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STRESS AND ITS CORRELATES:
AN EMPIRICAL INVESTIGATION AMONG
NORTH DAKOTA PEACE OFFICERS

by

Eric Mark Anderson

Master of Arts, University of North Dakota, 1992

A Dissertation
Submitted to the Graduate Faculty
of the
University of North Dakota
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

Grand Forks, North Dakota
August
1994

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1994

This dissertation, submitted by Eric M. Anderson in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

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This dissertation meets the standards for appearance, conforms to the style and the format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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Dean of the Graduate School

July 20, 1994

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Title: Stress and its Correlates: An Empirical
Investigation Among North Dakota Peace
Officers

Department: Clinical Psychology

Degree: Doctor of Philosophy

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Date 7-14-94

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DEDICATION

When I first initiated this study I had strong concerns that it would not be well received by the law enforcement community. Having been a police officer myself, I felt that had I received such a survey while I was on-the-job, I would have worried about who might see it and how it could be somehow used against me. The statement which follows was made by one of our local sheriffs. It convinced me that my fears about doing a great deal of work with little reward were ill-founded. He was right, from the Capitol Building in Bismarck to the one-man department on the prairie, this study was received with open arms by North Dakota law enforcement. However, had I received only a fraction of the response that I did receive, his statement would have been reward enough:

"When I was a young cop in the 60's and 70's we didn't have the benefit of you guys. We worked the street, while at the same time a lot of our families got turned upside down. We felt we had to be tough and that we shouldn't let things get to us. But it still did. A lot of us turned to the bottle. What gets me is that nobody even asked me how I felt or what I thought was important. All of us just assumed that it didn't really matter."

A North Dakota Sheriff
(in confidence)

This document is dedicated to the men and women of North Dakota law enforcement. Your trust and the efforts you put forth in regards to this paper are deeply appreciated. I truly hope that you may benefit from it.

P.S. It does matter.

ABSTRACT

The mission of the present investigation was to expand the limited body of knowledge regarding stress among rural peace officers. While a number of studies have focused on large, easily sampled departments, the empirical literature evidences neglect toward officers serving rural populations. The present study seeks to ascertain how North Dakota officers compare with other, more urban populations, and what differences may exist between a stratified sample of North Dakota police, sheriffs and Highway Patrol officers.

A randomized sample of 311 North Dakota officers were selected to receive a 300 question anonymous survey questionnaire which assessed personal demographic information in addition to dependent measures such as the Diagnostic and Statistical Manual of Mental Disorders - Revised, post-traumatic stress disorder (PTSD) criteria; the Maslach Burnout Inventory; the State-Trait Anxiety Inventory (trait anxiety subscale); and the Police Stress Survey (modified). The 71% response rate yielded 216 usable questionnaires and represents almost 20% of the licensed peace officers in the state. Comparable response rates were obtained from each stratification.

Hypotheses were put forth regarding the support systems available to the officer in both the work environment and home and the mediating effects of these factors on the negative physical and psychological consequences of job stress. Support from the officer's spouse, department and social environment were found to be strongly associated with physical health, chronic anxiety, psychological adjustment, and the perception of severity in occupational stressors. Persons who were satisfied with the support they received were more likely to report better physical health, less PTSD symptomatology, lower levels of anxiety and emotional exhaustion and less stress due to on-the-job stressors than did their counterparts who were not satisfied with their support systems.

The results indicate that North Dakota officers appear generally less stressed by occupational stressors than officers in more urban environments. Furthermore, North Dakota officers seem to cope with stress adaptively as indicated by low divorce rates, a low number of physical health complaints and high levels of personal satisfaction.

CHAPTER I

INTRODUCTION

Research seems to indicate that peace officers, as a group, are all too often "victims-in-waiting" of their stressful life experiences (Alkus and Padesky, 1982; Violanti, Vena, and Marshall, 1986). Police officers often view themselves as immune to the stresses of police work (Stratton, 1978; Kroes, 1976). To acknowledge this stress is often thought of as a display of "weakness" or an inability to "hack it." This denial often leads to maladaptive means of coping with these stressors which are often associated with common sequelae to chronic stress such as marital difficulties, alcoholism, illness, injuries, poor work habits, and absenteeism (Kroes, 1976). In short, stressful occupational events that peace officers deal with in their "every day" activities may adversely impact not only officers themselves, but in addition, their spouses, co-workers, children, profession and even their community.

Studies examining peace officer stress come primarily from large metropolitan areas that may bear little resemblance to a rural law enforcement environment (Alkus and Padesky, 1982). Large police departments, where the

majority of the studies have been conducted, may have at their disposal greater resources or have in place policies (as well as the ability to implement those policies) that are not germane to rural law enforcement agencies from a state such as North Dakota. Conditions such as climate, revenue sources, the availability of back-up officers, and training differences under which North Dakota peace officers must operate may differ considerably from the urban agencies examined in a majority of peace officer studies. The difference between the work and life stress of rural and urban peace officers is the central focus of the present investigation.

Research has indicated that peace officers all too often suffer adverse effects from exposure to significant amounts of stress during the course of their careers (Territo and Vetter, 1981). These authors suggest that after years of service, a common viewpoint, deeply ingrained within peace officers, is that one must remain aloof and disconnected from the horrors of the job and the negative effects of the stress of law enforcement. The acknowledgement of this stress or need for mental health assistance is considered demeaning and is therefore taboo (Alkus and Padesky, 1982). Denial of the need for help in dealing with stress may lead to maladaptive coping methods and associated relationship problems, alcoholism, illness, injuries, suicide, poor work habits, and absenteeism which

are all common side effects of ineffective stress management (Richard and Fell, 1975). Callousness and emotional insulation may be functional in allowing the individual to withstand, year after year, the pressure inherent in a law enforcement career, however, the evidence is convincing that such typical coping pressures result in untoward consequences such as cancer, heart disease, gastrointestinal illnesses, marital dysfunction, family disruption, professional misconduct, burnout, and ultimately, public dissatisfaction with the law enforcement community (Violanti, Marshall, and Howe, 1985; Hageman, 1978; Richard & Fell, 1975; Alkus and Padesky, 1982; Maslach and Jackson, 1979; and Hurrell & Kroes, 1975).

Our limited understanding of the dynamics of this problem may even trigger procedures and processes within law enforcement management which may perpetuate the problem. For example, it could be speculated that contemporary law enforcement agencies implicitly communicate an assumption of officer unsuitability should a peace officer request counseling services. A system which penalizes or sanctions those who have the courage to admit the need for assistance and rewards those who manifest bravado in the face of emotional challenge may generate a propensity to ignore and withhold important and relevant feelings regarding work-related events. While surely, those individuals who serve and protect the public need to be "strong enough" to

function adaptively while under extreme pressures and danger, they nevertheless must be sufficiently psychologically adjusted to recognize the need for professional help.

The literature on peace officer stress has been derived primarily from accessible large metropolitan subject samples (e.g., Los Angeles, Detroit, Seattle, New York, Pittsburgh, etc.) that may not generalize to the rural law enforcement environment (Alkus and Padesky, 1982; Crank and Caldero, 1991). These studies involving large metropolitan police departments provide insight into the dynamics of peace officers who work in major metropolitan areas, but their relevance to law enforcement in rural America has yet to be demonstrated.

CHAPTER II

REVIEW OF THE LITERATURE

What is Stress?

Despite the fact that the term "stress" is one of the most utilized terms in the mental health field, and myriad research has dealt with it in various ways, the precise factors which render a stimulus situation stressful remain elusive. Stress is a term often used in a casual manner with little effort to operationalize its meaning and interchangeable use of the term as both a stimulus and a response.

Stress, used as a physics term, implies a force, or system of forces, that tend to strain or deform a mass (Everly, 1989). However, in psychology, the term stress has often left researchers in a quandary, as some have "used stress to refer to disturbing emotional or physical stimuli, others to describe the body's biochemical and physiologic response . . . , and still others to depict the pathologic consequences of such interactions . . . (and therefore) stress in addition to being itself was also the cause of itself and the result of itself!" (Everly, 1989, p. 6).

One of the first researchers in the field of stress and its correlates was Hans Selye. In 1926, Selye, a medical student at the University of Prague, observed similarity of symptoms in patients despite sharp differences in their disease diagnoses. Selye noted common symptoms of diminished drive and decreased muscular ability, loss of appetite, and elevated blood pressure. This distinctive symptom pattern, occurring irrespective of the type of diagnosis, led Selye to the concept of a "syndrome of just being sick."

Selye, whose research set the early standards for later investigation of stress effects, has more recently described stress as something that creates an "adjustive demand" for a nonspecific response of the body to cope with the stressor (Selye, 1974, p. 14). In his work, Selye has described what he terms the "general adaptation syndrome" to describe how stress impacts the biological ability of an individual to withstand repeated and consistent exposure to excessive levels of stress.

According to this model, stressors can be either psychosocial or biogenic in nature. Psychosocial stressors may be either real or imagined but nevertheless come to elicit a response due to the individual's cognitive appraisal of the emotional significance of the event. Biogenic stressors, on the other hand, are stressors that appear to have a generalized biochemical reaction which

enhances the organism's short term capacity to cope. Whereas, psychosocial stressors are generally more unique in their effects on any given individual, biogenic stressors tend to elicit more uniformly and diffuse physical responses (Everly, 1989, Territo and Vetter, 1981).

Selye's (1974) General Adaptation Syndrome (GAS) describes systematic physiological reaction to stress which encompasses alarm, resistance and exhaustion stages of a uniform process. The Alarm stage appears to represent an "emergency reaction" to a specific environmental "stressor" which elicits a so-called "fight or flight syndrome." When an individual encounters a situation which is perceived as threatening, the body galvanizes a response which prepares the body's musculature to enable the individual to either escape from the threatening event or to confront the manifest threat. During the alarm stage, somatic disturbances signal the onset of a challenge upon the body, triggering the hypothalamus and pituitary gland to elicit, via the autonomic nervous system (ANS), endocrine responses which enhance the coping effectiveness of the organism.

In this ANS sympathetic response blood vessels in the outer extremities constrict, increasing blood pressure and flow to the vital organs. Respiration becomes shallow and rapid, the lungs dilated bronchi allow rich oxygenated blood to flow faster to the heart, the pupil's dilate allowing the eyes maximum focus on potential trouble, salivation is

inhibited, stomach, intestinal and bladder contraction are inhibited, sweating increases, tear glands are stimulated, the spleen contracts to release blood high in erythrocytes, the adrenal medulla secretes adrenalin and noradrenaline, kidney's decrease output of urine, hair follicles become erect, and the liver begins to work harder to convert stored glycogen into energy for the muscles and brain as muscle tension increases in preparation to fight or flee. The entire process takes about 8 seconds and within 20 to 30 seconds, adrenal medulla hormonal secretions create a tenfold increase in the effective duration of the adrenergic response. Table 1 presents the biochemical processes involved in the general adaptation syndrome (Everly, 1989; Zimbardo, 1988).

The Resistance stage of the GAS is characterized by the body's attempt to attenuate the alarm symptoms through adaptation and re-establish homeostasis and a normal level of functioning despite the possible persistence of the stressor. Should the stressor persist for prolonged periods, the body's adaptive resources become depleted, signaling the third and final Exhaustion stage of the GAS.

The Exhaustion stage is characterized by a breakdown of bodily defenses during prolonged stress and is associated with a reappearance and exacerbation of many of the symptoms that were present during the first stage. If the exposure

Table 1

The General Adaptation Syndrome

The General Adaptation SyndromeAlarm Stage

Hypothalamus activates pituitary gland
Sympathetic nervous system arousal
Adrenal medulla releases epinephrine and norepinephrine
Pituitary gland releases adrenocorticotrophic hormone
Adrenal cortex releases cortisol
Anterior pituitary releases somatotrophic (growth) hormone
Prolactin release
Pituitary secretes thyrotrophic hormone (TTH)
Increased thyroid activity makes more energy available
Anxiety

Resistance Stage

Increased anterior pituitary secretions (ACTH)
Increased adrenal cortex secretions (cortin)
Sympathetic nervous system activity decreases
Homeostatic mechanisms engaged

Exhaustion Stage

Drop in anterior pituitary and adrenal cortex secretions
Lymphatic structures become enlarged
Depleted resources increases vulnerability to opportunistic disease
Disease and/or dysfunction of organs possible
Psychological exhaustion may lead to depression
Physiological exhaustion may result in death

to the stressor does not resolve, the body is vulnerable to what Selye (1974) termed "disease of adaptation" which may target specific organ systems, producing symptoms such as stomach ulcers, or generalize to the entire body, placing the individual in more serious jeopardy for life-threatening illness from conditions such as hypertension, immune system compromise, or others.

Stress, Disease Risk and Peace Officers

Manuso (1978) has speculated that as many as 25% of all Americans experience deleterious health and psychological effects which result from exposure to high levels of stress, and that 50% of patients presenting to physicians in general practice are, in reality, suffering from the negative effects of stress. Peace officers would certainly seem predisposed to experience repeated stressful events that are associated with the appearance of the alarm and the resistance stages of the GAS. Perhaps this is one reason why peace officers are more likely than members of the general population to develop medical conditions such as hypertension, migraine headache, or gastrointestinal diseases (Richard and Fell, 1975; Violanti, Vena, and Marshall, 1986).

Violanti et al. (1986) studied mortality rates and underlying cause of death among police officers as compared with all males living in the United States between the years

1950 through 1979. They found that police officers, predominately white and male, died from certain diseases more often than did other white males living in the United States under similar conditions. Diseases significantly contributing to increased rates of hospitalization and mortality for police officers include: cancers of the colon, liver and esophagus, arteriosclerotic heart disease, hypertension and diabetes (Reiser, 1983; Terry, 1981; and Violanti et al., 1986). In addition, Alkus & Padesky's (1982) research has shown multiple psychosomatic disturbances to be common among police officers, such as peptic ulcers, bronchial asthma, hyperventilation, skin disorders, muscle cramps, tension headaches, genitourinary and endocrine disorders and lower back pain. The prevalence of these disorders, according to Alkus and Padesky, have resulted in police officers being ranked among the highest groups in disability claims, hospital admissions, and stress-related premature deaths. While direct evidence why police officers are prone to these diseases remains elusive, an increasing body of research implicates the role of stress as an etiologic agent.

Gastrointestinal (GI) Problems

Dotevall (1985) has suggested that elevated levels of anxiety are associated with increased esophageal motility, colonic contractions, and intraluminal pressures within the colon. Hostility, resentment, and aggression without

physical expression has also been associated with increased colonic contractions, gastric acid and contractile activity of the stomach, and even the simple stimulation of thoughts related to conflict has been shown experimentally in some subjects to induce rapid colonic transit and voiding. In addition, Dotevall found that depression is associated with decreased gastric acid and colonic contractions.

Ulcerative colitis, which is an inflammation of the lining of the colon is often identified by symptoms of bleeding, diarrhea, abdominal cramping, pain and weight loss. Chronic stress appears to increase lysozyme levels (enzymes that dissolve mucus), and there has been speculation about the role of stress and emotional conflict in the etiology of ulcerative colitis (Everly, 1989). Colitis is not the only GI disease associated with exposure to elevated and prolonged levels of stress. Other common problems include peptic ulcers, irritable bowel syndrome (a painful combination of excess gas, bloating, cramping, constipation and diarrhea), esophageal reflux, and esophagitis (the latter two brought on by stomach acid escaping the stomach into the esophagus) (Everly, 1989).

Cancer

Cancer in peace officers has been of particular interest to many researchers because of the possible role of lifestyle in the etiology of this deadly illness. Violanti et al. (1986) in their comprehensive overview of the risks

associated with police work as compared with other municipal workers has hypothesized that the large amounts of adrenalin secreted during stress may suppress the immune system thereby creating increased susceptibility to certain cancers. They concluded that the police officer's lifestyle (irregular eating habits, rotating shifts, smoking, alcohol and coffee use, sedentary activities associated with periodic bursts of sympathetic nervous system activity, lack of exercise, and high levels of stress) may predispose the police officer to enhanced risk for certain diseases.

Cancer of the esophagus has been found to be associated with increased consumption of alcohol (Mettlin et. al, 1982) and police officers have been found to be at increased risk of alcohol abuse (Kroes, 1976; Van Raalte, 1979; and Violanti, 1985). Dietary factors should also warrant careful attention. Diets high in fried foods, fats and other animal products, have been linked with cancer of the colon and rectum (Reddy, 1979). Violanti et al. (1986) found police officers to be at a 1.2 fold risk of mortality from colon cancer, and peace officers frequently find themselves working at odd hours requiring "fast-food" meals often consumed while on the run.

Cardiovascular Disease

Disease within the cardiovascular system has been associated with excessive levels of stress. Specific disorders speculated to be connected with prolonged and

excessive stress include essential hypertension (as differentiated from secondary hypertension which is believed due to organic dysfunction), migraine headaches, and Raynaud's disease (episodic poor blood circulation to the fingers or toes which upon rebound is often quite painful) (Everly, 1989).

According to Everly (1989), 36 million adult Americans suffer from essential hypertension and that "although stress may not be the solitary etiological factor in the majority of cases . . . it appears to be a contributory factor in the majority of cases in a nonobese population. Mechanisms within the stress response that may contribute to the acute and chronic elevation of blood pressure include sympathetic nervous system activity and adrenal medullary activity, as well as cortisol and aldosterone hyperactivity" (p. 76). Everly (1989) suggests that other vasospastic phenomenon such as Raynaud's disease and migraine headaches also display etiology suggestive of excessive sympathetic nervous system activity.

It would seem that peace officers may be at enhanced risk of developing heart disease as Jacobi (1975) has found that over 50% of the workmen's compensation submissions from police officers involved claims involving high blood pressure. Interestingly, law enforcement is one of the few occupational fields where heart disease has become regarded as an occupational hazard. Violanti et al. (1986) have

found increasing police officer mortality rates due to arteriosclerotic heart disease associated with increasing years of police service. They suggest that heart disease appears to be implicated in certain lifestyle patterns and occupational factors "including a high stress work environment, irregular sleeping and eating habits, poor health habits, and lack of exercise" (p. 21), qualities and characteristics reported commonly among police officers (Perrier & Toner, 1984).

Stress and the Immune System

Psychoneuroimmunology field research has contributed recently to the understanding of the association between psychosocial stressors and compromise of an individual's immune system (Borysenko, 1984; Calabrese, Kling, and Gold, 1987; and Jemmott and Locke, 1984). Everly (1989) in his overview of the current research on immunosuppression and stress has suggested that stress is a clinically significant immunosuppressor in that it inhibits immunocompetence by the inhibition of cells and lymphoid tissue, and that it suppresses immunocompetence in proportion with the intensity of the stressor. This author also suggests that "prolonged stress may be more of an immunosuppressor than is acute, intense stress . . . (and that) the ability to exert a sense of "control" over the stressor serves to mitigate immunosuppression" (p. 73).

Chapter III

Law Enforcement and Stress

"The police officer's principle enemy is not the burglar or the armed robber. Rather, the major source of suffering and death for police officers and their families is the inability to cope with psychological stress" (Fennel, 1981, p.170). The past decade has witnessed an emergence of concern for the manner in which stress impacts individuals in their occupational endeavors. Occupational stress research has led at least one investigator to suggest that critical to an effective work environment are an employee's physical health and mental well-being, which if left unattended may exert negative impact upon the organization in the form of rising health care costs, employee reliability, and productivity (Richard & Fell, 1975). Administrators have gradually come to realize that they are both legally and morally obligated to provide workers relief from consequences associated with on-the-job activity.

Law enforcement is commonly assumed to be a stressful occupation, however, until the last two decades there has been a conspicuous lack of empirical evidence regarding this assumption. During the seventies and eighties, a striking amount of research was generated in the attempt to delineate

stress sources among peace officers. Results of this research has suggested that a correlate of peace officer seniority is significantly greater levels of stress than experienced by many other professions (Fennel, 1981; Sewell, 1981).

Although researchers have defined the experiences which peace officers perceive as stressful along a number of different lines, a common delineation of such factors utilizes four broad categories: External organizational factors; Internal organizational factors; Duty-related factors that pertain to the officer's on-duty hours; and Personal variables that include the officer's demographic characteristics, family background, and personality traits which differentiate individuals within the profession (Kroes, 1976; Eisenberg, 1975; Reiser, 1976; and Roberts, 1975). The following pages will address each of these areas.

External Organizational Factors

Stressors external to law enforcement organizations include the occupational contacts outside the agency that peace officers are either required to maintain such as interactions with court systems or that occur as a by-product of being a governmental employee in an area high in public concern. External stressors impacting on peace

officers include court systems and negative or distorted media presentations (Stratton, 1987).

Judiciary Stressors

Research has suggested that peace officers find court systems and their treatment within them to be significant sources of stress (Stratton, 1978; Crank and Caldero, 1991; and Kroes, Margolis, and Hurrel, 1974). Perhaps the two most salient complaints voiced by peace officers as to the stressors emanating from the judiciary system are; inconsiderate scheduling of peace officers for court appearances, and court leniency towards criminals (Kroes, Margolis, and Hurrel, 1974).

Goodman (1990) has reported that court decisions perceived by the officer as unjust were correlated with a high degree of burnout among his sample of 199 police officers. This author suggests it is common for peace officers to become cynical about making arrests, going to court, and dealing with court personnel which may contribute to feelings of uselessness and poor self-esteem. Goodman (1990) reports that: "If the officer is not reinforced for arresting a suspect due to court technicalities that result in the suspect's release, then it may be likely that the officer may not arrest suspects in the future . . . It is imperative that police departments consider the effect that a bad court decision has on a police officer in terms of his feelings of self-esteem and job satisfaction" (p. 96).

Stress from Public

With its own agenda, values and goals, a law enforcement department is a closed system, unwilling to allow outsiders to truly experience the inner workings. Such systems through their mystique and exclusiveness often find their interactions with other systems external to the law enforcement community at odds with their own agendas. Through personal experience and viewing how other officers are treated, the officer learns to be increasingly suspicious and defensive toward a public that is perceived as prejudiced and hostile (Alkus and Padesky, 1987). Studies suggest that the residual effects of repeated exposures to these types of events become compounded over time and are associated with social isolation and the adoption of a "calloused" viewpoint. This "tough skin" which officers perceive as necessary to fend off difficult emotional events seems to contribute to the negative perceptions of the officer by the public at large, a growing allegiance with fellow officers, and a sense of alienation from mainstream society (Pogrebin and Poole, 1991; Anderson and Bauer, 1987; Kroes, Margolis and Hurrell, 1974).

Stress from the Media

The potent and memorable experiences of law enforcement officers are often seen as a curiosity to the media and to the public. Research suggests police officers often view the primary focus of the media to be at odds with their own

agency's interests. Media accounts often seem at odds with the officer's own perception of truth and often include "accusations of discrimination against minorities and the nature of police discretion in the uses of deadly force . . ." (Alkus & Padesky, 1987, p.57). Indignation and resentment towards the press appear due to a number of reasons including press criticism of an officer or his or her agency, publication of sensitive information, lack of news media sensitivity, or the betrayal of an officer's trust. This animosity towards the press ". . . can compromise the flow of information to the public. Police use a variety of techniques to punish the press. These include restricting access to information, denying requests for interviews or disregarding reporter's deadlines. Police have been known to release information to a reporter's competition to get revenge" (Kobel, 1988, p. 95).

Internal Organizational Stressors

Departmental Policy

Inconsistent departmental policy and support have been suggested to be important contributors to the stress that peace officers reportedly experience (Alkus & Padesky, 1982). These authors indicated that a major stressor for peace officers, whose ability to perform their job involves their ability to "control" any situation they may find themselves in, comes in the form of situations in which they

command little or no control. Stagnancy in career development, inconsistencies among supervisors, low pay and work overload are cited as common examples of the stressors associated with police administration (Alkus and Padesky, 1982). According to one author, a by-product related to organizational sources of stress, is "performance anxiety," that is, the fear of doing something wrong, of being criticized, investigated, tried, suspended, fired, seen as inadequate, or of being the defendant in a civil suit (Jacobi, 1975).

Lack of Rewards

Lack of advancement opportunities within individual departments, as opposed to the field as a whole, has been associated with significant amounts of reported stress among peace officers aspiring to loftier administrative positions. Crank and Caldero (1991) found that 7.9% of their respondents singled out "lack of promotion opportunities" as the solitary most stressful aspect of organizational stressors. Freudenberger (1977) has discussed the relationship between emotional exhaustion and promotional opportunities, suggesting that it is critical for an officer's well-being to be able to move both laterally and vertically within the organization's structure.

Gaines and Jermier (1983), in their study of emotional exhaustion as a correlate of burnout, found among their

sample of 169 police officers and investigators, that the most powerful predictor of emotional exhaustion was promotion opportunity. These authors' suggest that "lack of promotion and transfer opportunities constitute one of the most serious problems faced by the organization. As organizations such as this one seek to recruit more and more college graduates with high achievement expectations, increased amounts of emotional exhaustion can be expected unless viable career tracks are established" (p. 582).

Salary

Inequity in pay is another aspect of concern to many police officers. Gaines and Jermier (1983), found that in regards to perceived inequity in pay, patrol officers experienced significantly greater frequency of exhaustion than did service employees. Hurrell (1977) found that 90% of the police officers sampled believed that their pay was inadequate for the type of job they were doing.

Rank Hierarchy

Research has suggested that an individual's stress level and its correlates are not consistent over a police officer's years of service (Kaslof, 1989; Hageman, 1978; Alkus and Padesky, 1982). Some officers find themselves not only increasingly disconnected from mainstream society and the social supports they previously depended upon, but in addition, from the peer support they have come to rely upon in their advanced years of service. Kaslof (1989) has

suggested that middle-level managers (sergeants) find themselves alienated not only from the upper-levels within the law enforcement hierarchy, but in addition, from the patrol officers they supervise who are out on the street, a so-called "man-in-the-middle." The shift sergeant has in many cases been the recipient of conflicting demands and role expectations. The officers they supervise view them with caution while the administration fails to identify them as a peer. To the former, they are someone with whom to be cautious, and to the latter, they may be viewed as little different from the officers they supervise (Hayes, 1977; Reiser, 1972).

Not only are discrepancies noted in the stress associated with varying degrees of rank here in the United States, it has been noted among British officers as well (Hayes, 1977). Gudjonsson and Adlam's (1985) study of 187 officers, and Robinson's (1981) study of 191 officers, found evidence suggesting that sergeants were among the most stressed rank in their respective studies. In addition, Brown and Campbell (1990), in their study of 954 police officers in the United Kingdom, generally found support for previous findings that " . . . the sergeant rank is associated with the highest overall levels of exposure to stressors and reported felt stress" (p. 317).

Supervisors

It has been suggested that for line officers (officers whose primary duties are patrol) a significant source of stress comes from a mistrust of their supervisors whom they perceive as out of touch with the "reality of the street." Crank and Caldero's (1991) study of "medium-sized" police departments, found that 42.4% of their respondents reported upper-level personnel (sergeants and above) to be the single most significant stressful aspect of their careers, with sergeants (12.7%) being singled out as the individuals most associated with the respondent's identified stress levels. Perceived to be indifferent to the plight of the line officer in their everyday tasks, the sergeants' stress-inducing presence was characterized by one officer as due to "oversupervision" in that "they arrive at minor scenes and quickly make a mountain out of a mole hill, issue various orders (to hear themselves and sound important), and then vanish into thin air leaving the beat officer to straighten out the mess they made" (Crank and Caldero, 1991, p. 344).

Upper-level management behavior has not been found to be as strongly correlated with peace officer stress as that of direct supervisors, nevertheless they do seem to be a significant source of stress to those whom they supervise (Kroes et. al., 1974). Crank and Caldero (1991), found that 4.2% of their respondents identified the chief, and another 17.0% one or more upper-level managers, as the most

significant sources of stress in their occupational endeavors. These authors report one individual's remarks concerning upper-level management: "These heroic knights of the coffee-cup are so lacking in any real creative intelligence as to be truly amusing, were it not for their indolence and inconsistency" (p. 343).

Lack of Socialization

When the community the officer works in is very large, the officer is often able to seek out social opportunities that bear little resemblance or personal connection to their place of employment. A city with one million residents will more easily permit an individual to be anonymous than will a city of only 500 residents. Maslach and Jackson (1981) have suggested that the ability to remove oneself from the job is necessary to circumvent the deleterious effects of overinvolvement, however as one officer they interviewed recounts, even large cities do not assure escape from occupational pressure:

If I go to a party, the first thing I tell the host is, "Don't tell anyone I'm a cop" Because if people find out, then they start bitching about some traffic ticket or tell me about the hard time some stupid cop gave them - and before you know it, your night is ruined. After awhile, you don't go out to parties unless you go alone or you go with another cop and you stay together and stay on the side. You don't get involved with people. You don't want to bother getting involved, because you know what is going to happen. (p. 248)

Therefore, it could be speculated that sizeable cities offer peace officers an opportunity to "blend into the

woodwork" so to speak, allowing an ability to escape some job pressures. In this regard, small or rural towns may present some unique problems. Most police agencies require their officers to reside within the boundaries of the officer's jurisdiction. In a very small community, everyone knows who the local cops are, where they live, shop, eat, who their children are and what school they attend, as well as a host of other personal information. Usually born and raised locally, and almost exclusively male, community members will likely have known the rural cop or his family since his childhood (Alkus & Padesky, 1982). These authors suggest that the rural peace officer's identity now revolves around his career and the community seldom regards him otherwise.

Duty-Related Factors

Boredom

Perhaps one of the biggest foes that peace officers must face in their daily routine is the endless hours on patrol in which nothing much occurs. Kroes, Margolis, and Hurrel (1974) have suggested that the majority of peace officers who indicate that boredom is a major factor of concern in their lives regard the 11 p.m. to 7 a.m. shift as the most bothersome due to the quiet streets during those hours. These authors report that boredom is especially salient for officers in Northern climates during the cold

winter months where officers can count on long spells of inactivity and even greater isolation than would be common to other seasons of the year.

Role Conflict

Role conflict refers to the establishment of a set of rules or organizational laws that are personally disagreeable and impact the framework from within which police officers must operate. Moyer (1986), points out that this becomes particularly troublesome when the officer's discretionary powers are curtailed by departmental policy. Moyer (1986), citing field observations of police officers, suggests that police officers typically use two main strategies for dealing with role conflicts: a) treating certain subsets of the population in which role conflicts abound (i.e., the handling of intoxicated persons) as if they don't exist, and/or, b) "role distancing" themselves by establishing a separation between themselves and their roles most often by engaging in jokes about the situation.

A different definition of role conflict regards the redundant multiple roles or "hats" which peace officers must continually juggle during the course of a day. Although Joy (1982) has suggested that although "police officers are expected on a moments notice to become psychologists, medical doctors, lawyers, street-fighters, race-car drivers, and track and field stars, without ever being one" (p. 54-55), these frequent role changes were not correlated with

significant amounts of stress among his sample of 129 Detroit, Michigan police officers.

Shiftwork

The rotating shift schedule has been associated with a sense of alienation from mainstream society and has been suggested as a significant source of stress among police officers (Kroes, 1976). Still very common in many U.S. law enforcement agencies, officers find themselves working shifts that serve to isolate them from family and friends. "These shift changes which are necessary . . . can bring about tremendous havoc on the individual . . . and his personal biological and social adjustment, but also infringe inevitably and often-times in drastic ways on the significant others in his life, i.e., spouse and children" (Stratton, 1978, p.60). Crank and Caldero's (1991), study found that 17.0% of their respondents reported that shiftwork was the single most common organizational stressor in their lives. Disrupting family life and social contacts alike, these authors found that among the 17.0% total, half (8.5%) of the respondents found rotating shifts more stressful, while the other 8.5% found shiftwork in general to be the most stressful.

Three of the most common shifts are the 7 a.m. to 3 p.m., 3 p.m. to 11 p.m., and the 11 p.m. to 7 a.m. shifts. Departments vary on the time of shift start and finish but virtually all of them require, at least for the line

officer, an 8 hour shift which will include the officer's "on-duty" lunch period. For applicable officers, shift rotation commonly occurs every two weeks to once a month. Kroes, Margolis and Burrell's (1974) study of Cincinnati police officers found that changing shift on a 28-day shift cycle created significant disruption in the lives of police officers, and that of the officers finding this shift change bothersome, 93% indicated it disrupted their eating habits, 38% said it had a negative impact on their family life, and 29% said it disrupted their sleep patterns or "circadian rhythms." Kroes (1975) reports that peace officers often perceive daytime sleep as qualitatively different from nighttime sleep, in that they find it less satisfying. Czeisler, Moore-Ede, and Coleman (1982) have suggested that shift workers, whose circadian rhythms are disrupted by being placed upon shifts that rotate often, complain of a variety of health ailments, sleep disorders, and an overall decline in productivity.

Another concern among peace officers is the reported lack of consistency between shifts (Crank & Caldero, 1991). Common among law enforcement agencies at the end of each duty shift is the switch of an entire roster of patrol personnel, where the middle-level managers (lieutenants, sergeants and corporals) along with their patrol staff, relinquish their duties to the oncoming shift which consists of an identical rank structure. Many officers find salient

inconsistencies among how each shift approaches problems and deals with departmental protocol. Crank and Caldero (1991) report inconsistencies concerning non-standardized policy and procedures across shifts, and they also describe situations in which officers working across two different shifts find themselves facing conflicting orders.

Danger

It has been estimated that over 50% of police calls in an urban environment involve "domestic-type" disputes (Mann, 1976). It is common knowledge among peace officers that domestic disputes are one of the most dangerous occurrences that they face on the job. Research has indicated that 40% of all injuries and 22% of peace officer on-duty fatalities result from being killed in the line of duty during attempts to intervene in domestic family disputes (Bard, 1976).

It is obvious that if one desires a guarantee of safety, then law enforcement is not a likely choice of occupations. In 1991, 49 officers were accidentally killed and 69 police officers were murdered in the line of duty (four more than the previous year and the first time since 1988 that there had been an increase) (U. S. Dept. of Justice, 1992). Of the officers murdered while on duty; 16 were killed during domestic type disturbances, 15 were killed in arrest situations (4 apprehending robbery suspects, 3 apprehending burglary suspects, 3 during drug investigations, and 5 others attempting arrests for other

crimes), 13 were killed while enforcing traffic laws, 10 were ambushed, 9 were investigating suspicious persons, and 6 were handling prisoners (U.S. Department of Justice, 1992).

The U.S. Department of Justice (1992) recently reported that midwestern States were second only to the southern States in the number of officers killed (20 officers slain); Of the murdered officers, 48 were slain by handgun, 14 by rifle, 4 by shotgun, 1 by a bomb, 1 was beaten to death with a flashlight, and 1 was intentionally run over with a vehicle; Of the 69 homicides, 65 were cleared. With these type of statistics in mind, what will likely be surprising to many civilians, is that the fear of being injured or killed in the line of duty has not been found to be a significant source of reported stress for the average peace officer (Lawrence, 1984).

Although the danger associated with law enforcement appear to be somewhat of a concern among police officers (Spielberger, 1979), research suggests that most peace officers acknowledge and accept the fact that their working environment is a dangerous place, and that it is ill-defined and inconsistent application of departmental policy and tactics which most distresses the average peace officer (Crank & Caldero, 1991; Terry, 1981; Kroes, Margolis, and Hurrel, 1974). As one officer relates: "The stress caused by the work on the street is nothing compared to the stress

caused by the administration in this department" (Crank & Caldero, 1991, p. 346). These same authors suggest that peace officers find more stress associated in trying to unwind from situations that fail to manifest the level of severity that the officer expected and summarize their point via one officer's response: "Stress is when you go to an in-progress call and find out it's bullshit. You have yourself pumped up with no release" (p. 346). It appears then that most peace officers view the danger aspect of the job as an acceptable risk. In fact, some research has suggested that the fear of death is not any greater among police officers than it is for the average college student or local mail carrier (Ford, 1971).

Traumatic Experience

While peace officers do encounter a vast array of hazardous situations it appears from the literature that most of these situations are taken in stride and handled in a routine manner. However, there are a subset of these experiences that appear to leave a lasting impact upon the emotional well-being of the officer. The use of deadly-force in law enforcement and/or the involvement in a shooting incident have long been understood to be significant events in the life of peace officers or civilians (Anderson & Bauer, 1987). Unfortunately, until recently the emotional impact of such events on the officers involved was typically ignored by their departments. It

took the return of a large number of Vietnam Veterans, manifesting similar symptomatology, often years after the traumatic events, to trigger research on the effects of what eventually became known as post-traumatic stress disorder (PTSD). Results of epidemiological investigations were compelling. Prevalence rates of PTSD were found to be 1% among the general population, 3.5% for non-wounded Vietnam veterans, and an astounding 20% for wounded Vietnam veterans. Subsequent research has enhanced our understanding of PTSD, generated a methodology for its treatment, and provided an ideal opportunity to generalize these findings to the law enforcement profession (Helzer, Robins, & McEvoy, 1987).

Martin, McKean and Veltkamp (1986) have suggested that PTSD is strongly associated with either being victimized or witnessing victimization. These authors found that among a group of peace officers attending a crime seminar, 26% of the officers manifested symptoms that met the criteria for a diagnosis of PTSD. Furthermore, as a result of their analyses, these authors have suggested that female police officers are at enhanced risk for developing PTSD compared to their male counterparts. As to the coping strategies utilized during these episodes, 90% of these female officers acknowledged talking about the incident with fellow officers, whereas only 45% of the males described similar coping strategy. In addition, female officers were two and

one-half times more likely to "try and forget about the incident," than were males. Regardless of coping strategy, the authors report that female officers seemed to be at enhanced risk of developing PTSD over their male counterparts, especially when they are dealing with assaults on children, spouse abuse and rape. Martin et al. (1986) reported that of the officers who experienced trauma, 83% felt that: " . . . their own psychological trauma helped them to be more sympathetic with rape victims. These authors found that of those people who had suffered from PTSD, 77% described themselves as empathic with rape victims, compared to 51% of those who had not suffered from PTSD" (p. 99-100).

An individual who suffers from PTSD may experience a variety of symptoms including chronic nervousness, hyperalertness, and exaggerated startle reactions. Situations similar to the original event may trigger painful memories and images (flashbacks) of the event. Psychic numbing, loss of energy, diminished appetite, a loss of interest in formerly engaging experiences, crying spells, intense feelings of guilt, and self-condemnation are all associated to varying degrees with PTSD. PTSD can manifest shortly after the traumatic event, or months and even years later. In some cases, years after living quite successfully, an event will occur that triggers the symptoms of the syndrome. This delayed form of PTSD has been

interpreted as reflecting a gradual breakdown of compensatory defenses that were originally disguised by overt impressions of normalcy. This subtype of PTSD may be of importance to peace officers who, for year after year, witness devastating scenarios and often remain heavily burdened by painful memories.

Research seems to indicate that most officers would rather suffer the consequences of stress than seek therapy and endure the stigma associated with "needing help." A recent study of 37 police officers involved in serious shooting incidents, showed that 33 of the 37 were experiencing clinical symptoms of post traumatic stress disorder (PTSD). Of this affected group, 17 had serious problems at a minimum of five years after the incident (Gersons, 1989). The author reports that none of the 33 officers sought help from a mental health professional and, interestingly, of the 25% who presented to general practitioners with clear physical symptoms of PTSD, none were properly diagnosed.

Burnout

Burnout has been conceptualized by Maslach and Jackson (1981), as consisting of three distinct dimensions: a) emotional exhaustion, b) depersonalization, and c) lack of personal accomplishment. As put forth by these authors, burnout's initial phase is characterized by a state of emotional exhaustion associated with significant

psychosocial debilitation, lack of energy, loss of feelings, interest and spirit. The second phase, depersonalization, is characterized by negative, impersonal and cynical responses towards those with whom the individual interacts. During the third and final stage, the person's level of personal accomplishment is compromised along with the establishment of a bleak occupational outlook, low self-esteem, depression, diminished morale and withdrawal.

Maslach and Jackson (1981), developed the Maslach Burnout Inventory (MBI) to quantify the degree to which individual's suffer from work burnout. Normed among a wide array of occupational groups including teachers, social service workers, medical and mental health workers, ministers, librarians, attorneys, as well as police and probation officers, the MBI consists of 22 statements which are associated with the burnout syndrome (Maslach & Jackson, 1981). With the creation of the MBI, Maslach and Jackson (1981), have defined burnout as a continuous variable which can be measured in terms of frequency and severity of the burnout dimensions of emotional exhaustion, depersonalization and personal accomplishment. Although, there exists at least four other reputable instruments available to assess burnout, the MBI enjoys the reputation as one of the most widely used instruments in the assessment of job burnout among a wide variety of occupational groups (Shinn, 1982).

Esposito (1989), in her doctoral dissertation, utilized the MBI to study the role of occupational stress among twenty-five male police officers and the impact on their teenage children. Results indicated that officers scored significantly higher on the Depersonalization subscale of the MBI than did the population on which the MBI was normed. Other studies that have assessed burnout in police officers have also examined sex differences. Findings in this area suggest that female officers tend to exhibit significantly more somatic stress symptoms than do male officers (Hendrix & Cantrell, 1985; Silbert, 1982).

Stevenson, in her 1988 study assessing burnout and its correlates in a large urban police department consisting of 597 officers who were predominantly Caucasian (56.0%) and male (83.7%), found very high levels of burnout. The author reported that ethnicity accounted for the single most significant predictor of burnout, with Caucasian officers experiencing much more burnout than their African-American counterparts. Stevenson reported that the subscales of depersonalization and emotional exhaustion for these officers significantly exceeded the MBI's normative group. Other variables significantly correlated with increases in the proportion of burnout among these officers were a college education, having tenure, being a sergeant or lieutenant, having few personal contacts or work

relationships, utilizing avoidance coping strategies, social isolation, and injuries.

Goodman (1990) in his study of burnout among 199 male police officers found that six variables were significant in predicting burnout during an officer's career; the average number of sick days taken, time off due to family problems, number of social outlets, bad court decisions, the number of days hospitalized, and being wounded. This author also found that the precareer variables of "trait anxiety" and the average number of sick days taken per year were also significant in the prediction of burnout later during one's career.

Emerging Sources of Stress

The literature has increasingly been focused on several new stressors that have entered the arena for those in the law enforcement profession; AIDS, terrorism and gang violence.

Gang Violence. For many cities in the U.S., gang violence is not a new phenomenon. Major cities around the country have adapted by developing specialized units within their department to deal with gangs and to develop "dialogue" with gang members. More recently however, gangs consisting of young adults have spread across the country like wildfire and are now manifesting like a plague in virtually every state in the nation. Recently, the American Broadcasting Company aired a newsbrief illuminating the gang

situation in America's heartland. The newsbrief targeted Rapid City, South Dakota, as an example of the increasing prevalence of gang activity in small town America. While not yet presenting with the same degree of severity as it has in other parts of the country, its unlikely that in the coming years, gang violence will leave North Dakota unscathed. The extent to which this phenomenon is currently causing concern among Midwestern peace officers is unknown.

Terrorism. 1993 has seen a turning point in law enforcement's approach to domestic affairs. In light of the terrorist bombing of the World Trade Center in New York City early in 1993, naivete has been put aside. While it would seem that exposure to violence is nothing new for most U.S. police officers, such acts emanating from terrorism are a new phenomenon. In 1986, a total of 1,401 incidents of international and domestic terrorism were recorded with the U.S. being the seventh most targeted in terms of terrorists' attention (Haddock, 1988). In 1986, U.S. citizens traveling overseas and U.S. facilities and installations abroad accounted for 45% of the total terrorism targets (Gerringer, 1987). Currently the United States lists Cuba, Iran, Iraq, Libya, North Korea, and Syria as state sponsors of terrorism (Boucher, 1993).

The year 1992 witnessed a 35% decline in overall international terrorist incidents than the 567 in 1991. Although fewer deaths were caused by international terrorism

(93 instead of 102 in 1991) the toll on human suffering has not been alleviated as evidenced by the fact that 636 people were wounded in 1992 over the 242 in the preceding year (Boucher, 1993). Perhaps what should be most unsettling for U.S. police officers, is that, as a group, police officers are terrorists' third most common target (Gerringer, 1987).

Probably more salient to North Dakota police officers is the growing menace posed by "hate groups." The author remembers from personal experience February 13, 1983, a day which is infamous for North Dakota law enforcement. On that cold day, two United States Marshals were killed, another was severely wounded, and a Stutsman County sheriff's deputy and a Medina city police officer were shot and wounded, by members of a group calling themselves the "Posse Comitatus." This group was led by a man by the name of Gordon Kahl who resisted an arrest attempt made by these officers in the sleepy hamlet of Medina, North Dakota. North Dakota law enforcement was stunned and shocked that such incidents could happen here. Events such as these are poignant reminders that irrespective of the locale, catastrophe is only a heartbeat away. North Dakota law enforcement appeared ill-prepared to deal with such an encounter in both a technical, due to lack of more appropriate weaponry, and in a psychological sense. A number of "hate groups" currently exist, including the "Aryan Nations," "Groundswell," the "Arm of the Lord and the Brotherhood of

the Sword," and other less well-known Neo-Nazi groups. The extent to which these groups and their activities are a source of stress for Midwestern police officers has not been empirically established.

AIDS. Acquired auto-immunodeficiency syndrome (AIDS) would seem to be foremost in the mind of today's peace officer when arriving at a scene where blood has been shed and the risk of exposure is significant. Virtually unheard of among law enforcement personnel ten years ago, AIDS has contributed to a change in response patterns to injured individuals and a change in the peace officers approach to potentially dangerous individuals (Haddock, 1988). Most police departments currently recommend that officers use caution when providing assistance to the sick and injured through the use of disposable gloves and cardiopulmonary resuscitation masks. The current level of concern among Midwestern peace officers regarding the virus which causes AIDS is also unknown.

Personal Stressors & Individual Characteristics

It seems readily apparent that not all persons who work in the law enforcement profession "burn-out," become prematurely ill, develop marital problems or evidence other correlates of occupational stress. One must take into account the individual predispositions which are a critical component in any equation designed to assess occupational

sources of stress. A model which takes into account these personal variables has found support among a number of researchers (Kroes et al., 1974; Lawrence, 1984). For example, Lawrence (1984) argues that, for any given police officer, the relative stress of police work is a function of particular job demand characteristics in interactions with the complex predisposing personality variables unique to each individual.

A brief review now follows of the literature surrounding the coping strategies most commonly utilized by peace officers and the impressive variability observed in peace officer coping responses. The present review will focus on those coping strategies most explored in the present literature. This section will be followed by an examination of just a few of the personal variables such as work ethics and dispositions, anxiety proneness, personality structure, marital and family relations that will differ, at least to some degree, between each and every individual officer assessed.

Coping Strategies

Type A Personality. Common in the stress literature today is the concept of the "type A" behavior. Popularized by Friedman and Rosenman (1974) the Type A Behavior Questionnaire, has been utilized in numerous studies to ascertain characteristics of the individual officer in regards to personality traits such as aggressiveness and

competitiveness. Glass (1977) has conceptualized the Type A pattern as being characterized by three distinct dimensions: hostility-aggression, impatience or time urgency, and competitive achievement striving. Found to be correlated with the likelihood of coronary heart disease (Jenkins, 1976), Type A behavior may be thought of as a pattern of coping that the individual manifests when confronted with events that are perceived as threatening to a sense of self-control.

Kirmeyer and Diamond (1985) in their study of 31 non-supervisory police officers, found that Type A and Type B (non-aggressive, patient and easy-going) police officers seem to appraise and cope with role stress differently. These authors suggest that "the pattern of self-reported coping for Type A's is characterized by action and single-minded attention to the problem at hand . . . (whereas) . . . Type B's reported intentionally reacting in a slow and considered fashion, while maintaining emotional distance" (p. 193).

Burke (1988), in his study of 828 men and women in police work found that Type A's reported greater stress than did Type B's even though they did not report greater job dissatisfaction because of it. Burke suggests that Type-A behavior seems to be associated with such variables as individual emotional well-being, negative feeling states,

psychosomatic symptoms, psychological burnout (as measured by the Maslach Burnout Inventory), and work-family conflict. Furthermore, Type-A's did not seem to have greater job demands or more environmental stressors than did the Type-B's.

Mental sets. A review of the literature indicates that law enforcement officers deal with stress in a number of ways. Probably one of the most prevalent and often used is the officer's development of a particular mental set (Anderson & Bauer, 1987). Mental sets, according to these authors, allow the officer a certain degree of detachment and freedom from internalizing the sometimes harsh public sentiment that often comes with the job. These mental sets consist of internal cognitions (e.g., "It's not me personally their angry at, it's the uniform" or "These people are just scumbags anyway, their opinion doesn't count"), and the risk of these cognitive sets generalizing in a manner that could serve to color the officer's entire outlook on society and the police profession itself warrants consideration.

Humor. Another approach utilized by peace officers to reduce stress is off-color humor (Anderson & Bauer, 1987). Apparently used primarily as an outlet to diffuse situation-oriented tension, this type of stress reduction entails jokes that would likely be viewed as macabre, disgusting and inappropriate if overheard by one of the

general public. These jokes often depict scenarios similar to those recently witnessed by the officer and offer a method for officers to collectively deal with the emotional baggage of a given scene while remaining outwardly aloof and emotionally distant. Such humor allows the officer to distance self and their respective role from the uncomfortable situation.

Pogrebin and Poole (1991) in their review of the use of humor among peace officers in stressful situations offer the following account by one officer who had come upon a scene in which a man had committed suicide by putting a rifle in his mouth and pulling the trigger:

I pushed open the door, and this guy is sort of sitting up on the bed, and he had a hunting rifle, and he was barefoot, with his toe by the trigger. He was still holding onto the barrel, and there was nothing left of his head. Blood was everywhere. Brains and pieces of brain and skull were all over the place. For some reason, to this day I don't know why, I felt for a pulse. I guess it's a habit that every first-aid you go on, you feel for a pulse. You just couldn't believe somebody could do something like this. There was a night stand by the door as you enter the room, and on it was one of the man's eyeballs, which had landed there. It was rightside up with the lid on. It still had his eye socket, on the bone, with the soft tissue. My supervisor saw that, and he said to me, "Here's looking at you, kid." You have to laugh at stuff like that, or else you go nuts. A detective has a picture of the eye, which he put up in the detective's locker room on the bulletin board with "Here's looking at you kid" written under it. (p. 401-402)

Given the context of the situation, such humor would likely be viewed by the general public as abhorrent. A bystander's opinion of an officer who told such a quip would

probably be quite negative and the bystander would likely view the officer as crude, callous and demeaning. Anderson and Bauer (1987) postulate that this type of humor is a coping strategy which may facilitate the officer's recovery from specific stressful situations. Humor serves to diffuse the emotional response to tragedy, while reducing situational anxiety, distancing the peace officer from the situation, and enhancing group performance through reinforced "in-group" solidarity. Investigations are allowed to continue unimpeded by excessive anxiety (Anderson & Bauer, 1987; Pogrebin & Poole, 1991; Alkus & Padesky, 1987; Moyer, 1986).

Alcohol use. Failure of coping strategies to relieve stress may lead to other more maladaptive alternatives to stress reduction. It has been suggested that police officers are largely "symptomatic drinkers" who use alcohol as a depressant to reduce tension and relieve psychological strain. Unfortunately, long-term use increases the risk of cancer of the esophagus and cirrhosis of the liver (Violanti, Marshall, & Howe, 1985). Kroes (1976) has estimated that 25% of all police officers suffer from severe alcohol dependence. In addition, Van Raalte (1979) reported that 67% of his sample of police officers admitted to having consumed alcohol while on duty and reported several instances in which intoxicated off-duty officers injured

others with a firearm. For the peace officer, alcohol provides a convenient and socially acceptable coping alternative which is accepted and reinforced by the informal law enforcement subculture (Kroes, 1976).

Stratton (1975) has suggested that shift work is a heavy reinforcer for the excessive use of alcohol, especially since the officer's shift often conflicts with their spouse and non-police friends, the officer's social contacts tend to be primarily other officers. "Choir practice," a term popularized by the noted police fiction novelist Joseph Wambaugh, is the after hours gathering of fellow officers to immerse themselves in camaraderie, the telling of "war stories" (significant happenings during their law enforcement career), to generally gripe about supervisors and administrative personnel, and to "unwind" through the use of alcohol, which is a socially acceptable way to admit faults, concerns and weakness (Stratton, 1975).

Stratton (1975) suggests that while such activity may be cathartic for some individuals, it may create compounded difficulties for others. Stratton posits the following:

The policeman shares his fears and frustrations only with fellow officers and therefore receives feedback and direction only from his peers, who often view things the same way he does. Thus people with different points of view, especially the wife, are often left out of the process and therefore do not see a multidimensional man. By admitting fears and problems only to people exactly like himself, the officer is able to put back on his armor and preserve the image he thinks his wife and everyone expects of him. The only people who see the chinks in his armor are people just like himself. (Stratton, 1975, p. 238)

Displaced Anger. Another maladaptive method of coping with stress is by displacing the anger and pent-up feelings towards others who are not the original source of such stressors. Within the paramilitary structure of law enforcement agencies, officers are required to follow orders and a chain of command. As previously discussed, this structure can leave one feeling angry and frustrated. It has been suggested that some officers vent this anger by intentionally inflaming already volatile situations (Anderson & Bauer, 1987). With no shortage of potential violent interactions while on patrol, it would seem that the officer who is so inclined could easily provoke persons they are arresting to violence. By interacting with the public in such a manner as to precipitate or spark a violent confrontation, an officer is able to "lawfully" vent hostility or aggression through the physical act of subduing the "criminal," who will likely soon find himself in jail for disorderly conduct, resisting arrest, or assault. Anderson and Bauer (1987) report on how one officer deals with stress in this manner: "I get right up into his face and talk just a little too loud and, most of the time, I can get him to take a swing at me" (p. 382).

Suicide. Suicide, has been found to be a substantial risk for those in the police profession (Violanti, Vena, & Marshall, 1986; Fell, Richard & Wallace, 1980). Suicide can take many forms, and it is probable that many deaths

officially recorded as due to "accident," are actually suicides disguised as accidental deaths. In clear-cut suicide cases, the suicide rate among police officers has been found to be at least three times that of other municipal workers (Violanti, Vena, & Marshall, 1986). Given this alarmingly high "official" rate, it is hard to say how high the true tally goes. Researchers attribute the high suicide rates among police officers to a variety of sources, including high levels of personal frustration, a perceived lack of administrative and public support, continual witnessing of abusive violence, perceived loss of control, and a constant reintegration from police work back into a "normal" existence each day as contributing factors (Alkus & Padesky, 1982; Fell et al., 1980; Milham, 1979; Violanti, Vena, & Marshall, 1986).

Alkus and Padesky (1982) suggest that marital problems, especially for younger officers, seem to be a common precursor of successful suicide. These authors report, based on police suicides in 23 cities, a "typical" profile of a suicide victim is that of ". . . a male officer . . . (who) was in his late forties, at or near retirement after 15 or more years of service. Divorced or seeking divorce, he appeared acutely depressed as displayed by alcohol consumption, somatic complaints, loss of sex drive and appetite, and remoteness from others. Previous suicide

attempts or "accidents" were common with death finally occurring by handgun" (p. 59).

Not all studies have found consistently high suicide rates among peace officers. Loo (1986) in an archival study of suicide among the Royal Canadian Mounted Police (RCMP) between the years 1960 and 1983, found that out of 20,000 mounties, only 35 had clearly committed suicide. Loo reports that his results yield an averaged suicide rate of 15.5 per 100,000 between the years 1976 to 1980, a rate far below the Canadian national average for adult males of 29.4 per 100,000 during the same years. Bergen and Bartol (1983), in their study of rural law enforcement agencies in Vermont, found no documented cases of suicide among police officers in that state during the preceding ten years. Interestingly, among those peace officers who have committed suicide the overwhelming majority of officer suicides seem to have been committed with the officer's own service revolver (Loo, 1986; Danto, 1978).

Personal Variables

Workaholics. Peace officers have been suggested to be at enhanced risk of burnout due to an inability to find relief from their job, even in their off-duty hours (Maslach & Jackson, 1981). The literature indicates that most peace officers find their jobs exciting and believe strongly in what they are doing, however, this attitude when combined with social isolation, a strong peer network and a

departmental policy that requires officers to carry service weapons and identification while off-duty, often yields an individual who is characterized as a workaholic (Stratton, 1975). This author indicates it is not unusual to find off-duty officers spending their time hanging around the station or riding around with an on-duty patrolman, for these individuals, fighting crime, apprehending criminals and relieving society of the dregs of humanity may eventually become their sole focus.

Gender. There is little question that law enforcement has been, and continues to be, a male dominated occupation, especially for smaller cities and towns. The U.S. Department of Justice (1991a) indicates that the largest percentage of sworn female law enforcement officers can be found in cities with populations of 500,000 to 999,000 residents, with 14.2% of the officers being female in those cities. In small cities of less than 50,000 residents, the percentage of female officers is much less, with statistics indicating over 94% of all sworn law officers are male. It would seem that since the profession is predominantly male, it is likely that the "typical" roadblocks that females face in the workforce in general, might be exacerbated in a law enforcement organization dominated by male supervisors. Inherent role conflicts and gender-related pressures have been the topic of considerable discussion, with limited data

to assess the salient impact of gender on job stress in law enforcement (Alkus & Padesky, 1982).

One of the few studies to address this issue suggests that female officers have made limited inroads into the profession. The overall percentage of women in law enforcement has risen from 1.5% in 1971 to between 4 and 5% in 1985; however, over 40% of the female respondents felt their skills were being underutilized with single women sensing this twice as often as did married women (Garrison, Grant & McCormick, 1988). These authors' suggest that this perceived inequity was likely due to both "overeducation," as 94% of the sample had at least some postsecondary education and training, and length of service, with 59% of new officers feeling underutilized as opposed to 43% of the veteran officers. Although 75% of the respondents indicated that they had worked a "high crime" area, and of those, 41% had done so without a partner, these female respondents nevertheless felt discriminated against. For example, one female officer reported "I was denied both K-9 and motorcycle patrol ('not for women') and although I set the highest shooting record ever recorded at the academy (99.2 average), shot on the pistol team, taught professionally and constantly outshoot any man on the department, I am still being denied training as a firearms instructor because the higher ups feel I wouldn't have control over an all-male

department (they won't say it's because I'm a woman!)" (Garrison, Grant, & McCormick, 1988, p.81).

A Changing Perspective

With continuing years of service a peace officer's efforts to maintain social ties to non-law enforcement friends will likely taper. Subsequent to a heightened and pervasive state of vigilance and scanning for potential trouble, it seems that peace officers become suspicious, less pleasing to be associated with, cynical and rigid which hastens the demise of old friendships (Alkus & Padesky, 1982). For many peace officers the lifestyle and duty hours mandated by the profession make it increasingly difficult to maintain a social network external to the department (Stratton, 1975).

As the individual's membership in the law enforcement subculture continues, the officer's perspective on society changes. Once seen as a relatively non-threatening environment, the officer's growing experience appears to preclude him or her from retaining a viewpoint of society wholly consistent with precareer perceptions. Anderson and Bauer (1987) posit "that new, inexperienced police officers tend to develop, through training and peer contact, defense mechanisms and attitudes that tend to exaggerate their abilities and emphasize physical strength and toughness . . . this pattern of 'macho' attitudes and behaviors serves as a survival mechanism to protect the inexperienced officer in

a physically dangerous and psychologically threatening environment" (p. 65).

From the beginning of their police career, peace officers are socialized to repress their emotions, this to facilitate and maintain an image of "professionalism" among their fellow officers as well as the general public (Stratton, 1984). To illustrate the nature of how the changes in personality in police officers manifest, Drucker and Goldstein (1983) give the following account of one New York City policeman:

. . . My routine is always the same; I leave the radio car with nightstick lashed tightly, ominously around my left hand. I slam the car door hard for effect. Then I advance, leaning forward slightly, ready for the worst, my right hand resting on . . . my . . . gun. Then I go into my act: I "break it up" - whatever that means. I see myself as a uniformed, armed elitist gladiator whose job it is to control, not help the "rabble" . . . all those . . . who are an embarrassment, even worse a threat to the status quo, the stability of comfortable America. . . . I am becoming just another lion tamer, braving the animals, daring to walk among them, talking hard, flashing anger, occasionally pushing someone, usually abusing someone verbally. I don't really like what I do . . . I resent it . . . but as time goes on, as the conditioning grows stronger, I resist less. I am beginning to accept what I do and what I see . . . as the natural order of things . . . I also believe that what I do does absolutely no good. (p. 225)

Regarding a peace officer's self-image, the literature indicates that "fear of being criticized" is an ever-present concern for most peace officers (Stratton, 1975, Kroes, 1976). Several authors have suggested that a common complication of anticipated criticism is a refusal to allow free expression of emotions, even among their cohorts in

their own police subculture (Stratton, 1975, Anderson & Bauer, 1987). Withholding emotion appears to become an unwritten rule as officers increasingly: "find themselves unable to reveal their feelings to fellow officers, much less discuss them, for fear of being viewed as inadequate--as not having what it takes to be a solid, dependable police officer. As a result, interpersonal barriers against seeking common solutions to problems of 'emotion work' are created and maintained" (Pogrebin & Poole, 1991, p. 395).

The maintenance of an aloof posture and a rigid restriction of emotions even among fellow officers seems to contribute to the callousness with which many officers are considered to display (Pogrebin & Poole, 1991, Alkus & Padesky, 1982). These authors report that the restricting of emotion does not stop inside the ranks of the department itself, emotional responses and the display of compassionate behavior for the victims of crime are also generally considered inappropriate. Nurturance within the police subculture is often seen by fellow officers as weakness and a threat to their toughness ethic, "following this work ethic, officers must remain free of the emotional ties that could undermine . . . or, as it is understood in the traditional police culture, compromise the integrity of the 'us-versus-them' dichotomy" (Pogrebin & Poole, 1991, p. 399).

Personality Changes One of the first attempts to assess personality change in police officers as a function of years of experience was Niederhoffer who developed the Cynicism Index (1967), an instrument which he believed would depict changing traits over time as the officer's stressful experiences became compounded. Other researchers have found utility in this scale for police stress research (Violanti & Marshall, 1983; Violanti, Marshall & Howe, 1985) and for assessing changes in correctional officers as well (Farmer, 1977).

Beutler et al. (1988) in a longitudinal study examining personality traits, evaluated 25 police officers at 2 and 4 years and found significant changes in officers' Minnesota Multiphasic Personality Inventory (MMPI) scores suggesting that police officers change as a function of career experience in regards to increasing somatic symptoms, anxiety, and alcohol vulnerability, with the latter being the strongest finding. Other researchers have suggested that changes are a psychological defense against the emotional and physical dangers that result from both time on the job and continuing exposure to violent encounters (Anderson & Bauer, 1987). Adlam (1982), from Anderson and Bauer (1987, p. 382), denotes salient changes in personality among police officers as a function of years of service: a) their level of self-confidence and assertiveness increases, b) a protective shell develops that insulates them from

emotional upheavals caused by some of the dreadful experiences they have had to endure, c) their attitude becomes more suspicious, cynical, distrustful, and skeptical, d) they become either more intolerant and bigoted or more broad-minded and compassionate, e) they support a traditional masculine set of outlooks on the world, and f) they become more manipulative with people.

Marital Relations

Research indicates that rookies do not experience the same degree of marital dissatisfaction that characterize the relationships of veteran officers. Hageman (1978) found that job commitment, marital happiness and maintaining attachment with one's feelings were more characteristic of rookie peace officers than veteran officers who tended to progressively withdraw emotionally with advanced years of police employment. It is readily apparent that marital discord is a serious problem for those in law enforcement in that, of 2,300 police officers in 29 different departments, Blackmore (1978) found that 37% had serious problems within their marriages. High divorce rates also appear common among police officers. Sewell (1983) while finding a 26.7% divorce rate, indicates that his sample: ". . . was significantly below that found by other research into the police divorce rate in Tacoma (82 percent) and Seattle (60 percent), Washington, and San Jose, California (60 percent)" (p. 112).

It would seem that an officer's spouse is the one individual most apt to discern change in an officer's pattern of relating to the world, therefore, it is not surprising that a great deal of disharmony appears to exist among many police officers and their spouses. As quoted in Maslach and Jackson (1979) a police officer's wife remarks, "I can't understand how seemingly normal husbands turn into such machos. Arguments end in 'because I said so.' Our children feel as though they really can't discuss problems with their father because he relates in terms of the law and logic, and not the emotions involved. Sometimes I feel that if I don't do what he wants, I'll be arrested" (p.59).

Regarding the everyday concerns and worries that peace officers experience, the communication patterns between peace officer and spouse appears to be a major casualty of being on the job (Territo & Vetter, 1981). This silence or "blackout" on information concerning the officer's job-related activities is likely perceived by the officer as effort to "protect" the spouse from the horrors of the street (Stratton, 1975). Anderson and Bauer (1987) suggest that officers almost universally agree that they do not share their stressful daily activities and their terrifying fears with their spouse. If this is true, then it would seem that this communication anomaly effectively eliminates one of the officer's most viable support systems, their

spouse Appendix B illustrates a "typical" sequela of events in an average police relationship.

Stress and the Officer's Family

The literature indicates that peace officers often feel compelled to maintain and present their children with a quite rigid set of moral, legal, and ethical standards (Alkus & Padesky, 1982). Blackmore (1978) found that out of 2,300 police officers interviewed, approximately 20% had serious problems with their children. Territo and Vetter (1981) suggest that overprotection and an inhibiting home environment seem to be important contributors to discord among peace officers' families. Esposito (1989) utilizing the Trait-Anxiety (Form Y) of the State-Trait Anxiety Inventory (Spielberger, 1980) found that officers who scored high in trait anxiety perceived family conflict and had teenagers who perceived greater family conflict. Overreactivity on the officer's part appears compounded in that adolescents "who may feel trapped and stifled by their parent's protectiveness . . . (may) . . . act out in a manner that reinforces the parent's reason for overprotecting them" (Territo & Vetter, 1981, p. 222). Maslach and Jackson (1979) suggest that burnout also impacts negatively upon family cohesiveness in that children of male police officer's who are "burnt-out" appear four times as likely to look exclusively to their mother for support, a finding made salient by one peace officer's wife: "His work

created a distance. We were a family--he was a stranger" (p. 61).

Simply because it is exclusively the officer who wears the badge doesn't preclude occupational repercussions from manifesting elsewhere within the family unit. Children of peace officers may also be exposed to negative prejudices due to their parent's profession which tends to come in the form of criticism and pressure from the child's peers (Alkus & Padesky, 1982).

Anxiety Predisposition

In regards to research into the sources of anxiety among law enforcement personnel, a large number of instruments have been utilized in the past. While several researchers have developed comprehensive assessment instruments, no single instrument has consistently been found to produce reliable and valid results across all police populations (Haddock, 1988). Spielberger's (1980) State-Trait Anxiety Inventory (STAI) is one of the very few which has enjoyed a wide array of empirical testing in all types of occupational groups, has been referenced in over 2000 journal articles since the inventory was published in 1970, and has been utilized extensively to assess situational anxiety (state-anxiety) as well as chronic enduring anxiety (trait-anxiety) in a number of studies specifically targeting police officers (Bergen & Bartol, 1983; Brown & Campbell, 1990; Diskin, Goldstein & Grencik,

1977; Haddock, 1988; Loo, 1984; Mook, VanderPloeg, Kleijn, 1992; Pendleton, Stotland, Spiers & Kirsh, 1989; Sarason, Johnson, Berberich, & Siegel, 1979; Willoughby & Blount, 1985). While other measures have shown some utility in the study of stress in police populations (Langner, 1962), these instruments do not have the empirical backing, nor have they enjoyed the wide body of research as has the STAI in regards to police populations (Violanti, 1983; Haddock, 1988).

The literature seems to reveal a propensity towards utilization of the "State-Anxiety" component of the STAI rather than the "Trait-Anxiety" subscale in police stress research, even though, the state-anxiety subscale has tended to yield mixed results in the association between high scores (indicating high levels of situational anxiety) and job stress (Brown & Campbell, 1990). These authors' investigated the impact of rank structure on perceived stress among 954 English police officers and found state-anxiety scores significantly lower for inspectors than probationers and police constables, no other significant differences were found in regards to the STAI.

Few studies have chosen to utilize the STAI's Trait-Anxiety (A-Trait, Form X-2) subscale to examine the relatively enduring and chronic anxiety states within police officers. Researchers utilizing this scale appear most interested in the officer's perception of the world as colored by chronic anxiety and coping strategies, rather

than short-term phenomenon emanating from situational stressors. Lazarus (1966) posited early on in police stress research that the officer's disposition and his ability to assess a given situation as to its dangerousness will, in part, determine the amount of stress that he perceives.

Goodman (1990) has suggested that during the process of burnout, coupling an officer high in trait anxiety with a high arousal situation may lead to an impairment in the officer's ability to function effectively under stressful conditions. Goodman based these suggestions upon his (1983) findings of correlations of .62 between burnout and precareer trait anxiety among police officers, and concludes: "If prior to joining the police force, the officer lacked the knowledge of adequate coping skills for the stressors that all people must face in our society, then it is clear that he may be more prone to stress-related disorders after joining the police force . . ." (Goodman, 1990, p. 95).

Haddock (1988) in his investigation on the impact of stress as a function of rank structure among a sample of Texas police officers also studied trait anxiety with the STAI. Haddock reported that his sample of 289 officers manifested trait anxiety scores similar to the STAI's norm group and other working adults, in that only 16% had significantly elevated scores (a score higher than 44) indicating a high degree of trait anxiety and stress levels.

Social Support

The role of social support as a mediating factor of burnout in police work has been extensively studied with high rates of burnout being associated with inadequate levels of social support (Goodman, 1990; Spielberger et al., 1980; White et al., 1985). A commonly used instrument to assess the level of social support among individuals is the Social Support Questionnaire (SSQ) developed by Sarason et al. (1983). Graf (1986) utilized the SSQ to examine the support perceived among 77 Canadian police officers and found that regardless of the source of support, an increase in supportive persons or a general satisfaction with current social supports, was consistently correlated with a decreased amount of perceived stress. Haddock (1988) echoes a similar opinion, suggesting that a general satisfaction with the officer's level of social support mitigated the stress levels and contributed to a lack of significant differences within the rank hierarchy in his sample of Texas police officers. White et al. (1985) has also found lack of social support to be associated with burnout among Greensboro City police, who exhibited increased levels of emotional exhaustion and depersonalization as the perceived level of social support decreased.

Identifying Sources of Police Stress

Response Rate Problems

Research into police stress has been found to be effectively carried out through the use of the mail survey questionnaire (Haddock, 1988). However, a common problem is determining what is an acceptable return rate that preserves the integrity of the study. Of six recent studies assessing police stress via anonymous mail survey questionnaires the average response rate was 35.2% with response rates ranging from a low of 12% up to 59.4%. Despite low return rates, many studies have found general acceptance of their results in the empirical literature. Garrison, Grant, and McCormick's (1988) study of police women received responses from only 12% of the 1500 officers who were sent surveys. Stevenson's (1988) study of Southwestern metropolitan police officers received a 44% response rate. Hurrell and others (1982) received only 37% of the 2,258 questionnaires originally sent out. Joy's (1982) return rate was 44% among his sample of Detroit police officers. White et al.'s. (1985) response rate among Greensboro NC police was the highest in this sample, receiving completed questionnaires from 59.44% of the sampled population.

The Police Stress Survey

One of the most comprehensive attempts to assess occupational sources of stress among police officers was the work of Spielberger et al. (1980) whose study of 1350

Florida police officers received only a 17.3% response rate. What eventually became known as the Police Stress Survey (Spielberger, Westberry, Brier, & Greenfield, 1980), was an attempt to identify the sources of stress to aid in the development of a training program for new recruits entering the field. Comprised of 60 items, the survey was distributed among officers throughout the state of Florida and although the response rate was very poor, what emerged via factor analysis of the results was a remarkably consistent pattern of stress dimensions which has been found consistently reliable among a variety of police populations (Martelli et al., 1989; Patterson, 1989; White et al., 1985; & Haddock, 1988). Utilizing a principal axis factoring method with a Varimax rotation, the authors' arrived at a three factor solution identifying three salient domains of stressors among police officers; administrative and organizational pressure; physical and psychological danger; and lack of support. The items found stressful by Spielberger et al. (1980) under these three factors are consistent with the research literature and have been discussed in general earlier in this paper.

Since the development of the Police Stress Survey (PSS) there have been a number of attempts to validate these earlier findings. White et al. (1985) utilized a modified version of the PSS to study the Greensboro City (North Carolina) Police Department and it's 355 sworn personnel and

found a three factor solution very similar to that found by Spielberger et al. (1980), these authors' conclude that their results "lend empirical support to both the generality and validity" of the PSS (p. 118).

Patterson (1989), in his cross-occupational review of the data collected on 4,500 peace officers in the state of Georgia found that a modified version of the Police Stress Survey indicated that correctional officers had the highest amount of aggregate stress as compared with police officers and parole/probation personnel. Subsequent analysis showed police officers to have somewhat more stress than parole and probation, but not to the degree as manifested by corrections personnel.

Other studies have empirically validated the utility of the Police Stress Survey in assessing sources of stress in police officers. Martelli et al. (1989) found among ninety-nine Ohio State Highway Patrol officers aged 25 to 59, the administrative-organizational pressure factor of the PSS to be significantly related to measures of both job satisfaction and organizational commitment. Additionally, these authors' found that the total scale, and 2 of the factor scales, administrative-organizational pressures and physical/psychological pressures, yielded internal consistency reliability estimates in the .90s.

Haddock in his 1988 doctoral dissertation utilized a modified version of the Police Stress Survey to assess 296

Texas police officers for the presence of stress as influenced by rank. Haddock modified Spielberger et al's. (1980) original PSS design which called for respondents to answer how frequently they experienced events on both a monthly and yearly scale, to a sole focus on events occurring "in the past year." Haddock lists similar findings as did Spielberger et al. in their 1980 study, however, the statistical procedure utilized by Haddock differed from that of Spielberger et al. and therefore direct comparison of results were not appropriate, hence, this type of modification has yet to be empirically compared with the original PSS design.

Summary of the Literature

Based upon a review of the literature, there seems to be little question that the work of a law enforcement officer is stressful. While some studies have indicated that peace officers are not significantly more "stressed out" than are individuals in other occupational groups, what has been shown is that, as a group, police officers exhibit significant amounts of stress. Job-related stress among peace officers has been conceptualized as emanating from a number of areas including duty-related phenomenon, administrative/organizational (external and internal) phenomenon, and personal characteristics which differentiate each officer as an individual.

With few exceptions, the majority of the studies that have dealt with stress and the law enforcement profession have primarily targeted "police officers" selected from major metropolitan areas. A large number of studies have looked at the impact of stressors within the rank hierarchy and found sergeants and other mid-level managers to be under higher levels of stress and perceiving little social support. Although many studies have examined stress from combining representative samples of officers from a number of different police departments, none of the studies reviewed examined the differences among peace officers from a rural vs. urban geographical area or compared officers across different types of agencies (i.e., police, sheriffs and highway patrol).

A number of instruments have been employed to assess for the presence of stress among peace officers. Several of the most utilized include the Police Stress Survey, the Maslach Burnout Inventory, and the State-Trait Anxiety Inventory. These instruments appear to stand out in the crowd of empirically-based tools developed for specific applications. Clearly, due to the poor response rates from peace officers, law enforcement personnel are a hard population to study, however, the literature communicates support for the majority of these studies despite the low return rates that appear characteristic of police stress research.

CHAPTER IV

METHODOLOGY

The present study represented an attempt to isolate effective predictors of the current physical and psychological well-being of North Dakota police officers, sheriffs, and highway patrol officers. A wide range of predictor variables including agency type and size, officer rank, previous military experience, length of service, extent of social support, and a variety of demographic variables were considered as potential predictors of peace officer psychosocial adjustment as measured by a variety of outcome measures. Table 2 illustrates the predictor and dependent measures examined in the course of the present investigation.

Predictor Variables

Among the several hundred possible variables as derived from the questionnaire completed by the respondents, 21 were singled out for further study based upon the current literature.

Agency-Related

Agency Type Peace officers were defined by full-time and official law enforcement roles which include the maintenance of lawful behavior within specified

Table 2

Listing of Predictor and Dependent Variables.PREDICTOR VARIABLESDEPENDENT MEASURESAgency-Related

Agency Type
 Agency Size
 Agency Support

Physical Health

Physical Health Scale

Organizational/Duty-Related

Field Longevity
 Departmental Longevity
 Official Rank
 Shift-Work
 Traumatic Exposure

Psychological Adjustment

DSM-III-R PTSD Criteria Met
 PTSD Anxiety Symptoms
 Emotional Exhaustion
 Depersonalization
 Personal Accomplishment

Demographics

Response Urgency
 Age
 Education
 Sex
 Number of Children
 Marital Status
 Prior Military Service
 School Attendance
 Moonlighting
 Size of Hometown

Chronic Anxiety Level

Trait Anxiety

Interpersonal Relationships

Isolation/Protectionism
 Social Support
 Spousal Communication/Support

Perception of Stress

Stressor Severity

jurisdictions. Each peace officer was trained in traditional methods of law enforcement, crime prevention, and was licensed by the State of North Dakota to provide for the peace, safety and lawful order of the jurisdiction

within which employment is maintained. Peace officers in the present study were classified primarily on the basis of one of three assigned jurisdictions. The Police Officer classification applies to peace officers whose jurisdiction is restricted to municipal city limits. The Sheriff classification includes elected or appointed sheriffs and their deputies who are employed as peace officers to serve a particular county. The Highway Patrol Officer classification is applicable to peace officers who are State of North Dakota employees, and whose primary duty is to provide for the peace, safety and order for those traveling the streets, roads, and highways within the state of North Dakota.

Agency Size The number of sworn officers within each department was utilized to measure the size of the department. The choices allocated to each of the respondents and the respective number of officers indicating these choices are as follows: 5 or less ($n = 40$); 6 to 10 ($n = 17$); 11 to 15 ($n = 17$); 16 to 20 ($n = 11$); 21 to 25 ($n = 17$); 26 to 30 ($n = 7$); 31 to 35 ($n = 2$); 36 to 40 ($n = 2$); 41 to 45 ($n = 9$); 46 to 50 ($n = 4$); 51 to 75 ($n = 32$); and over 75 ($n = 54$). Agency size is usually closely associated with the size of the civilian population which is served by that agency.

Agency Support is a 9-point scale assessing the degree of commitment of the respondent's respective agency to

support officer mental health. The following 5 questionnaire items constitute the scale: Does your department offer some form of peer counseling? Does your department make psychological counseling services available for any general problems employees may have? Does your department make psychological counseling services mandatory if involved in shootings or other traumatic encounters? Does your department have in-house psychological counseling staff? In addition, one question in Likert format indicates the officer's degree of agreement with the following statement: I believe my department provides enough services/programs to promote officer mental health.

Organizational/Duty-Related Events

Field Longevity Officers were asked to provide the total number of years they had spent in the field of law enforcement. Field longevity ranged from 1 to 47 years for the present study.

Departmental Longevity Officers were asked to provide the total number of years they had spent working within the same law enforcement department. Departmental longevity ranged from 1 to 43 years for the present study.

Officer Rank The seniority and status of each peace officer was represented by official rank as granted by the employing agency. Officer rank was classified under three major categories: Officer (Officers, Deputies, Troopers and Corporals); Middle-Management (Sergeants, Lieutenants and

Captains); and Top Administration (Chief Deputy, Majors, Chiefs and Sheriffs).

Shift Work Shift work was classified as either permanent or rotating. Permanent shift work is classified as a regularly scheduled non-rotating shift lasting at least 6 months. Rotating shifts are those in which the officer is required to switch between day, evening or graveyard shift rotations within a given time period of less than six months (most typically this is once or more every two weeks).

Traumatic Exposure Officers were asked to respond "yes" or "no" to the following question: Is there any particular traumatic (violent, extremely emotional, or dangerous) event that really stands out in your mind that has occurred since you became a police officer? Out of 216 respondents, 183 indicated "yes."

Supportive Relationship Variables

The literature has suggested that social support systems may act as possible mediators of stress. Therefore it seemed important to have a method to assess the degree of environmental support within the lives of North Dakota peace officers. Factor analyses utilizing principal components analysis with a Varimax rotation were conducted on the 24 Likert style questions created by the author of the present study. Utilizing eigenvalues greater than 1 as a cutoff, a seven-factor solution was arrived at. Recoding the variables to be consistent with the direction of the factor

loading and utilizing compute statements in the SPSSx Statistical Package, three factor based scales were singled out for further study due to their apparent association with the officers' current support systems. Factor loadings in excess of .5 were utilized as criteria for inclusion in a given scale. Appendix G outlines the factors and the variables loadings on each of the factors.

The resultant scales were named based upon the constructs which they seemed to most closely approximate: 1) A peace officers attempt to shield the people closest to him/her from the world the officer witnesses while on duty, and to do so by withholding personally relevant and stressful information; 2) The degree and quality of the support the officer finds in his/her environment outside that of an intimate relationship with one person; and 3) The officers perception of the support available from his/her significant other in the form of adequacy of communication and level of concern. These three factor-based scales were titled: Isolation/Protectionism Index (IPI); Social Support Index (SSI); and the Spousal Communication-Support Index (SCSI) respectively. Based upon absolute ranges, raw scores on the IPI, SSI, and the SCSI ranged from a low of 6 on all three scales to a high of 36, 24, and 18 respectively. Appendix H, I and J outlines the 3 factor-based scales.

Isolationism/Protectionism represents an attempt to examine the extent to which the officer shields his/her

marital/intimate partner from the horrors of the street. As the raw score increased it was assumed that the level of isolationism-protectionism also increased.

Social Support was the degree to which the officer reports satisfaction with the level of social support from sources outside the marital/intimate relationship. With increasing raw scores the officer's satisfaction with that support was assumed to increase.

Spousal Communication/Support assessed the degree to which the officer was satisfied with the quality and level of communication within the relationship. As the raw score increases the respondent's level of satisfaction with that support was also assumed to increase.

Demographic Variables

Response Urgency As the questionnaires were returned to the author they were numbered sequentially based upon their post-marked date. Numbers ranging from 1 to 216 were collapsed into 4 equal size categories of 54 subjects each (1 thru 54, 55 thru 108, 109 thru 162, and 163 thru 216).

Age Reported age ranged from 23 to 67 years.

Gender In this sample 201 males and 14 females reported their sex.

Marital Status Classified as 1 = never married, 2 = married, 3 = divorced at least once or currently separated.

Number of Children Reported range of 0 to 7.

Educational Level was the highest level of education completed by the officer as indicated by one of 5 categories: High school diploma or less, One year of college, 2 years of college, 3 years of college, 4 or more years of formal higher education.

Prior Military Service was utilized as a dichotomous "yes or no" variable.

School/University Attendance was utilized as a continuous measure with the number of hours attending ranging from 0 to 40 hours per week.

Moonlighting is the number of hours worked per week in a job which is non-law enforcement employment. The reported number of hours per week ranged from 0 to 32.

Size of Hometown Was the number of residents living in the community in which the officer currently resides as classified by 10 different sizes: less than 100 ($n = 8$); 101 to 1000 ($n = 27$); 1001 to 2500 ($n = 29$); 2501 to 5000 ($n = 10$); 5001 to 10000 ($n = 20$); 10001 to 15000 ($n = 17$); 15001 to 20000 ($n = 19$); 20001 to 30000 ($n = 0$); 30001 to 50000 ($n = 36$); 50001 and over ($n = 48$).

Dependent Measures

The present study attempted to isolate the significant predictors of the level of stress and its correlates experienced by North Dakota peace officers. There were four classes of dependent measure examined in an effort to meet

this objective: Officers Physical Health Status, Psychological Adjustment, Officer's Chronic Anxiety Level, and Officer's Perception of Job Stress Severity.

Physical Health Status

Physical Health Scale The physical well-being of each peace officer in the present study was examined using a scale developed by the author. The Physical Health scale is computed as the sum of 3 separate likert-type questions: The officer's health in the past year; the officer's current health as compared to when he or she first started the job; and the officers estimation of their present physical health. Ranging in scores from 3 to 16, the scale indicates increasing health problems with higher scale scores.

Psychological Adjustment

Psychological adjustment was assessed through 5 separate measures. The first two measures were assessed utilizing the Post-traumatic Stress Disorder diagnostic criteria as listed in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R).

The last three psychological adjustment measures were assessed utilizing the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1980). The MBI is a 22-item instrument that assesses three constructs thought to be associated with job burnout: emotional exhaustion, depersonalization, and the lack of a sense of personal accomplishment. The MBI has demonstrated adequate to excellent internal consistency with

Cronbach's alpha coefficients ranging from a low of .71 to a high of .90 for each of the subscales (Maslach & Jackson, 1981). Each subscale is scored based upon how often the respondent experienced the feeling over the past year. The respondent is offered 7 possible responses to choose from. For each subscale, the total score is computed by tallying the frequency of occurrence for each subject.

Post-Traumatic Stress Disorder (PTSD) The endorsement of sufficient trauma-related anxiety symptomatology so as to indicate the strong possibility of the need for a clinical diagnosis of PTSD as outlined by the DSM-III-R: Officers who had responded affirmatively that they had experienced a traumatic event during the course of their employment were asked to identify any of the DSM-III-R PTSD criteria that he or she had experienced for at least one month during the past year. PTSD was considered established upon meeting the minimum DSM-III-R criteria.

PTSD Anxiety Symptoms Since the vast majority of officers do not meet criteria for clinical PTSD, the number of PTSD symptoms endorsed by each officer was used as an additional measure of psychological adjustment.

Emotional Exhaustion The emotional exhaustion scale ascertains the degree to which the respondent endorses items such as "I feel frustrated by my job" and "I feel burned out from my work." Respondents scores ranged from 0 to 52 with

higher scores indicating greater degrees of emotional exhaustion.

Depersonalization The depersonalization scale measures the degree of empathy and care the respondent feels toward those whom he/she works with. A typical item from this subscale is "I've become less caring toward people since I took this job." Respondents scores ranged from 0 to 28 with higher scores indicating greater degrees of depersonalization.

Personal Accomplishment Lack of personal accomplishment is directed toward assessing the level of satisfaction one has attained through one's occupation and includes such items as "I feel I'm improving other people's lives through my work." The respondents scores ranged from a low of 7 to a high of 47 with higher scores indicating the individual feels a greater sense of personal accomplishment as the result of his/her career.

Chronic Anxiety Level

Trait Anxiety The officers' chronic anxiety level was assessed by using the State-Trait Anxiety Inventory's (STAI) Trait Anxiety subscale (Spielberger, 1980). The STAI is an instrument with a well-documented history of empirical validation and exhibits a median internal consistency Cronbach's alpha coefficient of .90 (Haddock, 1988). Scores on the STAI range from 20 to 80, with the level of anxiety considered as increasingly elevated as the scores on this

scale become increasingly elevated. The respondents in the present study ranged in trait anxiety scores from 20 to 66.

Perception of Job-Stress Severity

Stressor Severity The level of the officers overall perception of job stress was assessed by using a modified version of the Police Stress Survey (Spielberger et al., 1980). The officers' stress ratings for each of the stressors in the 72-item modified police stress survey were summed and then divided by the number of questions yielding an "average stress rating across stressors" for each individual officer. Respondents averaged raw score ranged from a low of 2.3 to a high of 89.8. Higher scores indicate that the officer perceives the stressors in his/her environment as more stressful than do officers with lower stressor severity scores.

Hypothesis Formation

Available literature in the area of peace officer occupational stress leads naturally to a number of hypotheses which were examined in the present investigation.

Hypothesis 1

Differences were not expected between rural and urban peace officers as measured by any of the dependent measures examined in the present study.

Hypothesis 2

Differences in chronic anxiety and stressor severity levels were not expected between the three levels of agency type.

Hypothesis 3

Low levels of social support were expected to be associated with the highest levels of psychological maladjustment as measured by the degree of emotional exhaustion, chronic anxiety level, and post-traumatic symptomatology, and this effect was expected to be unrelated to agency type.

Hypothesis 4

Mid-level officer rank was predicted to be associated with the highest levels of psychological maladjustment as measured by the degree of emotional exhaustion, chronic anxiety level and PTSD symptomatology and this effect was expected to be unrelated to agency type.

Hypothesis 5

Negative health consequences of job stress was expected to be mediated by the social support which the officer receives.

Subjects

A total of 311 peace officers from the state of North Dakota were identified for inclusion in this study. From the total population of North Dakota peace officers, a

stratified sample across three agency types was derived to include: 61 North Dakota Highway Patrol Officers (50% of total N.D. highway patrol officers); 150 police officers (25% of total N.D. police officers), and 100 sheriffs (25% of total N.D. sheriff's officers). Sample size across agency type was based upon the anticipated cost of mailings, limited funds, and the size of the population under study.

Procedure

To obtain each of these samples, a comprehensive listing of North Dakota peace officers was provided to the researcher by the North Dakota Attorney General's Criminal Justice Training and Statistics Division. From this list, the author delineated agency type by segregating each North Dakota officer into a group comprised only of his/her agency type. As a result of this procedure three distinct categories of officers were delineated: Police Officers; Sheriffs and Deputy Sheriffs; and North Dakota Highway Patrol Officers. Following this segregation of officers, the author then numbered sequentially each individual officer within each of the three groups. The sample of officers utilized in this study was drawn from each of these three groups via the simple random sampling procedure as outlined by Babbie (1989, p. 184-191). A random numbers table (Babbie, 1989, p. A27-A28) was utilized to select the officers targeted for inclusion in this study. For each of

the three groups, after randomly choosing a starting point within the random numbers table, the author selected each officer as his/her individual number matched with each valid number arrived at in a sequential progression through the random numbers table. This procedure was carried out until the desired sample size was selected.

Funding for this study, in part, came from the North Dakota Peace Officer's Association (NDPOA). After the questionnaire was completed, a cover-letter was drafted indicating the purposes of the study, the financial backing it received from the NDPOA, the anonymous nature of the study, and how to contact the researcher should there be concerns. The cover letter was then included in the mailings sent to each potential respondent.

The survey packet which was mailed out consisted of: a cover letter, an instruction sheet, questionnaire, and a postage paid envelope. Two weeks after the first mailing, a letter was sent to all those who were to have initially received the survey. This letter, once again, stressed the importance of responding to the survey and respondents were once again encouraged to fill out the survey they had originally received (or told how to obtain a new one) and return it to the researcher. Four weeks after the first mailing, a second cover letter, instruction sheet, questionnaire and a postage paid envelope were sent to the entire randomized sample once again. The instrument and the

various letters sent out to individuals and agencies can be seen in the Appendices of this document.

Statistical Analysis

SPSSx software was utilized for all the following statistical procedures. Analysis of variance (ANOVA) procedures were used to assess significance levels among dichotomous variables. Backward regression procedures were utilized for continuous measures to determine which predictor variables when combined are the most strongly correlated with the criterion. A standard discriminant analysis was carried out on the dichotomous dependent measure (PTSD) to determine which predictor variables were most productive in predicting group classification among the study's respondents. In addition, Pearson correlation procedures were utilized to determine the intercorrelations among dependent and independent variables.

CHAPTER V

RESULTS

Of the original 311 officers targeted for inclusion in this study, a total of 221 officers completed and returned the questionnaire yielding an overall 71% response rate. Of these 221 completed questionnaires, 5 were omitted due to missing data. Data analysis was conducted on the remaining 216 completed questionnaires.

Response rates across the stratified sample of the three agency types were similar. Of the 150 questionnaires distributed to police agencies, 101 were completed and returned yielding an overall 67% police officer response rate. Police officer responses totaled 47% of the overall number of questionnaire returned. Of the 100 questionnaires distributed to sheriffs' departments, 71 were completed and returned yielding a 71% response rate (33% of the total). Of the 61 questionnaires distributed to the North Dakota Highway Patrol, 44 were completed and returned yielding a 72% response rate (20% of the total). Table 3. illustrates the response rate.

Table 3

Sample Response Rate.

Agency Type	Number of Responses	Response rate
POLICE	101	67.3%
SHERIFFS	71	71.0%
HIGHWAY PATROL	44	72.1%
TOTAL	216	71.0%

Descriptive Statistics

Detailed descriptive statistical analyses are now provided for a number of the more interesting variables examined in this study.

Officer Rank

The frequency distribution of official rank was skewed heavily towards the sample being comprised of lower ranking officers. By far, the most frequently reported rank was that of officer which would seem to accurately depict the true distribution of official rankings within a given department. In ascending order of rank the distribution is as follows; 128 officers, 2 corporals, 29 sergeants, 15 lieutenants, 8 captains, 4 majors, 3 chief deputies, 15 police chiefs, and 11 sheriffs. 1 respondent declined to reveal his or her rank. Table 4. depicts the respondents rank along with their respective agency.

Years at Present Rank

There was substantial variability in the number of years the respondents remained at their present official

Table 4

Respondents' Official Rank.

RANK	POLICE	SHERIFF	NDHP	TOTAL
OFFICER	57	40	31	128 (59.3%)
CORPORAL	1	1	0	2 (00.9%)
SERGEANT	15	5	9	29 (13.4%)
LIEUTENANT	7	8	0	15 (06.9%)
CAPTAIN	6	1	1	8 (03.7%)
MAJOR	0	2	2	4 (01.9%)
CHIEF DEP.	0	3	0	3 (01.4%)
CHIEF	15	0	0	15 (06.9%)
SHERIFF	0	11	0	11 (05.1%)

rank within their departments. Ranging from a low of 1 to a high of 27, the average length of years at any given rank was 7.9 years. The average years spent in each rank within each agency were 8.2, 6.7 and 9.1 for police, sheriffs and NDHP respectively. Years spent at each given rank within each respective agency did not differ significantly.

Shift Work

210 officers responded to the question: What type of shift have you primarily worked in the past 6 months? 109 officers indicated that they have worked permanent shifts subdivided as days, evenings or graveyard shifts (65, 25 and 19 officers respectively). 102 officers indicated that they worked a rotating shift which switched, most commonly, at least once per week. Officers reported a variety of rotational schedules with the most common rotations and the

number of officers indicating as follows: Once per week (29 officers); every two weeks (23); once per month (15); every day (11); and all the time due to a one-man department (3).

When asked what type of schedule would they prefer; 173 officers indicated that they would prefer to work permanent shifts broken down by days, evenings and graveyard by 112, 37 and 24 officers respectively. Only 37 officers indicated that they would prefer to work rotating shifts. Of those that would prefer to work rotating shifts, the most requested switch in rotation was once every two weeks (N = 10).

Education

Respondents reported a wide variety of formal educational attainment. Overall, 155 officers reported having at least one year of post-high school education. When education level was broken down and categorized as utilized in the statistical analyses the frequency of occurrence was as follows: 59 officers reported having solely a high school education, 22 officers indicated 1 year of college, 51 officers reported 2 years of college, whereas, 3 and 4 or more years of college or university education were endorsed by 19 and 63 officers respectively. Only 2 officers reported not receiving a high school diploma. 24 officers reported receiving an associates degree. Baccalaureate, masters and doctoral degrees were reported by 50, 3 and 1 respondents respectively.

Marital Status

Of the 216 officers responding to this question, only 17 (7.9%) indicated that they have never been married. 148 officers reported being in their first marriage which has lasted an average length of 13.7 years. While only 5 of the respondents were currently separated from their spouse, 44 (20.4%) reported being divorced at least once.

Military Service

Ninety officers (41.7%) indicated prior military experience, 123 (56.9%) did not have prior military experience. Of the 90 officers who reported previous military experience 19 were in combat (8.8% of sample total), 4 (1.9%) were wounded, and 3 received counseling during their military tour.

Miscellaneous Sample Descriptors

Although not the direct focus of this study's attention, a number of interesting additional questionnaire items may pose an interest to North Dakota peace officer administrators. These are presented in Appendix C. Variables not specifically included in Appendix C will now be discussed.

Cultural and Ethnic Diversity. 114 (52.8%) respondents reported identifying strongly with no particular cultural group. For those that did indicate strong ties with their heritage, the top three countries identified as roots were; Germany, Norway and Ireland, with 50, 22 and 7 officers

respectively. Other respondents indicated a wide variety of heritage.

Regarding race, the sample was overwhelmingly Caucasian with 206 of the respondents indicating this as their primary racial background. African American and American Indian backgrounds were endorsed by 5 and 4 officers respectively.

Type of professional activity. Of the 216 respondents, 139 (64.4%) were patrol personnel, 21 (9.7%) were in investigative services, and 50 (23.1%) served in at least some supervisory capacity. 200 of the respondents (92.6%) reported serving in no other off-duty police related activities. 12 (5.4%) indicated they were attending school at least part-time.

Health Habits Sixty-seven (31.5%) of the respondents reported zero use of caffeinated coffee. Seventy-six (35.6%) report consuming 1 to 4 cups per day, 37 (19.7%) reported consuming 5 to 9 cups per day, and 33 (6.1%) of the respondents reported drinking more than 10 cups of caffeinated coffee per day.

165 of the respondents reported zero use of cigarettes (75.9% of total). Of those officers who indicated that they do smoke, the rate of usage ranged from a low of 1 to a high of 60 cigarettes per day, with 20 per day as the most frequently reported answer. Rate of cigarette smoking did not vary significantly between agency types.

107 (49.5%) of the officers report that, on average, they drink zero alcohol drinks per week. Of the officers who do report drinking each week, responses ranged from a low of 1 to a high of 30 alcohol drinks per week with an overall average of 2.2 drinks per week. Only 10.8% of the sample reported drinking 6 or more alcohol drinks per week on average. 177 officers (81.9%) report that in the average month they do not become intoxicated. For those officers who do report occasional intoxication, responses ranged from a low of 1 to a high of 15 times per month with an average of 2.05 times per month. Only 3.8% of the respondents reported drinking to intoxication 3 or more times per month.

Medication Usage 23.1% of the officers reported taking prescription medications on a long term basis. Furthermore, 20.8% report utilizing non-prescription medications on a regular basis.

Exercise and Fitness The average rate of exercise was reported as 3.3 hours per week across all agency types with 61 officers (28%) indicating no exercise at all. No significant differences were found in regards to length and type of exercise between agencies.

115 (53.2%) of the officers reported that they believe their health is as good today as it was when they first started their careers in law enforcement. However, 38.3% felt that their health was either worse or very much worse than it was when they first started. Only 12.6% of the

officers surveyed felt that their health was better than when they first started. In regards to health status during the past year, 10 officers (3.7%) report that their health has been poor to very poor, whereas, 204 officers (94.4%) have indicated stable to very good health.

Respondents reported a wide range of physical symptoms that have affected their lives since becoming peace officers. However, chronic back pain is by far the most common complaint as indicated by almost 25% of the peace officers polled. Appendix D illustrates the other commonly reported health concerns.

Traumatic Exposure

Similar to the miscellaneous variables examined, also of possible interest to the reader are the analyses regarding the officers' exposure to traumatic experience since the start of their professional careers. Of the 216 respondents, 183 (84.7%) indicated that they had an unusual and memorable experience (i.e., trauma) that had occurred since they had become a police officer. In addition, 94 officers chose to answer an open-ended question at the end of the questionnaire asking them to write a brief summary regarding the incident they reported as traumatic.

Due to the specificity of the responses, the gravity of the situations, and the guarantee of anonymity for the respondents, details of these experiences cannot be provided. Since North Dakota is a sparsely populated state

revelation of even small parts of these instances may reveal to those knowledgeable about such incidents, the identity of those promised anonymity. Virtually all of the respondents indicated that it was a job-related trauma that they found most memorable. The vast majority of respondents indicated that the trauma was a scene to which the officer was called upon to act in his or her official capacity. Most of the scenes involved the officer witnessing the pain and/or death of civilians and often involved a feeling of helplessness to alleviate the suffering of victims. A number of respondents indicated the trauma was due to a situation requiring the use of deadly force against a suspect, primarily as a means of self-defense for the officer or officers at the scene. Although none of the respondents reported utilizing deadly force which resulted in the death of a suspect during the past year, several officers did indicate that their official presence, has in the past, been instrumental in causing the death of a suspect (i.e., high speed pursuits resulting in vehicle crash).

Of the 183 peace officers identifying themselves as having experienced a significant traumatic event in their lives, 127 (59%) of the officers indicated that they had at least one problematic psychological symptom resulting from that exposure, while the average number of symptoms being reported was 3.4. No significant differences between types

of agency were found regarding the total number of symptoms reported.

During the course of the traumatic event, 56% of the officers reported experiencing a time-distortion during the event in which it seemed as if things were moving in slow motion. 63% of these officers stated that they were able to benefit either themselves or the situation by utilizing the slow motion time-distortion. On a more negative side, 2% of the officers involved in traumatic events reported that during the event they "froze" and found themselves unable to take action.

Of the 17 possible symptoms comprising the criteria for a diagnosis of PTSD as outlined by the DSM-III-R, Table 5 illustrates the percentage of officers who have reported experiencing specific anxiety symptoms of at least a one month duration during the past year that are directly related to the traumatic event while on-the-job.

Stress Management

In an attempt to understand the resources (personal and departmental) the officer has at his/her disposal to combat the effects of stress, officers were asked: How much stress management training have you received from your department? 65 (30%) of the officers surveyed reported receiving no formal training in stress management techniques. For those officers receiving formalized training, the average number hours of training was only 11.5. Post-hoc Tukey analysis

Table 5

Anxiety Symptoms Associated with Traumatic Exposure.

Percentage of the 183 officers (84.7% of total) who reported experiencing a job-related traumatic event indicating that "YES" they experienced the following DSM-III-R PTSD anxiety symptoms for at least one month during the past year.	
DSM-III-R PTSD Anxiety Symptom	%
Recurrent, intrusive recollections of the trauma	31
Recurrent, distressing dreams of the trauma	16
Sudden feeling like the trauma were recurring	09
Intense distress with events that resemble event	19
Avoid thoughts & feelings associated with event	27
Avoid situations that arouse recollection	19
Unable to recall important aspects of event	07
Extremely diminished interest in activities	12
Feelings of detachment from others	26
Feelings of inability to have loving feelings	16
A sense that you will not have a long life	24
Difficulty falling or staying asleep	36
Being irritable or having angry outbursts	35
Difficulty in concentrating	28
Being "too watchful" of what goes on around you	33
Being "too jumpy" when someone startles you	18
Physical reactions (i.e., excessive sweating, increased heart rate) to similar events.	12
Did symptoms start 6 months after the trauma?	10

indicates significant differences between the level of stress management training for sheriffs officers as compared to police and NDHP officers [$F(2, 206) = 3.9, p = .01$]. Sheriffs officers reported, on the average, receiving 6.4

hours of formalized training, whereas, NDHP and police officers reported receiving 14.8 and 13.6 hours respectively. Figure 1 presents graphically the number of hours of stress management training between agencies.

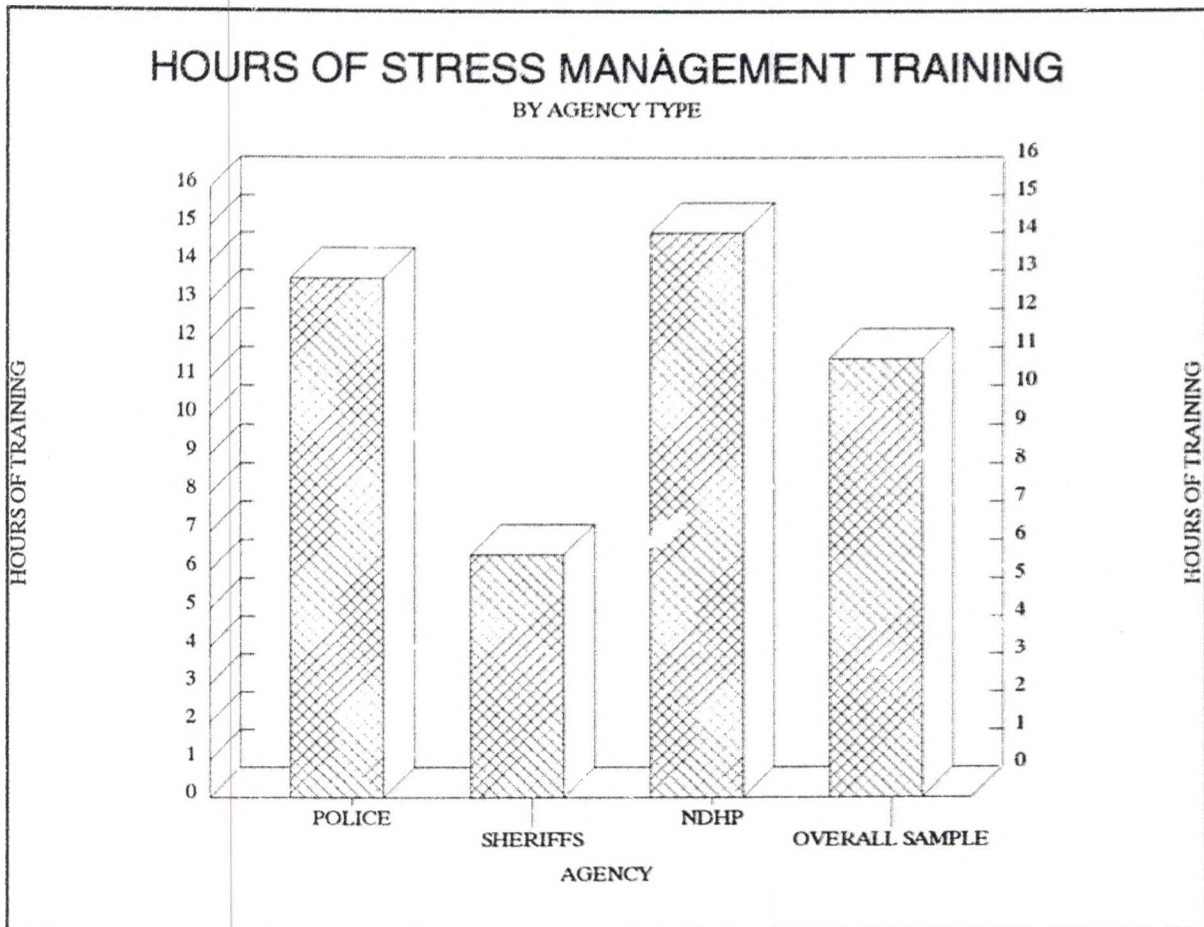


Figure 1. Hours of Stress Management Training

Respondents to the study indicated that counseling services are not uniformly available to peace officers in North Dakota. The provision of employee assistance programs to North Dakota officers was basically an even split with 105 officers indicating that such services were not

available to them and 106 indicating that they were. However, the vast majority of the latter were from the larger departments in the present sample. Very few officers from smaller departments indicated such services were available through their employment. Only 25 (11.6%) of the officers reported that peer-counseling services were available to them. In addition, only 14 (6.5%) of the officers indicated that in-house counseling staff were available to talk to in times of need. The majority of officers (55.6%) indicated that their department made counseling services mandatory upon exposure to significant traumatic events (i.e., shootings), whereas 90 officers (41.7%) indicated that such counseling was not made a requirement.

Aside from formalized stress management training, the respondents were asked how they personally dealt with the stress they experienced as part of their law enforcement career. 14 officers (6.5% of total sample) admitted to utilizing counseling services in the past year. However, when asked; How do you personally deal with stress? None of the officers reported that scheduling an appointment with a therapist was their number one choice. However, a wide variety of personal techniques utilized to combat the effects of stress were reported by the respondents. The most common techniques reported are illustrated in figure 2.

HOW N.D. OFFICERS DEAL WITH STRESS

MAJOR CATEGORIES

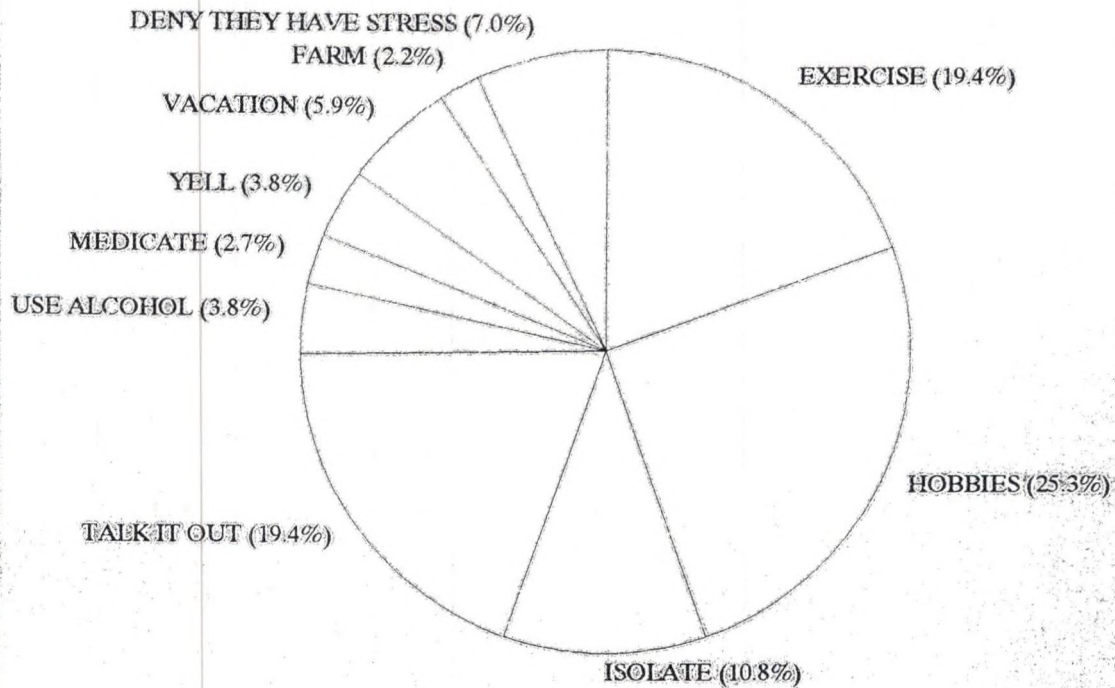


Figure 2. Stress management techniques used by North Dakota officers.

Perception of Environmental/Occupational Stress

The modified police stress survey contains a large number of items that have been found to be salient stressors to the men and women of law enforcement (Spielberger et al., 1980). Respondents were asked to rate the "amount of stress" and the frequency of occurrence in the past year that the officer personally experienced that stressor.

Table 6 illustrates the averaged response to each of these stressors in descending order of stressfulness as indicated by the overall sample of North Dakota peace officers.

Table 6

Means and Standard Deviations of Stress Rating and
Frequency of Exposure for the Modified Police Stress Survey
(in Descending Rank Order).

RANK	\bar{X} Stress		\bar{X} Freq. of		SURVEY ITEM
	Rating	SD	Expos.	SD	
1	63.7	35.5	1.6	2.2	WITNESSING BATTERED/DEAD KIDS
2	61.9	29.9	3.2	2.7	SITUATIONS REQUIRING USE OF FORCE
3	58.7	26.2	5.0	3.1	INADEQUATE MANPOWER TO HANDLE JOB WL
4	58.0	31.4	2.6	2.6	RESPONDING TO A FELONY IN PROGRESS
5	57.9	45.9	0.0	0.0	KILLING SOMEONE IN THE LINE OF DUTY
6	57.3	26.8	5.1	3.2	MAKING CRITICAL ON THE SPOT DECISIONS
7	57.2	31.1	2.8	3.1	BACKSTABBING AMONG FELLOW OFFICERS
8	56.9	28.0	5.0	3.2	DEALING WITH FAMILY DISPUTES & CRISIS
9	54.8	37.9	1.3	2.4	EXPOSURE TO THE AIDS VIRUS
10	54.8	38.2	.8	1.4	PHYSICAL ATTACK ON ONE'S PERSON
11	54.6	42.6	.0	.5	ACCIDENTLY SEVERLY INJURING BYSTANDER
12	54.4	26.0	5.4	2.9	INEFFECTIVENESS OF JUDICIAL SYSTEM
13	53.8	24.7	5.7	2.8	FELLOW OFFICERS NOT DOING JOB
14	53.5	32.0	1.6	1.9	HIGH SPEED CHASES
15	53.5	43.0	.1	.3	FELLOW OFFICER KILLED (LINE OF DUTY)
16	53.2	26.4	6.1	2.6	COURT LENIENCY WITH CRIMINALS
17	52.8	26.4	5.3	3.0	NEGATIVE ATTITUDES TOWARD POLICE
18	52.5	41.4	.1	.6	BEING INVESTIGATED BY INTERNAL AFFAIRS
19	52.4	41.3	.0	.4	GETTING WOUNDED ON THE JOB
20	52.3	44.8	.0	.0	GETTING ARRESTED W/POSSIBILITY OF JAIL
21	51.6	28.9	3.4	2.9	PLEA BARGAINING/DISMISSAL (COURT CASE)
22	51.6	27.4	6.5	3.2	EXCESSIVE PAPERWORK
23	51.6	28.9	2.6	3.2	INADEQUATE SALARY
24	51.1	34.4	1.1	2.0	A THREAT OF A LAWSUIT AGAINST YOU
25	50.7	34.0	1.5	2.2	CONFRONTATIONS WITH AGGRESSIVE CROWDS
26	50.5	27.2	5.7	3.3	MAKING ARRESTS WHILE ALONE
27	50.3	34.0	1.3	1.7	DELIVERING DEATH NOTIFICATIONS
28	50.0	28.1	3.4	3.0	DISTORTED/NEGATIVE PRESS ACCOUNTS
29	49.9	25.2	4.9	2.9	PUBLIC CRITICISM OF POLICE
30	49.0	31.1	2.0	2.3	THREATS OF REVENGE FOLLOWING AN ARREST
31	48.9	28.2	3.4	2.3	EXPOSURE TO DEATH OF CIVILIANS
32	48.6	34.0	.7	1.3	DEALING WITH HATE GROUPS
33	48.5	32.6	2.1	2.8	DIFFICULTY GETTING ALONG W/SUPERVISOR
34	48.4	26.9	5.5	3.3	CHANGE (BORING TO DEMANDING ACTIVITY)
35	48.4	32.7	2.1	2.7	INADEQUATE DEPARTMENTAL SUPPORT
36	48.2	32.5	2.6	3.0	INADEQUATE SUPPORT BY SUPERVISOR
37	48.0	30.6	2.3	2.6	MISTREATMENT OF OFFICERS IN COURT

Table 6. CONT.

RANK	\bar{X} Stress		\bar{X} Freq. of		SURVEY ITEM
	Rating	SD	Expos.	SD	
38	47.9	36.7	.2	.7	BEING A DEFENDANT (POLICE-RELATED SUIT)
39	47.6	28.9	2.2	2.6	COURT DECISIONS RESTRICTING POLICE
40	46.8	36.2	.2	.5	ACCIDENT IN A PATROL CAR
41	46.7	28.4	4.2	3.4	DEMANDS MADE BY FAMILY FOR MORE TIME
42	46.4	27.4	4.1	3.2	LACK OF RECOGNITION FOR GOOD WORK
43	46.3	28.0	3.0	2.9	JOB CONFLICT (BOOK VS. SITUATION)
44	46.0	38.7	.2	.9	WITNESSING POLICE CORRUPTION
45	45.9	24.7	5.1	3.0	EXPOSURE TO ADULTS IN PAIN
46	45.6	28.1	3.0	2.8	COURT APPEARANCES ON DAY OFF
47	44.9	30.8	3.5	3.2	POLITICAL PRESSURE FROM DEPARTMENT
48	44.7	27.1	3.6	2.8	PERSONAL INSULT FROM A CITIZEN
49	42.9	32.6	1.1	2.0	EXCESSIVE OR INAPPROPRIATE DISCIPLINE
50	42.2	30.6	2.1	2.8	GANG ACTIVITY OR VIOLENCE IN YOUR AREA
51	41.9	28.0	3.7	3.3	INEFFECTIVE CORRECTIONAL SYSTEM
52	41.4	28.5	2.7	2.9	ASSIGNMENT OF INCREASED RESPONSIBILITY
53	40.4	37.1	.2	.9	INCAPACITATING PHYSICAL INJURY (ON JOB)
54	40.3	31.3	2.2	3.2	POOR OR INADEQUATE SUPERVISION
55	40.2	27.1	3.4	3.2	PUBLIC APATHY TOWARD POLICE
56	40.0	29.4	2.9	3.0	POLITICAL PRESSURE FROM OUTSIDE DEPT.
57	39.7	29.0	2.3	2.9	INADEQUATE OR POOR QUALITY EQUIPMENT
58	39.5	26.3	2.8	2.7	DISAGREEABLE DEPARTMENTAL REGULATIONS
59	38.5	28.8	5.3	3.7	CHANGING FROM DAY TO NIGHT SHIFT
60	38.5	34.4	.3	1.2	NOT GETTING A PROMOTION YOU DESERVED
61	36.2	27.2	2.6	3.1	MINOR PHYSICAL INJURY ON JOB
62	35.7	30.6	.7	1.7	COMPETITION FOR ADVANCEMENT
63	35.2	25.5	3.5	2.9	BEING ASSIGNED UNFAMILIAR DUTIES
64	35.1	29.7	2.5	3.3	DEMANDS FOR HIGH MORAL STANDARDS
65	33.7	28.9	1.9	.1	STRAINED FRIENDSHIPS (NON-POLICE)
66	33.1	26.1	5.5	3.6	PERIODS OF BOREDOM OR INACTIVITY
67	32.3	32.3	.5	1.6	BEING ASSIGNED AN INCOMPATIBLE PARTNER
68	29.9	26.7	1.8	2.7	RACIAL PRESSURES OR CONFLICTS
69	28.7	27.8	.6	1.3	PROMOTION OR COMMENDATION
70	27.9	23.8	4.1	3.6	PERFORMING NON-POLICE TASKS
71	27.1	28.6	1.2	2.3	LACK OF PARTICIPATION IN POLICY-MAKING
72	26.8	28.1	1.5	2.9	WORKING A SECOND JOB

Stress Rating (0 to 100 scale)

Frequency of Exposure (0 to 9 scale)

(*) Indicates an additional item added to the original Police Stress Survey (Spielberger et al., 1980).

The discerning reader will recall that Spielberger et al. (1980) derived a three factor solution to the 60 original questions contained in the PSS. These three factors were defined by Spielberger et al. as:

Administrative/Organizational Pressures;

Physical/Psychological Threats; and Lack of Support.

Tables 7, 8 and 9 illustrate the top five stressors in the present study and their relative rankings for each of the three factors found by Spielberger et al. (1980).

Table 7

North Dakota's Top 5 Administrative/Organizational Pressures

<u>Administrative/Organizational Pressures</u>			
RANK	Rating	SD	SURVEY ITEM
3	58.7	26.2	INADEQUATE MANPOWER
12	54.4	26.0	INEFFECTIVENESS OF JUDICIAL SYSTEM
16	53.2	26.4	COURT LENIENCY WITH CRIMINALS
17	52.8	26.4	NEGATIVE ATTITUDES TOWARD POLICE
21	51.6	28.9	PLEA BARGAINING/DISMISSAL OF COURT CASES

Table 8

North Dakota's Top 5 Physical and Psychological Threats

<u>Physical/Psychological Threats</u>			
RANK	Rating	SD	SURVEY ITEM
1	63.7	35.5	WITNESSING BATTERED/DEAD KIDS
2	61.9	29.9	SITUATIONS REQUIRING USE OF FORCE
4	58.0	31.4	RESPONDING TO A FELONY IN PROGRESS
5	57.9	45.9	KILLING SOMEONE IN THE LINE OF DUTY
6	57.3	26.8	MAKING CRITICAL ON THE SPOT DECISIONS

Table 9

North Dakota's Top 5 Lack of Support Variables.

<u>Lack of Support</u>			
RANK	Rating	SD	SURVEY ITEM
13	53.8	24.7	FELLOW OFFICERS NOT DOING JOB
33	48.5	32.6	DIFFICULTY GETTING ALONE WITH SUPERVISOR
35	48.4	32.7	INADEQUATE DEPARTMENTAL SUPPORT
36	48.2	32.5	INADEQUATE SUPPORT BY SUPERVISOR
47	44.9	30.8	POLITICAL PRESSURE FROM WITHIN DEPARTMENT

Since the 72 items contained in the modified police stress survey may have missed stressors that may be specific to North Dakota officers, one open-ended question allowed officers to indicate the one thing that most bothered them about their job. Again, a wide range of responses were given. For the 163 officers who chose to answer this question, the major categories of responses are presented in Figure 3. North Dakota peace officers have indicated that the single most salient stressor in their lives is their immediate supervisor. The respondents indicated a wide array of specific problems they had with their immediate supervisor, however, the problem most often identified were supervisor incompetence and supervisors bearing personal grudges against the respondent.

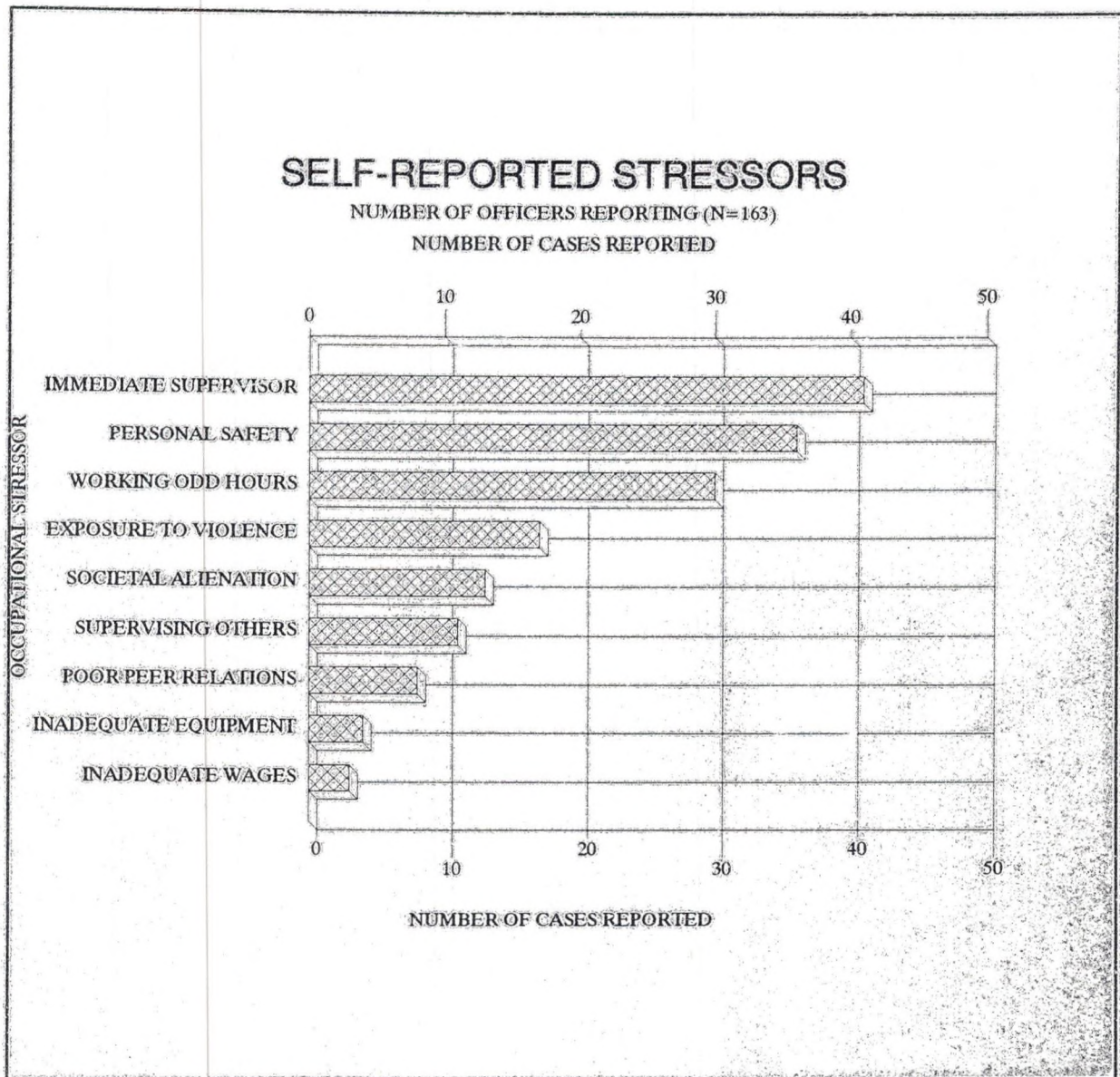


Figure 3. Self-Reported Occupational Stressors

Reliability Analyses

Whenever possible the reliability of the various measures were assessed. Of the independent variables, Isolation/Protectionism (IPI), Social Support Index (SSI), and the Spousal Communication/Support Index (SCSI) were

assessed independently for scale reliability. In addition, the following dependent measures were examined as to their reliability: the Physical Health Scale; State-Trait Anxiety Inventory; Emotional Exhaustion Scale; Depersonalization Scale; Personal Accomplishment Scale; and the Modified and Unmodified Police Stress Survey were examined separately. Table 10 presents the Cronbach's alpha, correlation between forms, Guttman Split-Half, and the Spearman-Brown (equal or unequal) reliability coefficients for the above variables.

Table 10

Independent and Dependent Variable Reliability Analyses.

	Cronbach's Alpha	Correlation Between Forms	Guttman Split-Half	Spearman-Brown
Isolation-Protectionism	.80	.66	.80	.80
Social Support	.77	.56	.71	.72
Spousal Comm/Support	.77	.41	.46	.60
Physical Health Scale	.70	.69	.79	.83
STAI	.89	.81	.89	.89
Emotional Exhaustion	.90	.79	.85	.88
Depersonalization	.71	.41	.51	.59
Personal Accomplishment	.74	.58	.73	.69
Police Stress Survey (PSS)	.97	.90	.94	.94
Modified PSS	.97	.88	.92	.93

The three independent variable scales each evidenced adequate internal consistency as indicated by Cronbach's Alpha coefficients. Of the three, the Isolation - Protectionism scale seemed to be the most stable of the three independent measures assessed. All of the dependent measures exhibited adequate Cronbach's Alpha coefficients with several of the measures indicating excellent internal consistency with alpha levels of .90 or better. Of the MBI subscales, the emotional exhaustion scale clearly evidenced the better internal consistency of the three scales. In regards to the PSS and the MPSS, the 12 additional variables added to the original PSS (the Modified-PSS) appears to have not effected the excellent reliability shown by the PSS to a significant degree.

Dependent Measure Analysis

Backward regression analyses were conducted for each dependent measure using the 21 predictor variables examined in the study. The tables illustrating the regression analyses present the B and the standardized Beta weights, the part correlation (the correlation between the criterion and the residual of the predictor variable from which the effects of the other predictor variables have been removed), the predictor variable's F, degrees of freedom and the associated significance level. Subsequent to the regression procedures, each of the predictor variables were subjected

to analysis of variance procedures. Predictor variables found to exhibit significant differences between operationally defined levels with regards to each dependent measure were further examined with post-hoc Tukey analyses. Significant differences were then reported.

Physical Health Status

Physical Health Scale The physical well-being of each peace officer in the present study was examined using the Physical Health scale as indicated in Chapter 2. Utilized as a continuous variable the physical health scale ranges in raw scores from 3 to 16 with lower scores indicating better present health. Table 11 illustrates the backward regression analysis for the dependent variable Physical Health Status.

Table 11

Physical Health Regression Analysis.

Backward Regression Analysis of Predictor Variables on Physical Health.					
Multiple R = .51 R square = .26 Adjusted R Square = .24 N = 165 F (4, 164) = 14.79 Sig. = .0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Agency Support	-.521	-.448	-.413	38.130	.0000
Departmental Longevity	.083	.220	.216	10.428	.0015
Size of Hometown	.157	.168	.160	5.721	.0179
Spousal Communication/ Support Index	-.109	-.147	-.142	4.555	.0343
(constant)	12.503			182.773	.0000

The results of the regression equation indicate that six predictor variables out of the field of twenty-one combine to produce a variable which is strongly correlated with the criterion "Physical Health." The analysis proceeded through 17 steps prior to arriving at a solution with four variables left in the regression equation. The Beta weights provide a method for directly comparing the power each variable provides in predicting the criterion with other variables left in the equation. In order of predictive power the variables left in the equation were; agency support for officer mental health, the number of years spent in the same department, the size of hometown, and the officers satisfaction with the level of spousal communication and support. Therefore, agency support is the largest contributor towards the prediction of the officer's estimation of his or her own current physical health.

In addition to the above results, post-hoc analyses indicate that officers who reported exposure to a traumatic event since the start of their law enforcement career reported significantly worse physical health [$F(1, 209) = 4.41, p = .03$] than those not so exposed, with physical health scores of 8.6 and 7.4 respectively.

Officers Chronic Anxiety Level

Trait Anxiety The officers' anxiety level was assessed through use of the State-Trait Anxiety Inventory's (STAI) Trait Anxiety subscale (Spielberger, 1980). Raw scores for

respondents in regards to the trait anxiety subscale ranged from a low of 20 to a high of 66 (out of a possible 80). As indicated by the creator of the scale, the respondent's level of anxiety will be considered increasingly elevated as the raw scores on this scale become increasingly elevated. Table 12 illustrates the results of the backward regression analysis on the dependent variable Anxiety Level.

Table 12

Trait Anxiety Regression Analysis.

Backward Regression Analysis of Predictor Variables on Trait Anxiety Raw Score.					
Multiple R = .54 R square = .29 Adjusted R Square = .27 N = 164 F (5, 163) = 13.92 Sig. = .0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Spousal Communication / Support Index	-.715	-.329	-.304	21.593	.0000
Social Support Index	-.512	-.275	-.253	14.913	.0002
Education Level	-.845	-.153	-.152	5.416	.0212
School	-.766	-.133	-.131	4.028	.0464
Response Urgency	-.015	-.118	-.116	3.141	.0782
(constant)	58.022			420.600	.0000

The results of the regression equation indicate that seven predictor variables out of the field of twenty-one combine to produce a variable which is strongly correlated with the criterion "Trait Anxiety." The analysis proceeded through 16 steps prior to arriving at a solution with five variables left in the regression equation. In order of

predictive power, the variables left in the equation were; satisfaction with spouse communication and support, satisfaction with the social support from the officers environment, the educational level achieved by the officer, the number of hours attending school, and the urgency with which the officer responded to this study. Therefore, the spouse communication/support index was the greatest predictor of the officers level of chronic anxiety. Negatively correlated with the criterion, increasing satisfaction with the support from ones spouse is strongly associated with decreased trait anxiety scores.

In support of the above results, post-hoc analyses revealed significant differences in trait anxiety scores in regards to response urgency [$F(3, 212) = 3.32, p = .02$]. The trait anxiety scores of the subjects from the first and second groups (38.2 and 34.7 respectively) differed significantly from the subjects who responded later (33.8 and 33.9 for the third and fourth group respectively) ($p < .05$). These results suggest that officers reporting the higher levels of chronic anxiety were the quickest to respond to a study about peace officer stress.

Psychological Adjustment

Psychological adjustment was defined as the extent to which the officer continues to function adaptively in his or her environment as indicated by 5 measures: 1) The endorsement of sufficient criteria to warrant clinical

diagnosis of Post-Traumatic Stress Disorder as outlined by the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R); 2) The total number of PTSD anxiety symptoms endorsed by the respondent; 3-5) The emotional exhaustion, depersonalization, and the personal accomplishment subscales of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981).

Post-Traumatic Stress Disorder. PTSD was assessed by allowing the officer to indicate the DSM-III-R PTSD criteria that he or she had experienced in the past year. Table 13 illustrates the standard discriminant analysis classification results while assuming equal prior probabilities for the PTSD and NON-PTSD groups.

Table 13

PTSD Discriminant Analysis.

Direct Method Discriminant Analysis for PTSD and Non-PTSD Groups for predictor variables.			
Predicted Group Membership			
ACTUAL MEMBER	NUMBER OF CASES	NON-POST TRAUMATIC STRESS DISORDER	POST TRAUMATIC STRESS DISORDER
NON-PTSD	163	123 (75.5%)	40 (24.5%)
PTSD	23	6 (26.1%)	17 (73.9%)
PERCENTAGE OF GROUPED CASES CORRECTLY CLASSIFIED: 75.27%			

With 186 subjects (163 non-ptsd and 23 ptsd) in the equation an overall 75% correct classification rate was achieved. The equation correctly identified 73.9% (17) of the PTSD group, while identifying 75.5% (123) of the 163 NON-PTSD group. Table 14 illustrates the variables which provided utility in the prediction of which officers will present with sufficient criteria to warrant a diagnosis of PTSD. Of the original 21 predictor variables, 7 were selected for entry into the equation utilizing the Wilks' method subcommand which chooses those variables which minimize the overall Wilks' lambda.

Table 14

Canonical Coefficients and Group Centeroids.

Standardized and Unstandardized Canonical Discriminant Function Coefficients and Group Centeroids for PTSD GROUPS AND NON-PTSD GROUPS by predictor variables.		
EIGENVALUE = .175, CANONICAL CORRELATION = .38, WILKS' LAMBDA = .8508, CHI-SQUARED (4, N = 202) = 27.53. p = .0003		
VARIABLE	STANDARDIZED COEFFICIENTS	UNSTANDARDIZED COEFFICIENTS
Social Support Index	0.47234	0.107497
Agency Support	0.38808	0.158551
Isolation/protectionism	-0.32450	-0.494321
Education	-0.28396	-0.183173
Spousal Communication/Support	0.24378	0.642153
Gender	0.21695	0.933264
Marital Status	-0.21382	-0.414950
(Constant)		-3.494979
Group	Centeroid (group means)	
PTSD	-1.10132	
NON-PTSD	0.15733	

The standardized canonical coefficients provided in the discriminant analysis procedure allow comparison between the variables as to the "weight" each variable receives in the individual's predicted risk of PTSD, the larger the coefficient, the greater the weight the variable has in predicting the criterion. The unstandardized coefficients reflect, in terms directly meaningful to the variable's raw score, the weight associated with a given variable for use in a prediction equation. To obtain the predicted score, the raw score of each variable is multiplied by its unstandardized canonical coefficient, the sum of these multiplications is then added to the constant. The resultant score is then compared to the cutoff score derived by locating the mean of the 2 group's centeroids, the classification of PTSD and NON-PTSD is determined dependent upon where the score falls, above or below the cutoff score.

The results of the discriminant analysis indicate that the level of social support the officer perceives from his/her environment is the most important of the 21 variables examined in the understanding of who (in this sample) presents with sufficient clinical criteria to warrant a diagnosis of PTSD. In addition to social support, in decreasing order of utility in predicting PTSD, the results of this analysis indicate that agency support, isolation/protectionism, education, support from spouse/significant other, gender and marital status

contribute to the understanding of how this sample of officers evidenced the clinical criteria of PTSD.

Of the officers reporting a traumatic experience, 23 (11.7% of total sample) met at least the minimal DSM-III-R criteria for PTSD. Of the 23 officers exhibiting clinical criteria relevant to a diagnosis of PTSD; 8 were police officers, 5 were NDHP officers, and 10 were officers employed by sheriffs' departments. Subsequent analysis of variance procedures indicated no significant differences found between agency of employ, gender, education, previous military experience, ethnicity or marital status in the development of PTSD. Furthermore, the actual number of peace officers manifesting the clinical criteria for the diagnosis of PTSD did not differ significantly across the three levels of official rank. Of the total, officers, middle-management and top administration officials exhibited *n*'s of 15, 3, and 4 respectively (1 individual meeting the criteria for PTSD declined to indicate rank).

PTSD Anxiety Symptoms. Since the vast majority of officers do not meet criteria for PTSD, the number of PTSD symptoms reported by each officer was also used as a measure of psychological adjustment. Table 15 presents the backward regression analysis for the dependent variable "PTSD Anxiety Symptoms" reported by North Dakota peace officers.

Table 15

PTSD Anxiety Symptom Regression Analysis.

Backward Regression Analysis of Predictor Variables on Number of Post-Traumatic Stress Disorder Anxiety Symptoms.					
Multiple R = .56 R square = .32 Adjusted R Square = .29 N = 163 F (6, 162) = 12.78 Sig.=.0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Isolation/Protectionism	.159	.276	.256	15.663	.0001
Traumatic Exposure	3.447	.231	.229	12.758	.0005
Gender	-3.596	-.210	-.209	10.518	.0014
Agency Support	-.269	-.176	-.165	6.546	.0114
Social Support Index	-.143	-.171	-.154	5.693	.0182
Age	-.049	-.110	-.109	2.877	.0918
(constant)	7.739			4.859	.0289

The results from the regression analysis indicate that six of the predictor variables provide for a good model in the prediction of the criterion variable "PTSD Anxiety Symptoms." The regression equation resulting after step 15 in the analysis suggests that the greater degree to which the officer isolates and protects those persons whom the officer is the closest to is most important in understanding who presents with the most symptoms following traumatic exposure. In addition to isolation/protectionism scores, in decreasing order of importance in predicting the criterion are; officer's exposure to traumatic incidents, gender, satisfaction with the support received from the officer's

agency, satisfaction with the social support received from the environment, and the age of the officer.

To further clarify these analyses regarding officer sex, post-hoc analyses indicate that female officers reported significantly more PTSD anxiety symptoms than did males [$F(1, 195) = 3.9, p = .04$] with 5.6 and 3.3 PTSD symptoms respectively. Although a harmonic mean procedure was utilized for this analysis, the reader should note the small number of women in the overall sample ($n=14$).

When PTSD symptom reporting was compared across rank significant differences were observed between two of the three levels [$F(2, 192) = 3.6, p = .02$]. Post-hoc Tukey analyses indicated that officers tended to report more PTSD symptoms than did middle-management with the average number of symptoms being reported as 3.9 and 2.1 respectively ($p < .05$). No significant differences were found between top administration, which averaged 3.5 PTSD symptoms, and the other two groups.

Emotional Exhaustion. Ranging in raw scores from 0 to 52 with a mean score of 18.9, the emotional exhaustion subscale of the MBI was used as an additional measure of psychological adjustment. When the total sample of peace officers was examined using the cutoff scores set by Maslach and Jackson (1980), 45.4% of the officers had scores of less than 17 which would be considered "low emotional exhaustion," 34.2% were classified as having "medium"

emotional exhaustion, and, contrary to expectations, only 20.4% suffered from a state of high emotional exhaustion (scores in excess of 28). For the following regression analysis, emotional exhaustion is used as a continuous variable. Table 16 illustrates the results of the regression procedure.

Table 16

Emotional Exhaustion Regression Analysis.

Backward Regression Analysis of Predictor Variables on Emotional Exhaustion.					
Multiple R = .61 R square = .37 Adjusted R Square = .34 N = 161 F (8, 160) = 11.87 Sig. = .0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Gender	-12.458	-.253	-.251	16.086	.0001
Social Support Index	-.644	-.267	-.235	14.192	.0002
Isolation/Protectionism	.377	.226	.207	10.974	.0011
Department Longevity	.469	.328	.202	10.147	.0015
Agency Support	-.980	-.223	-.196	9.876	.0020
Size of Hometown	.648	.183	.169	7.333	.0075
Age	-.340	-.261	-.165	7.009	.0089
Traumatic Exposure	4.959	.115	.113	3.283	.0719
(constant)	50.920			25.416	.0000

The results of the regression equation indicate that eight predictor variables out of the field of twenty-one combine to produce a variable which is strongly correlated with the criterion "Emotional Exhaustion." The analysis proceeded through 12 steps prior to arriving at a solution

with eight variables left in the regression equation. In order of predictive power, the variables left in the equation were; the gender of the officer, the officer's satisfaction with the social support received from the environment, the degree to which the officer isolates and protects his/her family from the job, the number of years spent by the officer in the same department, the degree to which the officer is satisfied with the support received from the employing agency, the size of the hometown in which the officer lives, the age of the officer, and exposure to traumatic incidents during the course of the officers career.

These results suggest that being female within the law enforcement profession is the best predictor of the level of emotional exhaustion as reported by North Dakota officers. Negatively correlated with the criterion, female officers tend to report higher levels of emotional exhaustion. In addition to these findings, post-hoc analyses indicate that in this sample of officers, female officers reported significantly higher emotional exhaustion scores than did males [$F(1, 213) = 4.72, p = .03$] with scores of 24.9 and 18.5 respectively.

Further post-hoc analyses revealed significant differences in emotional exhaustion scores regarding response urgency [$F(3, 212) = 3.99, p = .008$]. The emotional exhaustion scores of the subjects classified into

the first and second levels of response urgency (23.0 and 18.6 respectively) differed significantly from the subjects whose response to the survey was delayed (16.7 and 17.2 for the third and fourth groups respectively) ($p < .05$). These results suggest that officers reporting higher emotional exhaustion scores may have found the present study particularly relevant.

Depersonalization. Using Maslach and Jackson's cutoff scores, 35.6% of the surveyed officers were classified as having low levels of depersonalization (scores less than 6), 34.5% were classified as presenting with medium levels of depersonalization and 29.6% had high levels of depersonalization (scores in excess of 10). Ranging in raw scores from 0 to 28 with a mean of 7.9, the depersonalization subscale of the Maslach Burnout Inventory was examined with the backward regression procedure. Table 17 illustrates the results of the regression procedure.

The results of the regression equation indicate that eight predictor variables out of the field combine to produce a variable which is correlated with the criterion "Depersonalization". The analysis proceeded through 12 steps prior to arriving at a solution with nine variables left in the regression equation. In order of predictive power, the variables left in the equation were; isolation-protectionism index scores, officer's satisfaction with the social support they receive from the environment, the total

Table 17

Depersonalization Regression Analysis.

Backward Regression Analysis of Predictor Variables on Depersonalization.					
Multiple R = .55 R square = .30 Adjusted R Square = .26 N = 160 F (9, 159) = 7.71 Sig. = .0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Isolation/Protectionism	.206	.241	.219	11.043	.0011
Social Support Index	-.300	-.242	-.212	10.338	.0016
Department Longevity	.170	.231	.143	4.675	.0021
Number of Children	-.901	-.222	-.188	8.109	.0050
Size of Hometown	.322	.178	.164	6.161	.0141
Agency Support	-.373	-.165	-.143	4.687	.0319
Age	-.140	-.210	-.125	3.586	.0601
Shift Work	1.387	.780	.117	3.158	.0705
(constant)	20.680			17.826	.0000

number of years the officer has spent in the same department, number of children, the size of hometown in which the officer resides, the officer's satisfaction with the support received from the officer's agency of employ, the sex of the officer, the officer's age, and whether or not the officer works a permanent or rotating shift.

Therefore, from the field of these twenty-one variables, the isolationism/protectionism index is the best predictor of higher levels of depersonalization. Those officer's who isolate and/or protect those whom they care most about from the salient stressors in the officer's life, had a tendency to report higher degrees of depersonalization.

To further clarify the above results, post-hoc analyses reveal that officers who reported working rotating shifts had significantly higher depersonalization scores (8.7) as compared to 7.1 for those officers scheduled to work on a more or less permanent basis [$F(1, 209) = 4.3, p = .03$]. Furthermore, similar to those results of the emotional exhaustion subscale, those officers who reported exposure to a traumatic event since the start of their law enforcement career had significantly higher depersonalization scores [$F(1, 212) = 4.13, p = .04$] than did those not so exposed with scores of 8.6 and 6.0 respectively.

Personal Accomplishment. The last MBI subscale to be examined is the personal accomplishment subscale. Ranging in scores from 7 to 47 with a mean raw score of 32.9, the scale is scored in the direction of higher scores indicating more positive feelings of career accomplishment. Table 18 illustrates the findings of the regression procedure for the twenty-one predictor variables with the criterion variable of "personal accomplishment".

Of the twenty-one predictor variables only 5 remained in the regression equation after the fifteenth step. In order of predictive importance the variables are as follows; the officer's marital status, the officer's satisfaction with the social support he or she receives from the environment, the number of hours spent in non-law enforcement jobs, traumatic exposure since the start of

Table 18

Personal Accomplishment Regression Analysis.

Backward Regression Analysis of Predictor Variables on Personal Accomplishment.					
Multiple R = .43 R square = .18 Adjusted R Square = .15 N = 163 F (6, 162) = 6.20 p = .0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Marital Status	-3.277	-.220	-.217	9.358	.0026
Social Support	.338	.206	.205	8.321	.0044
Moonlighting	-.206	-.188	-.185	6.832	.0098
Traumatic Experience	4.918	.168	.166	5.480	.0204
School Attendance	.732	.145	.144	4.155	.0441
(constant)	24.983			24.221	.0000

their law enforcement career, and the number of hours spent in educational endeavors.

To clarify these results, post-hoc Tukey analyses indicate that officers who had never been married exhibited overall higher personal accomplishment scores than did the officers who had been divorced at least once ($p < .05$). Whereas officers who were never married exhibited scores of 36.5, those who were currently married for the first time or were divorced/separated at least once had scores of 33.0 and 31.4 respectively.

Stressor Severity Level. The stressor severity level was assessed by deriving a single score from the 72 item modified police stress survey. The score represents an averaged score for each officer as defined in chapter 2. The score is utilized as a continuous variable ranging from

a low of 2.3 to a high of 89.8. Table 19 illustrates the backward regression analysis for the dependent variable Stressor Severity Level.

Table 19

Stressor Severity Level Regression Analysis.

Backward Regression Analysis of Predictor Variables on Officers Estimation of Job Stress Level.					
Multiple R = .40 R square = .16 Adjusted R Square = .13 N = 163 F (6, 162) = 5.40 Sig. = .0000					
VARIABLE	B	BETA	PART CORR.	F	SIG.
Education Level	2.621	.221	.218	9.299	.0027
Age	-.716	-.330	-.206	8.288	.0045
Agency Support	-1.171	-.160	-.152	4.506	.0353
Field Longevity	.475	.205	.127	3.164	.0771
Spouse Communication Support Index	-.628	-.134	-.127	3.147	.0780
Marital Status	4.555	.125	.119	2.798	.0963
(constant)	70.036			44.445	.0000

The results of the regression equation indicate that six predictor variables out of the field of twenty-one produce a variable which is correlated with the criterion "Stressor Severity Level." The analysis proceeded through 15 steps prior to arriving at a solution yielding six variables as indicators of the criterion. In order of predictive power, the variables left in the equation were; the officer's education level, the age of the officer, the satisfaction with the support the officer perceives from the

agency in which they are employed, the total number of years spent in the law enforcement field, satisfaction with the communication and support received from spouse or significant other, and their marital status.

Therefore, the results of this regression equation indicate the importance of considering the educational level of the officer in the understanding of how job-related stressors are perceived by officers. Positively correlated with the criterion, higher levels of education are associated with higher stressor severity levels. These results indicate that officers with more education perceive more stress from the stressors they are exposed to.

In addition to the previous analysis, post-hoc analysis of variance indicates that officers who had prior military experience found, in general, stressors in their work environment to be less stressful than did those officers who had not had previous military service [$F(1, 204) = 3.68, p < .05$] with stressor severity level scores of 43.5 and 48.7 respectively.

Comparative Analyses

Whenever possible the results of this study were compared to existing data sets to illuminate the status of the North Dakota peace officer with that of other police samples.

Psychological Adjustment

Trait Anxiety In regards to trait anxiety, figure 4 illustrates the lack of substantial differences between North Dakota peace officers and Texas police officers (Haddock, 1988) among overall sample groups and across official rank structure.

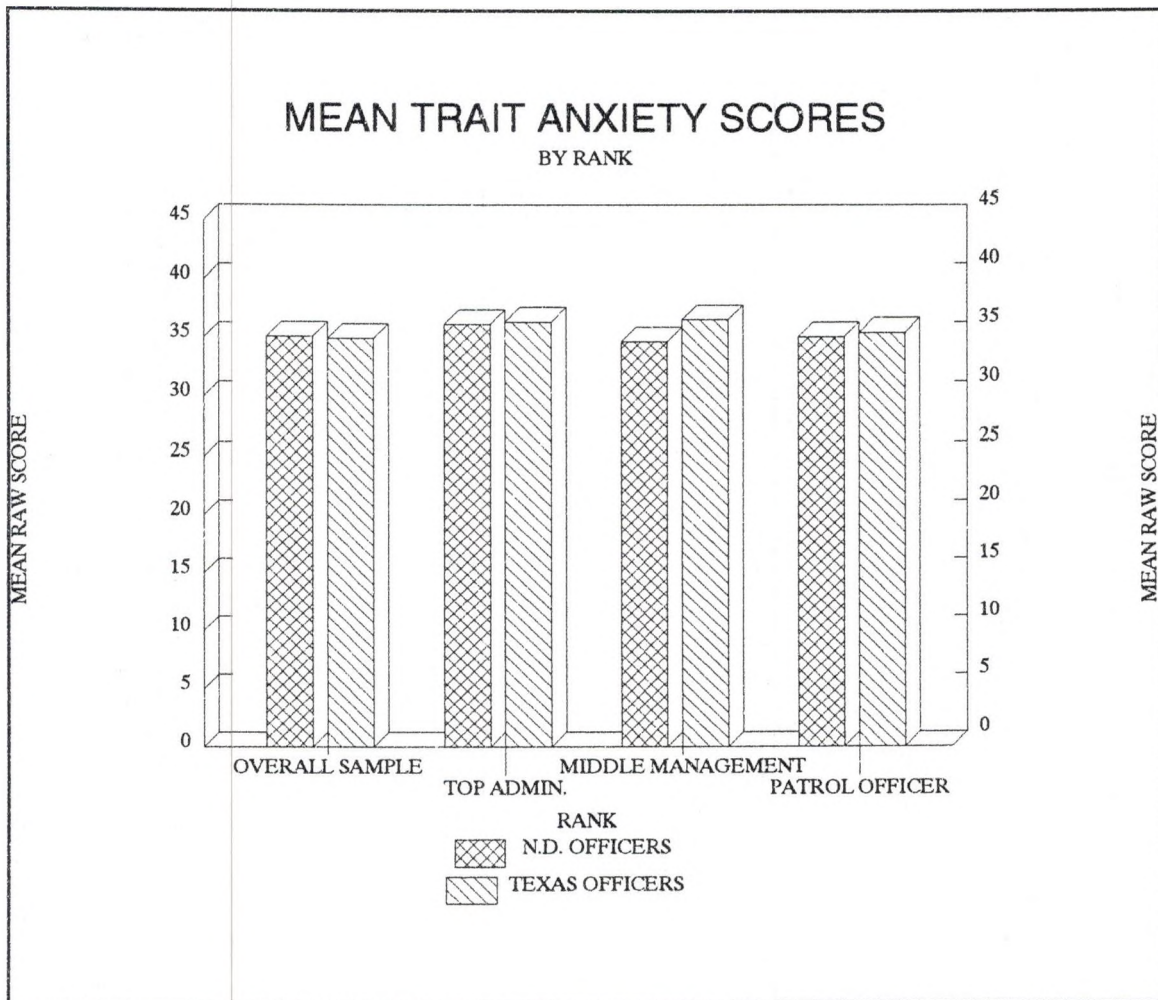


Figure 4. Mean Trait Anxiety Scores Delineated by Rank.

When Trait Anxiety scores for North Dakota peace officers across samples of rank were compared to those

scores obtained by Haddock (1988) for a sample of Texas police officers, no apparent differences were noted among rank levels nor state samples, however data was not available to statistically compare means. For the overall sample, top administration, middle-management, and patrol officer samples the raw mean trait anxiety scores for North Dakota officers were 35.1, 36.1, 34.6 and 35.0 respectively. For the overall sample, top administration, middle-management, and patrol officer groups the raw mean trait anxiety scores for Texas police officers were 34.9, 36.3, 36.5 and 35.4 respectively.

Maslach Burnout Inventory Summary Figure 5 illustrates the striking similarities between the three MBI subscales for this study's sample (n=216) as well as that for the normative group (n=2,897) as outlined by Maslach and Jackson (1981).

Based upon these comparisons it would seem that the balance of the peace officers within the state of North Dakota do not differ to a substantial degree from the police officers, probation officers, attorneys, ministers, librarians, agency administrators and legal aid employees in the MBI's normative group.

Correlational Analyses

The results of separate correlational analyses for the predictor variables and the dependent measures can be seen in Appendices E and F. In regards to the dependent

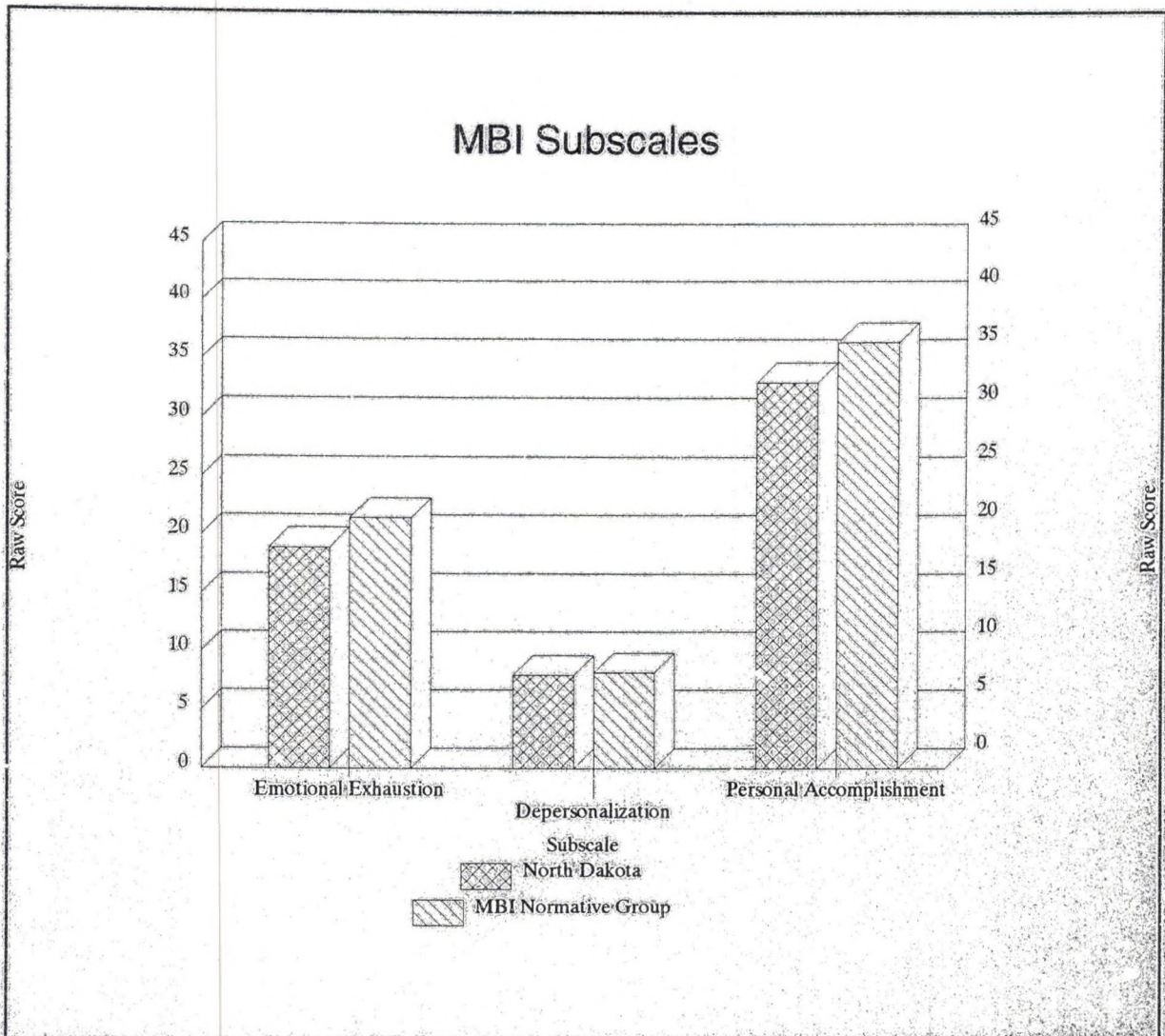


Figure 5.

Subscale Scores for N.D. Officers and the Normative Group.

measures, of particular note are the strong correlations observed between the overall Maslach Burnout Inventory with its subscale emotional exhaustion. Originally intended to be a separate dependent measure, the MBI was not utilized in these analyses due to the extremely high correlations with the other dependent measures.

Among the predictor variables several of the more notable associations are the high correlations between age and number of children and how both variables are correlated strongly with departmental longevity, field longevity and rank. Of more possible interest to the reader are the observed strong correlations between the relationship variables; isolation/protectionism, social support and spousal communication/support. Isolation/protectionism is negatively associated with degree of satisfaction with social and spousal support. Furthermore, social support is strongly and positively correlated with spousal support.

Table 20 outlines the intercorrelations between the dependent measures and the independent variables. The reader will note the relatively strong correlations between the relationship variables Isolationism-Protectionism, Social Support and Spousal Support with the dependent measures; PTSD symptoms, emotional exhaustion and trait anxiety. The following section will examine these issues further.

Relationship Issues Revisited

The results of the correlational, regression and discriminant analyses have implicated the support the officer receives from his environment as important in the understanding of the impact of job stress. Based upon the

Table 20

Independent and Dependent Variable Correlations.

	Health	PTSD Symp.	Emotional Exhaust.	Deperso.	Personal Accomp.	PTSD	Trait Anxiety	Stressor Severity Level
Response Urgency	-.04	-.12	-.19 *	-.18 *	.08	-.03	-.16 *	-.15 *
Number of Children	.08	-.08	-.03	-.18 *	-.09	.00	.05	-.01
Hometown Size	.04	-.05	.10	.08	.12	-.02	-.05	.06
Traumatic Exposure	.14 *	.26 **	.19 *	.13	.11	.10	.08	.06
School Attendance	.00	-.04	-.07	-.03	-.04	-.04	-.09	-.07
Gender	-.02	-.14	-.14 *	-.01	.00	-.04	.01	.00
Marital Status	.12	-.05	.04	-.02	-.15 *	.06	.01	.05
Military	-.04	-.09	-.09	-.05	-.07	-.00	-.00	-.13
Moonlighting	-.02	-.06	-.10	-.14 *	-.14 *	-.00	-.01	-.07
Isolation/Protect	.14 *	.36 **	.32 **	.28 **	-.18 *	.23 **	.37 **	.16 *
Social Support	-.25 **	-.30 **	-.42 **	-.37 **	.21 **	-.27 **	-.41 **	-.20 **
Spouse Support	-.24 **	-.31 **	-.27 **	-.22 **	.12	-.25 **	-.39 **	-.21 **
Agency Type	.00	.06	.00	-.06	.02	.06	.02	.01
Size of Department	-.12	-.06	.04	.07	.16 *	-.01	-.12	.01
Agency Support	-.34 **	-.26 **	-.23 **	-.13	.16 *	-.20 *	-.26 **	-.16 *
Department Longevity	.16 *	-.06	.05	-.06	-.00	.02	-.00	.12
Field Longevity	.14 *	-.09	.07	-.03	-.06	.01	.02	-.07
Rank	.17 *	-.09	.04	-.08	-.06	-.03	.02	-.08
Shiftwork	-.08	.00	-.02	.14	.03	.00	.03	.01
Age of officer	.13	-.16 *	-.07	-.18 *	-.06	-.02	-.07	-.25 **
Educational level	.02	.02	.10	.15 *	.16 *	.10	-.07	.25 **

*p<.01

**p<.001

literature it would seem prudent to examine how the officers' support systems are associated with several of the psychological adjustment measures previously discussed. The following illustrations are not intended to provide further

empirical data. Rather, the following is designed to graphically illustrate the nature of the association between several of the more interesting dependent variables on each of the three relationship indices. For illustration purposes the variables; isolationism/protectionism, social support and spousal communication/support were divided into 4 separate categories of roughly the same number of respondents and were classified as very low, low, medium and high.

Figure 6 illustrates how the officers self-reported physical health is associated with satisfaction concerning the level of support from both the environment as well as from the officer's spouse/significant other. Responses from officers which indicate generally lower levels of satisfaction with the support they receive from their spouse and their immediate environment appear to have generally worse physical health per their own self-report.

Chronic Anxiety Figure 7 graphically illustrates the nature of the association found in the level of trait anxiety scores when considered with the degree of social support, spousal communication/support and the level of isolationism/protectionism as displayed by the officer.

Officers whose group membership indicated low satisfaction with the social support received from their

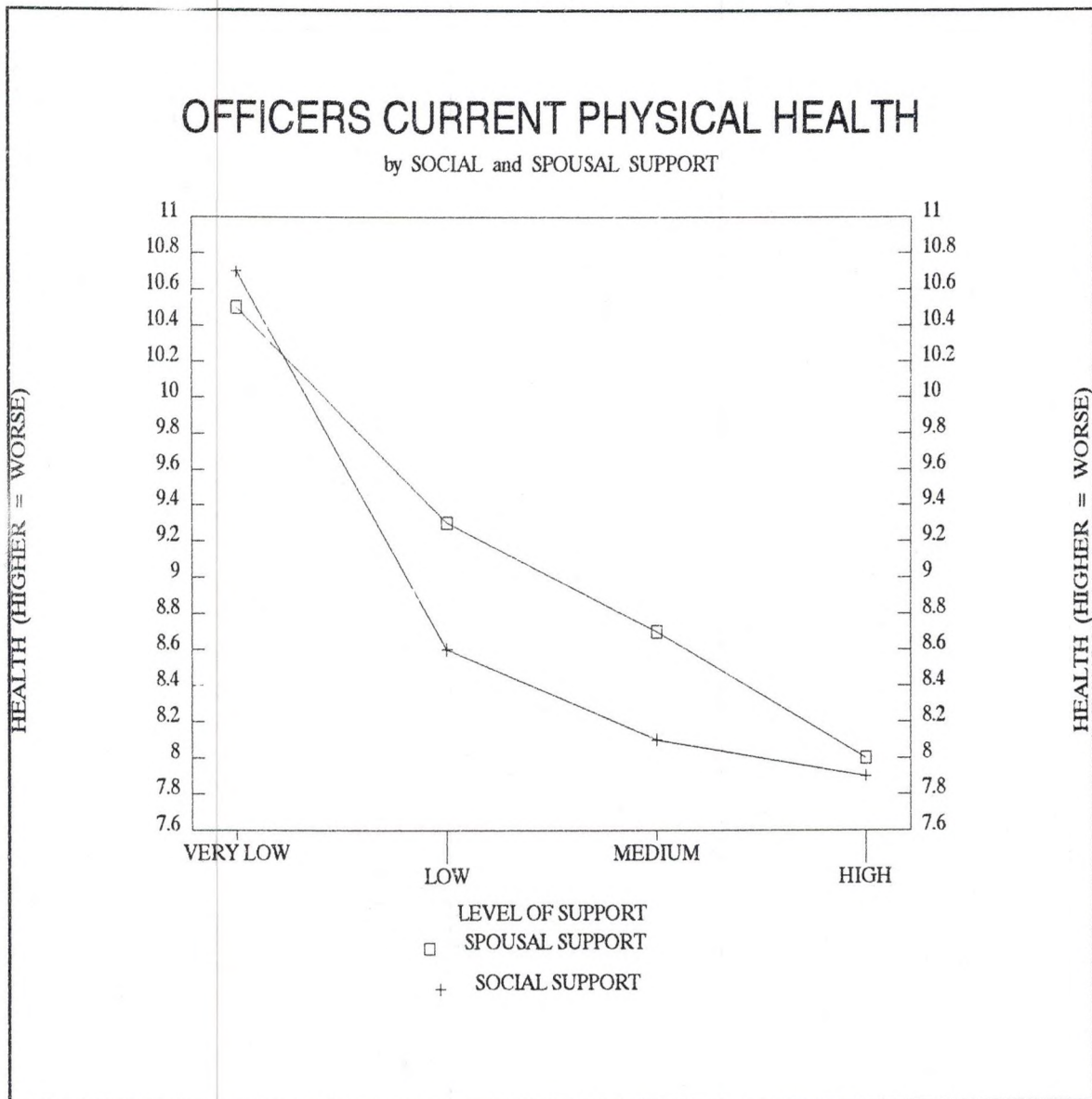


Figure 6. Physical Health as Associated with Social and Spousal Support.

environment had higher trait anxiety scores than did their cohorts who indicated high degrees of satisfaction.

Officers who scored high on the isolation-protectionism index exhibited much higher trait anxiety scores than did

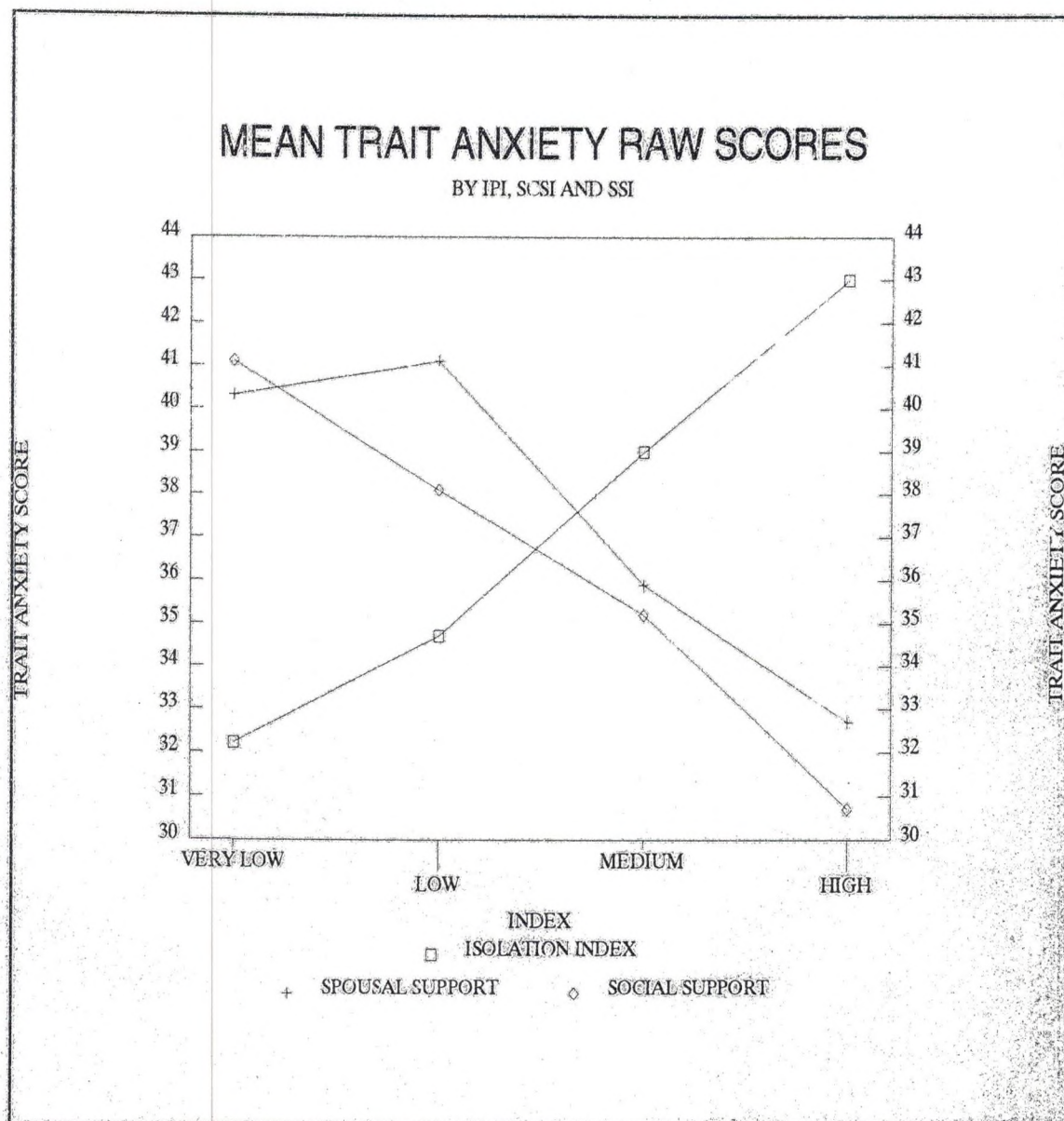


Figure 7. Trait Anxiety's Association with Isolationism, Social and Spousal Support.

those officers in the very low category and low classifications. Officers indicating membership in the very low and low spousal communication/support groups reported higher average trait anxiety scores than did the high support group.

Psychological Adjustment

PTSD Anxiety Symptoms The three predictor variables isolationism/protectionism, social support and spouse communication/support produced strong associations between their respective categories and the number of PTSD anxiety symptoms displayed by the officers in those categories.

Figure 8 illustrates these associations.

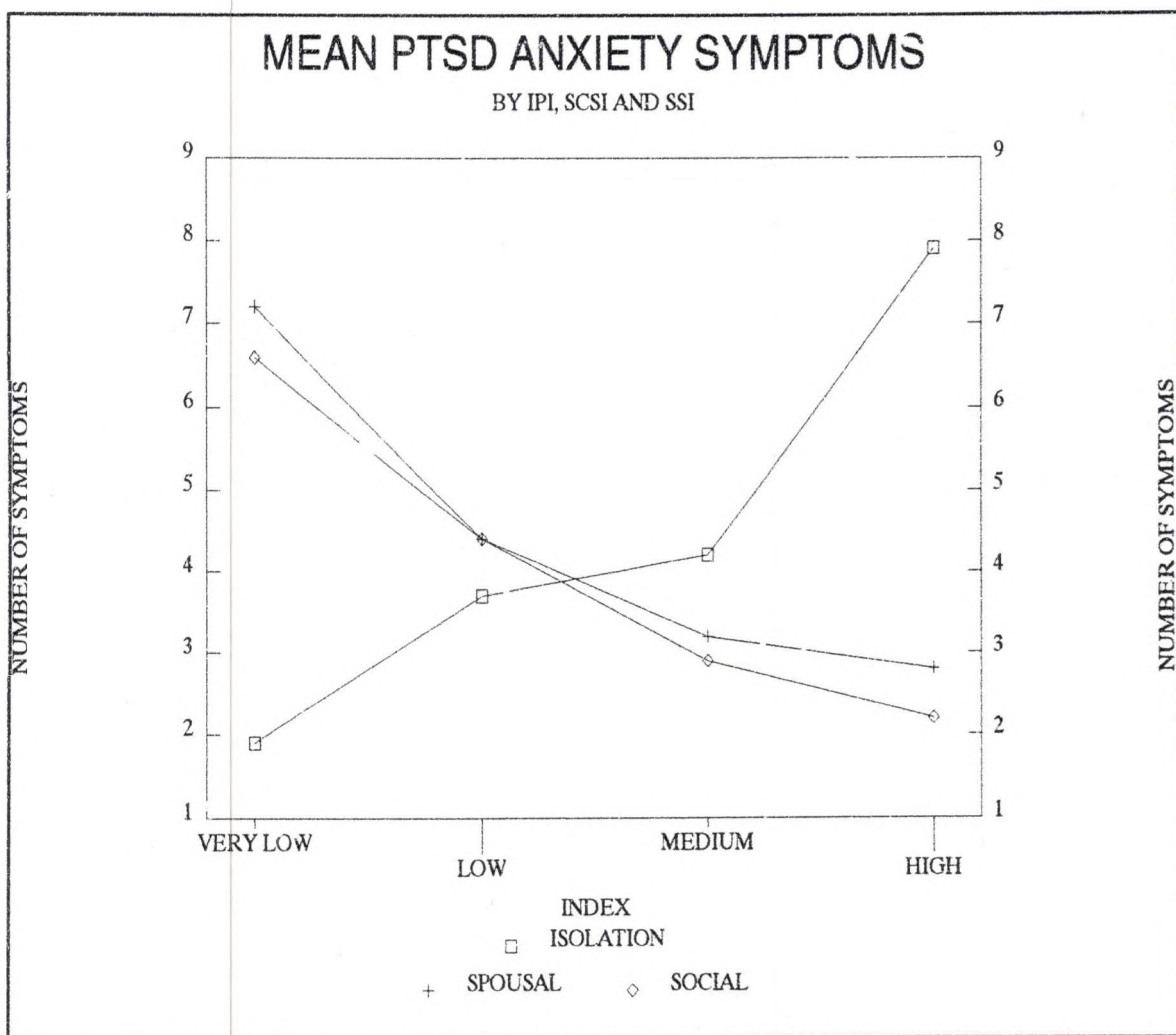


Figure 8. PTSD Anxiety Symptoms Association with Isolationism, Social and Spousal Support.

Officers who scored higher on the isolation - protectionism index exhibited more PTSD anxiety symptomatology than did those officers who appeared to feel less obligated to keep job-related feelings secret from their spouse. Officers indicating very low social support also reported many more PTSD symptoms than those who indicated that the social support that they receive is satisfactory. Spousal communication/support mirrored that of the social support data in portraying officers who endorse satisfaction with the level of communication and support from their spouses as exhibiting less PTSD anxiety symptomatology.

Emotional Exhaustion. Figure 9 illustrates how the level of emotional exhaustion is associated with the perceived degree of social support, spousal communication-support and the level of isolationism/protectionism as displayed by the officer.

Emotional Exhaustion scores evidenced strong associations with the variables; social support, spousal support and isolation protectionism. While higher levels of social support and spousal support were associated with lower levels of emotional exhaustion, low levels of isolationism/protectionism were associated with low levels of emotional exhaustion.

MEAN EMOTIONAL EXHAUSTION RAW SCORES

BY IPI, SCSI AND SSI

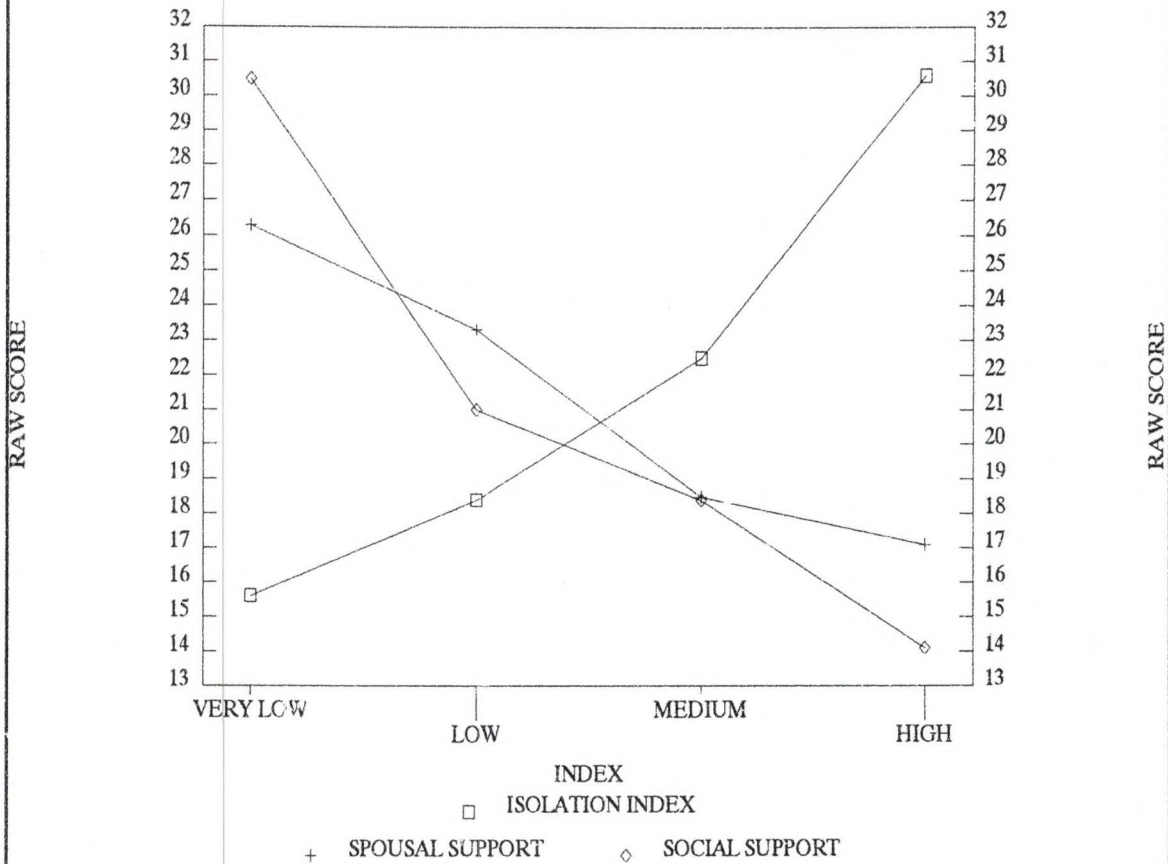


Figure 9. Emotional Exhaustion's Association with Isolationism, Social and Spousal Support.

CHAPTER VI

DISCUSSION

The primary purpose of the present study was to examine the sources and correlates of stress and to determine which phenomena, if any, are associated with the impact of job stressors upon the physical and psychological well-being of North Dakota peace officers. Among the twenty-one predictor and eight dependent variables, a number of interesting relationships were found and several bear further discussion.

The Sample

To begin, the 221 completed questionnaires returned by the peace officers of North Dakota yielding an overall response rate of 71% would seem to indicate that the sample is representative of the population under examination. Furthermore, comparable response rates across the stratified sample of police officers, sheriffs and NDHP provides a positive indication as to the representativeness of each of these subsamples. The reader will recall that average response rate for recent anonymous surveys of police officers was only 35.2%.

Demographics

Sex. The high percentage of male respondents (93%) suggests that law enforcement is a male-dominated occupation in North Dakota. Other studies have shown similar male/female ratios. Haddock's (1988) Texas respondents were 90% male while Spielberger et al. (1980) and Hurrell et al's. (1982) sample were both exclusively male. While the majority of the female respondents were of the "officer" rank, so too were most of the male subjects in the study. Although male dominated, both males and females were represented in middle-management ranks, however, the top management respondents were exclusively male.

Although the number of female officers in the present study was small (n=14) several significant relationships were noted. Gender was the single best predictor of the level of emotional exhaustion reported by North Dakota officers. Female officers were found to not only report significantly higher emotional exhaustion scores, in addition, they reported more anxiety symptoms and higher PTSD rates resulting from traumatic exposure.

Although these results are consistent with the results of other studies finding sex differences in the psychological sequela of job-related stressors (Martin et al., 1986; Hendriz & Cantrell, 1985; Silbert, 1982), what is less clear is why this is so. One possibility is that female officers are socialized to be more self-disclosing than are males.

It is possible that females feel less compelled to maintain a "macho" image in the face of severe emotional strain. Indeed, Martin et al. (1986) has found that female officers utilize "talking it out" as a primary coping strategy twice as often as do male officers.

Education. Peace officers in North Dakota appear to place an average emphasis on higher education as 73.6% of the respondents indicated at least one year of college education. These results compare favorably with those found by Stevenson (1988) in her sample of California police officers with 62.8% of those officers indicating at least some college coursework. While the educational achievements of North Dakota officers are slightly lower than those of Spielberger et al. (1980) whose Florida sample had an 80% rate of "some" college, it falls short of the 92.0% and 91.7% respective rates for Kansas and Texas police officers (Stith, 1990; Haddock, 1988).

One of the more interesting findings in the present investigation were the higher levels in perceived stressfulness of occupational stressors found among officers with higher levels of education. In addition, these same officers reported higher levels of trait anxiety indicating that these response patterns are relatively enduring characteristics. Similar to the results of the gender analyses, it is possible that these officers may be more

willing to disclose their fears and other personal information.

Age. The average age of 38.9 years for North Dakota peace officers is remarkably similar to that of the Texas sample whose average age was also 38 (Haddock, 1988). In addition, other studies have found the average officer to be in his/her mid-thirties (Brown and Campbell, 1990; Stevenson, 1988; Hurrell et al., 1982).

Officers' age was found to be negatively correlated with the perception of job stressor severity indicating that older officers did not report perceiving job-related stressors as severely as did younger officers. Consistent with these findings were higher levels of emotional exhaustion, depersonalization and post-traumatic symptomatology all moderately associated with younger officers.

It is possible that since educational achievement is moderately correlated with younger officers, perhaps these officers are simply more willing to disclose personally relevant information regarding their fears and frustrations. However, since analyses regarding education and age interaction effects were non-significant, it is more likely that these results reflect the degree of emotional habituation, denial of emotional involvement, and hardening to violence and carnage (i.e., callousness) as evidenced by more experienced officers that has been demonstrated in a

wide variety of police studys (Pogrebin & Poole, 1991; Stratton, 1975; Adlam, 1982; Alkus & Padesky, 1982; Anderson & Bauer, 1987).

Marital Status. This study found the 20.4% divorce rate for North Dakota peace officers to be very low compared to the 39% rate for Texas officers (Haddock, 1988). However, it was more comparable to the rates found in the police samples of Russo et al. (1982); Hurrell et al. (1982); and Sewell (1983), with 24%, 23% and 26.7% divorce rates respectively. Therefore, the present study would seem to suggest that marital discord and divorce, long thought to be a major problem for police officers, does not manifest as a problem for North Dakota peace officers as compared to the national estimates of up to 50% of marriages ending in divorce.

Marital status was revealed in the present study as the best predictor regarding the sense of accomplishment the officer feels about his career. Officers who were single and had never been married exhibited the highest scores on the personal accomplishment measure while officers who were divorced and/or separated experienced the least satisfaction with their careers. Based upon the correlational analyses it is probable that these results reflect the attitudes of younger and relatively inexperienced officers who derive most of their pleasure from the job rather than divesting their interests into family and external hobbies. Stratton

(1975) has reported the "love affair" with the badge in the rookie and how an officer gradually becomes less enmeshed over the succeeding years.

Psychological Adjustment

PTSD. North Dakota officers in this sample evidenced a 11.7% rate of post-traumatic stress symptomatology which would seem to warrant a DSM-III-R diagnosis of PTSD. These results are comparable to the 12.5% rate found in Texas police officers by Haddock (1988) utilizing the DSM-III PTSD criteria. However, these numbers are small compared to the 26% rate found by Martin, McKean and Veltkamp (1986) in a select group of officers attending a crime seminar. Nevertheless, the rate for North Dakota officers is much higher than the 1% and 3.5% prevalence rates for PTSD among the general population and non-wounded Vietnam veterans (Helzer, Robins, and McEvoy, 1987).

Factors causing stress

Several questions created by the author of the present study revealed some unexpected results. The following discussion highlights several of the most interesting findings.

Supervisors Officers report the most salient stress factor in their life is their immediate supervisor. The rationale for the problem was varied. Many officers reported that the supervisor was incompetent. Others reported that the superior officer lacked in interpersonal

skills or was uncaring in regards to the supervision needs of officers.

Fear Contrary to some of the research which has indicated that officers do not evidence excessive concern for their personal safety (Crank and Caldero, 1991), the present study indicates that it is very much on the mind of North Dakota officers. An open-ended question completed by officers indicates that the second most salient stress factor for this sample of officers was fear for their own personal safety. Officers reported a number of different concerns in regards to safety issues, most of them concerning being on patrol with little if any available backup, responding to calls involving weapons, and dealing with potentially violent persons. The Modified Police Stress Survey provides support for these findings. Three of the top five ranked stressors; use of force, inadequate manpower and responding to felony situations were all indicative of the concern that North Dakota officers have for their personal safety. Far from being maladaptive, a mild amount of fear going into potentially hazardous situation has been found productive in police officers in that it facilitates reaction time, vigilance and preparedness (Remsberg, 1986).

AIDS A relatively new stressor to the field of law enforcement is exposure to the virus which causes AIDS. It seems apparent that North Dakota officers are aware and

worried about the incidence of AIDS in the state as it is their ninth ranked stressor. Although the incidence of AIDS in the state of North Dakota is currently one of the lowest in the nation, it would seem that the concern that North Dakota officers express for this disease is valid, as the average frequency of exposure to the AIDS virus was 1.3 times in the past year. Although what constitutes an "exposure" was not operationally defined in the present study, exposure to body fluid in the line of police work is a reality and is a growing concern among the majority of peace officers.

Organized Violence In regards to the Modified-PSS, it would appear that even though North Dakota officers see gang activity or violence approximately 2 times per year, these officers do not yet see gang activity as a big problem. Rural states such as North Dakota are likely one of the last bastions against the rising tide of gang activity as the problem is pervasive in more urban areas as evidenced by the specialized units many metropolitan areas have for dealing with gang problems. However, the present study's finding that concern with gang violence is ranked 50 among 72 potential stressors among the men and women whose job it is to deal with such activity, indicates that North Dakota is no longer immune to the impact of street gangs.

Dealing with hate groups was reported to have seldom occurred during the past year and was ranked 32 out of 72 in

regards to stressfulness. Although occurring infrequently (.7 times in past year), based upon the author's personal experience it would seem that the men and women of North Dakota law enforcement would recall that it was exactly this type of activity which provided for one of North Dakota's greatest law enforcement tragedy's resulting in the death of 2 U.S. Marshals and the wounding of 3 other law enforcement personnel at the hands of the Posse Comitatus in a gun battle which erupted on the outskirts of Medina, North Dakota on February 13, 1983. The execution-style slaying of U.S. Marshall Robert Cheshire as a sequela to this event is a poignant reminder of the hazards of the law enforcement profession and the dangers of hate groups.

The author of the present study, then a young patrolman in a nearby city, remembers in vivid detail the anger, frustration and fear felt by officers as we listened to radio traffic and manned roadblocks that day. Based upon this experience it is surprising to this author that the stress ranking for this variable is not higher considering the obvious lethal potential of such groups.

Internal relations North Dakota officers apparently do not see much graft or corruption within their departments as only a few officers reported witnessing any at all. In addition, although it happened only rarely during the past year, the fear of being investigated by internal affairs was a potent stressor for the present sample. "Backstabbing" by

their fellow officers seems to be a more prevalent problem as perceived by the officers in the present study, leading it to become the state's seventh highest police stressor.

Stressors Compared

Comparing the overall top 5 stressors between North Dakota officers and Spielberger et al's. (1980) Florida police sample, indicates the similarity of concern among these two samples but a discrepancy in how the two samples perceive the severity of those stressors. Both samples ranked the same 3 stressors in the top 5; exposure to dead/battered kids, situations requiring the use of force, and killing someone in the line of duty. Whereas, Florida officers ranked "fellow officer killed in line of duty" as number 1, North Dakota officers ranked exposure to dead/battered kids as the most severe stressor. However, the Florida officers mean stress rating for these top 5 stressors was 80.2 as compared to 59.9 for North Dakota's top 5 stressors. These results would seem to suggest that, in general, Florida police officers perceive similar stressors in their environment as more severe than do North Dakota officers.

Coping Strategies

North Dakota officers employ a variety of techniques to combat the effects of stress. The present sample has indicated that devoting extra time to enjoyable hobbies, exercising and talking about what bothers them are the top

three ways North Dakota officers deal with stress. Although these officers report a tendency to discuss shop with other officers, it does not appear to be as exclusive a discussion as the literature suggests. When asked who they are most likely to talk with regarding the things that bother them most about their job, North Dakota officers prefer to talk about the stress with a very important resource, their spouse or significant other.

Alcohol and Drug Use. Relatively few officers reported turning to alcohol or drugs as a coping strategy (6.5%). These results, in conjunction with the low rate of alcohol consumption as indicated by North Dakota officers (2.2 drinks per week) would seem to refute Kroes (1976) estimation that 25% of all police officers suffer from severe alcohol dependence. On the down side, over 10% of the officers reported isolating from others as a coping strategy, a technique found in the present study to have a major association with the negative consequences of stress.

Discussion of Hypotheses

Rural vs. Urban Differences

Contrary to hypothesis 1, differences between rural and urban peace officers were found in three of the eight dependent measures examined in the present study. Although agency size and the size of the officer's hometown were found to be highly correlated, each was utilized as a separate indicator of rural versus urban. When agency size

and the size of the officer's hometown were examined via regression procedures on each of the dependent measures, agency size was not found to contribute significantly to any of the prediction equations. However, the size of the officer's hometown was found to be significantly related to the measures; Physical Health, Emotional Exhaustion and Depersonalization.

Physical Health With regards to physical health status, the regression analysis in the present study found that the size of the hometown in which the officer lives was positively correlated with raw scores on the physical health index. In other words, living in a rural environment was associated with self-reports of better physical health. However, when examined independently, size of hometown failed to evidence a significant relationship with officers' physical health. These results would seem to indicate that, in general, size of hometown is useful in predicting physical health only when considered in conjunction with other factors such as the number of years spent in the field of law enforcement and the officer's satisfaction with the support received from the officer's spouse as well as in the agency in which he/she works.

Exhaustion/Depersonalization When hometown size was examined as to its relationship with the dependent variables "emotional exhaustion" and "depersonalization," this variable again showed utility in enhancing the prediction

equations with positive correlations in regards to both measures. These results indicate that as the environment in which the officer lives becomes increasingly urbanized, there was a tendency to have increased emotional exhaustion and depersonalization scores.

With regard to the other dependent measures examined, only the MBI's personal accomplishment scale evidenced a significant association with the size of agency in which the officer is employed. The direction of these associations suggests that while officers from larger departments experience a greater sense of accomplishment resulting from their careers than do officers in smaller departments and communities, these same officers experience higher levels of emotional exhaustion, depersonalization and decreased physical health over their rural counterparts when additional factors are considered.

Anxiety, Stressor Severity and Agency Type

Hypothesis 2 was supported by the results of this study. Differences in chronic anxiety and stressor severity levels were not found between the three levels of agency type.

Trait Anxiety Significant differences were not observed in the regression analysis between police officers, sheriffs or highway patrol personnel in regards to their respective trait anxiety scores, indicating that officers from each of the agencies reported similar levels of

anxiety. In addition, the level of anxiety displayed by North Dakota peace officers ($X=35.1$) was very comparable to Texas police officers ($X=36.1$), rural Vermont police officers ($X=34.5$) and English "bobbies" ($X=34.6$) (Haddock, 1988; Brown and Campbell, 1990; and Bergen & Bartol, 1983). Furthermore, the trait anxiety scores manifested by North Dakota officers were remarkably similar to that found in other working adults ($X=34.9$) in the STAI's normative sample (Spielberger, 1980). These results would suggest that North Dakota peace officers generally do not experience chronic levels of anxiety which could be considered excessive. To the contrary, North Dakota peace officers seem to evicence relatively "average" anxiety levels commensurate with a diverse work force of other U.S. adults and police officers.

Support Systems and Psychological Maladjustment

Hypothesis 3 was supported in that low levels of support were found to be associated with higher levels of psychological maladjustment as measured by the degree of emotional exhaustion, depersonalization, chronic anxiety level, and post-traumatic symptomatology, and this effect was found to be unrelated to agency type. Significant differences were not found relative to the officers' satisfaction with their support system and the type of agency within which the officer is employed. Therefore, this sample of police, sheriff, and highway patrol officers did not experience differing levels of satisfaction with the

support perceived from their environment. However, with regard to the overall sample, officer satisfaction with the level of support received was found to be significantly related to officers' psychological adjustment and is one of this study's most important findings.

Officer's satisfaction with the level of support from their environment was found to be one of the best predictors for the reported level of trait anxiety, emotional exhaustion, depersonalization and the number of PTSD symptoms as given by the respondents. Furthermore, satisfaction with the level of communication and support from the officer's significant other was found to be the best predictor for the dependent measure trait anxiety.

In addition to the regression analyses, Pearson's correlational analyses indicated moderately strong associations between the measures of psychological adjustment and the support variables. These results indicate that officers whose satisfaction levels seem to be lacking in regards to these support systems also evidence significantly higher emotional exhaustion, PTSD symptomatology and trait anxiety scores than do officers who are satisfied with their support systems.

In a related issue, officers who scored high on the isolation/protectionism scale also manifested higher scores on the emotional exhaustion and depersonalization subscales of the MBI. Furthermore, the degree of isolation-

protectionism reported by the officers' was the single best predictor for the number of PTSD anxiety symptoms reported by the respondents. These results indicate the importance of considering how the officer views and relates to his/her support systems in any attempt to understand the impact of occupational burn-out and/or the anxious presentation of certain officers.

This study also found that officers who evidenced larger numbers of PTSD symptoms and/or scored higher on the emotional exhaustion and/or trait anxiety scales, perceived a lack of concern by the persons most important to them. Whether this is cause or effect is difficult to say due to the fact that the individuals who felt strongly that they must protect the person they love from the horrors of the street are the same individuals who perceived a lack of support from their spouse and environment. These results seem to indicate the expected; that those officers who shut out the important people in their life, experience greater degrees of post-traumatic stress symptomatology, burn-out and social alienation. Furthermore, by isolating from these important individuals, these officers likely perpetuate an already unsatisfactory state of support from the individuals they could benefit the most from.

Mid-Management and Psychological Maladjustment

Hypothesis 4 was not supported by the results of this study. Mid-level officer rank was not associated with

higher levels of psychological maladjustment as indicated by any of the regression procedures conducted and as measured by the degree of emotional exhaustion, PTSD symptomatology, chronic anxiety level, social support or isolation.

Contrary to the aforementioned hypothesis, the only significant difference found between any of the dependent measures and officer rank was in the direction of officers, troopers, and deputies reporting significantly more PTSD symptoms than the middle-management ranks of sergeant, lieutenant and captain. Again, as previously reasoned this phenomena may be due to the fact that with years of experience officers have a tendency to become emotionally insulated from the horrors of the job. In addition, older officers who serve in a supervisory capacity may not be exposed to traumatic events as frequently as are those officers whose primary duty is patrol. Furthermore, younger officers may have experienced relatively few traumas since the start of their career, leading the ones that they have experienced to be salient and poignant stressors. Older officers who have been in the field longer have likely been exposed to myriad traumas during the course of their career allowing less room for any particular one to be the "most traumatizing."

Alienation The literature has also suggested that mid-management personnel exhibit higher levels of alienation from significant others as well as from the officers they

work with (Gudjonsson & Adlam, 1985; Kaslof, 1989; Robinson, 1981; Hayes, 1977; Reiser, 1972). Based upon the lack of significant differences in the dependent measures and the extremely low correlations between rank and the isolation-protectionism, social support and spousal communication-support indices, it would seem that alienation from others is not a major problem for middle-management North Dakota peace officers.

Support Systems and Physical Health.

Hypothesis 5 was supported by the results of this study. Inadequate support systems were found to be strongly associated with decreased physical health among North Dakota peace officers. The satisfaction with the support that the officer perceives available from the agency in which the officer is employed was the single best predictor of the officer's physical health and is another of this study's most important findings. Officers who perceived the agency that employed them as unsympathetic to the mental health needs of the officer reported a decrease in physical health.

Furthermore, the satisfaction with the support received from the officer's spouse was an additional salient predictor of physical health status. Officers who were dissatisfied with the level of communication or support from their significant other were significantly more likely to have decreased physical health over individuals satisfied with the level of support received.

Profile of the North Dakota Peace Officer

The "average" North Dakota law enforcement officer is a 38-year-old white male. He has been in the field of law enforcement for 13.5 years and has been with the same department for 11.6 years. His official rank is that of officer and his main duty is patrol. He works a rotating shift which includes nights and oftentimes weekends but would prefer a permanent day shift position. Although he has completed 2 years of higher education he currently does not attend school. Neither does he work in off-duty employment that is law-enforcement related. However, he does work approximately 3.5 hours per week in an off-duty non-law enforcement job.

He is in his first marriage and has been with his wife for 13.7 years. While he only slightly disagrees with the fact that his relationship has suffered since he became a law enforcement officer, he nevertheless will turn first to his wife with the things that bother him most about the job. He reports that out of all the stress in his life, 26% of it emanates from home, and comes primarily from his children.

He participates in some sort of physical exercise program an average of 3.2 hours per week and generally considers his present health "good" although it is just slightly worse than when he first started his job. He has used 4.5 sick days in the past year but doesn't speak of any specific chronic illnesses. He does not smoke cigarettes

but he does drink on-the-average 3.8 cups of caffinated coffee per day. In the average week he does not drink alcohol and rarely, if ever, becomes intoxicated.

Of all the stress in his life he believes 65% of it comes from his job. If asked to identify the one thing that causes most of that stress he indicates that it is primarily due to his immediate supervisor. In regards to the duties he performs during the course of his shift he estimates being exposed to dead and battered kids as the thing that bothers him most although it has happened less than twice in the past year. He tends to deal with stress in a variety of ways however he most often will devote extra time to his hobbies to focus his attention away from the stress. He is typically no more anxious than most folks in similar occupations. However, he does feel strongly that his outlook toward the world has changed since becoming a peace officer. About once per month he gets to really feeling burned out from his work. However, results show that his work causes him to feel emotionally exhausted no more so than other persons in similar lines of work. In fact, this prototypical North Dakota officer feels competent in his job and typically feels a sense of personal accomplishment with what he does for a living.

He believes strongly that counseling should be easily accessible for officers who want it. Although he personally has not received counseling in the past year, he believes

that, for the most part, he would not be worried to work with an officer whom he knew was in counseling. While his department does make psychological counseling mandatory should he experience a life-threatening event such as a shooting, he neither has a peer counseling program nor in-house counseling available to him. Therefore should he be mandated to seek psychological help it would be from an outside source. He has received through his employment 11.5 hours of stress management training and disagrees that his department does enough in the way of promoting the mental health of it's officers.

Summary

Support systems and the officers' satisfaction with those supports and their association with the psychological and physical consequences of stress were one of this study's most important findings. Spouse support, agency support and social support from the environment were all associated strongly with physical health, chronic anxiety, psychological adjustment, and perception of severity in occupational stress. Persons who were satisfied with the support they received were more likely to have better physical health, less PTSD symptomatology, lower levels of anxiety and emotional exhaustion and less stress due to on-the-job stressors than did their counterparts who were not satisfied with their support systems. Furthermore, officers

who felt behooved to isolate themselves and protect their loved-ones from the horrors of the street experienced just the opposite.

Psychologically, North Dakota officers seem to be in pretty good shape. They experience about the same amount of chronic stress and burnout as do most other adults in a variety of occupations. North Dakota peace officers experience PTSD at about the same rate as other police populations, however, this is far above what you would expect in the general population. The stressors that they are exposed to in their environment are comparable to what other police officers in other states experience. Whereas, having to kill someone in the line of duty is high on the list of stressful experience for North Dakota officers, it hasn't happened to this sample of officers in the past year. Conversely, inadequate manpower to handle a job is also very high on the list, but it appears to happen quite a bit. Overall, North Dakota officers seem to feel a little less "stressed out" by stressors and handle stress just as adaptively as do police officers in other states. Furthermore, their personal lives, judging from such things as divorce rates, physical health estimates and levels of personal accomplishment have suffered no more ill-effects as the result of their employment than have police officers in several other states. In fact, some of the evidence suggests that, North Dakota officers are better physically

and psychologically adjusted than are a few of the other, more urban, police samples examined.

Recommendations

This study has indicated that although several departments in North Dakota are currently offering their officers quality mental health support, there are many who do not. There are a number of things that officers currently in the profession can do to mediate the risks of potential physical and/or psychological ills resulting from occupational stress. The following pages are intended to offer some real-world suggestions for dealing with law-enforcement stressors. Although not all departments will be able to incorporate these recommended changes and/or programs, for those departments that do not at present have any measures in place to arrest the impact of stress on officers, perhaps this will be a starting point.

Mandatory Counseling

41.7% of the respondents in this study indicated that their department did not make counseling mandatory for officers exposed to traumatic events such as shootings. It is the author's strong suggestion that all police departments should establish a policy which makes counseling mandatory for any officer who has just had a life threatening violent encounter. Even if their weapon was not drawn, just being in the presence of such an encounter can

precipitate a stress reaction (Remsberg, 1986). Recognizing the stigma associated with "needing help" most officers would rather suffer the consequences rather than get the help they need. Gerson (1989) found that of 37 police officers involved in serious shooting incidents, 33 were experiencing clinical symptoms of PTSD five years after the incident. The author reports that none of the 33 officers sought help from a mental health professional and of the 25% who visited a general practitioner while presenting with severe physical symptoms of PTSD, none were ever diagnosed with PTSD, the general practitioners didn't recognize it.

In the present study, of the 94 individuals responding to the open-ended question at the end of the questionnaire asking them to summarize their traumatic event, 66% of those officers mentioned not receiving counseling following the trauma. Thirty-five (37%) of the 94 officers specifically indicated that they had wanted counseling after the incident but did not receive it for a variety of reasons. However, many of those officers "wanting counseling but not receiving" were afraid to ask for fear of what others (especially their supervisors) might think. If departmental policy mandates counseling in response to violent encounters, this will reduce the stigma associated with seeking treatment. If mandatory counseling is departmental policy it cannot be viewed as personal instability. Although this may result in counselors seeing officers who

do not need help, the alternative of those needing it and not getting it, is on the whole, worse for the individual, department and society itself.

Pre-emptive Strikes Against Stress

Ideally, the process of preventing deleterious effects of stress should begin early in the police recruit's indoctrination into the profession. It would seem most appropriate to initiate this process during police basic training. Reviewing the 1991 course outline for the University of North Dakota Lake Region Peace Officer Training Program it is noted that 4 hours are allocated to "stress management." Based upon the current study, the officers who received employment following their 1991 graduation can expect only 7.5 hours of additional stress management training over the next 11 years!

In addition to suggesting more stress management training be given, it is further recommended that the training which is given also serves to shape officers expectations consistent with the realities of police work to reduce later role conflict. This study has indicated that the following issues are relevant to North Dakota officers; the sequela of exposure to tragedy and horror, routinization and boredom, peer relations, rank hierarchy and conflicts, community pressures, fear for personal safety, fear of injuring others, family issues, over-protecting the ones you love and alienation from significant sources of support.

Aspects of the role which may not be congruent with the concept recruits may hold about the profession prove a unique challenge to the rookie. Unrealistic expectations may end in frustration and feelings of failure. These experiences may, if experienced frequently, lead to various stress reactions such as emotional exhaustion and burnout. During basic training a clear differentiation should be made between idealized police work and police work in the real world, thus offering the recruit the ability to make an informed decision about his/her occupational aspirations. Once these differences are exposed and examined, the recruit who chooses to make law enforcement a career can be taught how to anticipate and cope with many of these frustrations.

Supervisor Impact

Supervisors should be trained to recognize the signs and symptoms of stress in their officers and effectively work with the officer to alleviate that stress before further damage arises. Supervisors are a critical component in the early detection of maladaptive stress reactions. When trained to be alert and to act quickly upon indications that the officer is experiencing excessive stress problems, supervisors can help establish an atmosphere of support for officers. Waiting until the problem becomes too excessive to be ignored may result in an officer's suspension, firing, or a departmental lawsuit. A costly price for ignorance.

There are many warning signs that supervisors should be aware of when they are watching for suspected adverse stress reactions in their officers. Following is an adapted version of the warning signs for supervisors of peace officers posited by Territo and Vetter (1981):

- 1) Sudden changes in "normal" behavior.
- 2) A gradual deterioration in behavior or hygiene.
- 3) Irregular work habits (coming late, leaving early).
- 4) Increased use of sick time.
- 5) Excessive forgetfulness.
- 6) Worrying excessively about trivial matters.
- 7) Excessive and unusual preoccupation with interests.
- 8) Signs of medication or alcohol overuse.
- 9) Unusual tiredness or lethargy.
- 10) Complaints about officer from peers.
- 11) Excessive complaints from citizens about officer.
- 12) Complaints that the officer is targeting certain groups.
- 13) Unusual sexual promiscuity.
- 14) Carelessness leading to accidents and/or injuries.
- 15) Manipulating others without concern for their welfare.

These symptoms are certainly not an all inclusive list of the overt manifestations of stress. However, it should serve as indicator of the wide variety of symptoms that may indicate an underlying stress problem. The better able supervisors are to distinguish and recognize such symptoms,

the more likely the supervisor will be to help the officer become a more productive peace officer as well as a healthier and happier individual. It is likely that the more training supervisors receive, the more competent they will become, even to the point of reducing the apprehension inherent in making a judgement call and firmly "insisting" that the officer get the help that he/she requires.

Rotating Out

To prevent burnout due to extended periods of time dealing with a sometimes hostile public, it is suggested that upon occasion officers be rotated into assignments that do not require direct contact with the public as is required with patrol duties. Under a system such as this, veteran officers can receive relief from the assignments which create the greatest tension while less experienced officers benefit from the opportunity to learn and enhance new skills.

In-House Counseling

Although 92.6% of this study's respondents indicated that in-house counseling was not available to them, 49.1% said that Employee Assistance Program (EAP) services were provided if needed. EAP services are based upon the premise that prevention is less costly than treating manifest disease. Therefore, it would seem that EAP providers would welcome the opportunity to offer a program to teach the officer to recognize the different manifestations of stress

and the various techniques available to the officer to try and control it. It is the author's suggestion that departments should routinely offer a stress prevention program twice a year utilizing a mental health provider from the community. Techniques such as systematic relaxation, biofeedback training, cognitive restructuring and self-control are all approaches which can be learned quickly, used as needed and have been demonstrated efficacy in reducing stress in law enforcement officers (Reiser, 1976; Novaco, 1977).

Informal workshops or classroom situations have a dual benefit, they not only provide psychological information which may be useful for officers, they also provide a non-threatening atmosphere in which the officers can get to know and satisfy their apprehension and curiosity about "shrinks." To promote the utilization of psychological services, the police department should choose a departmental mental health expert who takes an active interest in police work.

Anderson and Bauer (1987) have indicated that for a mental health professional to be effective in working with peace officers, the professional needs to have four things in his/her favor: A) Knowledge of what the problem situation looks like from the officer's point of view; B) Rapport established with police officers individually; C) Past participation in a ride-along program to see what being

"on the job" is really like; and D) An ability to comprehend key aspects to the job (e.g., the social alienation, the "adrenalin rush," and the attraction to the profession that most officers experience). In short, the professional needs to have "earned" the officers trust and confidence. Law enforcement personnel frequently regard outsiders as being unable to understand what they must deal with day in and day out. If the officer suspects that the counselor can in no way appreciate the "police perspective" then the therapeutic relationship may be doomed before it even starts.

Peer Counseling and Support

88.4% of the respondents in this study reported that peer counseling was not available to them. There appears to be much opportunity lost in light of the fact that these programs have demonstrated efficacy in combating the negative aspects of stress (Donahue, 1977). Given that a close relationship already exists among police officers, Donahue (1977) has suggested that a few officers be trained in counseling techniques to help not only the run-of-the-mill problems, but in addition, prevent more serious problems by detecting and referring the officer for further psychological help if need be. This is not a suggestion for officers to break a "code of silence." Rather, this would entail a confidential effort on the part of a few empathic officers to be of assistance to their comrades. Should the problem manifest larger than the peer counselor's level of

expertise, the peer would then urge the individual to seek confidential therapeutic services outside the department.

Peer counseling programs are designed so that officers dealing with stress do not have to go it alone. They offer the officer the ability to obtain feedback from officers of similar experience who use their past experience to help the troubled officer deal more effectively with stress in an adaptive manner. Based upon the current study, peer support systems would seem to provide two major benefits. First, the individual could obtain information and problem-solving guidance to deal with a particular law-enforcement related problem. Second, the social support communicates a sense of affection, care, and nurturance which may allow the stressed individual to build and enhance self-esteem and confidence, decrease the sense of isolation, and facilitate faster recovery from occupational stressors.

Marital Programs

Lastly, this study found that spousal support evidenced an important association with the officers' physical health, chronic anxiety, and the perception of stress in job-related stressors. Educational programs which have targeted the spouses of peace officers have been found to be helpful in keeping this important stress mediator functional and active in the officer's life. These programs have shown efficacy in helping the spouses of police officers understand not only the work environment itself, but in addition, the

fears, pressures and frustrations associated with being a police officer (Potter, 1978; Stratton, 1975). As noted previously, the spouse is probably the most under-utilized support system the police officer has. By enhancing the understanding of what their spouses go through in their daily activities in law enforcement, these programs seek to promote communication and fewer marital problems between the officer and his/her spouse.

Marital programs typically consist of a number of weekly seminars designed to introduce spouses to the procedures and routines of the police department. Furthermore, topical issues include a focus on occupational and marital pressures, shiftwork and family pressures, as well as the hazards of secrecy and isolation. In addition, firearm instructors may then train the spouse in the use of firearms and home firearm safety. Although these programs are often geared primarily towards the spouses of new recruits, these programs also enhance the knowledge of spouses of veterans who want up-to-date information on current practices. These programs allow the spouse opportunity to share with the officer some of the officer's hopes, dreams, fears and frustrations which are associated with the job, thereby facilitating communication between officer and spouse, decreasing maladaptive coping strategies, and enhancing the best support system the officer has at his/her disposal.

APPENDIX A

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

1. How many years have you worked for your present department? _____ YEARS
 2. What is the total amount years you have spent in law enforcement (including other departments) _____ YEARS
 3. What is your present rank? (circle one)
 1 OFFICER/TROOPER/DEPUTY 2 CORPORAL 3 SERGEANT 4 LIEUTENANT 5 CAPTAIN 6 MAJOR
 7 ASS'T CHIEF 8 CHIEF 9 Sheriff 0 OTHER (SPECIFY) _____
 4. How long have you been at your present rank? _____ YEARS
 5. If you attend school, how many hours per week do you attend? _____ HOURS
 6. If you also work "off-duty" security-type jobs, how many hours per week do you work at that job? _____ HOURS
 7. If you hold another (non-law enforcement) off-duty job, how many hours a week do you do that job? _____ HOURS
 8. What is your current primary duty? (circle one)
 1 Patrol/Traffic 2 Investigative 3 Office/Administrative 4 Other (specify): _____
 9. A. Have you ever been in the military? 1 NO 2 YES
 B. If Yes, were you exposed to combat? 1 NO 2 YES
 C. If exposed to combat were you wounded? 1 NO 2 YES
 D. Did you ever receive counseling? 1 NO 2 YES
 10. What type of agency do you now work for? (check one only)
 1) Police: _____ 2) Sheriff: _____ 3) NDHP: _____ 4) OTHER: _____
 11. Please estimate the total hours of stress management training you have received from your agency. _____ HOURS
 12. When you get "stressed out" how do you deal with it? _____
- THE FOLLOWING CONCERN YOUR HEALTH
13. How many total hours each week do you spend in strenuous physical exercise (jogging, etc.)? _____ HOURS
 14. Overall, during the past year how has your health been? (circle one)
 1 VERY POOR 2 POOR 3 NEITHER GOOD OR POOR 4 GOOD 5 VERY GOOD
 15. Overall, how is your health now, as compared to when you first became a peace officer? (circle one)
 1 VERY MUCH WORSE 2 WORSE 3 THE SAME 4 BETTER 5 VERY MUCH BETTER
 16. How many cigarettes do you smoke in an average day? _____ CIGARETTES
 17. How many cups of caffeinated coffee do you drink in an average day? _____ CUPS
 18. Do you use any prescription medication on a regular basis? 1 NO 2 YES
 If YES, what type of problem is it for? _____
 19. Do you use any non-prescription medication on a regular basis (weekly or more)? 1 NO 2 YES
 If YES, what type of problem is it for? _____
 20. Does your department offer some form of "peer counseling" (officers helping other officers) in an organized manner? (circle one) 1 NO 2 YES
 21. Does your department make psychological counseling services:
 a. Available for any general problems employees might have?..... 1 NO 2 YES
 b. Mandatory if involved in shootings or other traumatic encounters? 1 NO 2 YES
 22. Does your department have in-house psychological counseling staff? (circle one).... 1 NO 2 YES
 23. Within the past year, have you used psychological counseling services?..... 1 NO 2 YES
 24. How many sick days have you used in the past 12 months? _____ DAYS
 25. How many days have you been hospitalized since becoming a police officer? _____ DAYS
 26. What is your current age? _____ YEARS

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

For the following please: 1) rate the stress you would feel for each of these events (and) 2) circle how often you experienced each of them in the past year. Please imagine that you have rated the first event; "Assignment of disagreeable duties" as a 50 (on a scale from 0 to 100). As you read through these, if you feel the event is less stressful than being assigned disagreeable duties, rate that item proportionally lower than 50. If you feel it is more stressful, you should assign a number that is higher than 50. A number from "0" to "100" must be assigned for each event, the larger the number the more stressful the event.

Please remember to rate how stressful the event is (and) you need to circle how often it happened to you.

JOB EVENT	STRESS RATING	Circle the number of times this event occurred TO YOU, IN THE PAST YEAR.										
27. Assignment of disagreeable duties.....	50	0	1	2	3	4	5	6-9	10-15	16-24	25+	
28. Changing from day to night shift.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
29. Assignment to new or unfamiliar duties.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
30. Fellow officers not doing their job.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
31. Court leniency with criminals.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
32. Political pressure from within your department..	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
33. Political pressure from outside your department.	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
34. Incapacitating physical injury on the job.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
35. Working a second job.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
36. Strained relations with non-police friends.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
37. Exposure to death of civilians.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
38. Inadequate support by supervisor.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
39. Inadequate support by department.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
40. Court appearances on your day off or the day following a night shift.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
41. Assignment of incompatible partner.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
42. Delivering a death notification.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
43. Periods of inactivity and boredom.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
44. Dealing with family disputes and crisis situations	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
45. High speed chases.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
46. Difficulty getting along with a supervisor.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
47. Responding to a felony in progress.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
48. Experiencing negative attitudes toward police...	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
49. Public criticism of police.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
50. Disagreeable department regulations.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
51. Confrontation with aggressive crowds.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
52. Fellow officer killed in the line of duty.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
53. Distorted or negative press accounts of police..	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	
54. Making a critical on-the-spot decision.....	___	0	1	2	3	4	5	6-9	10-15	16-24	25+	

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

JOB EVENT	STRESS RATING	Circle the number of times this event occurred TO YOU, IN THE PAST YEAR.										
		0	1	2	3	4	5	6-9	10-15	16-24	25+	
55. Ineffectiveness of the judicial system.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
56. Ineffectiveness of the correctional system.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
57. Personal insult from citizen.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
58. Insufficient manpower to adequately handle a job.	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
59. Lack of recognition for good work.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
60. Excessive or inappropriate discipline.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
61. Performing non-police tasks.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
62. Demands made by family for more time.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
63. Promotion or commendation.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
64. Inadequate or poor quality equipment.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
65. Assignment of increased responsibility.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
66. Racial pressures or conflicts.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
67. Lack of participation on policy-making decisions.	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
68. Inadequate salary.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
69. Accident in a patrol car.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
70. Physical attack on one's person.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
71. Demands for high moral standards.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
72. Situations requiring use of force.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
73. Job conflict (by-the-book vs. by-the-situation).	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
74. Court decisions unduly restricting police.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
75. Killing someone in the line of duty.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
76. Making an arrest while alone.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
77. Public apathy toward police.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
78. Competition for advancement.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
79. Poor or inadequate supervision.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
80. Exposure to battered or dead children.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
81. Plea bargaining and technical rulings leading to case dismissal.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
82. Frequent changes from boring to demanding activity	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
83. Exposure to adults in pain.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
84. Possibility of minor physical injury on the job.	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
85. Put-downs and mistreatment of officers in court.	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
86. Excessive paperwork.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

JOB EVENT	STRESS RATING	Circle the number of times this event occurred TO YOU, IN THE PAST YEAR?										
87. Not getting a promotion you deserved.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
88. Exposure to the AIDS virus.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
89. Witnessing police corruption.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
90. Gang activity or violence in your area.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
91. A threat of a lawsuit against you	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
92. A personal threat of revenge following an arrest	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
93. Being a defendant in a police-related civil suit	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
94. Getting wounded on the job.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
95. Getting arrested with the possibility of jail...	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
96. Being investigated by superiors/internal affairs.	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
97. Dealing with "hate groups" (Posse, Aryan's, etc)	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
98. "Backstabbing" among fellow officers.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	
99. Accidentally severely injuring a bystander.....	_____	0	1	2	3	4	5	6-9	10-15	16-24	25+	

The next 5 questions deal with any significant traumatic event you might have experienced since you have been in police work.

100. Is there any particular traumatic (violent, extremely emotional, or dangerous) event that really stands out in your mind that has occurred since you became a police officer? (circle) 1 NO 2 YES
101. During the event did it seem as if everything was moving in slow motion? (circle) 1 NO 2 YES
102. If yes, were you able to utilize that "slow motion" to benefit yourself during the event (i.e., taking cover, etc...)? (circle) 1 NO 2 YES
103. During the event did you "freeze up" and become unable to act? (circle) 1 NO 2 YES
104. In regards to the traumatic event in question #100. For at least one month during the last year, did you experience any of the following: (Circle NO, if you have not experienced these symptoms. Circle YES if you have experienced these symptoms).

- B1. Recurrent, intrusive and distressing recollections of the traumatic event..... 1 YES 2 NO
- B2. Recurrent distressing dreams of the traumatic event..... 1 YES 2 NO
- B3. Sudden feeling as if the traumatic event were reoccurring..... 1 YES 2 NO
- B4. Intense distress when exposed to events that resemble the traumatic event..... 1 YES 2 NO
- C1. Efforts to avoid thoughts and feelings associated with the trauma..... 1 YES 2 NO
- C2. Efforts to avoid activities or situations that arouse recollection of the trauma..... 1 YES 2 NO
- C3. Inability to recall an important aspect of the trauma..... 1 YES 2 NO
- C4. Extremely diminished interest in important activities..... 1 YES 2 NO
- C5. Feeling of detachment from others..... 1 YES 2 NO
- C6. Feelings like you are unable to have loving feelings..... 1 YES 2 NO
- C7. A sense that you will not have a long life..... 1 YES 2 NO
- D1. Difficulty falling or staying asleep..... 1 YES 2 NO
- D2. Being irritable or having angry outbursts..... 1 YES 2 NO
- D3. Difficulty in concentrating..... 1 YES 2 NO
- D4. Being "too" watchful of what goes on around you..... 1 YES 2 NO
- D5. Being "too jumpy" when someone startles you..... 1 YES 2 NO
- D6. Physical reactions (sweating, etc.) to events similar to the traumatic event.... 1 YES 2 NO

E. Did most of the symptoms you report start six months after the traumatic event?... 1 YES 2 NO

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

105A. Have you ever been treated for health problem(s) such as heart disease, diabetes, cancer, high-blood pressure, migraine headache, colitis, irritable bowel, back pain, etc.? (circle one) 1 NO 2 Yes

B. If Yes, what was the type and extent of the problem(s)? _____

C. If Yes, when did you develop the problem(s)? _____

D. If Yes, what is the current state of the problem? _____

106. A. Of all the sources of stress in your life, how much comes from your job? _____ PERCENT

B. What is the single most stressful aspect of your job? _____

107. A. Of all the sources of stress in your life, how much comes from your family? _____ PERCENT

B. What is the single most stressful aspect of your family life? _____

108. Please read each of the following statements and then choose (by circling) the number that best indicates how you generally feel. Please use the following code:

	1 ALMOST NEVER	2 SOMETIMES	3 OFTEN	4 ALMOST ALWAYS
A. I feel pleasant.....	1	2	3	4
B. I feel nervous and restless.....	1	2	3	4
C. I feel satisfied with myself.....	1	2	3	4
D. I wish I could be as happy as others seem to be.....	1	2	3	4
E. I feel like a failure.....	1	2	3	4
F. I feel rested.....	1	2	3	4
G. I am "calm, cool, and collected".....	1	2	3	4
H. I feel that difficulties are piling up so that I cannot overcome them....	1	2	3	4
I. I worry too much over something that really doesn't matter.....	1	2	3	4
J. I am happy.....	1	2	3	4
K. I have disturbing thoughts.....	1	2	3	4
L. I lack self-confidence.....	1	2	3	4
M. I feel secure.....	1	2	3	4
N. I make decisions easily.....	1	2	3	4
O. I feel inadequate.....	1	2	3	4
P. I am content.....	1	2	3	4
Q. Some unimportant thought runs through my mind and bothers me.....	1	2	3	4
R. I take disappointments so keenly that I can't put them out of my mind....	1	2	3	4
S. I am a steady person.....	1	2	3	4
T. I get very tense when I think over my recent concerns and interests.....	1	2	3	4

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

For each of the following: Write in your general level of agreement with each of the following statements in the space provided at the end of each statement and base your responses upon the following code:

6	5	4	3	2	1
STRONGLY	MOSTLY	SLIGHTLY	SLIGHTLY	MOSTLY	STRONGLY
AGREE	AGREE	AGREE	DISAGREE	DISAGREE	DISAGREE

WRITE IN YOUR RESPONSE
(1 TO 6)

Go with your "gut feeling" on each of the following:

109. I don't have enough people around me who will be open and non-judgmental to my feelings..... _____
110. In general, when a cop needs help with job stress, he/she shouldn't rely on his/her spouse... _____
111. A cop is different on the street than when at home, a spouse wouldn't understand that..... _____
112. I'm satisfied with the number of people around me who would help me if my spouse left me..... _____
113. I really don't have anybody I can speak freely with without worrying about what I say..... _____
114. I'm satisfied with the number of people around me who are always dependable when I need help. _____
115. In my most intimate relationship (spouse, boy/girl friend), I'm satisfied with the level of communication that goes on between us..... _____
116. Today I'm more satisfied with the level of communication between my spouse (significant other) and myself, than I was when our relationship first began..... _____
117. I would have nothing to fear from my boss if I were to go to a therapist for counseling..... _____
118. I personally would not be very worried to let my peers know that I had been in counseling.... _____
119. I'm satisfied with the overall number of people in my life who I can count on to listen to me when I have a problem and need to talk..... _____
120. I personally would not be worried to work closely with an officer who was in counseling..... _____
121. Counseling services should be made easily accessible for any officer who wants it..... _____
122. I believe my department provides enough services/programs to promote officer mental health... _____
123. My physical health is as good as the day I first started my law enforcement career..... _____
124. There is no way a cop's spouse can really understand what cops go through on-the-job..... _____
125. A cop should protect his/her spouse from learning about the horrors of a cop's job..... _____
126. It makes me very uncomfortable when my spouse (or significant other) asks about my job..... _____
127. I don't discuss with my spouse (significant other) things about my job that bother me greatly. _____
128. A cop who discusses his/her job concerns with their spouse is a wimp..... _____
129. I have felt that I wouldn't be accepted by fellow cops if I didn't go out drinking with them. _____
130. A cop's spouse is likely to think bad of them if the cop talks about his/her real feelings... _____
131. My spouse (significant other) is not really concerned about what goes on in my work life..... _____
132. My closest relationship (not in law enforcement) has suffered since I became a peace officer. _____
133. My outlook towards the world has not changed since I became a police officer..... _____
134. How long have you been in your present relationship? _____ YEARS _____ MONTHS
135. If you experienced something at work that really bothered you, who would be the one you would most likely to talk to about it: (circle or fill in blank)
 1 SPOUSE/SIGNIFICANT OTHER 2 NON-POLICE FRIENDS 3 POLICE BUDDIES 4 NOBODY 5 OTHER _____

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

136. Below are 22 statements of job related feelings, read each statement carefully and decide if you have ever felt that way about your job. If you have never had this feeling, write a "0" (zero) before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way.

HOW OFTEN:	0	1	2	3	4	5	6
	NEVER	A FEW TIMES A YEAR OR LESS	ONCE A MONTH OR LESS	A FEW TIMES A MONTH	ONCE A WEEK	A FEW TIMES A WEEK	EVERY DAY

HOW OFTEN
(0 - 6)

STATEMENTS

- | | |
|----------|--|
| A. _____ | I feel emotionally drained from my work. |
| B. _____ | I feel used up at the end of the work day. |
| C. _____ | I feel tired when I get up in the morning and have to face another day. |
| D. _____ | I can easily understand how the people under my care feel about things. |
| E. _____ | I feel that I treat some of the people under my care as if they were impersonal objects. |
| F. _____ | Working with people all day is really a strain for me. |
| G. _____ | I deal very effectively with the problems of those under my care. |
| H. _____ | I feel burned out from my work. |
| I. _____ | I feel I'm improving other people's lives through my work. |
| J. _____ | I've become less caring toward people since I took this job. |
| K. _____ | I worry that this job is hardening me emotionally. |
| L. _____ | I feel very energetic. |
| M. _____ | I feel frustrated by my job. |
| N. _____ | I feel I'm working too hard on my job. |
| O. _____ | I don't really care what happens to the people under my care. |
| P. _____ | Working with people directly puts too much stress on me. |
| Q. _____ | I can easily create a relaxed atmosphere with the people under my care. |
| R. _____ | I feel energetic after working closely with the people under my care. |
| S. _____ | I have accomplished many worthwhile things in this job. |
| T. _____ | I feel like I'm at the end of my rope. |
| U. _____ | In my work, I deal with emotional problems very calmly. |
| V. _____ | I feel the people under my care blame me for some of their problems. |

The next section provides further information about the background of police officers in general.

137. What is your sex? (circle one) 1 FEMALE 2 MALE

138. What is your ethnic background? (circle all that apply)

1 AMERICAN INDIAN 2 HISPANIC 3 BLACK 4 WHITE/CAUCASIAN 5 ASIAN 6 OTHER _____

139. Do you identify strongly with any particular cultural background (Swedish, German, Irish, Polish, etc?)

If yes, please identify the culture: _____

NORTH DAKOTA LAW ENFORCEMENT STRESS SURVEY

140. What is your current marital status? (circle one) 1 NEVER MARRIED 2 FIRST MARRIAGE 3 SECOND MARRIAGE
4 THIRD MARRIAGE 5 SEPARATED 6 DIVORCED 7 WIDOWED 8 OTHER _____

B. If you have children, how many do you have? _____

141. How many people live in the community where your home is located? Please circle one of the following:

- A) LESS THAN 100 B) 101 TO 1000 C) 1001 TO 2500 D) 2501 TO 5000 E) 5001 TO 10000
F) 10001 TO 15000 G) 15001 TO 20000 H) 20001 TO 30000 I) 30001 TO 50000 J) OVER 50000

142. What is the highest level of formal education you have completed? (circle one)

<u>High School</u>	<u>College</u>	<u>Graduate Level</u>	Degrees attained: _____
08 09 10 11 12	13 14 15 16	17 18 19 20	In What Field? _____

143. What is the number of Sworn Officers in your department? (CIRCLE ONE ONLY)

- A) LESS THAN 5 B) 6 TO 10 C) 11 TO 15 D) 16 TO 20 E) 21 TO 25 F) 26 TO 30
G) 31 TO 35 H) 36 TO 40 I) 41 TO 45 J) 46 TO 50 K) 51 TO 75 L) OVER 75

144. A. In an average week, how many drinks containing alcohol (beers, shots, etc.) do you consume? _____ DRINKS

B. In the average month, how often do you drink until you become intoxicated? _____ TIMES PER MONTH

145. In the past 6 months, what type of shift have you primarily worked? (circle one)

- 1) DAYS 2) EVENINGS 3) GRAVEYARD 4) ROTATING: IF ROTATING: HOW OFTEN DO YOU ROTATE? _____

146. What type of shift would you prefer to work? (circle)

- 1) DAYS 2) EVENINGS 3) GRAVEYARD 4) ROTATING: HOW OFTEN WOULD YOU ROTATE? _____

147. OPTIONAL. If, as in question #100 you indicated that you had experienced a significant traumatic event, would you please provide a short written summary of the event in the space provided below? Would you please include whether or not you received counseling (and from what type of counselor) after the event, or your thoughts on how and what you should have received or your department should have done and didn't. Thank you for sharing your experience. Remember this is entirely anonymous.

THANK YOU FOR YOUR TIME! PLEASE REVIEW TO INSURE EACH QUESTION (AND 8 PAGES) HAVE BEEN ANSWERED.
A POSTAGE PAID ENVELOPE HAS BEEN PROVIDED FOR YOUR CONVENIENCE. PLEASE MAIL THE COMPLETED SURVEY
AS SOON AS YOU HAVE FINISHED IT.

Appendix B

Portrait of a Police Marriage

When the couple first meet and . . . fall in love the future always appears promising. They make plans for a happy and successful life . . . in the beginning, the badge is something to take pride in. The interaction between the two people is satisfying and meets the emotional needs of both parties. They share, . . . give of themselves, and interact very closely, all of which is very fulfilling. In many cases the initial character of the relationship . . . can be analogized to a "knight in shining armor" and his "lady" . . . the officer . . . is seen as the strong, dominant partner, a warrior, protector, provider, hero - the solid rock of the relationship. He fulfills his emotional needs by being all of these things and, at the same time, serving people and projecting a positive image which indicates he is in control and can handle all situations. The woman . . . builds the knight's ego and keeps his image intact. . . She is fulfilled by being the one person with whom the "knight" can relax and with whom he needn't project all the strength and power images required in his particular job. . . . Very soon in the relationship stresses incumbent to the job become obvious; the man's life is constantly on the line; he must always carry a gun; he has unusual working hours, scattered week-ends . . . extensive overtime hours both on duty and in court; and he is always on call for emergencies. . . . These stresses take their toll over time, with neither person attending to the warning signals or being able to pinpoint the reasons for difficulty until finally all that is said by either person is, "I don't know why, but you've changed." . . . The role can change the man. For a great portion of his day he controls his emotions. Eventually . . . any show of emotion may make him uncomfortable, and he begins to build a wall so that whatever emotions still exist will no longer affect him. Soon it is impossible to leave the robot image at the station, and it is carried home where the wife must cope with a nonemotional automaton . . . often beneath that rugged exterior is a very caring person who does feel deeply, but can't remember how to let his wife know that. Often, in this stage of the relationship, the wife stops seeing the hidden side - the concerned, caring man. She no longer knows how to penetrate the shell. Eventually she no longer cares to. (Stratton, 1975, p.44-47)

APPENDIX C

Descriptive Variables: Means and Standard Deviations

Descriptive Variables: Means and standard deviations for total sample.			
	Variable Name	Mean	SD
	Number of years in present relationship	13.7	9.6
	Highest level of education achieved	14.9	1.7
	Number of Children	1.9	1.4
	Number of sworn officers in department	29.0	4.4
	Number of alcohol drinks per week consumed	2.2	4.3
	Number of times intoxicated in average month	.3	1.2
	Hours of stress management training received	11.5	18.4
	Hours of strenuous physical exercise per week	3.3	.7
	Cigarettes smoked in an average day	5.1	11.2
	Cups caffinated coffee consumed per day	3.8	4.3
	Sick days used during the past year	4.5	12.1
	Days hospitalized since start of career	4.3	9.5
	Current age	38.9	9.1
	Years spent in same department	11.6	8.2
	Years spent in law enforcement	13.5	8.3
	Years spent at same rank	7.9	6.2
	Number of hours spent in school	.4	3.0
	Hours worked moonlighting	3.2	8.7

APPENDIX D

Health Problems Requiring Medical Attention

PERCENTAGE OF OFFICERS REPORTING PROBLEMATIC HEALTH CONCERNS SIGNIFICANT ENOUGH TO REQUIRE MEDICAL ATTENTION	
HEALTH CONCERN	PERCENTAGE OF OFFICERS REPORTING
CHRONIC BACK PAIN	24.5%
HYPERTENSION	14.4%
HEADACHE (MIGRAINE)	11.1%
HEART DISEASE	4.2%
ULCERS	3.2%
DIABETES	2.8%
ALLERGIES	2.8%
ASTHMA	2.3%
HIGH CHOLESTEROL	1.9%
IRRITABLE BOWEL	1.9%
HEART ATTACK	.5%
STROKE	.5%

APPENDIX E

Correlation Matrix: Predictor Variables

	Agency Type	Size Depart.	Agency Support	(Longevity) Dept.	Field	Rank	Shiftwork	Age	Education
Response Urgency	-.00	.02	.05	-.00	.06	.01	.04	.06	-.06
Number of Children	-.02	-.18*	-.08	.41**	.50**	.23**	-.13	.52**	-.23**
Hometown (size)	-.01	.54**	.29**	.15*	.10	-.12	-.05	.00	.36**
Trauma Exposure	-.03	.03	-.00	.07	.10	.04	-.09	.09	.06
School (attendance)	-.08	-.13	.01	-.08	-.04	-.07	-.09	.04	-.10
Gender	.00	-.13	-.06	.07	.09	.16*	.10	.02	-.04
Marital Status	-.11	-.03	.06	.15	.22*	.13	.05	.24**	-.00
Military	-.07	-.10	.04	.22**	.27**	.18*	-.05	.29**	-.18*
Moonlighting	-.13	-.25**	-.14	.04	.08	.11	-.15	.14	-.19*
Isolation/Protection	-.03	-.20*	-.19*	-.02	.01	.04	-.06	-.07	-.12
Social Support Index	-.09	.03	.27**	-.09	-.12	-.02	-.10	.03	-.03
Spouse Comm/Support	.00	.07	.21**	-.06	-.07	.01	.02	.05	.04
Agency Type	1.00	.32**	.15	-.02	-.01	-.10	.04	-.12	.15
Size-Department		1.00	.54**	.20**	.10	-.31**	.12	-.05	.49**
Agency Support			1.00	.17*	.10	-.08	.10	.04	.08
Department Longevity				1.00	.84**	.34**	-.09	.74**	-.06
Field Longevity					1.00	.38**	-.12	.79**	-.12
Rank						1.00	-.16*	.42**	-.09
Shiftwork							1.00	-.17*	.09
Age of officer								1.00	-.20*

	Response Urgency	# of Children	Home-town	Home- trauma	School attend	gender	Marital Status	milit.	Iso-Prot.	Soc. Support	Spouse Support
Moonlighting	.07	.18*	-.14*	-.04	.13	.09	.03	.09	-.03	.08	.00
Response Urge	1.00	-.00	-.01	-.09	.08	-.03	-.07	.02	-.16	.22**	.01
# of Children		1.00	-.04	.04	-.10	.02	.35**	.14*	-.12	-.09	-.01
Size of Hometown			1.00	.09	-.08	-.04	.11	-.17*	-.14*	.07	.04
Trauma Exposure				1.00	.04	.11	-.04	.03	-.01	-.08	.01
School (attend)					1.00	.03	-.03	.06	.03	.12	-.06
Gender						1.00	-.06	.22**	.03	-.10	.00
Marital							1.00	-.04	.01	.03	-.03
Military								1.00	.01	-.02	.09
Isolation/Protectionism Index									1.00	-.32**	-.43**
Social Support Index										1.00	.32**

* - Significance less than or equal to .01

** - Significance less than or equal to .001

APPENDIX F

Correlation Matrix: Dependent Measures

	# of PTSD Symptoms	PTSD	MBI	Emotion Exhaust.	Depers.	Personal Accomp.	Trait Anxiety	Physical Health	Stressor Severity
PTSD Symptoms	1.00	.69**	-.59**	.48**	.42**	-.08	.50**	.35**	.33**
PTSD Criteria Met		1.00	-.40**	.38**	.31**	-.02	.39**	.39**	.26**
Maslach Burnout Inventory			1.00	-.93**	-.89**	.91**	-.74**	-.59**	-.62**
Emotional Exhaustion				1.00	.67**	-.13	.60**	.44**	.35**
Depersonalization					1.00	-.11	.45**	.32**	.31**
Personal Accomplishment						1.00	-.29**	-.06	-.14
Trait Anxiety							1.00	.36**	.33**
Physical Health Scale								1.00	.13
Stressor Severity Level									1.00

* - Significance less than or equal to .01

** - Significance less than or equal to .001

APPENDIX G

Factor Analysis on the 24 Author-Created Variables

Q.# AND VARIABLE (ABBREVIATED)

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
125. HORRORS	.77224						
124. NO UNDERSTAND	.69998						
127. DON'T DISCUSS	.69381						
111. STREET TIFFER.	.65171						-.34496
110. DON'T RELY	.62444						
126. UNCOMFORTABLE	.60499						
114. DEPENDABLE		.80010					
112. NUMBER PEOPLE		.78682					
119. LISTEN PROBLEMS		.67537					
113. NO SPEAK FREELY	-.32548	.62778					
109. NOT ENOUGH PEO	-.31327	.40683		.38508		-.32066	
116. TODAY SATISFIED			.86697				
115. LEVEL OF COMMUNICATION			.86265				
131. SPOUSE CONCERN	-.37590		.50672			-.31069	
122. DEPT. PROVIDES MEN. HEALTH				.78459			
123. PHYS. HEALTH IS GOOD				.6975			
132. MY RELATIONSHIP HAS SUFFERED				-.43023			
120. NOT WORRIED TO WORK CLOSELY					.75381		
118. NOT WORRIED TO LET PEERS KNOW				.30693	.73381		
117. NOTHING TO FEAR FROM BOSS				.42949	.62130		
121. NEED EASY ACCESS TO COUNSELING					.60534		
129. FELT PRESSURE TO DRINK						.73592	
128. WIMP'S DISCUSS	.34838					.62642	
130. SPOUSE THINK BAD	.40654					.56771	
133. MY OUTLOOK ON WORLD HAS CHANGED							.76328

* cutoff scores of .50 were used in the factor based scales; Isolation Index, Social Support Index, and Spousal Support Index (factors 1, 2 and 3 respectively).

APPENDIX H

Isolationism/Protectionism Index

Isolation/Protectionism Index (IPI)	
Question Number	Variable
110.	In general, when a cop needs help with job stress, he/she shouldn't rely on his/her spouse
111.	A cop is different on the street than when at home, a spouse wouldn't understand that.
124.	There is no way a cop's spouse can really understand what cops go through on-the-job.
125.	A cop should protect his/her spouse from learning about the horrors of a cop's job.
126.	It makes me very uncomfortable when my spouse (or significant other) asks about my job.
127.	I don't discuss with my spouse (significant other) things about my job that bother me greatly.

APPENDIX I

Social Support Index

Social Support Index (SSI)	
Question Number	Variable
112.	I'm satisfied with the number of people around me who would help me if my spouse left me.
113.	I really don't have anybody I can speak freely with without worrying about what I say.
114.	I'm satisfied with the number of people around me who are always dependable when I need help.
119.	I'm satisfied with the overall number of people in my life who I can count on to listen to me when I have a problem and need to talk.

APPENDIX J

Spousal Communication and Support Index

Spousal Communication/Support Index (SCSI)	
Question Number	Variable
115.	In my most intimate relationship (spouse, boy/girl friend), I'm satisfied with the level of communication that goes on between us.
116.	Today I'm more satisfied with the level of communication between my spouse (significant other) and myself, than I was when our relationship first began.
131.	My spouse (significant other) is not really concerned about what goes on in my work life.

APPENDIX K

Cover Letter Sent to Respondents

Dear North Dakota Peace Officer:

WANTED: YOUR HELP! The North Dakota Peace Officer's Association (NDPOA) is funding a study that should be an important part of your future. Think back to the early training you received when you were a "rookie." How much of your training was designed to let you know what to expect and how to deal with the stress and the life-style that come hand-in-hand with being a peace officer? Through experience as a former police officer (in a "mid-sized" North Dakota police department), if your training was anything like my own, then you were in for a big shock.

Even though the training that North Dakota peace officers receive is top of the line, the "stuff" that peace officers have to deal with day in and out is tough on a guy (or gal) and the people close to you. Maybe for you the problem isn't so much out in the street as it is the man (or woman) sitting in your supervisor's chair, or maybe it was your last court case, or a lost child you helped, whatever. Or maybe it is out in the street. See, the problem is, is that we just don't know. We need YOUR help to find out.

I have contacted you because I believe that you, as a North Dakota peace officer, will realize the importance of maintaining the highest possible standards for North Dakota law enforcement and the training that officers receive. Did you know that most of the training manuals that tell peace officers how to deal with stress, get their information from studies done in cities like Detroit, L.A., New York, etc.? Now maybe that information is relevant to you, but then again maybe it isn't. I wouldn't bet the farm (or my life) on it.

Your future as a N.D. police officer and the training you and your fellow officers receive (whose emotional stability your life often depends upon), requires accurate information that is relevant to you. Therefore, we are conducting a study to find out what "stresses out" North Dakota police officers and what we can do about it **to make life better for YOU**. This study will help North Dakota law enforcement agencies to develop training that is directly relevant to YOU.

It's been a bad year financially for NDPOA and since this study's funding is limited it is vitally important that everyone who is asked to participate, does so, otherwise the study is meaningless and the money we have spent (and your NDPOA dues!) is wasted. Your return postage is already paid. The only thing it will cost you is a few minutes of your time. Please, make North Dakota a healthier place for peace officers and their families. **This is an anonymous survey. Nobody but you will know how you answered the questions, so you have nothing to lose, and everything to gain.** Since I believe that you will help out, I thank you very much.

Eric M. Anderson
Principle Investigator
Department of Psychology
University of North Dakota

APPENDIX L

Instructions Sent With Each Mailing

INSTRUCTIONS

1. This statewide survey seeks to determine the sources and outlets of stress in the lives of police officers. Your name was RANDOMLY CHOSEN from a list of all the licensed peace officers in the state of North Dakota and was provided to this study by the North Dakota Attorney General's Criminal Justice Training and Statistics Division.
2. Although the questionnaire looks long, it typically takes around 25 to 30 minutes to complete. Your thoughtful responses are vital for the results to be useful, please take your time in answering the questions.
3. For most questions, just circle the response that best fits what you believe. For a few, you will need to fill in the blank.
4. Please answer all the questions in the order they are presented. Please do not skip any questions.
5. Your answers are completely ANONYMOUS. The information that you give CANNOT be provided to your superiors nor be connected with you personally in any way. The survey that you complete and mail back in the postage paid envelope is not traceable to you personally. FURTHERMORE, THE RAW DATA AND/OR YOUR COMPLETED QUESTIONNAIRE WILL NOT BE GIVEN TO ANY LAW ENFORCEMENT AGENCY, YOUR ANONYMITY IS GUARANTEED!
6. Once you have completed the survey, simply put it in the envelope supplied and drop it in the mailbox immediately. No postage is necessary. Although you are not required to take this survey... PLEASE DO SO!!! OUR FUNDING IS LIMITED, AND THESE MAILINGS ARE EXPENSIVE! YOUR POSTAGE IS ALREADY PAID, SO PLEASE TAKE A FEW MINUTES TO FILL THIS OUT.
7. If you would like, a summary of the results can be made available by making a separate request to the address below or by waiting for them to appear in the NDPOA magazine as publication of the results is expected (any personally identifying information WILL NOT BE PUBLISHED!).
8. Thank you for participating in this very important survey.

Police Stress Study
Department of Psychology
University of North Dakota
Grand Forks, N.D., 58203

Please remove and keep this page for your information

APPENDIX M

Second Follow-Up Letter Sent to Respondents

Dear Peace Officer:

Approximately one week ago you were asked to participate in a study which is being sponsored by the North Dakota Peace Officer's Association (NDPOA). The study seeks to determine the sources of stress in the lives of the North Dakota peace officer and find out how that stress is dealt with. The results will be used to develop training that is directly relevant to YOU! It is absolutely critical that all of the individuals who are sent the surveys complete them and send them back. North Dakota has a small population to start with and YOUR INPUT IS VITAL! How will we ever know what concerns you unless you take the time to tell us? Your responses to the questions are anonymous. Nobody will know how you answered the questions so please be open and honest with your answers. Even we as researchers are unable to determine who has sent back surveys and who hasn't, that's why if you have already filled out and returned a survey you are receiving this letter.

If you have already completed the questionnaire and sent it back (as many of you already have) thank you for your promptness and your concern for the law enforcement community. You did a good thing. If you have not yet returned your survey please take a few minutes now to fill it out and send it back in the postage paid envelope. The only thing it will cost you is your time. Do yourself, your fellow officers and the families of North Dakota peace officers a favor by taking part in this unique opportunity. It cost us a lot to contact you and ask for your assistance in this matter so please help out. A survey of this nature may not be available in the future. Seldom does an opportunity present itself where you can be completely honest with regards to a profession that usually does not reward such disclosure. Your input is meaningful and what you say will be used to try and correct situations that you find troublesome. You will remain anonymous and need fear no reprisal for ANYTHING you say.

As one of our North Dakota sheriffs said to me just this week, "When I was a young cop in the 60's and 70's we didn't have the benefit of you guys. We worked the street, while at the same time a lot of our families got turned upside down. A lot of us turned to the bottle. Nobody asked me how I felt or what I thought was important. We just assumed it didn't really matter."

My friend, what you say DOES matter. Please take a few moments and let us know what concerns you by filling out the questionnaire and returning it promptly. If you have any concerns or questions, please feel free to call or write.

Eric M. Anderson, Principle Investigator
Department of Psychology
University of North Dakota
Phone: 701-777-3451

APPENDIX N

Third Follow-Up Letter Sent to Respondents

11/01/93

Dear Peace Officer:

About three weeks ago you should have received an NDPOA sponsored survey that seeks to determine the sources of stress in the lives of North Dakota peace officers. Here are the percentages of "useable" surveys (surveys that have been completely filled out) returned by ND officers (as of 10/29/93):

<u>Type of Department</u>	<u>Percentage Completed & Returned</u>
Police Officers	47%
Sheriffs and Deputies	51%
Highway Patrol Officers	39%

As you can see the response has been fair, with sheriffs and deputy sheriffs returning the most completed surveys. Since we don't know who has already responded, if you have already completed and returned a survey, please destroy this one. For those who have already sent their completed survey back, thank you very much for your assistance. Many of you chose to respond to the survey's last question. I found your personal experiences quite moving, it is obvious that many of you have been through a great deal and truly understand the importance of this study. From my own personal experience as a police officer for seven years, I understand where you are coming from and I will do what I can to make this study meaningful to you, I think we have a chance to do something good with this.

If you have been having doubts about whether you should complete a survey, please remember that this study is designed to benefit YOU and that what you say is meaningful and anonymous. I understand your hesitancy, I would have felt that way myself. However, I believe that I would have decided this is a special opportunity to get things off my chest and to have my concerns heard. **THERE ARE NO TRICKS OR DECEPTIONS IN THIS SURVEY.**

A number of you have called and voiced concerns about receiving a letter but no survey (or perhaps it was lost or misplaced), regardless of the case, I am glad you called. Therefore, we are providing new surveys to all those who should have initially received one to ensure that all those who were randomly chosen to receive one, did so.

If you haven't already, please take a few moments today to complete and send back a survey. Your postage is already paid and your response will help make this study meaningful. There is still time to get involved. Thanks for your help!

Eric M. Anderson, M.A.
Department of Psychology (701-777-3451)
University of North Dakota

p.s. A number of the surveys in our first mailing were delayed in the U.S. Mail (we had to go "bulk rate" because it was much more cost effective). So, many of you received a follow-up letter almost the same time you received a survey. This study is supposed to help you understand what you find stressful, not to create stress for you. I apologize for any inconvenience this may have caused you. Thank you for letting me know your concerns.

APPENDIX O



Organized
1911

Office of the Secretary
West Fargo, North Dakota

North Dakota Peace Officers Association

Phone (701) 282-3220

218 5th Ave East

West Fargo, North Dakota 58078

PRESIDENT
RAY GOETZ
Bismarck

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September 15, 1993

All Law Enforcement Officers
City, County, State and Federal
Within North Dakota

Dear Fellow Peace Officers:

The NDPOA Executive Board was approached by Eric Anderson, a graduate student at the University of North Dakota, requesting our assistance with a stress survey. Many stress studies have been conducted over the years, but to our knowledge, none have been done in a rural environment such as North Dakota.

The NDPOA Executive Board requests your cooperation so this study may be successfully completed. Your honest input is vital to assure that accurate, dependable results are attained.

Please fill out the enclosed questionnaire, it's confidential, and return it quickly to the indicated address. This survey is important and the end result may some day be of direct benefit to you or your family. If it accomplishes nothing else, it will at least indicate if there is a need for further investigation into stress on rural Peace Officers.

Don't procrastinate. Do it today!

Ray Goetz
Ray Goetz, President
Game & Fish Dep't.

Dick Bjornson
Dick Bjornson, Board
Major, NDHP Bismarck

Dan Draovitch
Dan Draovitch, Board
Capt. Minot PD

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Jerry Kemmet, Board
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Roger Brumfield
Sec. \Treas. NDPOA

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