LAW ENFORCEMENT MANAGEMENT INSTITUTE

CRITICAL INCIDENT STRESS MANAGEMENT

IN LAW ENFORCEMENT

A RESEARCH PROJECT

SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR

THE LAW ENFORCEMENT MANAGEMENT INSTITUTE

BY

KENNETH HAMMONS

RANDALL COUNTY SHERIFF'S DEPARTMENT

CANYON, TEXAS

FEBRUARY, 1995

TABLE OF CONTENTS

INTRODUCTION

By their very nature, those in the emergency services and law enforcement profession, are subjected to more stressors than the civilian population. They are subjected to the same stressors as the civilian population as far as family, financial, and society. They are also subject to viewing society at its worst or it's most vulnerable. They deal with these problems in various ways; some are healthy, others are not. There comes a time when even the most mentally healthy officer encounters a situation or group of situations that are so emotionally charged or shocking that they will have trouble dealing with it. This situation may be an officer involved shooting, death of a child or friend in an unusually brutal or horribly repulsive manner, or the scene may be of such magnitude that it may be overwhelming to all the responders involved. The situation may be a plane crash with multiple deaths and injuries. It could be the death of a fellow officer from friendly gunfire or having lost his life from t-boning the telephone pole ripping his car in half. It might be finding a six month old baby, with its throat cut in a dumpster.

Officers in all phases of law enforcement, even communications, all face the possibility of dealing with all of this if not on scene then living it vicariously along with those officers who were there.

Corrections officers face the possibility of assault, being taken hostage, or dealing with in-custody deaths each day as the complete their duties. In accordance with old beliefs; they were told to "suck it up, do not show emotion it's not manly." This has led law enforcement to the point that they have one of the highest burnout, divorce, alcoholism, and suicide rates of any profession (Reese, 1993).

Throughout their training and careers, they have been taught that they must complete their job, regardless of the revulsion or shock of the severity of the scene. Officers generally do complete these tasks in a professional manner. Afterwards they skirt the emotions with black humor, which is considered macabre outside the realm of Emergency Services. Often, they cannot even tell their spouses all of the sights, sounds, and even smells they have encountered during our tour of duty. They are unable to communicate their true emotions even to their partners in their patrol car without having the uneasy feeling of being considered too emotional and thus undependable in an emergency.

These emotions cross all sections of emergency service. Personnel in Emergency Medical Service and the Fire service were among the first to recognize the need for a solution,a way to save their highly skilled and trained personnel from leaving the service, or self-destruction. They started doing Critical Incident Stress Management(Brady,1990). They found

that most persons involved in an incident were suffering apparently similar trauma reactions from similar traumatic situations. It was shown that gathering these persons together soon after the incident and letting each share their emotions and feelings without being critiqued for their actions. Most have found support and healing in the fact that others at the scene felt the same emotions; that this really was a normal reaction.

The purpose of this study is to provide a resource for educating the law enforcement community about the value of Critical Incident Stress Management to departments and their most valuable asset officers and support personnel. A well-rounded program should include everyone involved in a critical incident, including dispatchers who received an initial call, or critical response personnel at the scene. The emotional health of these key persons should be equally as important to the individual officers as their own. They are the ones who initially take the call from the hysterical person reporting that her child has just been hit by a car, or an officer who with his dying breath is pleading for help.

Origin of Study

As a result of personal observation in early 1992, this author began to feel a need to provide officers with supportive services which would counter possible critical-incident stress. Consultations with psychologists alone did

not seem to be complete. A team concept involving officers and mental health personnel seemed to offer an effective answer, and the death of a Texas Department of Public Safety Trooper in our area brought further clarity to the situation.

This author became aware of the desirability of obtaining a clearer picture of critical incident stress situations and resultant needs of law enforcement with the possibility that the team approach might prove valuable. If these incidents were present, with what frequency did they occur? If resources were needed to deal with this type of stress, how much assistance was needed, and what type would be most effective? What support could be offered that officers would accept? What kind of training could be provided, beginning in the academy, that might desensitize officers to stress connected with their law enforcement duties.

To help answer some of these basic questions, and before discussing the "critical incident stress solution , it might be helpful to take some time to explain what stress is and how it can affect an officer. First, the short term and long-term effects will be discussed. The paper will then explain how the effects of a particular critical incident, or possibly the culmination of several, may affect an officer.

Definition of Stress

There has been some ambiguity about the term "stress." Stress has been used to refer to environmental stimuli that

can interrupt the normal activity of a person. Stress has also referred to the psychological and physiological reaction or response of a persons to particular events. Lazarus (1984) noted that the same event could be stressful for one person but not for another. Also, stress could not be equated solely with the response of physiological arousal because such arousal could be experienced in the absence of actual stress (Lazarus and Folkman, 1984)

For this paper, Lazarus's definition of stress has been accepted as appropriate by the author. This definition included (1) the occurrence of a stressor, (2) the various reactions which could follow, (3) appraisal, both primary and secondary, and (4) coping. Because of individual variability in stress appraisal and coping could cause a variety of responses between and within individuals. Lazarus and Folkman (1984) suggested that by recognizing appraisal and coping as interacting parts of the model of stress, the possibility of stress management could be more successfully defined, researched and implemented.

Types of Stressors

While stress has resulted from traumatic crises such as highjackings, military combat, nuclear or natural disasters, and residence in a prison or concentration camp, researchers have found that everyday problems and nuisances of life have been more important forms of stressors (Burks & Martin, 1985)

Studies have concluded that routine hassles had significant negative effects on mental and physical health. Hassles were defined as situations that annoyed or bothered a person, such as a confrontation with a family member, locking one's keys in the car, or a long, slow-moving line at the bank. Kanner (1981) found that hassles were more strongly related to an individual's mental health than were major, stressful events, due to the frequency of them. A reason suggested for this was the cumulative nature of stress and the fact that hassles were frequent, common, and often repetitive stressors. An event could be appraised as stressful by one person but not by another. Four types of stress were described by (1) frustration, (2) conflict, (3) change, (4) pressure Kanner (1981).

Frustration occurred when an obstacle prevented a person from obtaining a goal. Failures and losses were two types of frustration. In relation to the workplace Locke and Taylor (1991) noted that frustrations occurred when people failed to get what they wanted from their jobs. In their research, they found at least five categories of values people sought to fulfill at work: material values such as a comfortable life, money, and security; achievements such as accomplishment, freedom, and wisdom; a sense of purpose; social relationships such as friendship and social recognition; and enhancement and maintenance of positive self-concepts.

Locke and Taylor(1991) noted threats (potential stress indicators) to these five values. These threats appeared to have application to law enforcement officers. First of all, threats to material values included no raises or small raises, no promotions, loss of job, and sacrifice of other values in order to maintain certain material values. Next, two key threats to achievement-related values were loss of control over one's work. The third value, sense of purpose, could be threatened by technological advances and organizational restructuring which changed the worker's contribution. Also, threat to purpose could be self-induced by the worker who sacrificed attaining other valued outcomes such as family relationships and other interests to an obsession with career success.

In addressing the fourth value, Locke and Taylor (1991) suggested while social relationships could create enjoyment and a method of achieving cooperative efforts, threats of criticism, isolation, and alienation could lay the groundwork for a stress response. Finally, valuing self-concept could lead to frustration for a person who held irrationally high standards for doing a job.

In addition to frustrating events being anxiety provoking, events characterized by conflict were a second type that could be stressful. Conflict might take three forms: approach-approach, in which a choice had to be made about

whether or not to pursue a single goal with both attractive goals; approach-avoidance in which a choice had to be made about whether or not to pursue a single goal with both attractive and unattractive aspects; and avoidance-avoidance in which a choice had to be made between two unattractive goals. In the case of emergency workers, approach-avoidance conflicts have appeared to operate since the workers have been pursuing the positive challenge of saving lives and at the same time having the threat of failing at this task as well as the threat of failing at this task as well as the threat of personal injury or death.

A third type of stress which has been examined is change. Change which disrupted routine was related to greater stress than uninterrupted, everyday routine by Holmes and Rahe(1967). The results of their research indicated a high correlation between major life changes, both pleasant and unpleasant, and high levels of stress.

A final type of stress event was that characterized by pressure. Pressure in situations could take two forms, to perform and to conform. Pressure to perform could be external or internal origin and involved expectations of performing a task quickly, efficiently, and successfully. Baumeister (1984) investigated how pressure to perform affected execution of a skilled task. This research indicated that pressure often had a negative impact on task performance. Pressure to conform

involved living up to expectations by others (Hartsough, 1985).

Nature of Stress Reactions

Stress reactions could be physiological, cognitive, behavioral, or emotional or any combination of these. Physiological reactions include, but are not limited to autonomic arousal, hormonal fluctuations, and neurochemical changes. These physiological reactions result in physical symptoms such as nausea, sweaty hands, headaches, sleeplessness, and a racing heart. Cognitive stress responses include but also are not limited to, reductions in the ability to think clearly or remember accurately, lack of concentration, indecisiveness, and difficulty with problem solving. Emotional reactions to stress could consist of such feelings as sadness, depression, guilt, abandonment, and being overburdened or overwhelmed Bower (1991).

Physiological Reactions

Selye (1974) coined the phrase General Adaptation Syndrome (GAS) to explain the physiological changes that occurred when a person remained under prolonged physical or emotional stress. He hypothesized three stages that occurred when a person remained under prolonged physical or emotional stress. During the first stage, the alarm-reaction stage, the body switched from parasympathetic (the system that controls internal organs on a daily basis) to the sympathetic nervous

system (the system that mobilized the body's resources for emergencies). Hormones were also activated for this initial spurt of energy.

According to the GAS concept, if stress persisted, the second stage of resistance was activated. In this stage the body produced huge amounts of energy. In spite of outward signs of things gone awry, organs including the adrenal glands, the liver, and the kidneys released substances such as adrenaline and cortisol. These hormones increased blood pressure, fought inflammation, enhanced muscle tension, increased blood sugar for energy, and promoted physical changes useful in coping with stressors. The more stressors there were, and the longer the stressors lasted, the longer people needed to recoup the resources used in an effort to resist the stress.

According to Selye (1974), the third and final stage of GAS was exhaustion when a counteraction to the second stage of the body's activities occurred and body functions slowed to abnormally low levels. The exhaustion stage often produced stress-related illnesses such as peptic ulcers, high blood pressure, heart attacks, and nervous disturbances. If the stress continued the results might be severe depression or death.

Cognitive and Emotional Reactions

Stress has usually been seen as being related to negative or unpleasant emotional reactions rather that pleasurable feelings. Caspi, Bolger and Eckenrode (1987) found that daily fluctuations in stress correlated with daily changes in mood. As stress increased, mood tended to become more negative.

A way of looking at the interrelatedness of emotions, cognition, and stress has been presented in Plutchik's theory. He offered a model in which primary emotions were defined as adaptive or having survival value. Primary emotions, which he defined as fundamental emotions included anticipation, joy, acceptance, fear, surprise, sadness, disgust, and anger. These emotions were likened to a color wheel. Just as a color wheel could vary in intensity, an emotion could vary in intensity. For example, the intensity of the emotion of fear includes gradations of apprehension, fear, and terror. Also, primary emotions could be combined to produce the many, varied emotions that could be experienced. Just as primary colors could combine to make a secondary color, the primary emotions could combine to make disappointment.

Plutchik (1980) defined emotions as a "chain reaction" triggered by a stimulus and including the sequence of cognition, followed by feeling, and then adaptive behavior. Relating this to law enforcement officers, the sequence might include the stimulus of encountering the death of another law

enforcement officer. Following the cognition might come the feeling, increased fear of the crime fighting endeavor. Finally, behavior, such as reluctance or refusal to return to patrol, might occur.

Emotional and cognitive responses to earlier stress have appeared to have a complementary relationship. Bower's (1981), experiments with actual events demonstrated that people's memories of recent real-life events ere affected by their mood at the time of the recall. Subjects remembered a greater percentage of experiences that were emotionally congruent with the mood they were in during recall than experiences that were not congruent. Bower believed that emotions powerfully influenced cognitive processes such as free association, fantasy, social perception, and snap judgment. When the feeling-tone (emotion) of a narrative matched the reader's emotion, the importance and memorability of events in that narrative were enhanced. Bower theorized that emotion served as a memory unit in the brain that could enter into association with coincidental events, e.g. a sad event was associated with sad, emotional appraisal. If an emotional unit of a stressful event was activated, retrieval of other stressful events was likely to be enhanced. Bower's research further suggested that when a stressful situation occurred, a person was selectively reminded of previous similarly stressful situations. This selective reminder could contribute

to similar emotional responses in the current, stressful situation. As Bower suggested, events which were congruous heightened the mood intensity, whereas incongruous or dissimilar events caused the mood to wane. Even when people had an opportunity to recover their emotional equilibrium following a stressful event, they reported increasingly tense, anxious, or depressed feelings when a single stimulus reminder triggered the earlier emotional memory (Bower,1981).

Stormy emotional arousal might sometimes interfere with cognitive efforts to cope with stress. Mandler (1982) suggested that high emotional arousal could produce a narrowing of attention, poorer judgment, and less effective memory. Horowitz, Wilner, and Alvarez (1979) suggested that following the occurrence of stressful, life-threatening events, there was a tendency to undergo episodes of intrusive or avoidant thinking. Intrusive thinking was characterized by unbidden thoughts and images related to the traumatic event, troubled dreams, strong pangs or waves of feelings, and repetitive behavior. Avoidant thinking was characterized by denial of the meanings and consequences of events as well as dulled response to stimuli in another situation.

Behavioral Responses

Behavioral stress reactions have provided visible suggestions of the physiological, emotional, and cognitive states. Strained facial expressions, a shaky voice, tremors,

spasms, and jumpiness were some of the behavioral reactions to physiological stress. Baumeiseter (1984) found that when stress raised arousal above a person's optimal level, physical coordination, behavioral skills, and other aspects of behavior were disrupted.

Some people have responded to stressful events with aggressive behavior, defined as any behavior intended to hurt someone either physically or verbally. It was found that frustration often led to aggression. Other behavioral responses included greater consumption behavior including overeating, smoking, consumption of alcohol and drug use.

Coping With Stress

Of major interest to this author is the variety of stress management methods available to law enforcement officers experiencing critical-incident stress. One of the focuses of this project is to determine which methods are most viable for law enforcement officers, considering the characteristics of their duties, work environment, and professional lifestyle. A discussion of some of the available coping techniques will follow some general comments on coping.

Coping has been defined as constantly changing cognitive behavioral efforts to manage specific external demands or both, which the person apprised as exceeding the individual's current resources. It has been noted that coping is concerned with what a person thought or did as the specific encounter

unfolded. It has been further maintained that coping could not be equated solely with mastery of stress. Further, that many sources of stress cannot be mastered and must be accepted, tolerated, minimized,or ignored.

Lazarus and Folkman (1984) cautioned that no method of coping could be considered inherently better or worse than another because a coping mechanism might be more or less adaptive, depending on the individual and the context. For example, denial or denial-like behavior, a coping or defense mechanism, could be functional in certain situations and at certain times such as in early stages of sudden illness, in incapacitation, or in the loss of a loved one. Yet, denial could be dysfunctional in another situation such as recovery from a heart attack. A person, by denying illness, might fail to follow therapeutic recommendations such as dietary changes, exercise and rest. They observed that the way a person copes was heavily dependant on both the availability of resources and the person's appraisal of these resources. These resources included such characteristics as health and energy, existential beliefs that events could have positive outcome, commitments, problem-solving skills, social skills, social support, and material resources.

Stress Management

Numerous programs for stress management in the workplace have been developed. In a survey of 164 corporate health

programs, Pelletier, (1984) found that stress programs were cited four times more frequently as priority than the next closest category in the behavioral management of coronary heart disease. A survey by the U.S. Office of Disease Prevention and Health Promotion (Windom, Mcginnus, & Fielding, 1987) confirmed these findings. Although, several types of stress management interventions have received experimental attention none have successfully transferred to the work place. The specific applications of stress research findings to real-life are burnout, post-traumatic stress disorder, and finally, the recently labeled phenomena, critical incident stress.

Burnout

Burnout, a "buzzword" during the 1980's, has been a concept used in studying stress. It has been theorized that burnout involved physical, mental and emotional exhaustion that was attributable to heavy, chronic work-related stress. According to Pines, Aronson, And Kafry (1981) symptoms of physical exhaustion included chronic fatigue, weakness, and low energy. Mental exhaustion involved highly negative attitudes toward oneself, and one's life in general. Emotional exhaustion included feelings of being trapped, helplessness, and hopelessness. Although initially thought to be a disturbance unique to the helping professions such as medicine, social work, clinical psychology, and counseling

burnout has now become regarded as a potential in all occupations.

Post-Traumatic Stress Disorder

Post-traumatic stress disorder has involved a pattern of reactions following a traumatic event or series of events. According to the DSM-II-R (American Psychiatric Association, 1987), the stressors producing the syndrome would likely be markedly distressing to almost anyone and are usually accompanied by feelings of intense fear, terror, and helplessness. The central feature of the disorder is the survivors's reexperiencing elements of the trauma in dreams, uncontrollable and emotionally distressing, intrusive images, and dissociative mental states. In rare cases, waking recollections, known as flashbacks, occur in which the person behave for minutes, hours, or days as if the trauma were occurring again. People who survive events in which others perish, or who feel blame for others,' deaths might also experience severe guilt or depression. It has been that loss of a significant other, and the degree of personal threat to ones life, were predictive of the symptoms of post-traumatic stress disorder.

Diminished responsiveness to the external world, referred to as "psychic numbing" or "emotional anesthesia," usually began within twenty-four to forty-eight hours. Detachment from and loss of interest in previously enjoyed activities and loss

of ability to feel emotions of any type are also characteristic of post-traumatic stress disorder (American Psychiatric Association, (1987).

Problems could occur immediately following the incident or after a delay. Also, the difficulty might be temporary or continuing. Diagnosis of post-traumatic stress disorder could be made if the symptoms discussed above last at least one month. Laufer, Frey-Wouters, and Gallops (1985) found that post-traumatic stress disorder differs from other stress and did not necessarily lead to remission of long-term symptoms, particularly numbing. These researchers suggested that the symptoms could become reflexive reactions.

Critical- Incident Stress

Critical-Incident stress as presently defined. Some of the responses seen in post-traumatic stress have been associated with mental-health phenomenon called critical-incident stress. This particular type of stress has been observed by those who work with people who have encountered injury or death of a sudden and often violent nature as a job-related phenomenon. Mitchell (1983b) defined a critical incident as "any situation faced by emergency-service personnel that caused them to experience unusually strong emotional, psychological, or physiological reactions. These reactions had the potential of interfering with the worker's ability to function either at the scene or later."

The situation initiating critical-incident stress could range from a major disaster such as a plane crash, to the officer involved in a shooting, to various other on-the-job incidents. Such events had the potential of generating the strong psychological and physiological reaction which overwhelm the emergency worker's normal coping skills. Some of these events included line-of-duty deaths and serious injuries, death of a child under tragic circumstances, officer suicides. disasters with numerous deaths, traumatic events where the victims were relatives or friends of the officers, events which attracted unusual media attention, and events that seriously threatened the lives of the responders.

Mitchell stated that critical-incident stress differs from post-traumatic stress in that the former is an immediate and normal reaction to encountering the abnormal situation related to injury loss of life in emergency circumstances. According to Mitchell, while symptoms of post-traumatic stress might characterize the critical-incident stress for a more limited and less intense period, critical-incident stress usually does not include the violent flashbacks with extended duration lasting possibly a month which characterized post-traumatic stress disorder (J. Mitchell, personal communication June 28, 1994). Mitchell suggests, however, that the higher levels of distress experienced following a critical incident might result in post-traumatic stress for some workers.

Mitchell (1986) describes the physical symptoms of critical-incident stress as nausea, sweaty hands, flashbacks, headaches, and sleeplessness. Cognitive symptoms include lack of clear thinking, indecisiveness, and difficulty with problem solving. Behavioral symptoms include withdrawal, excessive talkativeness, and a pervasive black humor. Emotional reactions can include feelings of sadness, depression, guilt, abandonment, and being overburdened.

Critical-incident stress reactions occurred anywhere from immediately following the incident to several months later. Most symptoms disappeared within three to four weeks, but some critical incident stress victims continued to feel the effects six months to a year after the event. According to Mitchell (1988), who surveyed 675 emergency workers, 86.9% experienced some of the previously described reactions to the trauma during the 24 hours following the incident. Of this group, 42% experienced stressful reactions for up to three weeks, and 22% of the original group continued to have reactions for up to six months. About eight per cent of those who experienced critical-incident stress finally developed full-fledged post-traumatic stress disorder.

At this point, a discussion of some of the characteristics of police officers and their jobs, which have been suggested as contributing to their ability to work

efficiently and to their susceptibility to stress, seems appropriate.

Critical-Incident Stress and Vocations.

Critical-incident stress has been experienced by policemen, firefighters and paramedics who worked where they encountered severe injury and violent death. Powell (1984) suggested that these personnel faced five stressors beyond those of civilian jobs which contributed to the likelihood of critical-incident stress. These included (1) a level of uncertainty and little control over what each days' work involves, (2) sympathetic nervous system arousal (increased Adrenalin and blood sugar levels, blood pressure, and muscle tension) in response to an alarm, which could take several hours to abate should the alarm be a false one and energy not used, (3) magnified interpersonal tension because of the crisis nature of the job, (4) exposure to human tragedy, and (5) fear for personal safety and the safety of peers. Hartsough (1985) suggested four individual behaviors, beliefs, and attitudes of emergency workers which facilitated efficient performance of their police and life-saving mission, but could impede recovery from traumatic events. First, they had a "task and tool" orientation, in which discussion ran in terms of situational problems and resources, e.g. operation of weapons during shootout, operation of emergency equipment during a chase. According to Hartsough, while this orientation was

sufficient for the completion of the job, the worker could easily avoid addressing and discussing with others personal frustrations, anger, and anxieties surrounding traumatic events.

A second characteristic was that officers maintained an image of self-control and suppressed fear and anxiety during emergency operations to more efficiently concentrate on their tasks. The officer's expose themselves to personal feelings such as fear and anxiety at the time of emergency operations involved risking being distracted from doing the job properly or placing themselves in danger.

A third related feature suggested by Hartsough(1985) was that officers believed that they should not inflict their worries, concerns, and suffering on their families or friends outside the field. One reason for this silence was the officers' desire not to upset their own families. Another reason was the officers' belief that family and friends could not understand the feelings of stress the officer had undergone. As an example, one officer noted that his wife was not there and, therefore, could not fully comprehend the situation he encountered. She had not experienced, as the officer had, being suddenly called into service on an accident where a teenager who fled from officers wrecked out and was found decapitated, after his vehicle was cut in half. This

occurred on a Christmas Eve. (J.B. Dempsey, personal communication, Jan 30, 1993)

A fourth characteristic presented by Hartsough (1985) was that these workers had high expectations for their own success in saving lives and property. Officers might often hold irrationally, unrealistic beliefs about their ability to fulfill these expectations, and these beliefs could lead to vulnerability to stress. Hartsough believed that they needed to be able to express to others these turmoils as well as feelings of personal vulnerability.

According to Hartsough (1985), while officers have possessed qualities which made them unwilling to seek help following stressful experiences, other characteristics of this group were helpful in resolving the impact of the traumatic situation. These qualities included worker cohesiveness, commitment to the profession, and desire for self and organizational improvement.

Although specific studies have not focused on the question of emergency-worker willingness to make special efforts to recover from traumatic-stress information from studies documenting the existence of traumatic stress in emergency workers has lent some information on this subject. Latane and Wheeler (1966) studied the reactions of military volunteers who performed either traffic control or body search duties following an air crash which killed 82 passengers. They

found that more emotional (highly anxious) men failed to communicate about their upsetting experiences while "nonemotional" (nonanxious) men who experienced the most severe duties were more inclined to talk and write home about their experiences. This suggested that more emotional men failed to communicate about the experience during the first few weeks following the incident because they wished to avoid rearousal of their initial anxiety. The researchers hypothesized that the "nonemotional" men were so highly and uncharacteristically aroused that they increased their communication with others.

The small body of research located by this researcher included not only police officers but firefighters, medical technicians, and other front line disaster workers. Although these vocational groups shared some common, personal themes within their occupational structures, researchers also determined thematic patterns unique to each group.

Hansen, (1984) found that police officers have realistic, enterprising, and social themes in their employment profiles. Hansen's findings emphasized an officer's characteristics which seem pertinent to this critical incident stress research. For example, Hansen found that realistic people were interested in action rather than thought; and preferred concrete to ambiguous, abstract problems. Hansen also found that realistic people liked doing jobs that produced tangible results. According to Hansen(1984) while they were

uncomfortable talking about themselves, police officers were likely to maintain traditional values and to take physical risks, but were slow to accept radical new ideas. In the enterprising-occupational theme, Hansen found the following police officers characteristics: enjoying working with other people toward organizational goals, liking to take organizational risks, and participating in competitive activities.

Critical Incident stress and other work-related stress

Police officers, often state they experience a sense of gratification and accomplishment from their endeavors. Yet, some who have studied police officers conclude that certain aspects of emergency work could put a person at high risk for psychological problems. A distinction has been noted between stresses that were part of or inherent to the disastrous event (e.g. body handling) and those which were related to the structure or the bureaucracy of the emergency organization and the role or duties of the emergency worker.

In surveys, police officers and firefighters reported that the greatest stressors in their work day to day were administrative hassles. These hassles in rank order from highest to lowest included (1) poor administration, (2) poor attitudes on the part of administration, (3) low pay, (4) paperwork, (5) inadequate equipment, and (6) limited career ladder. Among the clinical factors found to be stressful among

officers were (1) death of a partner, (2) injury of another officer, (3) death of a child, (4) death of others, (5) gory sights and sounds (4) unnecessary calls, (5) threat of injury and illness of one's self, (6) fear of one's own death (Mitchell, 1984).

Handling a body was reportedly a powerful stressor for some persons involved with this. (Ursano, 1990). According to self reports, the body handler was traumatized through the senses: through viewing, smelling, and touching the grotesque. Coping with the unusual or the novel, for example, dealing with a dead child was the most traumatizing event for those in Ursano's sample. Nearly all those respondents in Ursano's survey reported viewing and contact with children's bodies as stressful. Reasons given for their experiences of difficulty were the children's appearance of innocence and victimization by their untimely deaths.

Officers and rescue workers have reported natural-looking bodies, ones with no perceivable wounds as cause of death, and the badly burned and dismembered as disturbing. Several studies have shown that developing the ability to treat the bodies as inanimate objects aided in the prevention of traumatic reactions.

Stress reactions do not occur uniformly to officers in these traumatic events. Researchers have found that stressful reactions were related to several factors, which varied from

officer to officer. One factor noted by researchers was the magnitude and intensity of the stressor. Also, some officers indicated having the responsibility for the lives of others was found to produce intense stress.

A second factor was duration of the stress, (Mitchell, 1984). It was found that people working in a disaster situation could vary in their ability to tolerate stress for brief periods. However, long periods of working with the stressors usually brought about stress reactions. Other research suggested that chronic stress had a detrimental effect on the body's immune system.

Another factor contributing to the stress reaction was the number of events encountered over one period of time. For example, during World War II in London, highly trained, veteran fire brigades became less effective during repeated bombing raids (Glass, 1959). The workers decreased their levels of activity and showed signs of apathy, helplessness, and aimless wandering. Evidence found in a survey suggested that the number of stressful calls had a direct, positive relationship with higher stress level measured in these workers (Mitchell, 1983a). Mitchell also found working at slow assignments more stressful to highly skilled and action-oriented workers than working at busier stations. No research-backed, quantitative description of what constituted a slow or busy assignment was presented by Mitchell though.

Other factors that appeared to determine stress reactions in officers included the experience and training of the individual. Also, factors in the environment such as noise, and the types of resources available to contend with the situation contributed to the type of stress reaction.

Pre-Critical Incident Stress Training

Because anticipatory training for encountering traumatic events has been found to reduce the effect of stressors individuals involved in studying critical-incident stress have recommended what they have called proactive interventions for officers. Proactive intervention referred to training programs at the time of initial entry into the various organizations as well as "in-service" training during the service years.

The Texas Commission on Law Enforcement Standards and Education has added a section of stress management to the basic law enforcement training curriculum. Such training could prepare officers to more readily acknowledge that their work is stressful, to recognize the signs and symptoms of experiencing stress, and to develop methods of mitigating the effects of stress (debriefing, counselling, relaxation, etc).

In suggesting a proactive intervention program for policemen, Moriarity and Field (1990) proposed that these programs might provide the police officer with adaptive forms of coping as opposed to maladaptive forms of coping like alcohol abuse. They also suggested that by providing early

intervention and observation of the new worker who had not been contaminated by the mores and practices of a particular department, the "intervention specialist" could advise the administrators of the department on causes of stress which are unnecessary and which might be resolved administratively.

Critical-Incident Stress Debriefing

While stress response might be better dealt with through strenuous physical exercise, special techniques and denial, Mitchell (b) suggested that one of the most effective methods of aiding police officers and emergency workers in coping with critical-incident stress is the critical-incident stress debriefing (CISD). A CISD involves a meeting between the officer or rescue workers, and a counselor (facilitator) or a counseling team. The primary purpose of this debriefing is to provide a supportive setting in which to ventilate feelings (Mitchell,1986).

Mitchell pinpointed four major factors which have influenced the foundation and the growth of the CISD process. These include military experiences, police psychology, emergency medical service organizations, and disaster response teams.

Mitchell (1986), in discussing military experiences as a contributing factor, noted that combat reactions were recognized as early as 603 B.C. historians reported that the American Civil War produced thousands of combat stress

victims. In World War I, medical workers found that quick treatment of soldiers suffering from severe stress in field hospitals near the front lines was far more effective that delayed treatment. Approximately 65% of those servicemen receiving immediate psychological treatment for stress were able to return to combat duties while less that 40% of those who were given delayed treatment at more distant sites were able to return to combat.

Rudimentary debriefings were also carried out during the D-Day invasion in World War II. According to Mitchell (1986), many of those in the invasion were able to return to their duties after brief discussions with psychological support personnel. Israeli Defense Forces are credited by Mitchell, with the first effective research on psychological "first aid" and group psychological debriefings. According to Mitchell, the Israelis noted that rapid intervention near the front lines, which involved group as well as individual support, reduced the incidence of serious psychological disturbances, especially post-traumatic stress disorder, by as much as 60%.

According to Mitchell (1983b), beginning in the mid-1960's police psychology formed the second major influence in the development of CISD teams. Working primarily with law-enforcement personnel, police psychologists added to the knowledge of the personality profile of emergency workers, specifically policemen. Mental-health personnel have utilized

a number of support strategies with police including family-support services, educational programs, post-shooting trauma teams, peer-support officers, and group debriefings. In this context the first department to utilize a police psychologist was the Los Angeles Police Department.

The third influence, emergency medical services organizations began developing psychological support services for staff members in 1972 Mitchell (1983b). Initially, programs were in large hospitals and trauma centers and arose for medical and medical-support personnel as an offshoot of services for traumatized victims and their families. Graham (1981) emphasized the additional need to reach beyond the hospital setting to those employees who encountered stress in the field.

Mitchell (1986) noted the fourth major influence on the CISD movement as the creation of a disaster response or reaction-specialist team. Several documents from the National Institute of Mental Health supported this overall view of the development of services, especially debriefings for fire, police, and emergency personnel. Reports on disasters such as those encountered by workers following the Air Florida tragedy (Mitchell, 1982), and the Antarctica crash of a New Zealand plane (Taylor & Frazer, 1982) emphasized the major trauma for emergency workers in large scale disasters. Group debriefings were advocated in large scaled disasters so that workers could

eliminate the common but inaccurate distress feeling and the belief that disaster workers are either less than professional or abnormal if the experienced distress after working at a disaster.

Mitchell, (1983a), suggested a highly structured three part procedure for CISD; (1) an initial ventilation of feelings by the emergency workers and rapid assessment by the facilitator of the intensity of the stress response in the workers; (2) a more detailed discussion of the signs and reassurance from the facilitator, and (3) a closure stage in which information was provided and a plan of further action and referrals was made if necessary. According to Mitchell, the debriefing should occur within the first week after the incident within 72 hours if possible. The debriefings might last from one to four hours. To facilitate the debriefing Mitchell suggested a qualified mental-health practitioner who had skill in facilitating human communications, a background in group dynamics, knowledge of the operational procedures and, knowledge of stress-response syndromes. He admonished that the CISD was not a time to place blame for the incident, or berate other workers and themselves for their performance. The main purpose was to air thoughts and feelings experienced as a result of the traumatic event.

Post Traumatic Stress Disorder

However, when officers resort to excessive repression of emotions and avoid preventive strategies such as psychological debriefings after traumatic events they may be setting themselves up for Post Traumatic Stress Disorder. It is possible for these person's lives to be changes permanently. It can lead to total personality changes,illness, and if not treated to suicide. PTSD'is anxiety disorder because it disrupts normal life functions. It interferes with sleep, activities,relationships with others and even ones health. Unfortunately, about four per cent of personnel who are exposed to powerfully distressing incidents may develop the disorder. That figure could be substantially reduced by preventive stress management strategies.

A diagnosis of PTSD should only be made by a trained mental health professional who is familiar with the disorder. It is easily misdiagnosed by those who are of familiar with it. Post Traumatic Stress Disorder is best recognized by its primary characteristics. They are:

1. A disturbing event well outside the range of usual human experience
2. A combination of disturbing events without resolution of the stressors
3. The person reexperiences the events in his or her thoughts dreams, or daily flashbacks

4.The person avoids any stimuli associated with the event and numbs his or her emotions

5. Physical, emotional,cognitive, and behavioral signs and symptoms which were not present prior to the event and which have lasted more than a month.

Peer Counseling

Peer Counseling can be an extremely valuable tool for stress management. It allows a person who has been involved in a similar incident to communicate with the officer involved and acknowledge the fact that the feelings and emotions that were experienced are valid and "normal" for the situation. It also opens the door for further follow-up if needed. Peer counseling is excellent for a situation that involved only one or two officers, and was of short duration. This is usually done informally near the scene, during a break at the scene, or shortly after leaving the scene.

Defusing

A defusing is a small group process which is instituted after any traumatic event (critical incident) powerful enough to overwhelm the coping mechanism of people exposed to it. The events which necessitate a defusing have the same, or very close to the same, intensity as events which would trigger a debriefing. The difference is not in the type of incident but in the timing of the response and the type of response to the incident. The defusing is a shortened version of a

debriefing, but it is immediate in its application. The defusing team does not wait out the twenty four hours to intervene. Instead, they attempt to intervene as early as possible after the critical incident. Because if it is provided early it does not go as deep into the emotional material as a debriefing. It offers an opportunity for people involved in a horrible incident to talk briefly about the experience before they have time to re-think the experience and possibly misinterpret its meaning. there is at least some evidence which suggests that an immediate intervention is more beneficial than waiting the usual twenty four hours before the debriefing is set up for emergency personnel.

Although, there is some structure, it is much less organized than a formal debriefing. The defusing is less complex than a debriefing, it is easier to organize and manage and is less costly because it takes personnel out of service for a shorter period of time.

A defusing is not applicable to all situations. It is the primary technique after traumatic stress and has been utilized not only with emergency personnel, but also with industrial, commercial ventures school systems and the general public.

There are four main goals of a defusing:

1. Rapid reduction of intense reactions to a traumatic event.

2. "Normalizing" of the experience so that people can

return to their routine duties as quickly as possible.

3. Re-establishment of the social network of the group so that people do not isolate themselves from each other, but see that their reactions are similar, they realize these are normal feelings and will help each other through the event.

4. Time for an assessment to determine if a full debriefing is needed.

The desired effects of a well applied and managed defusing will enhance a debriefing if the debriefing is still needed.

CRITICAL INCIDENT STRESS DEBRIEFING

The critical Incident Stress Debriefing is the most complex of the CISM interventions. It may be employed by Critical Incident Stress Management Teams which work with emergency personnel, or Community Response Teams, which work with various communities, schools, and other organizations after a critical incident. Recently it has found applications in schools,industries, commercial operations and community groups.

The debriefing process was not designed to be applied to "routine" cases. Critical Incident Stress Management is a useful tool for stress reduction when applied properly. The overuse for minor events is not proper application. It should be used in line of duty deaths, officer involved shootings,

officer/personnel suicides, extremely violent incidents or when it becomes noticeable that personnel are not functioning because of an incident.

The core focus of CISD is the relief of stress in normal, emotionally healthy people who have experienced traumatic events. The debriefing process has not been developed to resolve degenerative stress or personal problems which exist before the disaster or traumatic event which is the subject of the debriefing (Mitchell and Everly, 1993).

There are several secondary goals and objectives of a Critical Incident Stress Debriefing. They may not always be achieved in every CISD, but they should always be goals. It makes no difference whether the debriefing is provided to emergency personnel by a CISM team or to community groups or by a Community Response Team. The objectives of the CISD are the identical. Secondary objectives are:

1. education about stress, stress reactions and survival techniques
2. emotional ventilation
3. reassurance that the stress response is controllable and that recovery is likely
4. forewarning people about signs and symptoms which might show in the near future

5. reduction of the fallacy of uniqueness (or the feeling that one has been singled out to be a victim
6. reduction of the fallacy of abnormality
7. establishment of a positive contact with mental health professionals
8. enhancement of group cohesiveness prevention or mitigation of post traumatic syndromes and PTSD screening for people who need additional assessment of therapy referral for counseling or other services as needed.

The debriefing was never designed to help people cope with most stressful events. CISD should be applied only to those events which are extraordinary. Overuse of the process will dilute its potency and cause it to be far less helpful on more serious events. If mildly distressing events occur, other types of interventions should be applied by the CISM team or the Community Response Team. A partial list of Critical Incidents for Police personnel include:

1. Line of duty death
2. Serious line of duty injury
3. Suicide of an co-worker
4. Multi-casualty incident/disaster
5. Police shooting
6. Significant event involving children

7. Knowing the victim of the event
8. Prolonged incident with loss
9. Excessive media interest
10. Any significant event.

Organization of a Debriefing

The introduction in a debriefing is critical. It sets the stage for all of the other phases. If the introduction is not handled well, it is likely that the remainder of the debriefing will be difficult. When debriefing teams have examined debriefings which they believe did not run as smoothly as they might, they can almost always trace the problems to the introduction. There are several objectives to be achieved during the introduction. The CISD team must:

1. point out the team members
2. introduce the team leader
3. establish the leadership of the team
4. explain the purpose of the meeting
5. explain the process
6. motivate the participants
7. reduce resistance
8. explain the guidelines of the CISD
9. gain the cooperation of the participants
10. answer primary concerns and limit anxiety
11. announce the first set of questions put forward
12. encourage mutual help.

Peer team members are identified during the introductory phase but actual introductions are left until the "fact" phase. Peer introductions can be used to help the group get past the discomfort which can occur if there is any significant display of powerful emotions early on in the debriefing process.

The entire team must show confidence and appear as relaxed as the horrible circumstances will allow. They will need to demonstrate by their mood and words that they are sympathetic and concerned with the plight of the distressed personnel. The team needs to believe that they have the training and experience to help. They must not appear over confident or arrogant though. Arrogance can be overcome when the team realizes that they can easily be in the same position of turmoil as the participants of the debriefing if this incident happened to them instead. It also helps to recognize that a debriefing team is in a very privileged position of hearing the thoughts and emotions of those who confronted the disaster.

A few of the rules, or guidelines, which must be discussed are:

1. Participants are asked to look around and point out anyone who may not belong to the group.(In a line of duty death, situation, the whole organization is affected and all members are

invited to a debriefing, not only those at the scene.

REMEMBER:

2. Treat all sessions in strict confidentiality
3. Participants should speak for themselves,not how others interpreted it
4. Participants do not have to speak if they do not want to
5. They may shake their head no and be left alone.
6. Participants are asked not to leave the room and not return
7. No cameras, recorders or note taking of any type is permitted in a debriefing
8. CISD is not psychotherapy nor is it a substitute for psychotherapy
9. CISD is not an investigation. Participants are instructed not to disclose information that would jeopardize a case or constitute an admission of criminal wrongdoing or deliberate violations of policies or procedures.
10. There is no rank
11. Participants should turn off pagers and radios
12. Be informed that the team is there for them and will be available after the debriefing

13. They are urged to actively participate, it could be helpful to others
14. CISD is not a critique of the operation of the incident
15. Be aware that reports are not made about individuals in the debriefing to supervisors.
16. No breaks will be taken during the debriefing. Persons going to bathroom will be accompanied by a debriefer.
17. Provide information that teaching aspects will occur near end of the debriefing
18. Participants are urged to ask questions.

The introductory remarks should be modified from debriefing to debriefing. This is especially true when dealing with persons who are familiar with the guidelines.

Throughout the introduction the team should speak with confidence and concern. They must also be relaxed so the do not raise the anxiety of the group. Team members must be alert to verbal and non verbal emotional cues which are displayed by the participants. They must also be prepared to manage the resistance expressed by some members of the group. If it is ignored during the introduction it will show up again later. Unresolved resistance can damage the debriefing when it shows up later.

FACT PHASE

This is usually the easiest phase for law enforcement. Facts are outside yourself. They are impersonal. Discussion of facts are not usually as distressing as attempting to talk about how one feels, which is very personal. This is especially true for law enforcement personnel who are highly cognitively defended and avoid any discussions of emotions. They sometimes feel they will become overcome and incapacitated by the emotions and unable to their job. They are comfortable when asked what happened. They understand facts, because they deal with them all the time. The fact phase is the most logical place to begin a discussion of a tragic event.

To get the fact phase started the team leader will usually start by telling everyone that since the team was not at the scene only knows bits of the incident, would someone start and identify themselves, what their function was at the scene, and what happened from their perspective. It should be noted again a participant does not have to speak. It does not matter the order in which they tell their story.

When participants start telling the facts and they start expressing their emotions, it can be a sign of how badly they have been affected by the incident. Team members need to remember that law enforcement personnel have great difficulty in losing control in front of their fellow workers. They are

embarrassed by an unexpected show of their emotions. They have to face these people after the debriefing team has left. If this occurs it is best to acknowledge the emotion. Validate the fact that the emotion is an appropriate reaction to the incident; then move on unless that person signals that they wish to continue talking.

THOUGHT PHASE

The thought phase begins when the team leader asks the participants what their first or most prominent thought was when they first began to reflect on the incident. Since officers are predominantly cognitive in their defense system, most answers will deal somewhat with the operational aspects of the scene. Many might say something like " I thought the suspect would not jump." Emotional aspects of the case cannot be eliminated completely. Some will say things like:"I was really angry that someone could do something like this to another human being."

This is a transition phase between the factual world and the world that is close and personal. The facts are outside a person, the thoughts are internal and a part of the person. It is impossible to respond to questions about thoughts without some leakage of feelings as a part of the discussion. Emotion-related comments should be expected throughout the thought phase as a sign that the process is working.

REACTION PHASE

The reaction phase is typically the most powerful of all. At this point, if the team has managed the debriefing properly most of the talking will be done by the participants. The question which triggers most of the discussion in this phase is: "What was the worse thing about this situation for you?" This question may be asked in several different ways to elicit the reaction from the group.

The discussion at this point is open to whoever wishes to start and does not go around the room. As members of the group question their feelings discussion will be slow. There may be scooting of chairs clearing of throats and many non-verbal signals before someone begins to admit a feeling. After a short time most of the group will have made some comment. This period could be fairly time consuming. If after several attempts by the group leader no further emotions or comments surface it is a signal that this phase has ended.

SYMPTOM PHASE

The symptom phase is another transition phase. The objective of this phase is to move the group back from the emotionally laden content of the reaction phase toward more cognitively oriented material. Stopping a debriefing at this point could possibly be detrimental because of the emotionally charged state of the group. The debriefing must always continue to the end to restore the group to the cognitive

level so they can resume their normal responsibilities armed with their customary psychological defenses intact.

This phase begins when the team asks the group to describe any cognitive, physical, emotional or behavioral experiences they may have encountered while they were working the scene of the incident. The team may need to give examples of stress related symptoms such as trembling hands, inability to make a decision, excessive silence or feelings of anger. The group may spend time talking about the ways they have experienced distress while working the scene.

The team will then ask what the last few days or hours have been like for them since the incident, but before the debriefing. The leader may then ask if there are any leftover feelings that have carried into the debriefing.

Participants may be reluctant to bring up their symptoms because they fear that they are the only ones who are having them and that they are abnormal. Usually a team member may ask by show of hands how many felt the common stress reaction, this may break the fear that an individual has that he is only one to have this fear.

TEACHING PHASE

The teaching phase naturally follows the symptoms phase. It starts out by letting the group know that these symptoms are normal and typical or to be expected after the type of incident they have encountered. During this phase the team

includes comments about symptoms that have not shown up but may in the future. The team will give instructions on several stress survival skills. Instruction should be given on diet,exercise, rest,talking to one's family,working with supervisors to make procedural changes.

The teaching phase is cognitive in approach. It is designed to bring the participants further away from the emotional content they worked through in the reaction stage. Some of the information may be directed to certain individuals, but the message is for the whole group. It should be kept in mind that complex techniques cannot be taught in this short period of time. At the end of this period one of the team may ask if there was anything positive about the situation.

RE-ENTRY PHASE

The final phase of the formal debriefing is the re-entry phase. This gives the group a chance to clarify issues,answer questions, and make summary statements. Like most things a de-briefing must have a beginning, middle, and an end. Only when the experience has an ending can the beginning and middle make sense.

A summary comment by the team members must come from the heart. These words are usually of respect, encouragement, appreciation, support, gratefulness,and direction.

RATIONALE FOR CONSIDERATION OF CISM

CISD and defusing interventions are becoming widely accepted. This has occurred from over a decade of adversarial appraisal and field testing which was inclined to try and disprove any need whatsoever for CISM and CISD. Despite this gauntlet of administrative,professional, and personal resistance, the use of CISD has grown dramatically to the point that psychological debriefing has emerged as a virtual field, or sub-specialty, of its own.

CONCLUSION

This paper was designed to assist law enforcement management and officers understand some of the types of stress, and the consequences of it, to their physical and mental health. It discusses the beginnings of stress and how it can be related to advancing problems with mental and physical health. The paper goes on to discuss "burnout" which can occur after a period of time when an officer does not take the time t decompress. Also discussed Post Traumatic Stress Disorder which can occur after a tremendously bad incident or even a series of bad incidents. The paper examines the Critical Incident Stress Debriefing and how this can be used to as a non-invasive tool to relieve this stress, among your peers and not in front of an unknown counselor.

CISD gives a person the opportunity to release emotions, and to identify regrets without guilt.

In its classic application, CISD, employs the group model. The group process has numerous healing factors intrinsic to the group format itself. The opportunity to help oneself by helping others and perhaps most importantly with regard to trauma, the generation of feelings of hope. CISD is a peer driven process, even though mental health professionals oversee it. Peer interventions offer unique advantages over traditional mental health services especially when the peer-group views itself as being highly unique, selective, or otherwise different as compared to the general population. Peers can most effectively offer advice on useful coping/stress management techniques. In the final analysis, peers have a unique credibility that no mental health professional could possess (unless he/she is also a peer).

The CISD process leaves an entry for potential victims to engage in group discussion, information exchange, and support. Individuals who require formal psychological care can be identified and helped so as to maximize the likelihood of rapid and total recovery.

For those in high risk professions,any single traumatic incident could engender symptoms of post-traumatic stress, or fully developed PTSD, at an incidence of up to 90% or more in those who are primary or secondary victims.

Consider the following:

1). Work-related stress claims represent the fastest growing and most costly, per incident, type of worker's compensation claim a affecting American commerce (McCarthy, 1984)

2). PTSD is the most severe and incapacitating form of stress-related disorder, capable of ending its victims's functional life in a matter of moments while changing, forever, the life of the victim's family:

3). The risk of becoming a victim of PTSD is mostly a function of being in a high-risk, potentially traumatizing situation/experience, thus individuals in a "high-risk" occupation (such as law enforcement) are at a higher than normal risk for PTSD

4). The chance of developing PTSD in the career of any emergency service profession is around 16% according to Reese (1991)

5).The suicide rate of some law enforcement agencies can be as high as tree times the national average and have been associated with the stress of being exposed to, and dealing with, other people's problems

6). It is generally accepted that the state of mind of first responders can greatly affect the outcome of any given situation which they are asked to respond to, including the health of the primary victims themselves

7). These points and more argue compellingly for intervention efforts to be directed toward the prevention of post-traumatic stress syndromes (Duffy, 1979; Kentsmith,1980; Butcher,1980) 8). Finally, CISD and traumatic stress defusings have a ten year history of application in high risk occupational venues across the globe making them the most widely used formalized intervention for the prevention of traumatic stress in the world.

In one of the few quasi-experimental analyses done by FBI into post-shooting effects, it was found that in 10 years of pre-debriefings there were a significant number of agents who required further psychological counseling. After the intervention of CISM this was reduced to about one third. There have been some other analyses done on similar incidents where CISM and debriefings were available and those there were not. There have been significant differences in the loss of emergency personnel who were able to be debriefed and were able to continue their careers.

BIBLIOGRAPHY

American Psychiatric Association (1987).Diagnostic and statistical manual of mental disorders. (3rd ed, rev. Washington: Author.

Austerita, M.E. (1985).The physiology of stress. New York: Human Sciences Press.

Baumeister, R.F. (1984). Choking under pressure: Self consciousness an paradoxical effects of incentives on skillful performance. Journal of Personality and Social Psychology, 46 (3), 610-620.

Bower, G.H. (1981). Mood and Memory. American Psychologist, 36, 129-148.

Bray, Grady (1990). Emergency Services Stress. Englewood, New Jersey: Prentice-Hall.

Burks, N. & Martin, B (1985). Everyday problems and life change events: ongoing versus acute sources of stress. Journal of Human Stress, 11 (1), 27-35.

Butcher,J.,(1980). Minimizing the psychological effects of a wartime disaster on an individual. Aviation, Space, and Environmental Medicine.49, 1260-1262.

Caspi,A., Bolger, N., & Eckenrode, J. (1987). Linking person and context in the daily stress process. Journal of Personality and Social Psychology, 52 (1), 184-195.

Duffy,J.,(1978). Emergency mental health services during and after a major aircraft accident. Aviation, Space, and Environmental Medicine.49,1004-1008.

Dunning, C. M. (1985). Prevention of Stress. In National Institute of Mental Health (ED.), Role of Stressors and supports for emergency workers (DHHS Publication No. ADM 85-1408. Rockville, Md.: Editor.

Friedman,R., Framer, M. & Shearer,D. (1988 September-October). Early response to post-traumatic stress. EAP Digest, pp.45-49.

Glass, A.J. (1959). Psychological aspects of disaster. JAMA, 2, 222-225..

Hansen, J.I.C. (1984). User"s guide for the SVII-SCII: Strong-Campbell Interest Inventory. Palo Alto, Ca. Stanford University Press.

Hartsough, D.M. & Myers, D.G. (1985). Disaster work and mental health: Prevention and control of stress among workers (DHHS Pub. No. ADM 85-1422) Rockville, MD.: National Institute of Mental Health.

Holmes,T.H.& Rahe,R.H. (1967). The Social Readjustment Scale. Journal of Psychosomatic Research 41 (3), 209-218.

Horowitz, M. Wilner, N. & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective stress. Psychosomatic Medicine, 41 (3), 209-218.

Jones, D.R. (1985). Secondary disaster victims. American Journal of Psychiatry, 142, 303-307.

Kanner, A.D., Coyne, J.C., Schafer, C., & Lazarus, R.S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. Journal of Behavioral Medicine,4, 1-39.

Kentsmith,D. (1980). Minimizing the psychological effects of a wartime disaster on an individual. Aviation, Space, and Environmental Medicine. 51,1260-1262.

Latane, B.,Wheeler, L. (1966). Emotionality and reactions to disaster. Journal of Experimental Social Psychology Supplement,I.

Laufer, R.S.,Frey-Wouters, & Gallops, M.S. (1985). Traumatic stressors in the Vietnam war and post-traumatic stress disorder. In C.R.Figley (Ed.).Trauma and its wake. New York: Bruner:Mazel.

Lazarus, R.S. (1964). The short circuiting of threat. Journal of Abnormal and Social Psychology, 69 195-205.

Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal, and coping.New York: Springer.

Locke, E.A. & Taylor, M.S. (1991). Stress,coping and the meaning of work. In A. Monat & R.S. Lazarus. (Eds.), Stress and Coping, 3rd Ed., (140-157,New York: Columbia Press.
Luthe, W (1965). Autogenic Training. New York: Grune and Stratton.

Mandler, G. (1982).Stress and thought processes.. In L. Goldberger & S. Breznitz (Eds.), Handbook of Stress: Theoretical and Clinical aspects. New York, Free Press

McCarthy, M. (1989, Apr 7). Stressed employees look for relief in workers' compensation claims. Wall Street Journal, pp.34.

McFarlane, A.C. (1988). Relationships between psychiatric disorder and natural disaster: The role of distress. Psychological Medicine, 18, 129-139.

Mitchell,J. (1982). The psychological impact of Air Florida 90 disaster on fire-rescue, paramedic and police officer personnel. In R.A. Cowley (Ed.), Mass casualties: A lesson learned approach: Accidents, civil disorders, natural disasters, terrorism (DOT Pub.No. HS-806302. Washington, DC: Department of Transportation.

Mitchell,J. (1983a). Effects of stress management training on paramedic coping styles and perceived stress level,Dissertation Abstracts International,43,4377a-4378a. University Microfilms No.84123031.

Mitchell, J. (1983b). When disaster strikes...The critical incident stress debriefing. Journal of Emergency Medical Services,136-39.

Mitchell, J. (1984,April). High Tension: Keeping stress under control. Firehouse, 86-89.

Mitchell,J. (1986). Assessing and Managing the psychological impact of terrorism, civil disorder, disasters, and mass casualties. Emergency Care Quarterly, 2 (1), 51-56.

Mitchell, J. (1986). The development and functions of a critical-incident stress debriefing team. Journal of Emergency Medical Services, 13, 43-46.

Mitchell, J. & Everly, G. (1993). Critical Incident Stress Debriefing: Operations manual for the prevention of traumatic stress among emergency services and disaster workers. Elliott, Md., Chevron Publishing.

Mitchell, J. (1988). Development and functions of a critical incident stress debriefing team. Journal of Emergency Medical Services. 13(12) 43-46.

Moos, R.H. & Schaefer, J.A. (1986). Life transitions and crises: A conceptual overview. In R.H. Moos (Ed.), Coping with life crises: An integrated approach pp. 3-28. New York: Plenum.

Mitchell, Jeffery, telephone interview by author, June 16, 1994.

Moriarty,A & Field, M.W. (1990). Proactive Intervention:A new approach. Public personnel Management, 19.

Pelletier, K. (1984) Healthy people in unhealthy places: Stress and fitness at work.New York: Delacorte and Delta Seymour Lawrence.

Pennebaker, J.W.,Susman, J. (1988). Disclosure of traumas and psychomatic processes. Social Science and Medicine, 26,327-332.

Pines, A.M., Aronson, E, & Kafrey, D. (1981). From tedium to personal growth.. New York: Free Press.

Plutchik, R. (1980).A language for the emotions.Psychology Today. 13(9),69-78.

Reese, J.T., Horn, J.M.,Dunning, C.(1991). (Eds). Critical Incidents in Policing. Washington,D.C., U. S.Government Printing Office.

Selye, H. (1974).Stress without distress.. Philadelphia: Lippencott.

Selye,H. (1980). The stress of police work.Police Stress. Stress, Vol 1,7-9.

Taylor, A.J.W. & Frazer, A.G. (1982). The stress of post-disaster body handling and victim identification work. Journal of Human Stress, 8 4-12.

Ursano, R.J. & McCarroll, J.E. (1990). The nature of a traumatic stressor: Handling dead bodies. Journal of Nervous and Mental Disease. 178 (6), 396-398.

van der Hart,O.,Brown,P., van derKolk,B. (1989) in Pierce Janet's treatment of post-traumatic stress. Journal of Traumatic Stress. 2, 379-396.

Windom, R., McMinnus, J., & Fielding J. (1987). Examining worksite health promotion.Business and Health, 4,,26-37.

Yandrick, R.(1990,Jan.).Critical Incidents. EAPA Exchange. pp.18-23.