

RELATIONSHIP OF SELECTED TRAINING
CHARACTERISTICS TO STRESS
MANAGEMENT IN POLICE
FIELD OPERATIONS

By

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CHAPTER I

INTRODUCTION

Stress and stress related problems are being recognized as an occupational hazard of police; as a consequence, several police departments have recognized that stress and its consequences effect the efficiency and effectiveness of the department (Bracey, 1979). According to Waters, Irons, and Finkle, (1983):

The police have been recognized as a special group because their day-to-day functioning involves events that require constant adaptation. What has often been overlooked is that police work is not just 'another job'; it is a total life style each segment of which affects the other. It follows logically then that 'job stressors' are in fact 'life stressors' (p. 7).

Stress problems of police need to be detected so that measures can be taken to remediate existing problems and lessen or reduce future occurrences of stress related problems (Reiser, 1976, Stratton, 1978a). Traditionally, there has been a tendency to view police officers as people who are equipped to handle any situation and who can move

from one emotionally wrought scene to another while remaining stoic. Administrators, however, are becoming more aware of the implications and dangers that a law enforcement career can create for an individual (Gruber, 1980).

Research has shown that law enforcement personnel are at the upper end of the spectrum when stressful jobs are measured (Kroes & Hurrell, 1975). The fact that most police officers begin their careers in excellent physical health and end with some job-related disorder demonstrates the cost of continuous emotional readjustment (Waters et al., 1983). This can also be seen in the increasing number of awards from both courts and workmen's compensation boards to law enforcement officers for stress related disabilities such as heart disease and nervous disorders (Stratton, 1975).

The need to manage stress and still perform effectively is important not only to the police officer, but to the public in general. The policeman's role has a complex nature which requires emotional stability, competent judgement, and instantaneous decision making ability in circumstances ranging from ambiguous to life-and-death. Although much of police work is non-threatening, the realization that routine assignments can quickly become life threatening is an intense source of stress. According to Stratton (1975), the causes of stress include the fact that the officer's life may be constantly "on the line." A United States Department of Justice Report (1981) found that the possibility of an on-duty officer fatality had increased

over 250 percent since 1960.

As stated previously, police work has been identified as one of a number of highly stressful and anxiety producing occupations (Reiser, 1978a). Administrators, and others concerned with the effects of stress among police officers, currently believe that an intervention program that deals with both the recognition and reduction of stress should be included in police officer training (Gruber, 1980). This program should include various psychological services available to all staff, such as confidential counseling, and special courses offered to law enforcement personnel on stress and coping mechanisms (Stratton, 1976, 1977). The present study was designed to investigate possible relationships between exposure to simulated physically dangerous training and officers' perceptions and management of that stress.

Statement of the Problem

There is limited empirical evidence focusing on police stress, and that which does exist poses interpretive difficulties (Terry, 1981). Not enough is known about the characteristics of effective stress recognition and stress reduction. Information on stress is needed for those involved in the training of police officers as a means of developing a more viable program than that which currently exists. There appears to be a need for some intervention during the training of police officers that will facilitate

some positive change in the perception of stress, decrease vulnerability to stressors, and improve the management of stress. The empirical evidence that police work is more stressful than that of other occupations is inconsistent (Blanch, 1977; French, 1975; Kroes, Margolis, & Hurrell, 1974; Wagner, 1976). All these studies, however, leave no doubt that police work is relatively stressful and that the potential consequences affect society more than for most other occupational groups. These studies support the need for an intervention in the training of police officers that will aid in the recognition of stress and in the reduction of stress related problems.

To achieve the purposes of the study, apprentice police officers and community service officers currently undergoing training in the Tulsa Police Training Academy were surveyed to determine their perceived stress and vulnerability to stressors. A group of community service officers were given the simulated training and were compared to a group of apprentice police officers who did not receive the training on the variables of perceived stress and vulnerability to stressors. Statistical analyses were applied to these data to determine what relationships existed between involvement in the simulated physically dangerous training and scores on the survey instruments.

Background of the Study

Research studies have offered contradictory findings with regard to police stress as compared with other

occupations. Blackmore (1978) points out the contradiction of two studies released by the National Institute of Occupational Safety and Health concerning the extent of stress in policing. Police work has, in the majority of the studies, been identified as one of the most highly stressful and anxiety-producing occupations. While there is some confusion as to the amount, there is general agreement that police officer stress affects the public more than the stress from most other occupations. Police officers unable to cope with the stress of their job pose a threat to themselves, fellow officers, and the public (Webb & Smith, 1980).

The traditional methods of handling stress related problems has been under attack for failure to deal with the high incidence of stress related behavioral problems. These methods have historically involved treating the stress related problem as a disciplinary violation without considering the psychological basis of the problem behavior. This method often carried severe punishment, such as suspension without pay and probation (Blackmore, 1978) under the assumption that placing the police officer on probation and/or days off without pay will provide the necessary incentive to correct his behavior. As an example, the administrative method of coping with police stress that advocated hiding or transferring the officer does nothing to solve the problem that causes the undesirable behavior. This often only allows the negative behavior to continue

until the officer is fired or forced to resign. Currently, there is a move toward stress education with stress recognition achieving a priority role (Degenaro, 1980; Greller, 1982; Wallace, 1978). According to the International Association of Chiefs of Police ([IACP], 1978) "Police agencies can no longer ignore the effects of stress on officers". This suggests that some intervention in the initial training of police officers and the ongoing in-service training of police officers should contain stress related topics to promote understanding and awareness. The purpose of this study was to examine the applicability of current theory and empirical knowledge about stress and provide data on a stress program that may aid those involved in the training of police officers.

Definition of Terms

Stress is a construct which will be defined as "A perceived substantial imbalance between demand and perceived response capability, under conditions where failure to meet demands has important consequences" (McGrath, 1970) as measured by the Subjective Stress Scale and the Individual Profile of Stressors II.

Level of perceived stress will be defined as that level of awareness and understanding of stress that the individual possesses as measured by the Subjective Stress Scale.

Level of Vulnerability to Stressors will be defined as the level of acceptability to the specific stressors

contained in the Individual Profile of Stressors II.

Police Officers were selected from apprentice police officer and community service officer cadets currently employed by the Tulsa Police Department and undergoing training at the Police Training Academy. Both the apprentice police officers and the community service officers will be certified peace officers upon completion of their training. The apprentice police officers will be assigned to regular field duty, while the community service officers will be assigned to provide security at the Tulsa International Airport and other city facilities as needed.

Simulated Physically Dangerous Training is a selective type of training and will be defined as situations that have been prearranged to simulate circumstances that represent physical danger to the police officer.

Assumption

In conducting this study the following assumption was made:

The police cadets were willing to honestly and accurately respond to the items on each instrument seeking information about their perception of stress and vulnerability to stressors:

Limitations

Limitations to the study due to methodology or restrictions were:

1. Although it was explained that participation was voluntary some subjects may have felt obligated to participate, which may have biased their responses.

2. This study is not considered experimental but rather quasi-experimental research, which may limit the external validity of the results. Hence the following may have been violated: (1) interaction of testing and treatment, in that the subjects may react differently to the treatment because they have been pretested, and (2) interaction of selection of treatment, due to the subjects having not been randomly selected and the possibly of the treatment group being different from the comparison group.

Research Hypothesis

The following hypothesis was derived from the literature and was tested in this study:

A statistically significant difference will exist between police officer cadets involved in simulated physically dangerous training and those not involved in physically dangerous training on the variables of perception of stress and vulnerability to stressors as measured by the Subjective Stress Scale and the Individual Profile of Stressors II.

Summary

This chapter has presented the purpose of the study, the background and limits of stress related research on

police officer training, and the research hypothesis. Chapter II will present an indepth review of the literature and Chapter III discusses the methodology employed in studying the hypothesis. Chapter IV presents the statistical results which are summarized in Chapter V along with recommendations for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Police work, as one of a number of high stress occupations, has received considerable attention from researchers, police administrators, and the public. It has been suggested that the stress from police work results in environmental, interpersonal, and organizational costs (IACP, 1977). According to French (1975), policemen experience more stress than other workers when comparing occupations across responsibility for other people, complexity of work, and nonparticipation. Leonard and Tully (1980) found that police stress is directly attributable to the police working environment, and that the effects of that stress can adversely influence police performance. Studies have suggested that stress reactions are also influenced by past experiences and previously unresolved conflicts which may unconsciously motivate behavior (Katkin, 1965; Miller & Schmovonian, 1965; Stapol, 1954). This suggests a need for training methods that can aid police officers in reducing stress reactions and maintain their performance level. The use of simulated training has been shown to be effective in improving performance (McGrath, 1976a).

The theme of prior experience and stress has been stated as:

'Practice makes better--usually'. . . . Prior experience, with the task, the stressor and/or the situation, attenuates the effects of stress (McGrath, p. 77).

McGrath goes on to say that virtually every study of task performance under stress shows practice or exposure or experience to be effective in reducing performance deterioration (p. 77).

Subjective psychological processes, such as cognitive appraisals of threat, mediate the effects of the stress conditions. According to McGrath, the cognitive appraisal theme maintains that:

Emotional experiences, and to some extent physiological and performance measures, are in part a function of the perceptions, expectations, or cognitive appraisal which the individual makes of the (stressing) situation (p. 79).

Stress, and stress responses vary as a function of experience. Past experience leading to successful mastery or to positive reinforcements tends to reduce the perception of threat.

This chapter will focus on a review of literature related to this study. The studies and literature selected are listed under four main headings. The first section will

include a brief review of stress and stressors as defined by Hans Selye, who first introduced the concept of psychological stress. The second section will deal with perceived stress, its meaning, and includes a review of relevant studies. The third section will define vulnerability to stressors and present relevant studies. The final section will describe simulated training and its role in the individual's perception of stress in dangerous situations, along with studies on simulated training.

Stress and Stressors

The history of stress as a problem begins with the physiological theories of Walter Cannon and Hans Selye. Cannon formulated and substantiated the principle of homeostasis (Cannon, 1932). Hans Selye in 1936, introduced the concept of psychological stress and the concept of the General Adaptation Syndrome (G.A.S.). According to Cannon, homeostasis is the tendency of the body to maintain a normal balanced state. The homeostatic definition of stress is a condition which results in an unbalance, or lack of equilibrium, in an organism. This state of unbalance, resulting from internal changes becomes a stimulus for a return to a homeostatic or balanced condition. A series of publications of the Annual Report on Stress (Selye, 1951-1956), along with an address to the American Psychological Association in 1955, has been credited with starting the interest in research on stress.

Selye based his work on Cannon's and defined stress as: The nonspecific response of the body to any demand. It was first recognized by evidence of adrenal stimulation, shrinkage of lymphatic organs, gastrointestinal ulcers, and loss of body weight with characteristic alterations in the chemical composition of the body. It was later found to comprise many other changes as well that form a syndrome, a set of manifestations which appear together. This was called the General Adaptation Syndrome (G.A.S.) (1956, p. 55).

Selye named the concept General Adaptation Syndrome because of the specific reactions within the body. He used the word "general" because he felt it was "produced only by agents which have a general effect upon large portions of the body " (Selye, 1956, p. 38). The word "adaptive" was chosen because "it stimulates defense, and thereby helps in the acquisition and maintenance of a stage of inurement" (1956, p. 38). The stress reaction was called a "syndrome" because "its individual manifestations are coordinated and even partly dependent upon each other" (1956, p. 38).

The G.A.S. consists of three stages: the "alarm reaction," the "resistance stage," and the "exhaustion stage." At the initial sign of stress, the alarm reaction occurs, at which point the body rapidly organizes itself to get ready to cope with the stress using defense mechanisms.

The second stage, resistance, describes the continued attempt to cope with the problem by adaptation to the changes or resistance to any further change. The third stage, exhaustion, comes after the body has used its resources in fighting stress, and is unable to completely adapt to changes from the alarm reaction. This pattern of responses describes the physiological workings of the body, which in turn determine much observable human behavior. Selye stated that stress was an abstraction, and did not exist in a pure state. To reify his concept, Selye said that: "you cannot study stress: you can merely explore real and tangible things such as effects . . ." (1956, p. 49).

In an effort to clarify the process of studying stress, Selye differentiated between the sources of stress (stressors) and reaction (stress). Stressors are the stimulus condition that cause the stress reaction, while the response of the individual is the stress. Therefore, within the G.A.S. there will be some differences in definitions of the term stress. These differences in meaning will depend on the stage of the G.A.S. but will nevertheless refer to the individual's reaction to the stressors.

Selye's homeostatic definition of stress refers to the stimulus condition as well as the response or reaction. It refers specifically to a stress state within an organism, and impacts on the homeostatic condition which can be measured physiologically.

Perceived Stress

Stress is in the eye of the beholder. One of the most pervasive themes, the cognitive appraisal theme, both theoretically and empirically, essentially takes this perspective. Emotional experiences, and to some extent physiological and performance measures are, in part, a function of the perceptions, expectations, or cognitive appraisal which the individual makes of the (stressing) situation (Fritz, 1957; Harris, Mayer, & Becker, 1955; Lazarus et al., 1957; Lazarus, Deese, & Osler, 1951; Reid, 1948).

A survey by the International Association of Chiefs of Police (1971), dealt with the possible subconscious effects of the perception of the danger in police work. This survey dealt with officers' reception of radio calls. Experienced police officers that were regularly assigned to motorized patrol duty in several cities were asked to rate the degree of danger associated with typical patrol assignments. The study results in a finding that not only were certain calls regarded as potentially the most dangerous but that they also effected the formulation of a response by the receiving officer. The study also surveyed new recruits to study the relationship between training and perceived danger. The recruits were asked to indicate on a 5-point scale ranging from "definitely yes" to "definitely no" whether they believed certain parts of their training had been sufficient. The recruits responses from the sufficiency

questionnaire were compared to their responses to the danger questionnaire. In general, the results showed that those recruits who believed their training to be sufficient tended to perceive less danger in the incidents listed than the recruits who felt their training was not sufficient. Such results point to the importance of understanding the effect on one's judgement of perceived danger.

Dillsworth and Green (1974), in their work dealing with dangerous situations encountered by police officers stress the recognition of danger, assessment of self, and the situation, as necessary to ensure the proper action in dealing with dangerous situations. Because of the danger involved in police work, there is a need for individual assessment of each situation, and at the same time, self-assessment by the police officer. The physical reactions to fear of danger i.e., nervousness, perspiration, and trembling hands as well as the resulting distortion of reality i.e., lights becoming brighter, sounds becoming louder, etc., must be recognized as normal natural defenses emanating from the perception of danger. A psychological balance should be maintained when dealing with them.

In a symposium presented in Cincinnati, Ohio, Grencik (1975), discussed signs of stress in police officers, methods of coping with stress, and theory concerning the causes and symptoms of stress. She presented four types of stress: the internal stresses of the individual; stress from interaction of two or more people; stress from an

organization; and stress from the environment or social system. It was noted that internal stresses resulting from unresolved fears and concerns may accentuate the experience of stress originating in external sources. She also indicated that people who have satisfactorily resolved the basic question of their own worth appear to be able to cope more easily with other stresses. This agrees with the finding of Lazarus (1966), who identified differences in cognitive styles between those who are copers and avoiders.

Murphy (1978), in a paper for the U. S. Department of the Army U. S. Military Police School, discusses the elements in the use of force by police, personality traits as they relate to the use of force, and training aimed at avoiding unnecessary use of force. Murphy found that violence often erupts when the officer becomes afraid or is under great physical or mental stress. He pointed out that officers often have only seconds in which to decide the extent of force that is required in a given situation. Murphy feels that police training for the most part is inadequate and ineffective, noting that "experienced policemen regard recruit training as useless and don't hesitate to tell the rookie just that" (p. 41). Training programs should be structured to concentrate on those problems, such as use of force, that interfere most with a police department's ability to function effectively. Drawing on analysis of military combat behavior in World War II, Grinker and Spiegel (1945), concluded that the

perception of danger can dramatically affect the enactment of an occupational role. The use of deadly force is invariably related to a perception of certain and extreme danger either to the officer or someone else. Training should recognize that the degree of danger perceived by the officer performing his duties affects the behavior of the officer.

Using role playing as a training device Diener, Whitmore, and Munn (1978), found that simulated training not only augmented classroom training in applying correct procedure but also reduced the perceived stress of the encountered situation. This finding is consistent with psychological research showing that in order to teach abilities or behavioral skills, simply imparting the knowledge verbally (i.e. lectures) is inferior to demonstration of the behavior and actual practice (McGrath, 1970).

The training, devised by Diener et al., (1978) was conducted at the Police Training Institute of Illinois and involved 400 officers over a nine-month period. The officers in each session had little or no street experience. Each session, including before and after lecture, averaged about 2.5 hours for 35 officers. Each session began with the instructor describing the general procedure to the group. This included telling the group that they were going to be exposed to situations that paralleled those encountered in police work and would be called upon to act

in a manner consistent with their prior training. The role-playing episodes were designed to realistically simulate those occurring in police work and to teach officers decision and behavioral skills in stressful, potentially dangerous situations.

The evidence suggests that the perception of a situation affects the efficiency of performance. If a situation has induced fear/anxiety in an individual then a deterioration in performance will occur, especially in tasks involving sensory-motor skill or divided attention.

Vulnerability to Stressors

Trumbo (1973) reviewed a sample of laboratory tasks currently used in the study of human performance and information processing. Several prototype tasks were considered, including vigilance, serial reaction, reaction time, and simple biphasic movement. Each of these tasks shows promise of providing specific information about the locus and nature of stressor effects. It was concluded that research on stressors should involve multiple tasks and performance indicants and should be directed toward an analysis of the interaction of the effects.

A paper delivered by Kroes and Hurrell (1975) points out that psychological stress on the job is a serious occupational hazard for police officers. Stressors impinging on police officers include those shared with other occupations and those specific to police work. These

stressors were categorized by making a distinction between those stressors which are unique to policing and those which are present in other occupational environments. The categories were further sub-divided into stressors inherent in the nature of policing and stressors which have evolved and become a part of policing. It appears that with the exception of stressors concerning responsibility for people, complexity, organizational territoriality and line of duty/duty crisis situations, the other sources can be reduced or eliminated.

McQuade (1972) concluded that stress is a more important factor in the etiology of coronary disease than diet, smoking and exercise combined. House (1974) indicates a clear association between psychological job stress and coronary heart disease and its risk factors, such as high blood pressure, high cholesterol levels and heavy smoking.

The sources of stress are many and varied but the physiological responses they produce are essentially identical. In a study of the police in the United Kingdom, Davies (1978) showed that job stress may be the most important problem facing British Police Officers. Davies determined the sources, symptoms, and effects of stress, for the general population of workers and the British Police in particular, along with means of reducing job-related stress for police officers. Although the sources of stress were found to be many and varied, the biological responses produced are essentially identical.

Davies also found that people suffer as much from a total lack of stress as they do from an excess of stress. From this he concludes that, on the job, there needs to be a balance of job satisfaction and motivation. Since officers are rarely in a position to determine that balance, officers and their supervisors must be able to identify the signs of stress and establish a policy for dealing with stress. Davies found that sources of job-related stress for police may be found in emergency situations they must handle, expectations of the public, demands of supervisors, courtroom experiences, and rigors of shift work. These results agree with the findings of Kroes and Hurrell (1975). Davies further suggests that efforts be made to reduce or eliminate stress before it severely affects police officers (Davies, 1978).

Of the major stressors identified by Stratton (1978b) two were found in which the officer felt the most vulnerable. Those were: (1) the large number of situations in which the officer's body is called upon to be in the alert state, and (2) situations in which an officer is responsible for an individual's life. Repeated exposure to physical danger was found by Swanton (1980) to be a powerful stressor. Stratton feels that the physical effects of stress are digestive problems, head and back aches, heart disease, and weight gain. The emotional problems include compulsive overwork, exhaustion syndrome, alcoholism, emotional reactions to traumatic experiences, and marital

unrest.

The primary stimulus producing stress in police work comes from conscious and subconscious reactions to potentially dangerous "unknowns" on a regular basis (Desanto & Fennelly, 1979). Experience gained or cautions learned in training, have taught the police officer that any answered call can be a threatening situation. Psychological stress is most frequently dealt with through the exercise of defense mechanisms. The defense mechanisms of denial and displacement are the two often used by police officers in dealing with stress. Denial is a conscious or subconscious suppressing of anxiety and tension -a pretense that one is calm or unafraid. When employed over a long period of time this leads to a denial of real and normal emotions affecting one's body and mental processes. Displacement involves channeling tension and anxiety toward people and situations that have little, if any, connection with the causes of the operative stress. Displacement can involve complaining about low pay and existing working conditions, excessive drinking, abusive behavior, and adopting a negative or cynical attitude toward those outside law enforcement. It is the role of police supervisors to acknowledge the stress of the job and help officers deal with the fear and anxiety that are an inevitable part of their work, so that destructive use of defense mechanisms will not hamper job performance and personal relationships (Desanto & Fennelly, 1979).

Simulated Training

Several authors (Kahn, Wolfe, Quinn, & Snoek, 1964; Lazarus, 1966; McGrath, 1976a) indicate that the amount of stress experienced by individuals is a function of their personality profile, resources available to cope with the source of stress, the nature of past experiences with similar stressful experiences, and past performance under non-stressful situations.

Virtually every study of task performance under stress shows practice, exposure or experience to be effective in reducing performance deterioration (Berkun, Bialek, Kern, & Yagi, 1962; Capretta & Berkun, 1962; Farber & Spence, 1956; Hill & Hansen, 1962; Miller, 1959; Pronko & Leith, 1956; Stapol, 1954; Ulrich, 1957). Generally, performance improves with practice on the task, either with a stressor present or for control conditions. A somewhat related point is that subjects will seek information about the occurrence of a potential stressor even when they cannot avoid it, presumably because advance knowledge somehow affects their expectations, and/or their coping responses (e.g., forewarned is, in some sense, forearmed, Luby, Grisell, Frohman, Lees, Cohen, & Gottlieb, 1962).

Training, in the sense of deliberate practice in performance of the correct responses, appears to be an unmixed blessing with respect to alleviation of stress effects, and has been highly recommended as a remedy for potential stresses in space missions, civil defense,

community disaster, and other real-life situations (Fritz & Marks, 1954; Malmo, Smith, & Kohlmeyer, 1956; Rohrer, 1959). Also, prior information (warning) reduces stress and its adverse consequences, provided it is not too little or too late (Elliott, 1966; Fritz & Marks, 1954). The experience theme is closely related to the cognitive appraisal theme. Exposure or practice can be viewed as another form of change in one's expectations; prior exposure to a stressor lets one know better what is coming (McGrath, 1970). There is, however, one caution. Extended practice on a task (overlearning) has been shown to be detrimental to later performance in a stressful situation, if conditions have changed so that the learned response is no longer the "correct" response (Castaneda & Palermo, 1955; Palermo, 1957).

An experiment was reported by Diskin, Goldstein, & Grecik (1977) using data obtained from police officers undergoing simulated stress training. The data was the results from psychophysiological and self-report tests from 135 police officers' reactions to a stressful film. The experiment showed a significant correspondence between supervisory ratings of field performance and the data. This suggests that the demands in law enforcement service were approximated by the simulated stress procedure. The subjects were randomly chosen from a group of officers with a maximum of 10 years service. Prior to testing, the subjects were measured for normal anxiety levels. The

officers were placed into three categories based on their measured anxiety level. Group 1 'coper' consistently showed intolerance for uncertainty, with dependence on cognitive rehearsal which clearly restricts flexibility. Group 2 'neutral' and Group 3 'avoider' were separable on anxiety level. Low anxiety neutrals and avoiders demonstrated adaptiveness with or without cognitive rehearsal. High anxiety neutrals and avoiders exhibited extreme apprehensiveness which resulted in the same intolerance for uncertainty as the copers. There were nine groups of 15 subjects that were exposed to three treatment conditions: (1) viewing a travelogue film encouraging relaxation, (2) a 10-minute relaxation interval in which subjects waited unaware of future events, and (3) viewing an accident film previously proven to elicit stress after being warned and given information about the film. During the experiment, the stress response was measured by skin resistance response and self-report questionnaires. Groups with lower anxiety adapted to the stressor.

Temoshok and Rubin (1978) proposed to assess police officer job stress through use of a questionnaire which was administered following a filmed simulation of stressful experiences. The project had two goals. The first was to identify individuals who would have difficulty coping with stressors inherent in the job of police officer. The second was to formulate a program based on a decision making model of coping patterns and behavioral options to help the

officer to make better decisions in stressful situations. The training phase of the project was based on the theoretical implications of the decision making model of stress assessment as identified by Janis and Mann (1977). Janis and Mann (1977) emphasized that effective intervention depends on both a "cognitive confrontation" and "emotional confrontation." In "cognitive confrontation" a person becomes aware of previously latent thoughts and feelings through verbalizing beliefs about a situation, and becoming sensitized to the inconsistencies between beliefs and actions. In "emotional confrontation," one becomes sensitized by role-playing, providing for the context of a thorough, systematic examination of the alternative courses of action in a situation. The assessment technique consisted of a standardized easily administered test, the ecological validity of situational testing, the use of film with its unique capacity to simulate reality providing the stimulus and emotional impact of real-life experience, and a simulated stress group method, or the assessment center approach, where behavior is observed in a series of job-related situations.

In a study on simulated training for the U. S. Air Force (USAF) Kantor, Klinestiver, and McFarlane (1978), using combat experienced fighter pilots, found that while combat per se generated the most severe stress, it is the stress experienced prior to combat that was associated with performance. These findings are in agreement with

Anderson's (1976) study of Hurricane Agnes victims. In this study Anderson found that anxiety associated with high stress leads to overconcentration on emotional and defensive coping mechanisms and insufficient attention to problem-solving coping mechanisms. The result was lower levels of performance.

The Kantor et al. (1978) study dealt with the issue of the subjective experience of stress and the relationship between that experience of stress and performance in air combat. The subjects were selected from members of an organization having the most recent USAF experience of conducting air operations in a major theatre of battle. The instrument, the Combat Stress Questionnaire, consisted of a listing of specific events which a pilot might expect to encounter during fighter aircraft missions to heavily defended targets. The subjects were to respond as to the frequency of the event and indicate the stress level of that event. Based on the order of entry into a stepwise linear regression it was determined that stress felt before actual combat begins (firing and/or being fired upon) is more reflective of performance than stress experienced during actual combat.

A study of peace officers who were murdered in California in 1973-1977 (Moorman, 1978), was conducted by analysing data and records collected and maintained by the California Specialized Training Institute. By charting incidents of police officer murders and categorizing the

characteristics, Moorman was able to develop learning points that should be utilized in developing training needs. Beyond the agency's responsibilities for imparting training and job skills, awareness and training must be continuous and constantly updated. This is necessary because law enforcement is a highly dangerous and frequently unforgiving occupation. The research concluded that there was a need for inservice training in the handling of disturbances, robberies, and suspicious persons or vehicle incidents to improve performance under stressful situations.

The Federal Criminal Police Agency (West Germany) conducted a study of material from judicial files, police files, and personnel records involving death or injury to determine how officers' behavior affects their victimization (Sessar, Baumann, & Mueller, 1980). The analysis focused on 198 cases involving death or injury to 232 victims. Conditions of police operations relevant to the problem of self-protection and the officers' mistakes were studied. A crucial factor in self-protection was not, as expected, whether officers had time for planning and preparation during the time between first notice of the incident and confrontation with the offenders. Longer intervention periods, in fact, appeared to increase the danger to the police. Also, a time-span between making contact and the beginning of conflict had little effect; although, a time-span between the beginning of conflict and the beginning of violence seemed to save lives. Results suggest that killed

or injured officers were not adequately in control of the situation because they started at a disadvantage or because they were unable to keep control of an advantageous situation. The most prominent among these were failure to take precautions, failure to use available cover, failure to perform a body search, failure to have firearms ready for use, and failure to call in additional personnel. These results point to the need of improving performance under stressful situations.

Payne, Fineman, and Jackson (1982) conducted an experiment which involved measuring whether previous experience in situations causes them to be seen as more, or less, threatening. They used 209, 30-60 year-old males in the development of the Job Reaction Questionnaire. The measure reported psychological and emotional reactions on eight dimensions involving 20 work situations (8 X 20 matrix). The general finding was that those who have not experienced a situation tend to note it as more stressful. The results supported the hypothesis and point to the usefulness of simulated training.

Summary

This review summarized the current research-based knowledge of stress. It covered understanding of stress, perception of stress, vulnerability to stressors, simulated training and the inferred relationships of these phenomenon. Discussion was also directed toward training methods which

are directed toward influencing levels of perceived stress and vulnerability to stressors. Methods of changing or lowering perceived stress and vulnerability to stressors were reviewed. The present study attempts to build on the concepts used in previous research in an effort to determine the relationship of involvement in simulated training to changes in the perception of stress and stress vulnerability.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The purpose of this study was to provide an indication of the usefulness of simulated training as a means of controlling for and reducing situational stress. The level of perceived stress was measured by the Subjective Stress Scale (Kerle & Bialek, 1958). The vulnerability to stressors was measured by the Individual Profile of Stressors II (Healthline, 1985).

Sample

The sample for this study consisted of the apprentice police officers and community service police officers currently employed by the Tulsa Police Department and undergoing training at the Police Training Academy. As with all police cadets in the State of Oklahoma they met the requirement as set forth by State law. In addition to those requirements, the apprentice police officers each had a minimum of 109 college credit hours. The community service officers had a high school degree with lesser amounts of college credit. All subjects were currently employed by the Police Department of the City of Tulsa, Oklahoma, and were

to be assigned to field operational duties.

The Tulsa Police Department has implemented several innovative methods in law enforcement in the past few years. The Department serves a community of approximately 300,000 people. The Tulsa Police Department Training Academy is one of two academies in the State of Oklahoma that is authorized to train law enforcement personnel. The Academy also serves as a regional training center for law enforcement and related personnel.

The sample consisted of 51 officers. The comparison group contained 23 Apprentice Police Officers; the treatment group contained 28 Community Service Police Officers. The sample was composed of 30 Caucasian males, between the ages of 23 and 28 years, 9 Black-American males, ages 22 to 27 years, 8 Caucasian females and 4 Black-American females, ages 22 to 26 years.

Instrumentation

Subjective Stress Scale

The Subjective Stress Scale, constructed by Kerle and Bialek (1958) for the U. S. Army Leadership Human Research Unit, is designed to measure the individual's affective reaction (perception of the stressfulness of a situation) under field experimental conditions. The general objective of the test is to provide a measure of an individual's perception of stress in a given situation which would be

amenable to quantification and statistical analysis.

The scale was constructed using the Thurstone scaling technique. Items were scaled along a dimension of affect which ranged equidistantly in both positive and negative directions from a literal indifference point. The resulting scale is a set of unidimensionally ordered adjectives ($r = .99$ between the two judging groups used for scale development) from which the respondent selects the adjective which most nearly describes his or her feelings. (See Table I) Each respondents is given seven vignettes (See Appendix A) describing stress producing circumstances, to which the respondent selects an adjective from the Subjective Stress Scale which best describes their level of perceived stress. The score on the Subjective Stress Scale is the sum of adjective scale values from the seven vignettes. The adjectives from which the choice is to be made are listed in a random order.

TABLE I
SUBJECTIVE STRESS SCALE

Scale Interval	Item	Scale Value	Q Value	Score
1	Wonderful	1.18	.91	00
2	Fine	2.06	1.91	09
3	Comfortable	2.92	2.45	17
4	Steady	3.93	2.10	27
5	Didn't Brother Me	5.22	2.03	40
6	Indifferent	6.00	.96	48
7	Timid	6.91	1.49	57
7.5	Unsteady	7.60	1.51	64
8	Nervous	8.08	1.95	69
9	Unsafe	8.82	2.14	76
9.5	Frightened	9.50	2.14	83
10	Panicky	9.91	2.00	88
11	Scared Stiff	10.65	1.27	94

Source: Kerle & Bialek (1958)

Validity

Construct validity, which is the degree to which a test measures an intended hypothetical construct, of the Subjective Stress Scale was demonstrated by Kerle and Bialek

(1958) in a series of experiments in which soldiers were exposed to different situations intended to evoke varying amounts of stress. The experiments included the Atomic Energy's summer test exercises, at Camp Desert Rock, Nevada. Soldiers responded to the Subjective Stress Scale at several time intervals before, during, and after an atomic bomb test. Responses revealed a significant shift in the direction of negative affect just before and at the time of the atomic blast. At the Navy Fire Fighting School at Treasure Island, a group of Army recruits responded to the Subjective Stress Scale at differing intervals during exposure to fire control problems. Responses revealed an increase in stressfulness as the recruits extinguished the fires. At Fort Ord, Army recruits responded to the Subjective Stress Scale at three testing sites while preparing to cross and after crossing a rope bridge. A comparison of the administration indicated no significant difference in a respondents' expression of how they feel at a given time and how they recalled they felt at that time.

Reliability

Test-retest reliability, which is the degree to which scores are consistent over time, was also demonstrated by the responses of soldiers to the Subjective Stress Scale at the various time intervals of the atomic bomb test, the fire control, and the rope suspension bridge crossing. The results of these experiments demonstrated that the scores

were stable in the different situations. Comparison of scores across administrations resulted in no significant differences. "According to the results of the Subjective Stress Scale, . . . their anticipation was closely identical to the experience they felt" (Kerle & Bialek, 1958).

Individual Profile of Stressors II

The Individual Profile of Stressors II, (IPS) constructed by the St. Louis University Medical Center, has as its purpose the measurement of an individual's vulnerability to stressors at that particular time in his or her life. The general objectives of the test are to provide information about mental, emotional, physical, and situational stress as experienced by the individual. (See Appendix B) The Individual Profile of Stressors II consists of a format of 80 Likert-type items. The subject responds to each item by endorsing one of the following five possible choices: Almost Never (AN), Rarely (R), Sometimes (S), Often (O), and Almost Always (AA). Scores on the test consists of the coded values of each response as they apply to the above categories.

Validity

Analyses of data collected ($N=850$) by Healthline (1985) indicate substantial support for the construct validity of the Individual Profile of Stressors II. Construct validity pertains to evidence that the instrument measures what it is

supposed to measure. The Individual Profile of Stressors II's Global Vulnerability to Stress Index (GVSI), (obtained by calculating the sum of the scores for the 80 IPS items) was correlated in a positive direction with the individuals' own perceived degree of overall stress ($\underline{r} = .8$, $\underline{p} = .001$) as indicated by the individuals' responses. The greater the number of frequent and highly stressful situations experienced by the individual, the greater their GVSI ($\underline{r} = .8$, $\underline{p} = .001$). Likewise, the greater the number of frequently used and helpful coping strategies possessed by the individual, the lower their GVSI ($\underline{r} = .8$, $\underline{p} = .03$). Finally, the greater the number of negative stress symptoms (e.g., irritability, illness, somatic problems) reported by the individual, the greater their GVSI ($\underline{r} = .8$, $\underline{p} = .001$), (Healthline, 1985).

Internal Reliability

Coefficient alpha determines the average correlation among the items of an instrument (or within a scale), and is therefore a measure of "internal consistency". Using Nunnally's calculation of reliability, the alpha coefficient for the IPS has been found to be .943, which is an indication of exceptionally high internal consistency (Healthline, 1985).

Research Design

The research design used in this study was causal comparative in nature. Because cadets could not be randomly

assigned to treatment, external validity is limited. The purpose of the research was to provide treatment in a natural setting, with as few controls as necessary. Thus, the reader must beware of generalizing beyond the data set.

The statistical design for this study was a multivariate analysis of covariance. The independent variable was group (treatment and no treatment). The dependent variables were the posttest with the Subjective Stress Scale and the posttest with the Individual Profile of Stressors II. The covariates were the pretest with the Subjective Stress Scale and the pretest with the Individual Profile of Stressors II.

Procedures

Pretesting was done during regular classroom time. Because of the differing schedules of the officers involved in this study, it was impractical to have a single meeting to explain the purpose of the study and give instructions for completing the two testing instruments. Thus, a standardized set of instructions with an explanation of the study for use at the various meetings was developed. The researcher gave the following directions to the community service officer cadets and Sergeant Steve Smith (Assistant Academy Director) gave these directions to the apprentice police officer cadets:

You are participating in a study concerning stress in policing. I would like for all of you

to please fill out the following questionnaires. The first questionnaire is made up of statements to which you should respond according to how they effect your general style of life (i.e., Almost Never, Rarely, Sometimes, Often, or Almost Always). The purpose of this questionnaire is to identify and describe stressors that are present for you at this time in your life. The second questionnaire consists of a series of short situations to which you are to respond selecting the most applicable choice (i.e., Didn't Bother Me, Timid, Nervous, Indifferent, Scared Stiff, Unsteady, Worried, Panicky, Steady, Unsafe, Frightened, Fine, Comfortable, or Wonderful). Take your time and consider your responses before you select them. If you have any questions, please feel free to ask me. When you are finished you may continue with your assigned duties.

The community service officers were pretested the day before the treatment, from 1030 to 1100 hours. The apprentice police officers were pretested the same day from 1530 to 1600 hours. The following day the Community Service Officers were exposed to the treatment. This consisted of six scenarios and is referred to as "Shoot/Don't Shoot." It is an exercise in the use and restraint of deadly force as well as exposing the individual to the differing situations

that can occur in field duty. (See Appendix C) The individual is issued six rounds of blank ammunition for use in the exercise. Two staff officers accompany each individual to the locations and give the information concerning the scenario in a manner consistent with that of the dispatchers that assign officers to citizens' called for services, via the radio. At the end of each scenario the staff officers review the individual's behavior and compare it to the desired objective. During this time the Apprentice Police Officers continued with their regular classroom assignments. Both groups were posttested the day following the treatment exercise from 0800 hours to 0830 hours.

Data Analysis

The Oklahoma State University Computer Center performed the operations necessary for the statistical analysis of the data generated by this study. The design was multivariate analysis of covariance, with the pretests being the covariates. The purpose of the analysis was to determine if a difference between the post means of the treatment and comparison groups existed at the .05 level of probability after controlling for existing pre differences.

Summary

In this chapter, the characteristics of 51 officers identified as subjects, were discussed. The instruments

used to assess perceived stress, including related research on the Subjective Stress Scale, and the Individual Profile of Stressors II were discussed. Procedures used in collecting and treating the data were described. Details of the findings resulting from the application of statistical techniques to the data obtained are provided in Chapter IV.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

This study investigated the effect of a simulated training treatment on subjects scores on the Individual Profile of Stressors II and the Subjective Stress Scale. Analysis of covariance, using the pretest scores, was used to control for differences between the treatment group and the comparison group. One hypothesis was tested in this study: A statistically significant difference will exist between police officer cadets involvement in simulated physically dangerous training and those police cadets not involved in simulated physically dangerous training on the variables of perception of stress and vulnerability to stressors as measured by the survey instruments. The thrust of this study was to determine the probability that exposure to simulated training will reduce levels of perceived stress and vulnerability to stressors.

Descriptive Data

This study was conducted at the Tulsa Police Academy during the initial training of the community service officer candidates and the apprentice police officer candidates.

The simulated training (Shoot/Don't Shoot) was conducted at a facility especially prepared for the enactment of the various scenarios.

Prior to the simulated training, all subjects were administered the Individual Profile of Stressors II and the Subjective Stress Scale to determine their vulnerability to stressors and perception of stress. Table II presents the means and standard deviations for both groups prior to treatment.

TABLE II
MEANS AND STANDARD DEVIATIONS

Variable	Mean	Standard Deviation
Vulnerability to Stressors		
APO	157.739	26.622
CSO	154.321	28.124
Perception of Stress		
APO	343.565	49.044
CSO	399.536	81.647

Discussion of Statistical Analysis

A multivariate analysis of covariance was performed on two dependent variables associated with stress perception and vulnerability to stressors. Adjustment was made for two covariates. One covariate, vulnerability to stressors, reflected attitudes toward vulnerability to stressors, and the second, perception of stress, is a measure of perceived stress. Analysis was done through SPSSX MANOVA. Results of evaluations of assumptions of normality, homogeneity of covariance matrices, linearity, homogeneity of regression, and multicollinearity were satisfactory. Covariates were judged to be adequately reliable (as presented in Chapter III) for covariance analysis.

With the use of Wilks' criterion, the combined dependent variables were significantly related to the covariates, approximate $F(4,92) = 15.97$, $p < .001$. To investigate more specifically the power of the covariates to adjust dependent variables, univariate multiple regressions examined each dependent variable in turn (See Table III) with covariates acting as multiple predictors. Pretest vulnerability was significantly predictive of posttest vulnerability (Beta = .726, $t = 6.86$, $p < .001$) while pretest perceived stress was not a significant predictor (Beta = $-.116$, $t = -1.101$, $p < .276$). Pretest perceived stress was not a significant predictor of posttest vulnerability (Beta = $-.041$, $t = -.112$, $p < .911$) and was a significant predictor of posttest perceived stress (Beta = .552, $t = 4.407$, $p > .001$).

TABLE III
TEST OF COVARIATES

Effect of Training	Square Multiple R	Multiple R	Adjusted R Square	Hypothesis Mean Square	Error Mean Square	Significance of F	Significance of F
Vulnerability to Stressors	.502	.708	.481	9,073.221	383.302	23.671	.001*
Perceived Stress	.301	.548	.271	36,338.100	3,578.084	10.130	.001*

* $p < .001$

Examination of the error correlation matrix for post-regression variables indicated that the univariate approach to the main effect test of treatment was appropriate. Table IV presents the univariate results. No significant differences were found between the group receiving the training and the group not receiving training on either dependent variable after the pretest differences were covaried. Table V presents the observed means and standard deviations and the adjusted means for each group.

TABLE IV
ANALYSIS OF VARIANCE FOR
THE EFFECT OF TRAINING

Univariate F - Test with (1,47) df					
Variable	Hypothesis	Error	Hypothesis	Error	F
	Sum of Squares	Sum of Squares	Mean Square	Mean Square	
Vulnerability to Stressors	990.665	1805.203	990.665	383.302	2.585*
Perceived Stress	2925.056	168592.963	2925.056	3587.084	.815*

* $p > .05$

TABLE V
OBSERVED AND ADJUSTED MEANS

Variable	APO's	CSO's
	<u>n</u> = 23	<u>n</u> = 28
Pre Vulnerability		
Means	157.739	154.321
<u>SD</u>	26.622	21.124
Pre Stress		
Means	343.565	399.536
<u>SD</u>	49.044	81.647
Post Vulnerability		
Means	157.348	161.643
<u>SD</u>	25.900	28.156
Post Stress		
Means	386.826	435.071
<u>SD</u>	63.015	75.501
Adjusted Vulnerability		
Means	154.381	164.080
Adjusted Stress		
Means	57.741	60.118

Summary

This chapter presented the results obtained from the study. The analysis of covariance was significant indicating that prescores on stress perception and vulnerability were significantly related to post treatment scores and hence needed to be controlled. Examination of the covariates indicated that pre vulnerability was the most significant covariate for both post vulnerability and post stress perception. After controlling for pre scores, no

effect for treatment was found.

Chapter V will present the summary and conclusions of this study as well as a discussion of some of the implications for utilization and future research.

CHAPTER V

CONCLUSIONS, IMPLICATIONS AND SUMMARY

Overview

The present investigation involved fifty-one police cadets from the Tulsa Police Training Academy. Each cadet was asked to complete the Individual Profile of Stressor II and the Subjective Stress Scale. Data gathered on these instruments was then covaried with the cadets' scores on the same instruments at the conclusion of the simulated physically dangerous training.

Multivariate Analysis of Covariance was used to test the relationship between membership in the treatment group and scores on the instruments for vulnerability to stressors and perceived stress. In considering the methodology used in this study, the reader must keep in mind the fact that the study was less a test of increased stress perception than it is a test of whether the particular intervention had some reliable impact on the subjects in the simulated training groups. The simulated physically dangerous training was analyzed in terms of individual changes in perception of stress, given the impact of the training.

In this study, one hypothesis was tested. The hypothesis was stated as follows: A statistically

significant difference will exist between police officer cadets involvement in simulated physically dangerous training and those police officer cadets not involved in the simulated physically dangerous training on the variables of perception of stress and vulnerability to stressors as measured by the survey instruments. The training was predicted to be associated with reductions in scores on both of these stress-related measures.

Conclusions

Table V shows the initial and adjusted means for the vulnerability to stressors and perceived stress scores of the comparison group and the treatment group. Table IV shows the within cells regression effect of the training. The test for effect of treatment shows that the groups were not significantly different. There are several possible reasons for this lack of significance.

First, the treatment, per se, may not be effective. It is possible that the amount of time in a simulated setting is not enough to reduce general measures of stress and vulnerability.

Second, it is possible that the instruments are not adequate measures of police officer stress and vulnerability. The instruments used measure general stress. The stress occurring in a Shoot/Don't Shoot setting might be much more intense and more difficult to measure.

A third issue that must be considered as contributory to the non-significance is the power of the study. Only 28 subjects took part in the experimental treatment. Using the resulting information, it would appear that the study had an eta square effect size of .05 for vulnerability to stressors and .02 for perceived stress. Using the information provided by Cohen (1977) this would indicate that future research on the topic would merit a much larger sample. Due to the reality of the training setting, however, it may not be feasible for one study to obtain the required number of subjects. Hence, future research might be better served by (1) using more precise measures of both vulnerability to stressors and perceived stress, (2) lengthen the amount of treatment or, (3) strengthen the treatment.

Also, it was noticed that this session of the Shoot/Don't Shoot was presented in a negative manner, in that the cadets were verbally stressed before the exercise increasing their feelings of apprehension. This could have affected the cadets reaction.

Implications for Future Research

The natural step to follow from this study would involve going beyond the demonstration of a relationship between treatment and increased scores on perception of stress and decrease scores on vulnerability to stressors into a causation study. That is, research should now attempt to demonstrate that the levels of one's perceptions

of stress in physically dangerous situations and vulnerability to stressors can effectively be decreased through simulated training as utilized in this study. This may be somewhat difficult to accomplish in terms of assessing actual situations and the limitations upon manipulation of subjects. Hopefully such a study will allow for a more definitive and exact means through which to prepare future police officers for the threatening rigors of their jobs.

Second, future studies must determine if preception and vulnerability scores in simulated training relate to actual real-life behavior. The question of interest should be whether the simulated training as presently conceived (i.e., using hypothetical situations) is reliably related to actual judgement behavior and whether the present scoring categories exhaust the important features of stress control. This type of study will, by necessity, require tight control and delineation of the past behavioral history of subjects in terms of their prior behavior in dangerous situations. These data will be fundamental to the follow-up study of a behavioral change on the part of subjects who were exposed to the simulated dangerous training.

Summary

The findings summarized earlier are helpful for both practical and theoretical advances in the area of stress control. On a practical level, they support continued

improvement of police training in the development of a rational approach to stress control. Personal feedback from the cadets involved in the simulated training was positive and although not significant, the means of the groups did change. If simulated training can be shown to have a substantial relationship to stress reduction, then a pervasive, enduring and psychologically sound concern for the academy's training should have a more positive effect.

On a theoretical level, the findings suggest that studies of stress perception and vulnerability to stressors need to be continued. The present findings do not yet indicate the optimal conditions for stress control from either a theoretical or a practical point of view. The evidence available, however, does suggest that the procedures employed in this study should continue to be examined and that refinement of both measures and the treatment should continue.

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APPENDIXES

APPENDIX A

STRESS PERCEPTION VIGNETTES

STRESS PERCEPTION VIGNETTES

1. You are assigned to a vandalism in progress in one of the better neighborhoods of the city. On arrival you observe two adolescent females pulling flowers from around the house.

2. You are driving through a residential area and notice two teenage males fighting in the street. There is a car in the yard of a house and ruts made by spinning tires leading from the curb to where the car is stopped.

3. You are assigned to a family disturbance. On arrival you hear a loud and threatening conversation from inside. As you enter the dining room you see a female with her arms up. On the table is a sawed-off shotgun and a man standing with his back to you. He abruptly turns around and the female grabs the shotgun and fires.

4. You enter a room and discover a man with his hands held high and a partially exposed revolver in the waistband of his trousers. While exchanging words the man reaches down and draws the revolver.

5. You are assigned to a disturbance at a local tavern. Once inside you find two known prostitutes standing at the corner of the bar screaming and cursing each other.

6. You are assigned to a trouble unknown at a local park. Several people point to an area inside the park and tell you there is a man with a gun near the pond. As you near the area you observe a man standing against a tree holding a gun with the muzzle pressed against his temple.

7. Pick the word that best describes the way you feel about participating in the Shoot/Don't Shoot exercise.

APPENDIX B

INDIVIDUAL PROFILE OF STRESSORS II

DESCRIPTION OF INDIVIDUAL PROFILE
OF STRESSORS II SCALES

1. Physical Condition. Degree to which a person experiences lethargy or lack of energy, aches or pains, and lack of physical strength, stamina and endurance. Poor physical condition may be both an indication of poor coping with stress, and act to increase vulnerability to stress.

2. Sense of Belonging. Degree to which a person feels lonely or lacks a sense of belonging to and fitting in with family or community. Social support systems can operate as a coping mechanism and buffer from stress.

3. Adjustment. Degree to which a person feels present stage of life is unrewarding, does not look forward to the future and regrets the past. The inability to live in the present moment rather than the past or future, and having negative feelings about one's future increases vulnerability to stress.

4. Life Style. Degree to which a person is sedentary or sleeps and eats poorly. Failure to maintain a healthful lifestyle increases stress vulnerability.

5. Life Satisfaction. Degree to which a person is dissatisfied with life, feels unhappy and discontented. General life dissatisfaction increases stress vulnerability.

6. Congruence. Degree to which a person fails to experience important accomplishments, a clear conscience, being him/herself, and being as she/he thinks she/he should be. Poor self-image is conducive to stress vulnerability.

7. Career. Degree to which a person experiences work as a source of negative stress, dissatisfaction or boredom, thus determining its perception as a stressor.

8. Coping Styles. Degree to which a person experiences approaches to problem resolution, assigning priorities, over commitment, and handling demands. Failure to resolve conflict/manage demands increases stress and vulnerability.

9. Type A-Coronary Prone Behavior. Degree to which a person perceives self as impatient, not easy-going, hostile when competitive, and task oriented to the exclusion of emotions. The characteristics are related to increased risk of coronary artery disease.

10. Alexithymia. Degree to which a person cannot verbally express feeling. Inability to express feelings is believed to promote vulnerability to stress.

11. Just World. Degree to which a person experiences less than his/her desired standard of living, an inability to obtain wants, resentment over past events. The less one's focus of control is perceived to be internal (i.e., within oneself and under one's direction) rather than external (and thereby uncontrollable) the greater the vulnerability to stress.

12. Relationships. Degree to which a person lacks rewarding, supportive relationships with others: feels loved, able to be close, and enjoy the company of others. Inability to have intimate and rewarding relationships increases vulnerability to stress.

13. Aloneness. Degree of inability to constructively utilize time alone, and enjoy one's own company, may indicate problematic self concept and anxiety.

14. Boredom. Degree to which a person experiences life as boring and unchallenging which may be associated with affect (e.g., depression). Boredom and lack of motivation lead to the perception of stress as a strain rather than a challenge.

15. Nutrition Attitudes. Person's perception of their eating habits and weight as negative or a source of concern. Poor eating habits, weight problems, and a negative attitude about both are contributors to stress vulnerability.

16. Mental. Cognitive indications of poor stress management, e.g., poor memory and mental organization, worry and difficulty with concentration.

17. Emotional. Degree to which a person experiences Autonomic Nervous System indications of tension and anxiety.

18. Habit Patterns. Degree to which a person utilizes habitual behavior for managing stress, such as drinking, eating, smoking, or the use of drugs.

19. Life Goals. Degree to which a person fails to experience a sense of accomplishment, a commitment to major

goals, a sense of life direction and priorities. Lack of perspective-taking, goal setting and accomplishment heighten the degree of stress vulnerability.

20. Role Stressors. Degree to which a person is unable to meet multiple role demands (e.g., work and family), and feels unclear about expectations of others, as well as the appropriateness of those expectations. Stress vulnerability is increased as role demands increase with no increase in perceived ability to meet or reduce those demands.

APPENDIX C

SHOOT/DON'T SHOOT

SHOOT/DON'T SHOOT EXERCISES

Situation 1.

The cadet is told to investigate a drunk/disturbance in an alley. A drunken male, apparently wounded, threatens the officer and brandishes a buck knife, holding it in a stabbing (as opposed to throwing) posture. Slowly, the drunk approaches the officer, raises the knife over his head, then falls to the ground semi-conscious.

Objectives.

- A. The cadet should use his flashlight to illuminate the scene.
- B. The cadet should identify himself and look for cover.
- C. The cadet should attempt to approach the drunk cautiously, asking questions, maintaining a critical distance.
- D. The cadet should retreat from the drunk, recognizing that the drunk does not yet have the opportunity to put the cadet's life in jeopardy, thereby avoiding a shooting situation.

Situation 2.

The cadet is told to investigate a family fight. He knocks on a closed door and a female inside tells him to enter. The disputants are at the far end of the room, embroiled in an argument, standing only a few feet apart. No weapons are visible. The female pleads for help, insisting that the male beats her regularly. The male suddenly approaches the female and she pulls a firearm out of concealment and aims it at the male. The male backs to a position away from the cadet and the female.

Objectives.

- A. The cadet should assess the total situation upon opening the door and not make an assumption that the female is a friend while the male is the enemy.
- B. The cadet should attempt to deter the assault and maintain critical distance.
- C. Once the female produces a weapon, the cadet should not divert his attention from her until he has her under control.

Situation 3.

The cadet is told to investigate a mental with a gun. He walks through a open door and encounters a man holding a gun to his head. The man tells the cadet to leave, that he has no reason to live. The man stresses that he has nothing against the police but wants to be left alone. During the

conversation the man attempts to approach the officer very slowly. If given the opportunity, the man will shoot the cadet.

Objectives.

- A. The cadet, upon seeing the man's weapon, should seek cover, maintain visual contact, and draw his own revolver.
- B. The cadet should not allow his conversation with the man to distract him from the danger.
- C. The cadet should fire only if the man turns the gun toward him.

Situation 4.

The cadet is told to investigate a loud disturbance. He approaches a closed door and overhears a loud argument. He knocks and is told by a male to enter. He opens the door and should see one male who is standing in the corner of the room near a closet talking to the person inside. The man has his back to the cadet. As the cadet begins to talk, the man will walk toward the center of the room, turning and exposing a revolver in his waistband. If the cadet diverts his attention from the weapon, or if the officer tells the man to take the weapon out of his waistband, the man will shoot the cadet.

Objectives.

- A. Upon seeing the weapon, the cadet should draw his own weapon and seek cover.
- B. The cadet should immediately control the man.
- C. The cadet should not divert his attention to the closet.

Situation 5.

The cadet is told to investigate a will file situation. Approaching a closed door he knocks, and is invited in by a male. Upon opening the door he sees two men arguing, one with his back to the door. The male facing the cadet tells him to come on in and get the other male out of the room. The male whose back is to the cadet moves his hand to the front of his trousers and looks over his shoulder at the cadet, then suddenly turns to face the cadet while bringing his arms to shoulder level.

Objectives.

- A. The cadet should maintain cover until he is sure he has control of the scene.
- B. The cadet should be wary of the male who is reluctant to face him, not assuming he is armed.

Situation 6.

The cadet is assigned to an audible alarm, in the rear alley, at Joe's Bar. As the cadet approaches, a person

carrying a sack exits the rear door and runs down the alley away from the cadet. If the cadet pursues the suspect, another suspect hiding inside will shoot the cadet as he passes the door.

Objectives.

- A. The cadet should identify himself to the fleeing suspect while taking cover and order him to stop.
- B. The cadet should illuminate the fleeing suspect with his flashlight and order him to the ground.
- C. The cadet should not pass the open door in pursuit until he has checked for an accomplice.

Situation 7.

The cadet is sent outside of the building. Once outside, he encounters a man holding a female from behind with a knife to her throat. Several onlookers stand directly behind the couple. The woman is in hysterics and the suspect tells the cadet to drop his gun or he will kill the woman. Suddenly, the suspect stabs the woman in the abdomen, pushes her aside and runs past the spectators towards the building.

Objectives.

- A. The cadet should assess the total situation: suspect, victim/hostage, spectators, shooting background, cover,

and weapons.

- B. The cadet should not relinquish his weapon and should not approach.
- C. The officer should use or not use his weapon based on his preception of the situation, realizing that either response is within department guidelines and statutory power.
- D. If the cadet chooses to shoot the suspect, he should wait until the victim and all the spectators are in position where they are not likely to be injured.
- E. If he chooses not to shoot the fleeing suspect, he should be reminded of the civil liability that could result in the event the suspect should subsequently kill or harm an innocent passerby in his escape.

VITA

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