buddies spend a considerable amount of time together, they share common experiences, and become like members of one family. While the tremendous amount of support offered in this way should not be underestimated, it should be pointed out that such strong buddy system could become destructive as well. When participants in such a system are traumatized and experience high levels of stress they can offer no constructive support to each other. The result is that their symptoms become contagious and ultimately a whole shift can be affected. The buddy system can also cause considerable damage if buddies spread information, which members who experience problems have told them in confidence or start joking members seeking professional help. However, the buddy system is still the strongest form of support available in the emergency services to deal with stress.

2. 5 Crisis intervention

Given the complexity of emergency management, a comprehensive, multi-component, multi-discipline intervention is required. The world's most widely used crisis intervention system is the Critical Incident Stress Management (CISM) model of Mitchell and Everly (1998). This model effectively addresses the many facets that must be included in an intervention aimed at ensuring the safety and health of disaster workers. The US Occupational Safety and Health Administration (OSHA, 1996) recommend that multi-component crisis intervention programs be established in health care institutions, social services, agencies, and even in convenient stores. CISM intervention strategies range from the pre-crisis phase through the acute phase, and into the post-crisis phase. They may be applied to individuals, small functional groups, large groups, organization and communities. CISM has been adopted by diverse organizations in a variety of workplace settings e.g. secret services, the FBI, airline pilots, airforce etc (Kowalski and Vaught, 2001).

Duckworth and Charlesworth (1988) identified major problems that are common among personnel and recommended a number of factors that might be taken into consideration for managing the human side of a disaster. In particular, they suggest that there should

be post-incident, hoc debriefings by supervisory personnel. In addition, professional help should be available for those officers who feel that they need it.

2.5.1 Critical incident stress debriefing with emergency service personnel

Psychological debriefing or critical incident stress debriefing was a procedure that gained great impetus from work done with emergency service personnel. It is a form of crisis intervention used with groups of people who have experienced a stressful or tragic event together. The overall aim of a group debriefing is to minimize the occurrence of unnecessary psychological suffering and it includes the following:

a) The ventilation of impressions, reactions and feelings
b) The promotion of cognitive organization, through clear understanding of both events and reactions
c) Decrease in individual and group tension
d) Decrease in the sense of uniqueness or abnormality of reaction
e) Mobilization of resources within and outside the group, increasing group support, solidarity and cohesiveness
f) Preparation for experiences, symptoms or reactions which may arise
g) Identification of avenues of further assistance if required

Those who carry out debriefings should be clear that they are just that-they are not 'counseling' or certainly not therapy groups in a traditional sense. They are not 'curative' either. They are an attempt to minimize the likelihood that psychological reactions will assume highly disruptive proportions. They cannot prevent reactions from arising, but provide a framework for the individual for containing them, understanding them and taking further action. They are, therefore, a method of crisis intervention, a preventative measure (Hodgkinson & Stewart, 1991).

Most casualty situations are infrequent occurrences, and the emergency services face stressful situations as a matter of course. A critical incident is defined as " any situation faced by emergency service personnel that causes them to experience unusually strong emotional reactions which have the potential to interfere with their ability to function at

the scene or later". Examples might include the death or serious injury of a fellow worker, or a prolonged rescue effort leading to a negative result.

Intervention stages that can be added to the process of formal debriefing and follow-up are on scene debriefing and initial defusing (Hodgkinson & Stewart, 1991).

2.5.1.1On-scene debriefing

On-scene debriefing aims at identifying acute reactions which develop during the incident itself and which may impair the individual's ability to continue working effectively. The person who does this may be a mental health professional who is familiar with emergency work, or an officer not involved with line-management of the scene. A process of "gearing down" is helpful; where stressed individuals may be moved from the center of the incident to the periphery, and if appropriate, be allowed time to rest. During this process some ventilation of feelings and reactions can be achieved.

2.5.1.2 Initial defusing

The initial defusing is performed within a few hours of the incident. Again, it may be led by a mental health professional, but more frequently by a commander. It can be quite spontaneous as those who had been involved.....gather around after cleaning equipment and preparing their units for the next call. The aim of the initial defusing is to create a supportive and positive atmosphere. Destructive criticism has the potential to develop and this must be blocked, with none being criticized for how they perform or how they feel. Acceptance should be encouraged, and excessive sick humour contained. Although such meetings can arise spontaneously, it is probably best that they become an accepted part of routine, and that everyone's attendance be mandatory. About one hour is usually enough to go through the process. During this time, the team members and leaders should check on each other's well being and provide support and friendship to those who seem to be hardest hit by the incident. This process can be followed by the formal debriefing described earlier.

Ivancevich (1985) suggests that an organization which is liability wary should develop a stress diagnostic system and a stress audit, especially in situations where stress can

never be eliminated. Such diagnosis can occur prior to the disaster as the organization monitors those situations and incidents that result in obvious indicators of possible psychological injury e.g., chronic illness, changes in turnover, absenteeism, performance and the state of union-management relations. The diagnosis and identification of potential job stressors and their manifestations increases the administrative awareness and sensitivity to worker concerns, in addition to providing valuable insight. Ivancevich (1985) further state that once stress diagnosis and legal determinations of potential liability have defined problem areas, top-level management must become involved in planning for amelioration. Administration must play a leading role in instituting corrective and preventive programmes, as the responsibility of management to provide assistance to help workers cope with traumatic stress may be downplayed and programmes developed underutilized. Predisaster stress management serves as a preventative measure rather than an intervention when damage has already occurred.

2.6 Mental health: diversities, possibilities and challenges

The mental health field has historically channeled a considerable proportion of clinical, service, research, training efforts and money toward the study and treatment of mental health disorders with amelioration, restoration and stabilization as the focus of treatment (Department of Health and Human Services (DHHS), 1999). Mental health providers have a well established path centric tradition of advocating on behalf of and treating those challenged with mental disorders, and in particular those who have been disenfranchised from society because of the severity of their mental disorder. Although efforts on behalf of the most severe mentally ill are commendable, a disproportionate emphasis on a very select atypical group inadvertedly reinforces the orientation that mental health problems affect " other " people but not anyone we know personally, and thus contribute toward the discrimination and stigma associated with mental disorders (DHHS, 1999). A heightened emphasis on the science and practice of prevalence is essential to minimize the devastating impact and burdening financial cost to individuals with mental disorders as well as families, communities and societal institutions such as schools and workplaces.

Health can be defined as a state of balance that individuals establish within themselves and with their environment. It is the product of a number of interrelated dimensions

including mental, physical, emotional, social, cultural and spiritual dimensions. Mental health is included within this definition as the ability of people to think, learn, understand and live with their own emotions as well as the reactions of others (Herrman, 2001). The WHO (1946) defines health as " a state of complete physical, mental and social wellbeing and merely the absence of disease or infirmity" This definition takes into consideration not only the condition of one's body but also the state of one's mind. Edlin and Galanty (1988) state that one's mental processes are perhaps the most important influences on one's health, for they determine how one deals with his/her physical and social surroundings, what one's attitudes about life are, and how one interacts with others.

Wolfgang (2001) states that we live in a time of great and increasing burden and distress, caused by the helplessness and the loss of control experienced by many and influenced by social exclusion, identity loss, lack of coherence and meaning, existential emptiness and stress. Mental ill-being, especially through depression, suicide, consequences of aggressive behaviour and destructive lifestyles, has become one of the greatest health care burden economically and, in terms of suffering, affects individuals, families and societies. Suffering, morbidity and premature mortality, especially in countries of societal transition, have increased dramatically due to a cluster of stress and helplessness related conditions, including depression, abuse, violence, suicide, risk-taking behaviour and self-destructive lifestyle including cardiovascular and other psychosomatic conditions.

Today, in many countries of eastern and central Europe, decreasing life expectancy and increasing premature mortality has been a matter of greatest public health concern, in some of these societies, leading to depopulation and, in many countries, to a dramatically increased societal burden. Aggressive, risk-taking, destructive and self-harming behavior can be seen here as one of the main causative factors of premature death, consequent to the helplessness, hopelessness and stress we find in societies of transition, especially in populations at risk: adolescents, elderly, males, singles and rural populations. Hence, a multidisciplinary and multisectoral action and comprehensive research are demanded as well as evidence-based strategies counteracting demoralization and increasing empowerment, self-control and coping ability. In its Health for All policy and taking its role as a "health conscience" to governments and decisions-

makers, the WHO (1946) stresses mental health as a human right, in its health for all policy and takes its role as a "health conscience" to governments and decision-makers. It emphasizes the need for multi-disciplinary and intersectoral partnership and co-operation, for evidence based strategies and for community based approaches close to the individual and his/her social and psychological environment .In its policy paper "Health21", ratified by the governments of Europe, WHO has targeted the reduction of suicide and depression as one of its main goal.

Hermann (2001) mentions that activities that can improve health include prevention and treatment of disease, impairment and disability as well as promotion of health. These are quite different from one another. The promotion of health requires changing health values of individuals, families and societies. Methods of health promotion are different from those used to prevent or treat mental illness, and from those used to rehabilitate people disabled by mental illness.

2.7. Mental health promotion and prevention of mental illness

The WHO (1946) defines health promotion as action and advocacy to address the full range of potentially modifiable determinants of health. These determinants include not only those related to the action of individuals, such as behaviours and lifestyles, but also factors such as income and social status, education, employment and working conditions, access to appropriate health services and the physical environment. A balanced approach to promoting mental health, prevention of mental illness and treating those affected is recommended by experts and governments in a number of countries. However, in most communities the value of mental health and how to promote it are poorly understood. On the other hand, mental illness is stigmatized, and often believed to be untreatable. Prevention of mental illness is regarded as unlikely, and mental health promotion has been hampered by the difficult nature of the proposed action (Herrman, 2001).

Health promotion and prevention are necessarily related and overlapping activities. Because the former is concerned with the determinants of health and the latter focuses on the causes of disease, promotion is sometimes used as an umbrella concept causing also the more specific activities of prevention (Herrman, 2001). According to Magyary

(2002), a mental health promotion model focuses on the enhancement of optimal states of wellness, encompassing an affirmation and appreciation for the positive qualities of life that extend beyond the mere absence of problems, illnesses and disorders.

The National Institute of Mental Health (NIMH, 1994) and the Institute of Medicine (IOM) report and acknowledge that, although the goals of promoting mental health may not be mutually exclusive from the goals of preventing mental disorders, major philosophical and theoretical differences between the two orientations exist and thus generate different intervention approaches based on different processes. Even if one accepts the premise that orientations towards prevention of mental disorder and promoting mental health are different, these processes are highly interrelated and interactive. Both approaches need to be formally, systematically and vigorously included in a well-integrated national prevention agenda on mental health (DHHS, 1999 & National Advisory Mental Health Council (NAMHC), 1998). Herrman (2002) states that promotion is sometimes used as an umbrella concept covering also the more specific activities of prevention, because it is concerned with the determinants of health and prevention focuses on the causes of disease.

When the ultimate goal is to prevent the expression of mental disorders, then prevention is narrowly defined within the constraints of a disease-oriented, problem-focused model. In contrast, a mental health promotion model focuses on the enhancement of optimal states of wellness, encompassing an affirmation and appreciation for positive for the positive qualities of life that extend beyond the mere absence of problems, illnesses, and disorder.

A strong body of evidence identifies personal, social and environmental factors promoting mental health and protecting against ill health. These factors may be clustered conceptually around three themes:

- The development and maintenance of health communities, which then provide a safe and secure environment, good housing and positive education experiences.
- Each person's ability to deal with the social world through skills such as participating, tolerating diversity and mutual responsibility, associated with

positive experiences of early bonding, relationship and feelings of acceptance.

- Each person's ability to deal with thoughts and feelings, the management of life and emotional resilience, associated with physical health, self-esteem, ability to manage conflict and the ability to learn.

The fostering of these individual, social and environmental qualities, and the avoidance of the converse, are objective of mental health and prevention (Herrman, 2002)

Murray and Lopez (1996) state that mental health is recognized as a significant public health issue and has been predicted to be a major contributor to the global burden of disease by 2020. Given this prediction, promotion and prevention programmes therefore take an increasing significance. The theme of the World Health Report (2001) mental health: new understanding and new hope, strongly supports the need for promotion and prevention programmmes. It specifically notes that programmes using the mass media to raise public awareness are effective in informing the public and encouraging the development of more positive attitudes and behaviour.

2.8 The mental health model

The model of mental health promotion is one of both illness prevention and mental health promotion, with special focus on optimizing health, strength, competencies, skills, resources and supplies, towards an ever changing, dynamic balance of optimal harmony and order. This intervention model is based on a continuum, spectrum or spiral view of prevention as suggested by Mrazek and Haggerty (1994) as well as continuing the spectrum to primary, secondary and tertiary promotion (Edwards, 2002).

Tertiary prevention is indicated intervention to prevent problems in living and reduce illness, disability, handicap and human rights abuses in persons at high risk in very disempowering contexts. Examples are lithium carbonate management for persons with bipolar affective disorder or interventions to prevent child sex abuse in a large foster home.

Primary prevention is universal intervention to prevent problems in living and reduce incidence of illness in all persons in all contexts. Examples are safe sex and smoking cessation interventions for the public.

Secondary prevention is selected intervention to prevent problems in living and reduce prevalence of illness, disability and handicap in persons at risk in disempowering contexts. Examples are suspension of medication during pregnancies or the early detection of learning disorders in children.

Tertiary promotion is indicated intervention to improve solutions for living and increase health, strength, skills and human rights for persons of much health potential in very empowering contexts. Examples are further education conferences on caring resources for community leaders and/or creativity skills workshops for professional public health specialist (Edwards, 2002).

Primary promotion is universal intervention to improve solutions of living and increasing incidence of health in all persons in all contexts. Examples are walk/run for life and life skill programmes for the general public.

Secondary promotion is selective intervention to improve solutions for living and increase prevention of health, strength and skills in persons of potential health in empowering contexts. Examples are company worker life style and time management programmes (Edwards, 2002).

2.9 Mutual Aid/Self-help Group Programmes (MASH)

Mutual aid groups have been known for decades all over the world. The number of mutual aid groups has increased over the last 10 years and initiatives related to self help groups are found in practically all parts of western society. It has been claimed that in 10 or 20 years, self-help groups will become the most favourable choice of treatment for many psychological pathologies and non-psychiatric illnesses / life predicament (Goodman & Jacob, 1994; Barlow, Burlingame, Nebeker & Anderson, 2000). Contact with other people, forming friendships, new behavior patterns, increased self-confidence and the acquisition of new knowledge are some of the significant effects emphasized by participants in self-help groups.

The growing population of the empowerment ideology among social scientists has resulted in the development of a number of theoretical approaches and methodologies that may be utilized by health professionals in order to enhance the full human development of disempowered people. Group work provides one important vehicle whereby health professionals may realize this ideal. While the use of groups as a treatment medium is often traditionally viewed as being primarily restricted to practice in mental health, the value of group work among other health disciplines has been increasingly documented. This growing interest in group phenomena may be rationalized by its apparent therapeutic value, the current cost containment measured in health care and the growing need for health care services in community based settings (Stewart and Bhagwanjee, 1999).

2.9.1 Philosophy of self-help group

The term self-help group is often used interchangeable with "support group" and "mutual aid group" in referring to a group of people who share a common problem and who meet to provide mutual assistance. Self-help groups vary greatly in their organizational structure, content, membership composition, group leadership and involvement of professionals. However, they share fundamental therapeutic qualities, such as empathic connection, opportunity for disclosure, shared goals and psychological adjustment for life challenges (Gitterman and Shulman, 1994).

In the research literature, one finds a vast number of definitions of self-help groups ranging from the main characteristics in relation to organizational forms, to group activities and function. Kartz and Bender (1976) were among the first to define self-help groups. They characterize them as" small voluntary group structures that through mutual support aim to complete specific tasks". For the most part, they consist of participants that gather in order to satisfy a common need, help with a handicap or a life problem and to create a desired social or personal change. The initiators and participants in such groups do not feel that their needs are satisfied by existing social institutions (Kartz and Bender, 1976). This definition is applied by WHO and is probably the definition mostoften encountered in literature on self-help groups.

Habermann (1987) suggests that a self-help ideology is sustained by the wish in the individual group members to change their situation; self-help is a counter culture in which

the need to protect one's own resources is the main incentive, and it is an ideology that builds on reciprocity and equality. Richardson and Goodman (1983), on the other hand, define self-help groups as groups of people who feel that they share the same problem and that they have gathered in order to do something about it.

Spicuzza and De Voe (1982) state that mutual aid groups are viewed as an expression of democratic, productive and helpful support systems. Katz and Bender (1976) further describe mutual aid programmes as essential outgrowths of our society which serve as a place where whole individuals can discover and reassess their sense of self, can search for the own personal meaning in society, diminish their feelings of solitude within a group structure and promote social change. Mutual aid groups are portrayed as powerful influences in the lives of individuals with unmet human needs. Specifically, Silverman (1980) defines mutual aid groups as providing people with information on how to deal more effectively with their problems, providing material assistance if needed, and transmitting a feeling of being cared for and supported.

2.9.2 Development of self-help groups

Self-help groups are a modern social phenomenon and reflect a certain time period. They emerged as grassroots movements and alternatives to existing treatments. Such mutual aid groups have their roots in the United States of America (USA) in 1935 with the emergence of Alcohol Anonymous (AA) and later groups like "Schizophrenic Anonymous" and Narcotics Anonymous" (NA). Since then, the number and distribution of mutual aid groups have increased rapidly. No less than 500,000 mutual aid groups are estimated to exist in the USA corresponding to about 18% of the American population having participated in a mutual aid group. In spite of differences, there is sufficient evidence to claim that in terms of numbers and sphere of action, self-help groups have developed continuously in areas that involve existential, health related and social problems experienced by individual populations (Adamsen, Rasmussen & Pedersen, 2001).

Banks (1997) states that mutual aid groups flourished exactly when social trust and strong familial and social bonds were eroding the most, as well as when dependency on the welfare state and the effectiveness and productivity of human services began to come under attack. There appear to be several reasons for this:

Firstly, many mutual aid groups addressed the problems of people who had been attacked by the pathology of the country at large, particularly through addiction.

Secondly, mutual aid groups managed to bring together people who had common problems or common self-interests that could not be better satisfied individually. For example, Alcohol Anonymous (AA) membership begins with the acknowledgement that the individual cannot achieve sobriety alone. It is essential that members of AA learn to pursue sobriety as a collective benefit. In this respect, a mutual aid group is like a sport team or choral society.

Thirdly, the extent of mutual aid organization was attractive, as trust in large procedural government began to wane, voting turnout toll, and the size of government was attacked. Small group members said their associations were big enough so that members felt that they were part of something important, but small enough for an individual to have his/her voice heard (Wuthrow, 1994). Small groups also had the communication appeal of local, informal do-it-yourself solutions to problems and they took a critical attitude towards large institutions run by impersonal rules. Self-help forms emphasized inner strengths and opposed dependency on the formal social system (Banks, 1997).

2.9.3 Professional involvement in self-help groups

Since the beginning of the 1990s documented research findings have indicated that significant professional involvement (nurses, social workers, psychologists etc) is a feature of Scandanavian self-help groups (Adamsen, 1992; 1997; Karlsson, 1997 & Hjendal, 1998). However, it has recently been well documented in sociological empirical research that professionals participate in self-help groups in several other countries (Borkman, 1997; Barlow, 2000; Danen, Mortelmans & VanHove, 2000 & Wituk, Shepherd, Slavich, Warren & Meissen, 2000). A discussion in the British Medical Journal in 1998 between physicians and psychologists about health professional as initiators and leaders in self-help groups, as well as in group therapy within cancer rehabilitations, documents that potential professionals involvement in patients' group formation is a goal in health care politics (Fallowfield, 1995; Watts, 1997; Bottomley & Thomas, 1998).

Across national borders research indicates that there is a tendency toward an increase of professional involvement and that this is at odds with the traditional standard

perceptions and definitions of self-help in which the absence of professionals has been regarded as crucial. Furthermore, it has been documented that in fact self-help groups are strongly connected to and cooperate with hospitals, national organization and other official health care services (White & Madara 2000; Danen et al, 2000).

Self-help groups may be seen as an invitation and a challenge forwarded to professionals in the sense that they are asked to participate in the development of new forms of collective care taking situations at the intersection of traditional public treatment efforts and individual coping strategies of patients (Borkman, 1997). Increased attention, new awareness and knowledge about self-help groups may result in further direct involvement of professionals in group processes (Adamsen et. al, 1992; Diemer and Sternbak, 1992; Barlow et. al, 2000) or prompt professionals to seek inspiration from self-help groups in order to initiate changes in existing institutional treatment practices (Bistline, Sheridan & Winegar, 1991; Adamsen et. al, 1994; Penney 1997). Self-help groups can in this way be a democratic supplement to professional assistance and even contribute to the general questioning of medical practice as suggested by Kelleher (1994). As such, the incorporation of self-help groups into the training and practices of health care professionals cannot be said to have reached its full and ultimate potential (Kurtz, 1990; Kartz, 1993; Carrol, Gray, Chart, Fitch & Greenberg, 2000; Wituk et.al, 2000). In other words, it seems that extensive opportunities exist for professionals who are interested in involvement in self-help group establishment, co-leadership, consultations, referral and administration (Gottlieb, 1982,; Goodman & Jacobs ,1994; Barlow et.al 2000).

In the study of Adamsen et.al (1992), 84% of the participants requested professional involvement. *Some wanted the professional participant to be part of the entire group* process, while others found it appropriate that the professional was only loosely affiliated with the group and that he/she functioned as a consultant.

2.9.4 Individual and social benefits of mutual aid group

In the past few decades, researchers have made significant advances in understanding how and why people are affected by involvement in pure mutual aid/self-help groups and *in treatment programmes that try to combine professional and mutual aid approaches.* Although this body of research has varied widely in quality, it has thus far consistently

supported the perception of grassroots members that mutual aid group have important benefits for both members and society (Humpreys, 1997).

Yalom's factors in support groups

Members of Alcoholics Anonymous, Parent-to-parent etc, responding to a survey, regarded three of Yalom's factors: group cohesiveness, instillation of hope and universality as those most helpful to them (Heil, 1992). Liewelyn and Haslett (1986) found that members of the group for people with depression reported cohesiveness as the most helpful factor in the group. They also reported that universality was experienced as the most helpful factor by members of a group for widows. A study of members in a computer-mediated support group found that instillation of hope; group cohesion and universality were the most helpful factors. Catharsis and altruism were less frequently identified as helpful (Weinburg, Uken, Schale & Adamek, 1995). Group climate studies reveal that cohesiveness is higher in support groups than in other types of groups, including psychotherapy groups (Moore, Finney & Maude-Griffin, 1993).

The following factors were identified as beneficial to groups:

- Giving support: Support is the primary purpose of a support group and is the benefit most often mentioned by members when asked what they received from their group. Studies present combinations of words and silent attention, personal disclosure and empathy. Support groups enlarge the social network of members (Kurtz, 1994; Toseland, Rossiler, Peak & Smith, 1990). Gottlieb (1982) defines support in support groups as encompassing the learning of coping strategies, having a sense of communication, coping with public attitudes, getting self-confidence and meeting others with similar problems.

- Conveying a sense of belonging: Members mentioned that joining the group is an exercise in affiliation. Group participation offers opportunity for gaining a sense of belonging. Studies of GROW, a group for persons with serious mental illness, reveal that GROW is more than just a self-help group, it offers an entire social network and interdependent collective that values communication over autonomy (Salem, Seidman & Rappaport, 1988).

- Imparting information: Research on helping factors in support groups shows that information is another more important factor (Abramouwitz & Kurtz, 1988). Support groups too often rely on professional information brought to the group by the outside experts. Levy (1979) noted that information comes to members in two ways: as part of the formal meeting and in informal socialization after the meeting. Support groups enlarge the social network of members.

- Teaching coping methods: Drawing on both expertise and experience, group members develop new methods for coping with their situation. For example, when asked how they had learned to handle problems, interviewees in an AA group described learning to detach (Kurtz, 1994). They gave the term a particular meaning, a behaviour that involved letting go of the situation and not trying to control either the person or the course of that person's illness. Learning to cope in new ways is transmitted through exchange with persons who have learned to use these methods through experience and practice.

- Experience of commonality: One of major reasons for having people get together in a group is that they will frequently discover that they are not alone-that other people have thoughts and feelings similar to theirs. Yalom (1985) uses the term universality instead of commonality when he discusses the value of people getting together. The *feeling of commonality is helpful and therapeutic to most individuals and cannot* develop in individual counseling. Many people carry around fears they believe to be unique to them. As group members grow comfortable with one another and begin to take risks in sharing personal concerns, thoughts and feelings, they are often amazed that others in the group have similar concerns. This provides a sense of "we-ness" that is greatly assuring.

- Other factors that are mentioned are: promotion of self-autonomy, reduction of social isolation and real life approximation (Jacob, Harvill and Masson, 1998).

Self-help is primarily seen as a social rather than a medical phenomenon. In this perspective, self-help groups can be interpreted primarily as a progressive social movement promoting social change (Emerick, 1996). According to Borkman (1990) self-help groups can be seen either as instrumental self help social movements that promote change in individual sufferers, or as expressive social movements that promote

emotional support for the individual regarding community values and a sense of belonging. Borkman (1990) concludes that self-helpers themselves seem uninterested in identifying with larger self-help group movements. As for identifying self help groups as social movements, Katz and Bender (1990) conclude that the majority of groups simply lack the unifying goals, culture and symbolism with respect to their ideology, goals, internal structure, functions and procedures to be a social movement .

2.9.5 Mutual aid groups as alternative and supplementary network formation

Hatch and Kickbusch (1983) argue that the primary role of a self-help/mutual aid group is to act as a framework for social networking. Social networks and structure have been undermined and have partly collapsed in highly industrialized societies. By implication, the possibilities for social learning in relation to certain states of health, self-care treatment and knowledge of diseases have been reduced. The new social forms of health care, like self-help, may not necessarily have developed exclusively as a response to the shortcomings of the public medication services. They may also have developed as a creative response from within the social welfare system to the problems that family and friendship network cannot cope with sufficiently. According to Katz and Bender (1987), the increased interest in self-help groups should be seen as an indication of a disintegrating society, but also as a positive and thriving challenge directed at the established forms of networking. In a number of empirical studies, researchers have documented that self-help groups generate new forms of network (Adamsen et al, 1992; Diemer & Stenback, 1992). The networking function of self-help groups is particularly pronounced in groups that include handicapped people, people with a chronic disease and people suffering from aids. Here networking is of major importance because such citizen groups feel de-territorialized and marginalized from the social lives of which they used to be part (Adamsen et al, 2001).

2.10 Résumé

This chapter reviewed literature in relation to the present study. The next chapter will present the research methodology that was used in this study.

3. CHAPTER THREE: METHODOLOGY

3.1 Introduction

The main aim of this study was to elicit the experiences and needs of emergency personnel as well as form and evaluate an ongoing mutual aid group in order to prevent symptoms of trauma with specific reference to anxiety and depression and promote wellbeing. This chapter serves as a layout of all the procedures that were followed to accomplish this aim.

3.2. Sampling

The researcher called for volunteers to join the group. An announcement was made at both the Paramedics and Firefighter's stations in Stanger. Ten members initially volunteered to join the group but three dropped out because they moved to other stations and others had to attend a course that was scheduled for three months. The group therefore continued with seven members who committed themselves to be available for most of the sessions. The subjects were informed as to the nature of the study (Appendix A). They were assured of complete confidentiality and were urged to be as honest as possible. The group ran for a contracted period of eight weeks. Members met once a week.

3.3 Psychological techniques

3.3.1 Biographical Inventory

The biographical inventory was utilized to obtain the following information from each participant (Appendix B).

- identifying details
- age and gender
- marital and occupational status
- job title

3.3.2 Needs analysis questionnaire

The needs analysis questionnaire was designed to elicit information concerning the members' grievances, special needs, experiences, concerns, expectations, frustrations and possible suggestions. The questionnaire was designed to ensure that the program addressed the genuine needs of the present group (Appendix C).

3.3.3 Beck's Depression Inventory (BDI)

Depression is probably the most common psychological condition manifesting in clinical settings and in the general population. According to the American Psychological Association (APA, 1994), the lifetime risk for a major depressive disorder has been cited *between 10% and 25% for women and between 5% and 12% for men.*

BDI is used to measure the presence and the intensity of depression (Appendix D). It consists of 21 items, each concerned with a particular aspect of the experience and symptomatology of depression:

1. mood
2. pessimism
3. sense of failure
4. self dissatisfaction
5. guilt feelings
6. punishment
7. disappointment
8. self-blame
9. self punishment
10. crying fits
11. irritation
12. withdrawal
13. indecisiveness
14. body image
15. work performance
16. sleep disturbance

17. lethargy
18. *appetite*
19. weight
20. somatic complaints
21. libido

Each item on the BDI contains four statements of graded severity expressing how a person might feel or think about the aspect of depression under consideration. The statements carry scores ranging from 3 for most severe to 0 for the absence of problem in that area. The higher the overall score, the more depressed is the patient. This format gives a symptom profile at a glance. However, this advantage can be of little value when used with a depressed patient who denies or is unaware of his distress.

Depression scores can be interpreted as follows:

Total score	Level of depression
1-10	these ups and downs are considered normal
11-16	mild mood disturbance
17-20	borderline clinical depression
21-30	moderate depression
31-40	severe depression
over 40	extreme depression

The maximum score on BDI is thus 63 and the minimum is 0. This quest has the advantage of being economical and is not subjective to the prejudice of the tests (Beck, & Ward, 1961;Beck & Beamesderter, 1974). The BDI has been found to be valid in South African conditions (Brende, 1985; Lyell, 1995 & Beuster, 1981). It is therefore accepted that for the purpose of this study, the scale has an acceptable validity for research.

The subjects in this study were pre-tested and post-tested on the Beck's Depression Inventory for self-report. This 21-item inventory yields scores ranging from 0 to 63 and cut-off scores indicating the severity of depression.

3.3.4 Beck's Anxiety Inventory

Anxiety is one of the most common psychological manifestations in the general population and is mostly exacerbated by life stress. A recent South African investigation found that 22% of a community sample showed anxiety symptoms suggestive of psychological distress, with anxiety being positively correlated with age and negatively correlated with education (Pillay & Sargent, 1999).

The subjects were pre-tested and post-tested on the Beck's Anxiety Inventory for self-report (Appendix E). The Beck's Anxiety Inventory has acceptable psychometric properties and has been used with non-clinical samples (Dent & Salkovskis, 1986; Lovibond & Lovibond, 1995). The BDI is used to measure the presence and the intensity of anxiety. It consists of 21 items, each concerned with a particular aspect of the experience and symptomatology of anxiety (Beck et al, 1961) it yields a total score ranging between 0 and 63, with higher scores indicating great anxiety.

These items are as follows:

1. numbness
2. feeling hot
3. wobbliness
4. relaxation
5. fear
6. dizziness
7. heart pounding
8. unsteadiness
9. terror
10. nervousness
11. feelings of choking
12. trembling
13. shakiness
14. fear of losing control
15. difficulty breathing
16. fear of dying

17. scare
18. *indigestion*
19. fainting
20. flushing face
21. sweating

The test developers provide cut-off scores for different levels of anxiety, namely," minimal", "mild", "moderate" and "severe". The researcher limited this investigation to examining the number of subjective scoring of or above the cut-off 26, denoting "severe" anxiety, since this inventory has not been standardized in South Africa.

3.3.5 Psychological Wellness Questionnaire

Psychological well-being is influenced by personal, interpersonal and environmental factors, and, invariably, by changes within the context of life stages and developmental tasks. Helson and Srivastava (2001) state that psychological well-being develops through a combination of emotional regulation, personality characteristics, identity and life experiences. It also increases with age, education, extraversion and consciousness, and decreases through neuroticism (Keyes, Shmotkin & Ryff, 2002). Edwards, Ngcobo and Pillay (2004) in their study of black university students in South Africa, reported that there were lower levels of psychological well-being than US subjects. Social and political factors were implicated as contributing to these differences.

A psychological wellness questionnaire was designed to measure the subject's attitude and perceptions on the basis of their relationship with the general construct of mental health and/or psychological well-being (Appendix F). The subjects were pre-tested and post-tested on this variable. The questionnaire consisted of 18 items, which were selected on the basis of their attitudes and perceptions towards their psychological well-being. These items represent the following categories:

A : autonomy
Pg : personal growth
Em : environmental mastery
Pl : purpose in life

Pr : positive relations

Sa : self acceptance

Each item contains 6 categories for graded responses that express how a person perceives his/her mental health / psychological well-being as it had been mentioned. They carry scores ranging from 1-6 with 1 indicating/ representing –strongly disagree, 2-disagree somewhat, 3- disagree slightly, 4-agree slightly, 5-agree somewhat, 6-strongly agree.

3.3.6 Meetings and discussions

Group meetings were held where members discussed their experiences and their needs. Group members provided mutual instruction through presenting topics for discussions, which included trauma, anxiety, stress, depression, prevention, promotion, health and wellbeing.

3.3.7 Programme Evaluation Interview Guide

For each psychosocial problem, there are hundreds if not thousands of programs. Some of these programmes work and need to be continued, others are ineffective. If it cannot be demonstrated that certain programmes have any impact on these problems, then further evaluative research should be undertaken to discover why the programmes were not successful. There may be very logical reasons; for example, the programmes could be poorly managed, understood, conceptualized or designed. There are many other reasons.

Programme evaluation is needed whenever interventions are being tried and is not known whether they will be successful as former methods, or when there is a perception that a programme could be improved, that it could become more productive or better in some way. We evaluate on those occasions when it is important to have some objective assessment or feedback about the worth of our social and/ or human service programmes.

This programme was evaluated for the above-mentioned reasons. It was hoped that this intervention would have a positive effect / impact on the participants of the programme. The programme evaluation interview gave the subjects the opportunity to comment on whether the program was helpful or not (Appendix G). An open-ended questionnaire was constructed. It consisted of items related to the overall impact of the programme. They were also required to give their suggestions with regards to how the programme could be improved.

3.3.8 The social action model

According to Whyte (1991), Participatory Action Research (PAR) means that people in the organization or community under study "participate actively with the professional researcher throughout the research process, from the initial design to the final presentation of the results and discussion of their action implication. PAR therefore differs significantly from the conventional model of research in which the persons being studied are generally studied as passive subjects. Simonson and Bushaw (1993) also define PAR as an applied research method that developed in contrast to the "professional expert model".

Narayan (1996) states that the participatory approach identifies and involves all these persons, agencies and organizations with substantial stake as an issue. A central goal of the process is to involve people as active creators of information and knowledge. This is done not only because it results in the inclusion of different and important interests, needs and perspectives, but because it also increases the chances of the findings being put to use. It seeks to raise people's awareness and capacity by equipping them with new skills to analyze and solve problems. This is achieved by involving people in the development of every step of the research process rather than by having them follow predetermined research methods imposed from outside.

Chesler (1991) discusses the particular relevance of the PAR approach to research in the self-help movement. According to Chesler, the tenets of PAR are very consistent with the ideology and philosophy of self-help groups. Those characteristics include: participative membership, localist and grass roots orientation, and on interest respect with respect to experienced- based knowledge.

Participatory research embodies an approach to data collection that is two- directional (both from the researcher to the subject, and from subject to researcher). The process itself is dynamic, demand-based and change-oriented. A central goal is to involve people as active creators of information and knowledge. This is done not only because it results in the inclusion of different and important interests, needs and perspectives, but because it also increases the chances of the findings being put to use. The distinction between the roles of the external researchers and the 'subjects' – the people being studied- should become less pronounced. External experts and professionals interact with common members of a project agency primarily as facilitators.

3.3.8.1 Characteristics

PAR process involves collaborative problem solving through the generation and use of knowledge. It is a process that builds local capacity by involving users in decision making for actions.

The end objective of participatory is pragmatic to solve problems. Hence its methods and techniques are not bound by the protocols and conventions of particular academic disciplines. Depending on the nature and timing of the study during the life cycle of a programme, it may be possible to combine elements of a participatory approach with those of a traditional approach. Whatever degree of participation may be achieved in a particular context, participatory research has certain characteristics that distinguish it from other research. According to Narayan (1996) these characteristics include the following:

Process

The process of undertaking participatory research is more important than the output per se or the methods used. This process is characterized by collaboration between different levels of users, participants or interest groups, those influenced by the decisions made in a programme. It includes project 'beneficiaries' as well as programme/project staff and funders. Because no one should be forced to collaborate or participate, people are often self-selected or self-defined by continuing to choose to participate in the research

decision-making process. Any research process has to make decisions about data collection methods. In the PAR process, the key is how the decisions are made, rather than what decisions are made or what specific methods are used. No particular method is by definition excluded or considered better than others. The adequacy of a method depends on the context. However, there is usually a preference for short-cut methods to conventional approaches.

Collaboration

Participatory research involves shared decision-making, which also implies shared control and power among participants, clients and potential users. Without noticeable degrees of collaboration with users during the research phases, research cannot be considered participatory. Asking people to fill out questionnaires or to participate in answering questions posed by an outside interviewer does not qualify as PAR. Involvement of decision making in the research process increases ownership of the results, their credibility and probability of their use.

Problem-solving

The purpose of PAR is to contribute toward understanding of a problem, thereby leading to action and problem resolution. PAR is not an end in itself but a means to problem solving (Rogers & Palmer-Erbs, 1994). This focus on problem solving ensures that research yields data that are relevant to decision makers and hence have a greater likehood of being utilized.

Knowledge generation

Generating information in the age of computers is easy, but it is difficult to transform information into knowledge that is relevant to people's actual situation and needs. When community members and agency staff are involved in the research process-from identifying the issues to be studied to interpreting and disseminating results- the process of engagement results in learning. This learning, in turn, can lead to changes in people's 'cognitive maps', and consequently to new ways of understanding a situation and how to effectively act to improve upon it.

3.4 Data analysis

The SPSS statistical programme was used to analyze data.

3.5 Résumé

The study elicited the experiences and needs of emergency personnel. These were discussed in group sessions. The procedures include the questionnaires that were used for pre and post-testing.

The next chapter deals with the presentation and analysis of data.

4. CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

In this chapter, the themes that emerged from the meetings with the emergency personnel are presented, analyzed and discussed.

4.2 *Presentation of data*

Data is presented in tabular form and for clarity a brief explanation follows each table.

4.2.1 Biographical information

Ages	**n**	**%**
18-25	3	42.9
25-35	3	42.9
35 & over	1	14.3

The table shows that all participants were above the age of 18 years. This shows that older and mature people are dedicated do this job.

Employment status	**n**	**%**
Permanent	4	57.1
Temporary	3	42.9

Usually most of the emergency personnel work on a full time basis, although there are little differences in this sample. There are few who work on a temporary basis, most of whom are volunteers who hold other jobs.

Job title	**n**	**%**
Paramedic	2	28.6
Firefighters	5	71.1

The table shows that only two paramedics were available for the group. Initially there were four. One got injured while in the line of duty and had to be treated and the other one was placed in another station.

Gender	**n**	**%**
Males	7	100%

The table shows that all the participants were males. Rescuing people has been traditionally perceived as a job that needs more emotionally controlled and physically strong people. The gender that qualifies for that stereotypic misconception is males. Women are regarded as weak, both emotionally and physically. This is why there are still discrepancies in the male: female ratio in jobs such as this one.

Marital status	**n**	**%**
Married	3	42.9
Single	4	57.1

The table shows a slight difference in marital status. It has been postulated that most emergency personnel are single because of the type of job they do which leaves no room for commitment.

4.3 Quantitative analysis of data and results

Table 1. Pre- and post-test means and 't' statistics for psychological components

Psychological Measure	Pre test	Post test	*t* statistic	Significance
Anxiety	18.9	6.6	3.96	.007
Depression	9.9	4.4	2.53	.045
Well-being	86.7	92.0	3.37	.015

From inspection of table 1, pre and posttest mean scores and '*t*' statistics it is clear that the mutual aid programme intervention for emergency personnel was associated with significant decreases in anxiety (t=3.96, p=. 007), depression (t=2.53, p=. 045) and improvements in psychological well-being (*t*=3.37, p=. 015).

4.4 Qualitative analysis of data

4.4.1 Findings from discussions

During the discussion participants mentioned different cases they deal with. Paramedics who are medical personnel handle the following cases:

- The old and the frail
- Children/ pediatrics/ neonates
- The pregnant
- The suicidal
- Mentally/physically handicapped
- The injured

Firefighters are mostly involved with:

- Protecting property and people from fire

- Saving lives in emergency situation such as the injured, who may be trapped in or under motor vehicles, airplanes, trains or down the holes.

Expectations

A few expectations were mentioned such as:

- *One has to be an excellent driver*
- Rescue trained
- One must be able to use a cell pphone/ radio while on an emergency call
- Physically/mentally fit for different terrain rescue
- Intellectually/ theoretically/ practically equipped
- One must be able to work without supervision
- Be a good example to his/her inferiors
- Have good communication skills
- Be brave and invulnerable
- Other qualities such as courage, patience, sense of discipline, initiative and observant were also mentioned.

A variety of difficulties emerged from participant's responses when they shared their experiences. Most of the participants agreed that their job was challenging. They stated that it involved rescuing people from plane/ car crashes. This might also involve burning vehicles, houses or airplanes and they considered this as most distressing. This was because it involves physical contact with decapitated and burnt bodies, which they have to remove. They identified fire disasters as most distressing as it became difficult for them to save people fast as they had to extinguish the fire first before attending to the victims, which it might be too late to save. They were also in great danger because they might get injured, so it put a lot of risk to their lives. Victims might get burned in such a way that it would be difficult for their relatives to recognize them.

They listed rescue work that involved saving children and seeing their lifeless bodies as also most distressing. This was because they were parents too and identified with victims. They described the train crash that occurred in Stanger in 2002 as the most difficult one as they were dealing with school children who were injured and many of

them died. The other issue they raised as distressing was watching the agony on the relative's faces. One mentioned that it was difficult for them especially when one had to inform a mother, " Sorry your child is dead" or even tell the child that his/her mother is not going to come back. It seemed distressing for them.

Mission failure was also considered stressful. If rescue attempts ended in failure, there could be extreme disappointment and intense feelings of personal failure unworthiness and inadequacy.

Working with patients with minor ailments was considered as less distressing because they only required medical care to make them feel better. Paramedics considered working with known medical cases with previous history as less distressing because they had an idea on how to treat the patients.

They also agreed that working with grass and field fires was less distressing and less difficult because most of the time in these incidents people might not be affected physically. The workers would be dealing with the fire and not trying to save people, which was relieving for them although much damage would be done to property.

They concluded that although they could list rescue services according to levels of distress endured, they considered every situation as requiring emergency care and most of the time it involved people's lives. It did not matter if a case was minor or not. All needed equal treatment.

During the discussions it was observed that the stressors were not only related to patient care but also to management. Lack of communication between personnel and management which made them feel as if the work they did was not appreciated. This feeling was also based on the community. They felt that there was no support, their job was not recognized as important. These feelings would lead to demotivation.

It could be concluded that the participants seemed to understand and were aware of the sources of distress in their job, which made it easy for them to identify the effects of their exposure to traumatic experiences.

During the discussions the participants agreed that their job exposed them to a number of psychological and physical effects. This meant that their exposure to traumatic experiences affected them emotionally as well as physically.

The participants stated that they experienced a number of symptoms before and after rescue operations. These might also impair their performance. They mentioned that when one got to the scene, the sight and smell of mutilated dead bodies, the suffering of the injured, and the anguish in relatives' faces were identified as most stressful.

Physical symptoms that were mentioned were shortness of breath, nausea, faintness or dizziness, tremors, fatigue, back pains, feelings of weakness, appetite change, upset stomach, etc. These symptoms at most occur to the majority of emergency no matter how often a person had experienced such ordeals. One of the participants mentioned that after an accident one might not be able to eat red meat because it would remind one of the bodies he had seen, the sight of which just made one ill. Sometimes they got injured while trying to save peoples lives. This showed commitment to their work and willingness to risk their lives to save other people's lives. They put other people's lives before their own. They mentioned that they had not experienced any death during their line of duty but they were aware that it was a possibility.

They also mentioned a number of psychological effects they experience. Anxiety (both anticipatory, en-route and post-incident), fear, strong identifcation with the victims, anger (with collegues, officers, the media, themselves), shock, blame, sadness, grief, depression, moodiness, restlessness, hopelessness, irritability, frustration, recurrent and traumatic dreams, helplessness, sleep difficulties, detachment, denial and numbness seemed to be common in emergency personnel.

Among the symptoms described, members agreed that the most common and severe symptoms they experienced were irritability, fear, anxiety, anger, guilt, withdrawal, and sadness. Fear of death led to worry about their safety and of others. During operations, as had been mentioned, one's life was at risk as he/she might get injured or die in the process. They did not worry only about their personal safety, but also that of their collegues. They expressed the anxiety or fear that might be met by a relative or family member when they got to the scene of the accident. This fear might awaken memories

of earlier losses; most frequently it stirred anticipatory fears about losses yet to come, notably their relatives, especially their children.

Anger may be directed to self, collegues, friends and relatives. They might be angry with themselves after mission failure. They might feel that they did not work as hard to save the victims as they should have done more. This revealed how much pressure they put to themselves. This might be because they would perceive themselves as failures, and also believed that the community perceived them as such in that time. They mentioned how it felt when they could not save all the school children that were involved in the train crash that occurred in 2002. They felt helpless and also angry with themselves. This anger might be redirected to relatives and family members who might not understand the reasons for it.

Irritability was also rated as a most common symptom. It showed itself at work and at home. Like anger, one might be irritable and sensitive and might lead to family conflicts that were unnecessary. Sadness, loneliness or withdrawal were also common. One might feel empty, preferred isolation and spent time on his own. When friends or family enquired about this, one might react with anger outburst. One member reported that it was difficult for him to confide or express his feelings to his wife. The reasons were: he did not want to show his vulnerability or weakness. He was taken as the head of the family and showing how scared he was might jeopardize his role within the family. He also mentioned that he felt it unfair to dump all his problems to his family. He needed to take care of them himself and not affected them because he felt that the whole family could end up depressed.

It appeared that the participants were not the only ones who were affected by their job, but family and friends were also affected in one way or the other. The irritability and anger outbursts, which seemed so common, might erode the social support systems when they needed them the most. This did not solve the problem but made it worse.

The other factor that came out was that they did not spend much time with their families. They worked long hours, on holidays and shifts, which meant leaving families at night to go to work. This put a lot of strain on them. They missed spending Christmas or any

other holiday with their families. Children might not understand that dad had to go to work.

Sadness was also reported as common after rescue operations. The participants mentioned that it was painful to observe people struggling to be alive or dying in front of them. One of the participants reported how sad he felt when one of the children who was trapped in the train was screaming and asking them to cut his leg. He mentioned that the pain was unbearable for him and was wondering how it felt for the helpless kid. He also mentioned that one shared the pain with the victim and might end up thinking what would have happened if it were him. He wondered how he would have coped if he had been in the same situation. They grieved for the dead, for their communities and families. One paramedic stated: "with all the adrenaline that runs in a paramedic's life, there is also a fair share of sadness that goes with it, therefore compassion for other people's loss is also paramount".

One thing that was observed during the group meetings was that although their jobs did expose them to emotional and physical effects, they loved what they did and "would not exchange it for anything". Saving people's lives was important to them as it made them feel that they were making a difference. One mentioned that "for some this has been a job with a salary attached to it, to others it's been a lifestyle, but to me, it's my purpose in life to help those in need. So being a best paramedic is the way to fulfill this purpose".

It was apparent that emergency personnel were affected by the job they did. One finding that came out strongly was that they found it difficult to express their feelings because they were perceived by community as strong, invulnerable, resourceful and their saviors. They were simply not supposed to be at risk. From the discussions it appeared that even their training directed them to focus on the job they did rather than to their feelings. They learned to suppress and deny their feeling in order to appear tough. It was apparent that in their job there was no room for mistakes, so they did not have time to feel, they only concentrated on getting everything right. Showing feelings was equated with weakness, which might be interpreted as incompetence.

It appeared from these discussions that the participants were aware that they were not invulnerable, they were human and thus were affected particularly by the pressure

society put on them and they also put to themselves. This group provided them with a safe space for showing their vulnerability without being judged.

Survival strategies

Analysis of themes in the discussions provided interesting information regarding coping and survival strategies. These included suppression of feelings, use of humour, overwork-disengagement, hobbies such as sports, drinking, visits to GPs, and the buddy system. Suppression of feelings was related to their perception that they were not allowed to show invulnerability. It appears that most of the participants had adopted a "nothing scares me anymore attitude" which goes with the belief that "cowboys or tigers do not cry".

During the discussions the participants reported that disengagement from the operation helped them to cope. They did not respond emotionally to the victims otherwise their performance would be affected. One mentioned how easy it was to tend to a family member or friend without realizing it.

They mentioned that socializing helped them dissociate. They spent time with friends having drinks trying to forget what they had been through. They reported that sometimes it helped and sometimes it did not because memories were always there. The buddy system seemed to be helpful to them. They spent time together and supported one another but it was not mentioned, as the most preferred coping strategy.

Humour was also reported as one of coping strategies. It helped them to dissociate.

Learning new coping

Group members shared information on how to cope with their challenges appropriately. This was achieved through the presentation of different topics such as depression, anxiety, post -traumatic stress disorder, psychological well-being, mental health prevention and promotion. The discussions helped to expand their knowledge about mental illness, how to identify when one is emotionally affected and how to deal with it. During the discussions it was observed that most of the participants identified with the

symptoms presented but were not aware what it meant for them. They learned about different kinds of mental illnesses, their causes, symptoms, prevention and treatment.

Coping strategies started with instruction to accept their vulnerability, expression of feelings and seeking help. Accepting vulnerability led to seeking and accepting family support, which further helped the family to understand what went through the person's life. They learned that communication within the family played an important role as it served to reduce family conflicts, misunderstanding and strengthen family ties. They learned about the availability of professional help, which seemed to be problematic for them. They also learned other ways of maintaining a healthy lifestyle such as eating healthy food, exercising and learning to relax.

During the discussions it was concluded that the participants had a variety of needs that did not seem to be met. These were as follows:

They expressed their need of recognition. They felt that they were not only not recognized by their management but also by the state department and were underpaid. They felt that the salary they got was nothing compared to the risks they faced on a daily basis. This was one of the reasons many paramedics opted for the private sector, as the salaries there were better then what the government paid them.

The other need that was mentioned was to be heard by management. They had a need to be involved in decision-making. Miscommunication with management made their job more difficult for them because they did not have any say but were only expected to perform effectively.

They expressed that they did not have any professional help available for them, for example they did not have any permanent psychologist available to help when they needed emotional support. It was noted that there was no debriefing that was offered for them, after a traumatic rescue operation. They were expected to deal with their experiences on their own. This was one of the reasons they suppress their feelings because there was no one to share them with.

They also had a need to be offered danger allowances as other services. They worked under extremely dangerous situations and it was unacceptable that they were no such allowances.

Other needs mentioned were: to be offered the opportunity to study while working, to be paid for all courses passed that are relevant to the emergency environment and that proper vehicles be supplied.

4.5 Evaluation of the program

The program was rated as excellent by 85% of the participants and good by 15% of the participants. They reported that it helped with awareness of the stressors they experienced; the emotional and physical effects related to the stressors, acceptance of their feelings and empowered them with healthy and appropriate ways of dealing with their traumatic experiences.

The programme was reported to have been helpful to the participants. A problem encountered at the beginning occurred when some of the members had to leave the group because they had to attend a course for three months. One could not attend because he was changed to the other station and the one got injured while at work and had to be on treatment. Other problems included the fact that sessions were short (one hour) and there was inconsistency in meeting once a week. The latter problem was encountered because the members worked in shifts, so the meetings were disrupted at some point with members being called during the discussions. The members also did not have enough time to research the topics that were presented because of time constraints.

It could be mentioned that there was a lack of female members. Their involvement would have played an important role regarding their feelings, experiences and how they coped. Females were always considered more expressive than males. The lack of a control group poses a question of whether the observed findings were due to the independent variable (self-help group) other factors.

The group members (100%) recommended that the group be continued with more sessions and a plan would be devised on how to create more time for researching topics. The group also suggested that it would be helpful if individual sessions were also offered for the members who would require more support. They reported that presentations helped to expand their knowledge by sharing with others. It was also suggested that the group should involve more members especially those with many years of experience. Their presence would help the new recruits to learn more about their job and what it entails.

4.6 Résumé

This chapter dealt with the presentation and analysis of themes from the sessions and also the questionnaires. It could be concluded that the study yielded positive results. The subjects learned to identify their sources of stress, their effects, how to prevent them and treat them. They also learned appropriate and healthy ways of dealing with their traumatic experiences. The group provided a safe environment to share experiences and feelings.

5. CHAPTER FIVE

5.1 SUMMARY AND CONCLUSIONS

This chapter concludes the present study on the basis of the literature reviewed, the group that ran for eight sessions, pre-testing and post-testing of the subjects, and the testing of the hypothesis. The main findings are presented in this chapter. Limitations, implications and recommendations are discussed.

The aim of the study was to develop and evaluate a mutual aid group for emergency personnel in order to prevent symptoms of trauma with reference to anxiety and depression and promote psychological well-being.

Chapter two listed different kinds of stressors that were experienced by emergency personnel. These included organizational stress, lack of communication with management; stressors related to patient care, the technology and pressure imposed on them.

Most of the issues were listed in the literature study as sources of stress in emergency personnel; especially psychological and physical problems/effects and their prevention/treatment were supported by the findings of this study. The study confirmed that the mutual aid group was effective in helping the members to come to terms with their experiences.

The academic literature highlighted one main stressor for firefighters and paramedics namely, the nature of their work or stressors relating to patient care. Previous studies found that the emergency personnel were often overwhelmed by the magnitude of the disasters. These findings were confirmed by this study. In fact, stress relating to patient care seemed to be the most significant form of stress in emergency personnel. Their job is challenging, exposes them to traumatic experiences and it involves saving people's lives. It involves such duties as rescuing people from burning houses, vehicles or airplanes or fire. They save people from burning houses, vehicles or planes and this was rated as most distressing as it involves physical contact with the decapitated and burnt bodies. This is challenging and risky for them, as they have to fight the fire, at the same time trying to save victims and protect themselves. It is dangerous for them because they can get injured or die.

Rescue work that involves saving children was identified as most distressing. The literature study highlighted that most of the rescue personnel rank rescue involving children before other operations. This was because they particularly identified with childhood victims. This was confirmed by many of the emergency personnel when they reported that seeing children's lifeless bodies particularly saddened them, especially when they felt that they could not save them.

Facing relatives and watching the sadness, agony and helplessness in their faces was one of the stressors mentioned in the literature. It was mentioned that it was most difficult for emergency personnel when they had to let family members know that they could not save their loved ones. They felt useless and helpless. This was related to mission failure, which was mentioned in chapter two as one of the main stressors. The rescue personnel experienced extreme feelings of disappointment, unworthiness and personal failure when rescue attempts ended in failure. This study confirmed that emergency personnel were particularly distressed by mission failure. The distress was related to the perception that they were invulnerable, strong and heroes. Society and management put much pressure on them. They in turn worked hard to prove their invulnerability to themselves and society. They were supposed to save people and there was no room for failure. The study also highlighted that there were rescue operations that were perceived as less distressing. Although there were such operations, they considered every situation as requiring emergency care, and thus equal treatment.

Organizational stress (such as management style and communication) was highlighted in literature as one of the sources of stress experienced by the emergency services. In other studies, organizational stressors were rated as the most significant source of stress in emergency personnel. In these studies the stress related to patient care was not regarded as important. The reason might be that members perceived themselves as immune to any effects of regular exposure to trauma. However, it could be highlighted that members were affected by their exposure to traumatic experiences and preferred suppressing their feelings. They found expression more painful and avoidance easier.

Other stressors that were mentioned include expectations and pressure that was imposed on rescues workers by their community, management and themselves. These expectations were related to the perception that they were invulnerable, strong

heroes and were not supposed to fail. They themselves interpreted failure as weakness and incompetence.

Chapter two highlighted that emergency personnel experience psychological and physical effects. These findings were confirmed in this study. Literature reported that emergency personnel present with different mental illnesses such as depression, anxiety and PTSD. This was also confirmed in this study. Subjects were pre- tested on these variables. Their scores were significantly high on anxiety and depression.

Symptoms such as irritability, anger, frustration, sleep difficulties, hopelessness, helplessness, fear, were mentioned in the literature as most common in emergency personnel. Emergency personnel in this study presented with these symptoms. The most common were anger towards colleagues, self or sources of disasters, sadness, withdrawal, loneliness, emptiness and isolated feelings. Helplessness was related to mission failure. Fear was related to confrontation with death or death of family members.

It was noted that these experiences did not only affect the emergency personnel, but also their relationships with friends, family and co-workers. The rescue workers redirected their anger and frustration to their loved ones who might not have understood them. This may have caused conflicts within the families and estrangement when they needed them the most. Rescue workers appeared to be distressed by the limited time they spent with their families. This was related to the long hours they worked, the shifts and less leave days.

Literature highlighted that emergency personnel were susceptible to environmental illness or injuries or could even die during the line of duty. Physical symptoms that were noted include, fatigue, difficulty breathing, racing heart, nausea, trembling and startle responses. The high levels of anxiety in the self-report inventory supported these findings.

Needs were highlighted during the discussions. The need for recognition, which was also mentioned in research studies, was noted by the group. They expressed that they were not recognized and neglected by the community, their management and the department for the work they do. They worked hard and put their lives at risk but they were underpaid, received less leave days, nor danger allowances and were not involved in decision-making.

It could be noted that the emergency personnel adopted a "cowboys don't cry" attitude. They suppressed their feelings and concentrated on making everything right. They were dedicated to their jobs and dealt with their agony in their own ways. Research studies highlighted that they applied survival strategies to help them deal with their feelings. These might be the use of humour, rationalization, language alteration, scientific fragmentation or the buddy system. Some of these coping strategies were mentioned in the study. It could also be noted that the buddy system was regarded as the most source of support in emergency personnel. In this study it was not emphasized as the most important one but as one of the many adopted.

One of the most used strategies mentioned was escape into work. They worked hard and focused on helping people. This helped them to disengage. They did not respond emotionally to the victims otherwise their performance would be affected. Socializing with friends and co-workers helped them dissociate. They used drinking as one of the coping mechanisms. They tried to forget their traumatic experiences through alcohol, which was impossible. Humour seemed to be an important strategy they had adopted for survival. Most of the time they suppressed and avoided their feelings. Such suppression and avoidance seemed to be common in emergency personnel. Visits to GP's appeared to be common when they were not feeling well.

From these findings it is apparent that emergency personnel were exposed to traumatic experiences and were affected by these although they might adopt an invulnerable position. This leads us to the definition of health. Health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease. Prevention of mental illness and promotion of mental health play an important role. Literature studies highlighted that there were different strategies that were utilized in order to enhance the full human development in disempowered people. Group work was mentioned as one of these strategies that provided a vehicle whereby this goal may be realized. The results of this study confirmed this report.

Chapter two noted certain benefits of mutual aid groups such as: giving support, conveying a sense of belonging, experience of commonality, reduction of social isolation and promotion of self-autonomy. These findings were confirmed in this study. Members were able to leave their invulnerable, strong and brave attitudes and honestly expressed their feelings about the nature of their job and how it affected

them. It was easy for them to ventilate because they shared similar experiences and felt a sense of belonging. They shared their experiences and their needs. The group provided a safe atmosphere where there were no pressures or expectations placed on them. It provided a non-judgmental attitude which also facilitated free expression and trust within the group.

The group served as a source of information where members shared different topics, learning about different mental illnesses, their causes, prevention and treatment. Topics such as depression, PTSD, anxiety, prevention, trauma, and promotion were discussed. These presentations helped them to be aware of their wellness and they were able to identify certain symptoms. The ability to identify symptoms and acceptance of vulnerability served as important preventive measures, because one could not seek help if one was not aware of one's illness.

The group also provided the members with new strategies for coping with their distress. They realized that they had adopted unhealthy lifestyles in order to survive. The group served as an example. Members learned sharing from their experiences with other people. Family support was emphasized. It was noted that expressing their feelings to family members was perceived as weakness as they were always depicted as brave. It was seen as jeopardizing their status but they realized that they needed their families' support. The other issue to be noted was that they had difficulty in asking for help. This led to their concerns about the non-availability of psychological resources. They were aware that there was professional help available but they felt they were not offered these services.

Literature highlighted the availability of services that were offered during and after rescue services. Psychological debriefing was required by all members present. On-scene debriefing aims at identifying acute reactions, which develop during the incident. These may impair the worker's ability to perform effectively. Initial debriefing is performed within a few hours of the incident. It helps to create a supportive atmosphere for the worker. Members of the group mentioned that these services were not available for them. This might be one of the many reasons they became affected by their exposure to traumatic experiences. Debriefing would serve as a preventive measure for them if it were available.

It could be concluded that the group achieved a great improvement in post-test results in depression and anxiety and also an increase in psychological well-being.

This served to confirm the hypothesis that the group was effective in reducing symptoms of trauma and promoting psychological well-being. The aim of the development of the group programme was achieved.

5.2 Recommendations

The findings of the study give rise to specific recommendations by the researcher.

Supportive psychological interventions

Support plays an important role in improving the well-being of people who are exposed to traumatic experiences: therefore it is recommended that psychological support for emergency personnel be available on an ongoing basis. Interventions can be group or individually orientated. The findings of this study confirmed that the group intervention was effective in decreasing symptoms of trauma and improving well-being.

Psychological debriefing plays a vital role and these services need to be available. There is a need for someone to offer these services. It can be an insider (a psychologist working for the system) or an outsider (professional person not working for the system). Challenges exist as to who would be the best candidate to offer debriefing. An insider may be preferable because of his/her understanding of how the system functions but may lack objectivity. An outsider may be objective but may lack knowledge as to how the system works and members might be resistant in terms of expressing their feelings to the outsider.

Management involvement

The findings of the study pointed out that there was miscommunication between management and workers, which was also highlighted as one of the sources of stress. There is a need to address these problems in order to create an acceptable and comfortable work atmosphere for both management and workers. This increases their work performance.

Family and community involvement

Family and society also plays its role. Awareness programmes may help the community understand the role of emergency personnel. This would lead to respect when they realize the importance of the role they play in their lives. Family involvement will help the families understand the nature of their loved one's work and may facilitate the need for support.

It is also recommended that female emergency personnel be involved in groups of this kind. Their inclusion would help them share their experiences, their needs and improve their coping strategies.

The availability of a control group will serve to highlight whether the findings were due to other factors or the self-help group and make cause effect interpretations possible.

5.3 Conclusion

Emergency personnel work hard to save people's lives. They are exposed to traumatic stimuli and yet expected to be invulnerable and brave. This study has confirmed that they are affected by their exposure to traumatic stimuli. They are affected physically, emotionally and socially. Therefore they need support. The mutual aid group served as a supportive psychological intervention to decrease symptoms of trauma and increase psychological well-being. Other systems such as family, relatives, management and community play an important role and involving them in groups would make a huge difference. The buddy system needs to be encouraged as it plays a vital role in helping the members support one another. Individual sessions will also cater for individual needs.

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Appendix A

INFORMED CONSENT FORM

This is to certify that I have been informed of the nature of the research. I understand that I am free to participate or to decline to participate or to withdraw from the research. The foreseeable consequences of declining or withdrawing and significant factors that may be expected to influence my willingness to participate have been explained. These include risks, discomfort or limitations on confidentiality.

Signed by:----------

Date: ----------

Appendix B

The information is required for Research purposes only. All information will be treated as confidential as possible. Please answer as honestly as possible.

Biographical Information

Please tick (✓) in the appropriate space:

1. Personal Data

a. Age group

18-25	
25-35	
35 and over	

b. Gender

Male	
Female	

c. Marital Status

Single	
Married	
Divorced	
Separated	

d. Employment Status

Permanent	
Temporary	

e. Job Title

Paramedic	
Firefighter	

Appendix C

Needs Analysis questionnaire

Please describe your needs and experiences of being emergency personnel, including your feelings about the job.

Appendix D

Table 2–1. Beck Depression Inventory *

not feel sad.
i sad.
1 sad all the time and I can't snap out of it.
1 so sad or unhappy that I can't stand it.

1 not particularly discouraged about the future.
el discouraged about the future.
el I have nothing to look forward to.
el that the future is hopeless and that things cannot improve.

1 not feel like a failure.
el I have failed more than the average person.
I look back on my life, all I can see is a lot of failures.
el I am a complete failure as a person.

it as much satisfaction out of things as I used to.
on't enjoy things the way I used to.
on't get real satisfaction out of anything anymore.
n dissatisfied or bored with everything.

on't feel particularly guilty.
el guilty a good part of the time.
el quite guilty most of the time.
el guilty all of the time.

on't feel I am being punished.
el I may be punished.
xpect to be punished.
el I am being punished.

on't feel disappointed in myself.
m disappointed in myself.
m disgusted with myself.
ate myself.

lon't feel I am any worse than anybody else.
m critical of myself for my weaknesses or mistakes.
blame myself all the time for my faults.
blame myself for everything bad that happens.

lon't have any thoughts of killing myself.
have thoughts of killing myself, but I would not carry them out.
would like to kill myself.
would kill myself if I had the chance.

don't cry any more than usual.
cry more now than I used to.
cry all the time now.
used to be able to cry, but now I can't cry even though I want to.

am no more irritated by things than I ever am.
am slightly more irritated now than usual.
am quite annoyed or irritated a good deal of the time.
feel irritated all the time now.

have not lost interest in other people.
am less interested in other people than I used to be.
have lost most of my interest in other people.
have lost all of my interest in other people.

make decisions about as well as I ever could.
put off making decisions more than I used to.
have greater difficulty in making decisions than before.
can't make decisions at all anymore.

don't feel that I look any worse than I used to.
am worried that I am looking old or unattractive.

15. 0 I can work about as well as before.
    1 It takes an extra effort to get started at doing something.
    2 I have to push myself very hard to do anything.
    3 I can't do any work at all.

16. 0 I can sleep as well as usual.
    1 I don't sleep as well as I used to.
    2 I wake up 1–2 hours earlier than usual and find it hard to get back to sleep.
    3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
    1 I get tired more easily than I used to.
    2 I get tired from doing almost anything.
    3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
    1 My appetite is not as good as it used to be.
    2 My appetite is much worse now.
    3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any, lately.
    1 I have lost more than five pounds.
    2 I have lost more than ten pounds.
    3 I have lost more than fifteen pounds.

20. 0 I am no more worried about my health than usual.
    1 I am worried about physical problems such as aches and pains, or upset stomach, or constipation.
    2 I am very worried about physical problems and it's hard to think of much else.
    3 I am so worried about my physical problems that I cannot think about anything else

21. 0 I have not noticed any recent change in my interest in sex.
    1 I am less interested in sex than I used to be.
    2 I am much less interested in sex now.
    3 I have lost interest in sex completely.

Table 2–2. Interpreting the Beck Depression Inventory

Total Score	*Levels of Depression* *
1–10	These ups and downs are considered normal.
11–16	Mild mood disturbance.
17–20	Borderline clinical depression
21–30	Moderate depression
31–40	Severe depression
over 40	Extreme depression

* A persistent score of 17 or above indicates you may need professional treatment.

Interpreting the Beck Depression Inventory. Now that you have completed the test, add up the score for each of the twenty-one questions and obtain the total. Since the highest score that you can get on each of the twenty-one questions is three, the highest possible total for the whole test would be sixty-three (this would mean you circled number three on all twenty-one questions). Since the lowest score for each question is zero, the lowest possible score for the test would be zero (this would mean you circled zero on each question).

Appendix E

ow is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by e
iptom during the PAST WEEK, INCLUDING TODAY, by placing an X in the corresponding space in the column next to each sympt

	NOT AT ALL	MILDLY It did not bother me much	MODERATELY It was very unpleasant but I could stand it	SEVERELY I could barely stand it
1. Numbness or tingling.				
2. Feeling hot.				
3. Wobbliness in legs.				
4. Unable to relax.				
5. Fear of the worst happening.				
6. Dizzy or lightheaded.				
7. Heart pounding or racing.				
8. Unsteady.				
9. Terrified.				
0. Nervous.				
1. Feelings of choking.				
2. Hands trembling.				
3. Shaky.				
4. Fear of losing control.				
5. Difficulty breathing.				
6. Fear of dying.				
7. Scared.				
3. Indigestion or discomfort in abdomen.				
). Faint.				
). Face flushed.				
. Sweating (not due to heat).				

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Appendix F

The following set of questions deals with how you reel about yourself and your life. Please remember that there are no right or wrong answers.

Circle the number that best describes your present agreement or disagreement with each statement	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
1. I tend to be influenced by people with strong opinions.	1	2	3	4	5	6
2. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6
3. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
4. I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
5. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
7. I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6
8. For me, life has been a continuous process of learning, changing and growth.	1	2	3	4	5	6
9. The demands of everyday life often get me down.	1	2	3	4	5	6
10. Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
11. People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
12. I like most aspects of my personality.	1	2	3	4	5	6
13. I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6
14. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
15. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
16. I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
17. I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
18. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6

Appendix G

Programme Evaluation Interview Guide

Please evaluate the programme as sincerely as you can. I would like you to tell how you feel about and think of it. Feel free to express your views, as it is important to the researcher to know whether it made any impact in your life and your circumstances.

How would you rate the program? (Please tick the appropriate answer)

1	2	3	4	5

Do you think the program was helpful?

_____

Would you like it to continue?

_____

Please state any suggestions on how the programme can be improved.

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