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NATIONAL INSTITUTE OF JUSTICE
FINAL REPORT
"PROJECT SHIELDS"

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I. EXECUTIVE SUMMARY

A. Introduction

Law enforcement personnel have been identified as a population at high risk for psychosocial work stress.¹⁻³ This is an important concern because the consequences of police work stress can adversely impact the delivery of effective law enforcement as well as pose a threat to the safety of police officers, their co-workers, their family and friends, and the general public.⁴ In particular, interest has recently been focused on the effect of officers' stress on their spouses (or partners) and families, especially in terms of domestic violence. In response, the Violent Crime Control and Law Enforcement Act of 1994 was promulgated to promote research on police work stress and to identify and evaluate model stress prevention programs. In further recognition of this problem, many police departments have developed stress-reduction programs; however, most of the programs are individual-based and reactive rather than organizational and preventive in nature.

This project was designed to address major deficiencies in the existing literature on police stress including: 1) the need for a well-characterized, psychometrically validated and up-to-date police stress assessment tool; 2) the lack of information on domestic violence in police families, and its relationship, if any, with police stress; and 3) the identification of officer-driven strategies to address police stress and especially police stress-related domestic violence.

To that end, we developed a new police stress questionnaire, which included a new police stress scale (perceived "felt" stress), and administered it to a large sample of

Baltimore City Police Department sworn law enforcement employees. The data that were collected were then utilized by Participatory Action Research Teams (PAR) using Total Quality Management (TQM) techniques in order to identify police stress interventions. The PAR process, defined as a "methodology in which researchers and team members collaborate on data-guided problem-solving to meet a desired outcome and to advance scientific knowledge", and encourages employees and management to cooperatively work together on teams and to focus on common problems.^{5,6} This process is an effective problem-solving tool because it promotes decision-making among all team members and encourages consensus. Teams work collaboratively with researchers, and all solutions are based upon pertinent data provided by the researchers. This is a powerful and efficient method of developing targeted interventions.⁷⁻⁹

The teams then made a series of recommendations that was presented to the commissioner, (at that time, Thomas Fraser) as well as to the senior command leadership. It was also presented to the Fraternal Order of Police leadership. It will be the decision of newly appointed Commissioner Norris whether or not to put any of the intervention strategies into place.

B. Methodology

The study was designed to be conducted in a series of four phases to simplify management and ensure that the time frame was adhered to. In Phase #1 of the study, two versions of a police stress questionnaire were developed (one for officers, the other for spouses or partners). In Phase #2, the questionnaires were self-administered to

approximately 1100 police officers. In Phase #3, the questionnaire data were analyzed in order to assess and characterize police work stress in officers. Also in this phase, retrospective indicator data were collected (e.g., accident, incident, illness, turnover, absenteeism, and compensation data, etc.), in order to give the teams as much background information on stress-related outcomes as possible. The data were then prepared in a simple-to-understand format so that they would be immediately useful to the TQM team members. In Phase #4, PAR/TQM teams were formed. Three teams were formed as follows: one team comprised of both male and female police officers, one of only female officers, and one of police spouses and intimate partners. Each team had the same common goal, "to review stress related data and to identify data-guided interventions, which specifically targeted key stressors." A final fourth team, "the intervention assessment team," included members representing each of the previous teams (combining both officers and spouses). This team analyzed each of the recommended interventions in terms of feasibility, cost-benefit, and acceptability to officers, management, spouses, union representatives, etc. Based on Team 4's final recommendations, the Principal Investigator (P.I.) developed a report of the intervention strategies, which was presented to the senior command as well as to the police union representatives. These recommendations as well as a summary of the findings of the study were presented to the officers themselves in two different formats. First, the P.I. and/or the study coordinator made short presentations at selected districts and presented a summary of the findings. Second, a short summary of the findings was prepared and sent to all officers via the Fraternal Order of Police newsletter.

C. Analyses Plan

Several different types of analyses were conducted and, in fact, continue to be conducted. Given the richness of the large data set, it is not surprising that so many different sets of analyses have been conducted, as summarized below:

1. Prevalence of stress in a sample of police officers, including:
 - a. Risk factors for stress,
 - b. Stress outcomes,
 - c. Relationship between stress and domestic violence,
 - d. Coping mechanisms and their impact on the stress process.
2. Comparison of stress, stressors, coping mechanism and stress outcomes in male and female police officers.
3. Stress, stressors, coping mechanism, and stress outcomes in officers older than 50 years of age in comparison with younger officers.
4. Public health implications of police stress.
5. Path analysis of a new police model.
6. Psychometric analysis of a new police stress scale.
7. Validation of a domestic violence attitudes scale with actual self-reports of domestic violence by police officers.

D. Results

1. Response and demographic information

A final total of 1103 questionnaires were returned and completed, a response rate of 68%. The following demographic information on the responders is summarized:

85% were male, 55% had some college education, 68% were married or living with a partner, 64% were Caucasian, the average age was 36 years, and 35% had a military background.

2. Stressors

The results of our study and the various analyses indicate that the most significant work-related stressors for police officers were as follows: 1) workplace (perceived) discrimination and perception of inequity, 2) organizational rigidity and perceived "unfairness," and 3) repeated exposure to critical incidents. There were significant demographic differences in the reported stressors; for example, women police officers were much more likely to report issues of inequality and harassment based on gender as more stressful than were men.

3. Stress

Most officers reported moderate levels of police stress. No difference in stress levels was noted for gender; that is male and female officers reported similar levels of work stress. Age was also not related to stress, but ethnicity was, with White officers more likely to report stress than their non-White counterparts. Officers with less than 16 years of education reported lower levels of stress than officers with at least some college education. Marital status, job category, tenure, and other demographic characteristics were not significantly associated with police stress.

Officers who reported frequent exposure to various workstressors (namely those listed above) were much more likely to report high levels of perceived workstress ("felt stress") than officers who did not report such exposure. Officers repeatedly exposed to

events that would be considered "critical events" such as a police funeral, shooting incident or needlestick injury, were nearly nine times more likely to report high levels of workstress. Attending police funerals was the most stressful aspect of all the critical incidents followed by needlesticks and IID investigations.

4. Coping Mechanisms

Officers who relied on cognitive approaches to stress management were *less likely* to report high levels of perceived stress or "felt stress." That is, officers who relied on their own ability to make a plan of action to manage the stress, or who relied on talking with their family, friends, counselors who managed stress through prayer, were much less likely to report high levels of work stress. Officers who relied on active behavioral approaches, such as exercise or hobbies, had less stress-related adverse outcomes, such as anxiety but did not report less stress. Officers who relied on passive behavioral approaches, such as sleeping or watching TV, did not have a reduction in stress, and officers who relied on maladaptive coping mechanisms, such as yelling, drinking, smoking, eating more, having unsafe sex, and gambling, did not report a reduction in stress related to these activities, and in fact were more likely to report adverse health conditions.

5. Stress related adverse outcomes

There were a number of significant stress related adverse outcomes. For instance, police stress was related to psychological outcomes, such as anxiety, depression, and somatization. Stress was also related to physical health outcomes, both acute and chronic, including lower back pain, high blood pressure, insomnia, and

migraines. Finally, stress was significantly related to alcohol use, physical abuse of any sort (e.g. to co-workers, child, etc.) and importantly to domestic violence. Officers who reported high rates of workstress were three times more likely to report perpetuations physical spousal abuse. Altogether, 9% of all respondents (76/857) who had a spouse/partner, reported that they had committed physical spouse/partner abuse. Of interest was the finding that women officers were nearly twice as likely as male officers to report such behavior. Eighteen percent of women officers in the sample [20/109] reported such behavior compared to 7% of male officers [56/748]. Remembering that these were completely anonymous questionnaires, and that the responses were validated with a well defined domestic violence attitudes scale, we are confident of the accuracy of these percentages.

6. Total Quality Management/Participatory Action Research team results

The teams identified several different approaches to improve the quality of worklife and reduce stress for police officers. To address the relationship between stress and critical incidents, for example attending police funerals, some possible solutions were as follows:

- a. Sponsoring honest and thoughtful discussions related to the reality of the job, led by experienced officers and counselors and programmed into the academy training curriculum.
- b. Conducting a debriefing in the slain officer's district and making the debriefing available to all district commanders who request it for their employees.
- c. Reviewing the entire critical incident debriefing policy and procedures,

updating and improving them as necessary (at least every 3-5 years).

- d. Increasing utilization of the chaplaincy program to address this problem.

To address the issue of perceived lack of support for officers in trouble some possible solutions were as follows:

- a. Providing regular management training for all supervisory personnel, who should be trained to identify officers at risk for getting in trouble, so that they can help prevent it. If an officer is already in trouble, supervisors should be taught methods to assist that officer and help him/her through the time of trouble. Again the chaplaincy program might be utilized to provide support.
- b. Having members of the advisory board and the commissioner meet periodically with officers and recent retirees for candid small group discussions on this matter.
- c. Clarifying policies on paid/unpaid administrative leave.

To address the problem of lack of advancement, some possible solutions were as follows:

- a. Installing computers at FOP headquarters, providing linkage for distance learning (degree programs), and making them available also to spouses.
- b. Initiating a management leadership and mentorship program.
- c. Re-examining the Department's entire exam and promotion policy and procedures and comparing these tests with those used by other agencies.
- d. Job descriptions for each position in the Department should be published and readily accessible.

- e. Providing coaches/mentors (e.g., retirees) to help officers prepare for exams, interviews, etc.
- f. For women, minority members, etc., the Department should support mentorship programs and group activities (similar to the Vanguard Association). Mentors should be assigned to individuals interested in management positions. Individuals from these groups who are interested in careers in management and police leadership should meet informally with the Commissioner on a regular basis for advice and support. A women and minority members' management core group should be formed to support more junior women and minority officers.

To address the problem of inequality in the force, some possible solutions were as follows:

- a. Ensuring that the FOP work closely with BPD leadership to address this problem in a collaborative manner.
- b. A high level collaborative team of FOP/Department leadership should examine the status of female police officers and assign this to a high level commission. This should include everything of concern to female officers (e.g., recruitment, training, clothing requirements, etc.) and basically all other policies and procedures that pertain to female police. The overall goal of the commission should be to document existing policies and practices and determine, what, if any, changes are needed to improve the working environment for female police officers.

To address the problem of alcoholism, some possible solutions were as follows:

- a. The FOP should sponsor an AA group for officers only.
- b. There should be an annual screening for alcohol abuse (at the time of the annual physical).
- c. Officers at the rank of Sergeants and above should receive training on early warning signs so they can help officers before they get into trouble.

To address the problem of spousal abuse in police families, some possible solutions were as follows:

- a. Support and encourage effective communication and partner commitment.

This promotes stability in the workforce and has been shown to decrease turn-over. This will also help minimize the threat of domestic violence. There are several ways to do this:

- ▶ Send trained spouses to the academy to serve as facilitators on discussions related to how policing affects marriage and the family.
- ▶ Have trained "successful" seasoned police couples serve as mentors to new police couples.
- Sponsor police couples only "Marriage Encounter" weekends.
- Sponsor more couples activities and actively encourage spouse participation in social events, parties, picnics, coffee hours, prayer sessions, pre-nuptial training, couples counseling, marriage therapy, communication skills classes, parenting workshops, etc. Make the

spouses more a part of the police officers' work life.

- ▶ Encourage the revitalization of the women's auxiliary group, which could conduct a needs assessment to find out ways to involve partners and strengthen families (e.g., daycare vouchers, child care sharing for vacations, support groups for families with teens, elder care issues, upcoming retirements, etc.)
 - ▶ Provide support for non-traditional partnerships and other family members as needed (e.g., for girlfriend/boyfriend, parents, teens, etc.)
 - ▶ Provide information to police families via the FOP regarding numerous police web sites.
- b. Give officers cell phones or beepers so they can be reached by families at all times.
- c. Limit the amount of overtime officers are allowed to do. Conduct financial planning and finance management for new recruits (mandatory) and then sponsor many diverse financial programs for all officers and families.
- d. Sponsor retirement planning programs and help officers make successful transitions to retirement.
- e. Ensure that BPD policies on spousal abuse are clear and strictly enforced (zero tolerance). The department should provide liaison services so spouses can get the help and services they need (this will encourage them to report such incidences).
- f. Sponsor a 24-hour mental health hot line service (anonymous with the

encouragement of referrals) for officers in trouble of any sort.

To address the issue of sub-optimal management skills in higher-ranking officers, some possible solutions were as follows:

- a. Providing mentors or coaches for all new supervisors (e.g., sergeants).
- b. Evaluating supervisors on an annual basis (use anonymous surveys), and using staff performance and conduct as one of the tools to evaluate managers' competency.

E. Conclusions and Police Implications

The stressors in policing that were first examined 30 years ago are, in many respects, still with us today- such as the problems related to long work hours, hierarchical and rigid organizational structure, lack of advancement, harassment issues related to a male-dominated workforces, etc. What perhaps has changed is the expectations of both officers and their spouses regarding acceptable working conditions. There is a considerable effort being made to recognize and address negative quality of work life issues that were long thought to be an expected part of police work. The stressors that police officers face today are also different in some respects. For example, there is much more public scrutiny of police departments, with an apparent decreased tolerance for deviations in certain standards of behavior, such as domestic violence in police families. We expect our officers to not only to uphold the same standards that are expected from civilians, but, in some cases, to exceed those standards. At the same time, young people today have more job options. The changing world and U.S. economy, with the increase in technology and service

industries and the ever increasing aging of the general work force, has made labor shortages a growing reality. The labor shortage will be particularly problematic with the proportion of persons > 65yrs now three times what it was in 1900 and with the 45-64 age group the fastest growing cohort. There have already been several reports of serious recruitment difficulties in many major police departments. Thus, in order to improve the attractiveness of the job, it is imperative that quality of work life issues, including the issue of police stress, be addressed. It is also important that the front line police officer have input into what intervention strategies will be useful. It is almost certain that while each department may share many of the same stressors as other departments throughout the country, there will almost certainly be many stressors that are unique to a particular department. That means that an effective approach will have to be a tailored one- this is not a case where "one size fits all." It may well be that there are strategies already prepared, such as a critical incident training program or a interpersonal skills-building video, etc., that have already been developed by other agencies, but in order to identify the right solution for a particular problem, it is probably going to be necessary for departments to conduct stress and quality of work life surveys on some scheduled basis. This way, the department leadership can "check the pulse of" the organization, identify growing or continuing problem areas and develop targeted strategies to address the same problems. This will be a necessity for any industry (service-oriented or otherwise) if it is to stay competitive. The most valuable resource for any work organization is the human resource and every effort should be made to provide the best possible work environment for all workers. Police officers should be

provided with the same level of services that we provide and expect for any other high-risk service industry job. Union officers should increase their focus on the quality of work life issues (in addition to fair pay scales) because this can have a huge impact on the mental and physical health and well-being of officers. A stable and satisfied workforce is much more likely to be an effective one. The cost of hiring and replacing officers has been estimated at 40K-70K. Anything a department can do to strengthen stability in their officers' lives, including their personal lives, will be a benefit to the department. Innovative approaches to assisting officers in maintaining balance in their lives, that have not been carefully examined before, may be valuable to examine at this point in time. Police officers should participate in the decision making process so that their expertise informs both the process and the outcome. It is also important to consider the necessity to have valid scales for measurement. The use of well-designed, well-defined scales to evaluate stress and stress-related outcomes is important for two reasons: 1) it provides a valid and reliable measure that can be used within across departments and 2) it should provide unbiased responses, so that the data can be used with confidence to guide the development of interventions. Our finding that police stress was significantly associated with domestic violence also points toward the idea of studying the relationship between police stress and hyperaggressive behavior among police in general. Given the significant adverse outcomes related to stress, it is important that we address this problem.

II. PROJECT DESCRIPTION

A. Research Questions

1. Major Question: What is the relationship between police stress and domestic violence in police families?
2. Corollary questions:
 - a. What is the extent of domestic violence in police families?
 - b. What are the current stressors that contribute to police stress?
 - c. What are some of the tools that we can use to measure or evaluate domestic violence in police families?
 - d. Are there mediators or moderators that affect the relationship between police stress and domestic violence?
 - e. Can we identify potentially effective interventions that address the risk factors for stress-related domestic violence in police families?

This study was important to conduct because: 1) very little data are available on domestic violence and police families and 2) there is a perception that this is an underappreciated and growing problem. Because of periodic reports of extreme cases of domestic violence in police families, e.g., domestic violence related homicides, there has been an increase in the public perception that this is a growing threat.

B. Background Information

1. Definitions:

In this final report, the following definitions apply: "*stressor*" refers to some influence that directly or indirectly affects the individual; "*perceived stress*" is the extent

to which individuals feel *stressed* (this is difficult to measure directly but can be inferred by measuring a constellation of stress-related markers, such as negative attitudes toward one's job, including dissatisfaction, coupled with various symptoms like sleeping disorders, and behaviors such as tardiness at work); "*cross-over stress*" is the perceived stress that is directly or indirectly related to the perceived stress on one's partner; " *coping measures*" are the various strategies that individuals use to handle perceived stressors; and, "*adverse outcomes*" refers to the three major categories of adverse effects: physical, physiological, and behavioral.

2. Police Officer Stress Research:

The number of law enforcement employees at potential risk of psychosocial work stress in the U.S. is large; in 1990, there was a total of 812,000 law enforcement personnel, including 591,000 sworn and 221,000 civilians.¹⁰

Maladaptive coping responses (e.g., alcohol abuse, hyper-aggressive behavior on and off the job, etc.) as well as adverse stress-related health outcomes (e.g., alcoholism, heart disease, etc.) have been documented in this population.^{11,12} It is believed that as much as 25% of U.S. police officers have significant alcohol dependence.¹³ Police officers have also been shown to have high suicide rates; in 1980, they were noted to have the third highest suicide rate among 130 occupations.¹⁴ Police workstress is also believed to adversely affect police families; some studies have noted high rates of marital discord in police families.¹⁵⁻¹⁷ It is believed that police work will probably become even more stressful in the future; there are several reasons for this, including the increasing intensity of societal violence, the complexity of the legal

system, and economic pressures within police departments.¹⁸ Thus, it is important to better understand and prevent this public health problem.¹⁹

a. Stressors in Law Enforcement

Researchers have noted a relationship between perceived stress and certain personality characteristics. For example, Type A behaviors (extreme competitiveness, aggressiveness, impatience, restlessness, hyper-alertness, explosiveness of speech, tenseness of muscles, etc.) have been correlated with perceived stress.²⁰ Dispositional tendencies such as hostility, suspiciousness, and low self-esteem may also increase a person's susceptibility to stress.²¹ Certain demographic characteristics have also been associated with workstress, among them gender, race, age, sexual orientation, income, and job category.^{22,23} Other individual stressors include life events, health status, locus of control, worker-job fit, and career orientation.^{24,25}

Some researchers have identified certain law enforcement organizational and management aspects as particularly stressful, especially authoritarianism, militarism, rigid supervision, shift-work, time pressures, work load, and bureaucratic red-tape.^{3,26,27}

Perceived stress and health outcomes in African-American and White officers, has been examined by Dr. Leonor Johnson and colleagues. They found that different effects of stress varied by race and gender. Males and Whites were much more prone to projecting burnout symptoms, including feelings of becoming hardened and calloused, than were females and African-Americans. Female and African-American police tended to depend much more on their friends for social support than on institutional sources of support. Stress in Whites and males had a greater impact on

their marital relationships than vice-versa (e.g., effect of spouse support).

Dr. Johnson and colleagues also examined the relationship between stress and coping 177 police officers matched with their spouses (marital dyads). Four major coping styles were identified: *problem focused*, *emotion focused*, *religiosity*, and *rugged individualism*. Couples tended to share similar coping styles or coping preferences. Most commonly, religiosity and problem-focused mechanisms were shared similarly. Couples that shared the same approach, were much less likely to have marital discord. The highest levels of distress were found in couples where the officer relied on rugged individualism as a coping mechanism.

Gender differences in job burnout in 457 male and 139 female police officers. Both genders reported moderately high degrees of burnout, but females expressed it differently from males. For example, burnout in males was associated with depersonalization of civilians, while females were more likely to report feeling "drained" and "used" by their job. That is, men externalized their burnout, females internalized it.

Surprisingly, few researchers have found certain job-associated factors (e.g., physical danger, dealing with criminals, etc.) to be particularly stressful, with the exception, however, of the death of a co-worker in the line of duty, an event which has been found to be extremely stressful and related to post-traumatic stress syndrome.^{28,29} Finally, non-work related stressors, such as family conflicts and child care responsibilities, have also been found to play a role in workstress.³⁰ Table 1, on the following page, summarizes four major categories of many potential stressors associated with law enforcement.^{14,20,27,28,30-36}

Table 1. Potential Stressors in Law Enforcement

A. Demographic and Individual Associated Stressors

Age, education, gender, length of service, marital status, race	Personality (Type A personality-competitiveness, aggressiveness, achievement oriented, impatience, restlessness, hyper-alertness, explosiveness, etc.)
Career orientation (social activist role)	Obsessive worry, self-esteem, social anxiety
Fear and perception of risk	Other jobs, school, hobbies, etc.
Health status	Locus of control
Impulse control	Risk taking and sensation seeking tendencies
Life events	

B. Police Operations (Job & Criminal Justice Associated)- Stressors

Court failures	Dealing with the criminal justice system
Dealing with families of victims/perpetrators	Dealing with the media
Dealing with perpetrators	Dealing with the public
Death, injury to co-worker or self, threat of harm (hazardous working conditions)	External contacts (courts, lawyers, etc.)
Investigatory crime	Lack of respect and personal recognition
Lack of necessary equipment	Lack of resources
Militarism	Style of supervision (Over-supervision, under-supervision)
Paperwork	Pay, benefits
Poor physical environment at work	Promotion (stagnation, over-promotion)
Responsibilities without authority/autonomy	Shift work
Technologic change and challenges	Unnecessary bureaucratic paperwork

C. Organizational-Management Associated Stressors

Authoritarianism	Communication-related
Coordination and cooperation between units	Court-related duties
Decision-making control	Discrimination/harassment (gender, sexual orientation, race)
Downsizing impact	Job/task factors (time pressures, work load, work pace)
Lack of administrative support	Lack of group support (cohesiveness)

D. Non-Work stressors: Work-Family Conflicts

Time constraints (absence from home)	Unpredictable schedules
Family/household responsibilities	Elder care/child care
Social support (social isolation)	

b. Coping Mechanisms

There are several well-characterized strategies for coping with workstress.

Among law enforcement personnel, several strategies in particular seem to be commonly used. These include emotion-focused coping, such as disengagement (distancing) through depersonalization and cynicism.³⁷⁻³⁸ Disengagement, or social withdrawal, is believed to result from feelings of futility when the control of or solution to problems is not within one's own power. This invokes feelings of helplessness and hopelessness.³⁸⁻³⁹ Since many of the stressors of police work cannot be solved or alleviated by individuals (i.e., they are organizational in nature), disengagement may result. Some distancing may be necessary in order for police officers to work effectively because it may protect them from some of the more painful aspects of their jobs; however, at its extreme, distancing, sometimes referred to as "burn out," can be very damaging. Other coping measures include activities which are health promoting or calming (e.g., exercise, meditating, deep breathing), while others are passive in nature (e.g., watching television, sleeping).⁴⁰ Some coping strategies can be maladaptive (e.g., excessive shopping or gambling) or even self-destructive (e.g., smoking, compulsive eating, drinking alcohol, taking mind-altering drugs, deviant behaviors, and unsafe sex).⁴¹⁻⁴² One strategy, which some officers may use and which is recognized to be the most effective strategy in alleviating stress, is the problem-solving or cognitive approach.⁴³ This includes seeking professional help (counselor, minister, physician); making a plan of action and following through, and consulting with spouse, family and friends. A summary of the major coping strategies may be found in Table 2.⁴⁴⁻⁴⁹

Table 2. Coping Strategies

-
1. Cognitive-problem solving and external supports (counseling, family, friends, pastors, etc)
 2. Health promoting (exercise, hobbies, meditation)
 3. Passive avoidance (watching TV, sleeping)
 4. Maladaptive avoidance (excessive shopping, gambling)
 5. Destructive avoidance (smoking, drinking, drugs, compulsive eating, unsafe sexual activities)
 6. Emotion-focused (depersonalization, authoritarianism, cynicism, aggression, lack of emotions, blunted affect)
-

c. Measures of Workstress in Law Enforcement

Several studies have examined the degree of perceived workstress among police officers and, although few comparative studies have been conducted, it is generally believed that police officers have relatively high stress levels in comparison with other occupations.^{1,2,3,27,50-52} Other studies have noted changes in perceptions of stress over time, with new recruits reporting lower levels of stress which gradually increase with tenure on the job.⁵³

While various measures have been used to determine perceived stress in this population, there are both methodological and theoretical concerns related to these, including: lack of comparison groups; use of cross-sectional study designs; small number of study subjects; lack of theoretical models or framework; inadequate measures; and perhaps most important and problematic, contradictory definitions of stress. This study was designed to remedy some of these shortcomings by developing

a theory-driven, highly validated police stress instrument using large numbers of study participants.

d. Measures of Adverse Outcomes

Psychosocial work stress may result in a number of adverse health outcomes usually categorized as psychological, physiological, or behavioral in nature.⁵⁴ In addition to both short and long term adverse health effects (e.g., alcoholism, heart disease, somatic complaints), workstress may also have an adverse impact on the organization. Both categories of adverse outcomes are briefly reviewed below.

Individual: Acute effects of workstress may be manifested in three major ways: (1) psychological: (anxiety, general apathy, job dissatisfaction, loss of libido, and psychosomatic complaints); (2) physiological: (dry mouth, excessive sweating, headaches, high blood pressure, hyperventilation, increased heart rate, impaired memory and concentration, insomnia, irritable bowel syndrome, muscle pain, palpitations, upset stomach, hormonal disturbances); and (3) behavioral: (aggression, cynicism, depersonalization, irritability, over-reliance on mind altering substances, risk taking behaviors).^{14,16,55-57}

Acute individual effects may in turn result in chronic symptomatology and, potentially, in frank illness, as follows: (1) psychological: blunted affect, "burn-out", chronic anxiety, depersonalization, depression (impaired attention span and mental alertness), Post-Traumatic Stress Disorder (PTSD), sexual impotence, and suicide, (2) physiological: chronic back-ache, heart disease, migraines, ulcers, weight gain (and loss); and (3) behavioral: accidents, drug and alcoholism, hyper-aggressiveness and

violence (excessive force), injuries (on and off the job), interpersonal problems, marital and family problems.^{1,15,30,35,46-63}

It should be noted that many of these adverse outcomes may also frequently be "stressors" (i.e., they are intervening variables acting both as outcomes of stress and as a source of stress). In addition, adverse behavioral outcomes, such as hyper-aggressiveness and alcoholism, may be linked to spousal abuse and domestic violence.

Organizational: Murphy and Hurrell and others have identified a number of negative ways in which workstress impacts an organization, including: 1) high rates of job dissatisfaction, 2) low morale and productivity, 3) high absenteeism and turnover, 4) deviant behavior, 5) high accident rates, 6) poor public relations, and 7) high incidence of lawsuits^{31,32,64,65}.

All of these key variables are shown our Police Stress Model, in Figure 1.

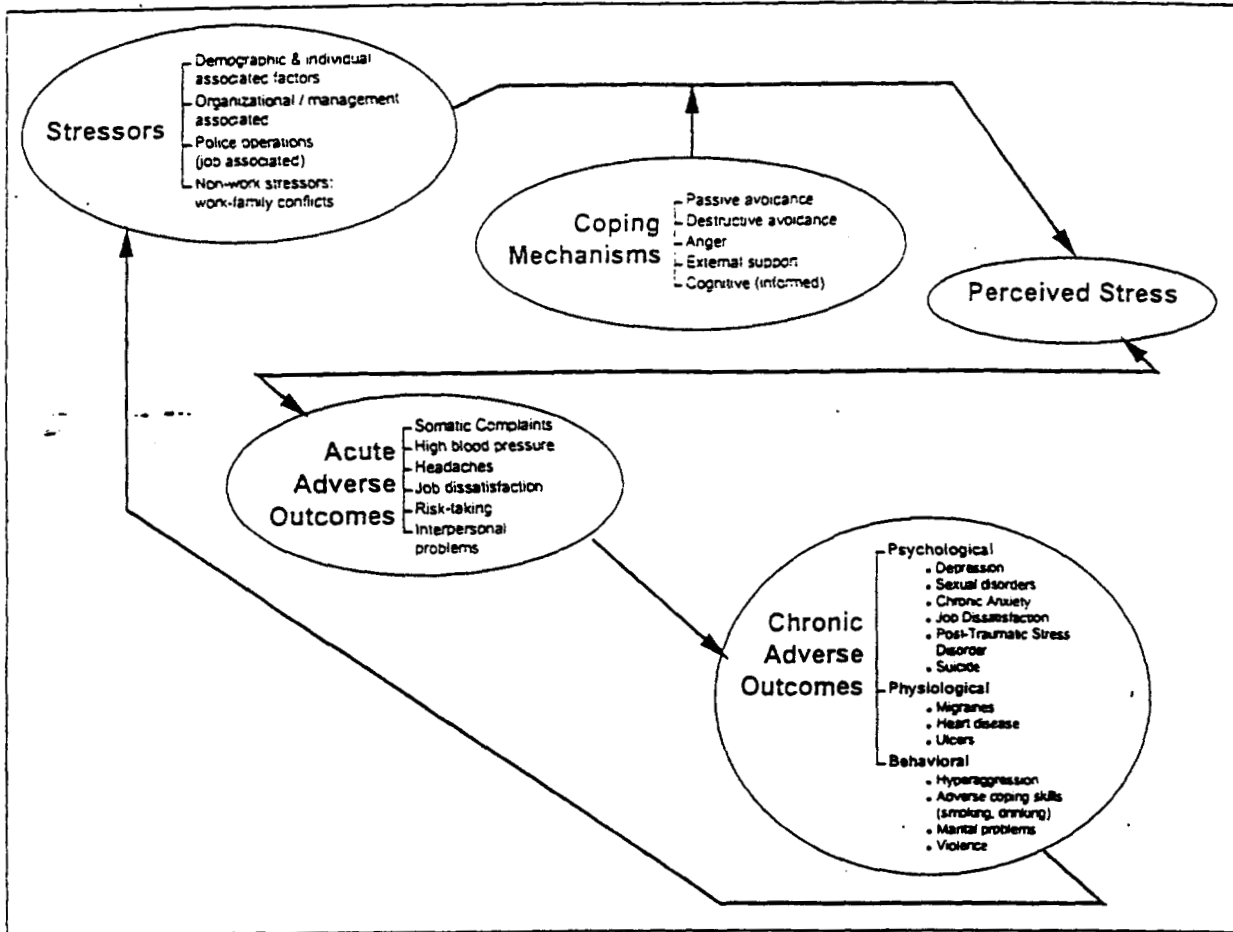


Figure 1. Police Stress Model

3. Spousal Abuse

It is conservatively estimated that each year approximately 1-3 million women in the U.S. are victims of domestic violence.⁶⁵⁻⁶⁷ "Domestic violence" is defined in legal terms as acts that cause physical pain or injury or threats of injury. In approximately 28% of these crimes, the victim's spouse or boyfriend is the perpetrator.⁶⁵ Five major categories of abuse have been described: *psychological abuse* (threats, intimidation); *emotional abuse* (criticism and belittling, withdrawal, subverting parent-child relationships); *economic abuse* (making or attempting to make the person financially

dependent, maintaining monetary control); *sexual abuse* (coerced or non-consensual sexual contact, unprotected sex, rape); and *physical abuse* (hitting, slapping, punching, using weapons, stabbing, killing)⁶⁸. The prevalence of 'serious incidents' of spousal abuse in the general population appears to be fairly consistent across ethnic groups, as reported by the National Institute of Justice crime survey.⁶⁸ A National Crime Survey is conducted each year by the Department of Justice, and rates of severe violence against women have been shown to be approximately 3.9%. Domestic violence where the male partner is the victim has been estimated at 0.3%.

a. Spousal Abuse Models:

One well-known model, referred to as the family violence model and developed by sociologists Dr. Murray Straus, Dr. Richard Gelles and Dr. Suzanne Steinmetz, proposes that interpersonal domestic violence is different from violence in general because of the special relationship between the perpetrator and the victim and also because it can be much more specific and intense than violence in non-family situations.⁶⁹ The model posits that violence in the domestic setting is a means to settle disputes and that everyone (because of the intimacy of the setting) in that same household or family gets involved in the violence. Their model also posits that violence is a learned behavior communicated across generations and that it is perpetuated and provoked by a wide range of environmental and individual factors, (e.g., poverty, substance abuse). Another model, referred to as the "gender politics model" argues that domestic violence is just one more example of the issue of male control, which extends from dating through parenting and marriage and into the work setting.^{70,71} In

this model, violence is both seen as an option to be taken when males are trying to control or limit female independence or when women are seen as failing to meet their responsibilities. There is a complex set of dynamics that can encompass child abuse, elder abuse, even pet abuse, all related to control issues.

b. Risk factors for Domestic Violence

Risk factors for spousal abuse have been identified and usually are referred to as "vulnerability factors", that is, these factors do not in and of themselves lead to domestic violence but they may predispose one, especially given interpersonal dynamics and particular circumstances.⁷² Studies have shown that the assailants are more likely to have a history of drinking alcoholic beverages and, to have attitudes leaning towards approval of violence. While occupational class was not significantly related to spousal abuse, blue-collar status appears to have the greatest prevalence when other factors, such as drinking and positive attitudes towards violence are present. However, when examining rates of abuse, they are similar across sociodemographic and income levels: 10% of middle-income women report abuse compared to 11% of women from low-income families.⁷³ Age is inversely related to acts of violence, and acts of domestic violence are more common among couples under 30, but age in and of itself does not differential if you examine rates of hospitalized trauma victims of domestic violence.⁷⁰ Teens and the elderly may have a greater risk of having their battery misidentified in a health care setting as child abuse or elder abuse. Marital status is a risk factor, and single, separated, and divorced women in comparison to married women are more likely to experience assault by their domestic partner.⁷⁴ A

survey conducted in Texas in 1983 found that 25% of all of the abused women were divorced or had separated from their husbands or live-in partners, and 63% of women who had in their lifetimes ever experienced physical abuse had similar histories. Therefore, many advocates for women feel that inadequate protective orders may lead to an increased risk when a women actually tries to leave an abusive situation, with separated women the most vulnerable followed by divorced women. Our recent case control study reports of police officers' domestic violence found that male officers were more likely to be reported by ex-girlfriends, girlfriends, ex-wives, and wives in that orders, whereas, among female officers, the order was ex-girlfriends, girlfriends, and husbands. Violence in couples appears to be more common when the couples are more socially isolated; however, it is hard to know if the isolation occurs before or after the abuse starts. We do know that pregnancy is a time that increase risk among abused women. Typically battering may increase during pregnancy, and victims are significantly more likely to have a miscarriage or an abortion. Twenty-eight percent of the abused women studied in Texas were found to be physically abused during pregnancy.⁷⁴ And in ob-gyn practices, it has been estimated that approximately 25% of all patients are abused during their pregnancy.⁷⁵ Violence in ones' family of origin apparently increases the propensity to commit domestic violence. Several surveys have found an interesting correlation between a woman's history of child abuse and current domestic violence.⁷⁶ Therefore, child abuse may increase a woman's vulnerability to be abused. Alcohol has been shown to be an important correlate of wife abuse, but it is not usually an immediate antecedent of physical violence. This

relationship is not entirely clear, although there does seem to be a relationship between binge drinking on the part of the perpetrator and history of assault. Studies have estimated that perhaps as many as 15-20% of all couples experience domestic violence, with frequency ranging from once a week to several times a year. It is also believed that as many as a quarter of all abused women suffer "serial victimization" with sexual assault frequently a part of the physical assault.

c. Police Officers and Domestic Violence

Whether you subscribe to these or any other theory of domestic violence, there are three compelling reasons why police domestic violence is particularly problematic. These are: 1) police officers have access to lethal weapons, 2) they are trained to control and dominant situations, and 3) at the same time, they need to enforce the law with respect to domestic violence in the community setting. Police domestic violence is an almost entirely unstudied phenomenon, and support for studies of this nature has been limited, partly because of the data collection barriers; and also partly due to the lack of valid information. This has led to barriers to our serious understanding, both full extent and the nature of the problem. Officers are reluctant to report (even on confidential questionnaires) about their abusive behaviors, since this criminal behavior might put their jobs and, therefore, their livelihoods at risk. The other problem is that, even with anonymous surveys, these are difficult questions to ask, and there are unfortunately few surrogate measures of domestic violence. The existing incident reports of domestic violence within police departments, usually are filed in the Internal Investigative Divisions. These reports are naturally extremely closely held and difficult

to access, even for research purposes. It is believed that many of the cases that are reported to IID do not move forward. We have information from a case control study we recently conducted of IID records collected by a large urban police force that over 80% of the IID reported cases are dropped for lack of corroborating evidence. We know this to be especially relevant because a recent Canadian study found that police officers demonstrated reluctance to enforce protective court orders; especially civil restraining orders.⁷⁷ The officers also were found to be uninformed about the nature of court orders in general, and police officers were noted to be more likely to believe that domestic violence was a civil crime rather than a criminal offense. If a woman was intoxicated or there was evidence that she had invited the man into her home, the police officers in that study were found to be unlikely to arrest the offending partner. There is concern that this is a much more widespread problem than we currently have evidence for. To help address this sparsity of information, a cross-sectional epidemiological survey was conducted which is described below.

III. PROJECT METHODOLOGY

A. Specific Aims:

- Aim #1) To determine the prevalence, correlates, and consequences (outcomes) of workstress in sworn law enforcement personnel.
- Aim #2) To quantify the independent and joint effects of factors (stressors) associated with workstress.
- Aim #3) To determine the relationship, if any, between work stress in police officers and spousal abuse in police families.

Aim #4) To test a new police stress theoretical model.

Aim #5) To identify cost-effective stress prevention and stress reduction interventions for both officers and spouses using a TQM approach.

B. Design Overview

The study was conducted in 1997-1999. It was completed in the fall of 1999. The study was a collaboration between the FOP (Baltimore chapter), the Baltimore Police Department, and the research team from the Johns Hopkins School of Public Health. The collaboration was extensive and covered all phases of the study, from the qualitative to final TQM activities. The study involved a sample of more than 2500 full-time sworn officers who were in attendance during the morning and/or evening roll calls at each of the districts. The study was guided by a new study model, which was an adaptation of the NIOSH workstress process model.

Table 3. Study Constructs

Major Constructs	Sample Item Subjects
1. Stressors	<ul style="list-style-type: none">• Job & Criminal Justice Related Factors• Demographic and individual (e.g., age, ethnicity, region, marital status, role identity, locus of control, type A personality, impulse control, risk taking traits)• Job & Criminal Justice Related Factors (e.g., court systems, court dates, dealing with perpetrators, shift work, supervision, supervisory duties, pay, benefits, job task factors, work load, etc.),• Organizational/Management Factors (e.g., militaristic, authoritarian, discrimination, upward & downward communication, decision making, etc.)• Non-Work Related (e.g., childcare, elder care, finances, etc.)

2. Perceived (Current) Stress	<ul style="list-style-type: none"> • Feeling physically and emotionally depleted • Feeling moody, irritable or impatient over small problems • Feeling negative, futile or depressed about work
3. Coping	<ul style="list-style-type: none"> • Cognitive problem solving (e.g., counseling, pastors, family support) • Health promoting (e.g., exercise, hobbies, meditation, breathing) • Passive avoidance (e.g., watching excessive television, sleeping too much) • Maladaptive avoidance (e.g., shopping, gambling) • Emotion focused (e.g., depersonalization, blunted affect, rugged individualism) • Destructive avoidance (e.g., smoking, drinking, drugs, compulsive eating, unsafe sex)
4. Health Outcomes	<ul style="list-style-type: none"> • Psychological (e.g., anxiety, depression, apathy, job dissatisfaction, sexual problems, somatic complaints, sleep disturbances, blunted affect, burn-out, PTSD, depersonalization, suicidal tendencies) • Physiological (e.g., fertility problems, dry mouth, excessive sweating, headaches, high blood pressure, hyperventilation, increased heart rate, irritable bowel, muscle pains, palpitations, hormonal disturbances, migraine, chronic back ache, ulcers) • Behavioral (e.g., aggression, cynicism, risk taking, accidents, drug and alcohol abuse, marital and family problems, interpersonal problems at work)

Study participants were recruited from the Baltimore Police Department, located in Baltimore, Maryland. The department provided law enforcement services at the time to a population of approximately 786,014 Baltimore City residents. Geographically, the department serves nine different precincts and covers a total of nearly 80 square miles. The area it serves is primarily urban and inner city, and Baltimore is considered a high-risk city, with the fourteenth highest crime rate in the country. In 1993, there were 998

violent crimes per 100,000 Baltimore city residents, including 127 murders, 440 forcible rapes, and 506 aggravated assaults per 100,000 residents.

In 1995, the total crime index for Baltimore was 94,935, including 323 murders, 683 rapes, 9,214 aggravated assaults, and 11,355 robberies. This represents a 30% increase over 1985 statistics.

The Department was headed at the time by Commissioner Thomas Frazier, who was appointed to the position in 1994. Since he began his tenure, a number of important changes were made with respect to the functioning of the department, including community-oriented policing (first initiated in 1993).

C. Study population

As of March, 1996, there were 3,061 sworn employees in the Baltimore Police Department, including 2,636 males (86%) and 425 females (14%). The majority of the force are White males (58%), followed by African-American males (26%). In all, minority personnel comprised 40% of the force. In addition, there were 595 civilian personnel who served in a variety of non-enforcement jobs (clerical, administrative, technical, etc). Altogether, there was a total of 3,656 employees in the Baltimore Police Department. They either worked in one of the nine precincts or at headquarters in a total of 14 distinct police department buildings located throughout the city. Most sworn employees were officers (n=3,046), followed by sergeants (n=327), and lieutenants (n=101). There were 7 captains, 27 directors, 5 chiefs, and 1 commissioner. Most sworn employees were either high school graduates (n=1,155, 32%) or had some college education (n=1,460, 48%). There were 470 sworn employees with bachelor

degrees (32%), and several personnel have graduate or law degrees (n=67). New recruits are trained for nine months at the police academy and each year there are about 80 new recruits entering the training program.

D. Study Sample

1. Sampling Strategy

The sampling strategy involved: (1) obtaining the number of sworn employees at each precinct at each shift, (2) attending one or two roll calls for each shift at each precinct (N=9) to obtain a convenience sample of volunteers, and (3) distributing questionnaires to all officers volunteering to complete the questionnaire (minimum 1000 officers).

2. Power Calculations

The sample obtained exceeded our sample size requirements as predetermined by power calculations.

E. Study Design

1. Introduction

The study was designed in four phases over the course of 18 months (which in actuality took about 32-34 months). The study was designed to evaluate workstress in police officers in order to provide TQM teams with sufficient pertinent information so they could make informed stress reduction and prevention recommendations. The work plan is shown in graphic form in **Figure 2** shown below.

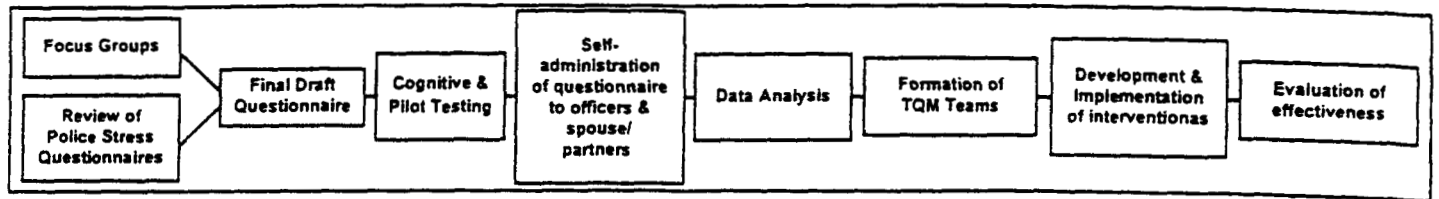


Figure 2. Study Design Overview

Table 4, below, presents an overview of the entire study's four phases.

Table 4. Study Overview

PHASE 1 Months 1-5	PHASE 2 Months 5-9	PHASE 3 Months 9-12	PHASE 4 Months 12-16
Questionnaire Development	Administration of Questionnaire	Analysis of Questionnaire	TQM Phase
<ul style="list-style-type: none"> ■ focus groups ■ review of existing police stress questionnaires and other related study instruments ■ preparation of draft questionnaire and psychometric analysis ■ cognitive testing of draft questionnaire ■ pilot testing of questionnaire 	<ul style="list-style-type: none"> ■ administration of questionnaire to police officers and spouses ■ data collection and management 	<ul style="list-style-type: none"> ■ analysis of questionnaire data ■ collection and evaluation of retrospective indicator data ■ data summaries prepared for TQM/PAR teams 	<ul style="list-style-type: none"> ■ formation of TQM teams ■ recommendations

In reality, except for phases 1 and 2, all the other phases took at least twice as long to complete, with the greatest amount of time needed for the analyses.

2. Study Support

Support for the study was provided in several important ways. *First*, letters of cooperation were received from the major study subcontractors; Johns Hopkins

University, School of Public Health; the Baltimore Police Department; the Fraternal Order of Police; the Vanguard Justice Society; and the study consultants. *Second*, a high-level Study Advisory Board was formed. This board served to advise study investigators on all aspects of the study, including methods of recruitment and questionnaire development. Key individuals served on this Board, including Dr. Robyn Gershon, the subcontracted principal investigator, representatives from the senior management of the Baltimore Police Department, the Baltimore Police Department Human Resources Bureau, the Fraternal Order of Police, the Vanguard Justice Society, the Psychology Consultant Associates, the Johns Hopkins University School of Public Health public relations specialist, and others. This Board was instrumental in the success of the study. *Third*, several experienced police officers served as consultants to the study including a 25-year veteran of the force, who worked on the study as a liaison with the police force. She accompanied the study investigators to each precinct to help distribute questionnaires. *Fourth*, the study's subcontracted principal investigator and study coordinator, accompanied by police officer consultants, personally visited each of the department's precincts and met with as many police officers as possible in order to introduce themselves and the study.

These steps were taken because we recognized that the success of the study was dependent upon the full cooperation of the police officers.

Phase 1 (Questionnaire Development)

A five-page questionnaire was developed in order to assess the four major constructs and meet the specific aims of the study. The questionnaires were aimed at

a 10th grade reading level and took about 20 minutes to complete. The questionnaire was based, whenever possible, on previous study questionnaires and well-defined scales. In addition, two procedures were used to generate qualitative data and contribute to the overall instrument content; these were: focus group sessions and cognitive testing. Each of these procedures is briefly described below.

a. Review of existing instruments and measures

Several police stress questionnaires and scales were developed previously; these were reviewed for their usefulness on this study. These included the Johnson-Nieva Police Work-Home Stress Questionnaire, the Cooper/Williams Occupational Stress Indicator Scale, the Perceived Quality of Life Scale, the Violent Police Stressor Scale, and others^{27,29,38,52,54}. Whenever possible, pre-existing and well-characterized valid and reliable measures were used. In addition, the study team had developed several instruments for previous related studies on workstress, and these had been psychometrically analyzed and refined, and wherever feasible, scales from these instruments were used. We recognized that certain variables (e.g., hyperaggressiveness, spousal assault, cross-over stress, etc.) needed additional clarification and refinement.

b. Focus group sessions

Focus groups were held in order to learn about the study population, especially with respect to their experiences and perceptions related to cross-over stress and the relationship between workstress and aggressive behaviors on and off the job. These

and many other topics were considered in order to gain insights into the Baltimore City Police Department personnel. Two focus groups sessions were held with only sworn personnel, and two with only spouse/partners. In addition, two sessions were held with both officers and spouses (non-related). Finally, one session was held with members of Baltimore City Police Department spousal abuse support group. Thus, a total of seven focus group sessions were held.

c. Cognitive interviews

This technique was used to evaluate draft survey questionnaires by performing intensive interviews of volunteers, including the "talk aloud" method. For this phase of development, six volunteers were interviewed (three officers and three spouses). These interviews focused on the cognitive processes that participants use when answering the survey questions. Understanding the nature of the response process helped us to redesign the questions, so that survey questions were clear, thus allowing for precise interpretation of the questions, thereby leading to more accurate responses. Volunteers for both focus groups and cognitive interviews were recruited by announcements in the employee newsletters.

d. Preparation of study instrument

Working drafts of the questionnaires were prepared and refined using qualitative data from the focus groups and cognitive testing procedures. The final survey questionnaire included items on the four major study constructs: *stressors*, *coping mechanisms*, *perceived stress*, and *adverse outcomes*.

Phase 2 (Administration of the Survey Questionnaires)

a. Overview

All procedures involving study volunteers (e.g., focus groups, cognitive testing, and questionnaire administration) were reviewed and approved by the Johns Hopkins University School of Public Health Committee on Human Volunteers. This maintains the highest possible standards for the protection of study volunteers.

b. Questionnaire distribution

Officers

The questionnaires were self-administered to Baltimore City Police Department Police officers as follows:

- At each of the nine precincts, the study coordinator and/or the study principal investigator attended roll-call accompanied by a union representative (police coordinator). The roll calls for one to two shifts were attended. Additionally, the PI attended meetings that were regularly scheduled, such as weekly meetings for homicide, or violent crimes or canine patrol.
- The principal investigator and study coordinator were introduced and then a brief overview of the study was presented including the risks and benefits of participation. The voluntary nature of the study and requests for voluntary participation were made. Refreshments were served at all roll calls (bagels or cookies). Questionnaires were handed out to all sworn precinct employees. These questionnaires had no coding information on them and no identifiers of any sort.
- The employees spent on average 15-20 minutes to complete the questionnaires.

Anyone who had to leave before they had completed the questionnaire was provided with a pre-addressed, pre-stamped return envelope in order to mail back their questionnaires to the study office. All other questionnaires were collected in a brown envelope and sealed before being removed by the researchers from the precinct station.

- All completed questionnaires were stored in the study office where they were kept under lock and key.
- The response rate was determined by calculating the number returned by each precinct compared with the average number of sworn employees at each precinct on the days of our visits (all three shifts).

c. Questionnaire data collection and management

Data was collected from the completed questionnaires as follows:

- Each questionnaire was reviewed for completeness and legibility.
- Each questionnaire was then assigned a consecutive study number.
- The responses were entered directly onto a database on the Johns Hopkins personal computer network.
- Backup copies of the data were (and are) maintained on computer, on disk and on tape.
- The original questionnaires and diskettes were all kept under lock and key in the study office. At the conclusion of all analyses from the study, all original records,

computer files, and questionnaires will be destroyed.

PHASE 3 (ANALYSIS OF DATA)

After checks for reliability and validity of responses and other data editing procedures were completed, we performed an array of various descriptive statistics (e.g., frequencies, histograms, and measures of central tendency and dispersion), and graphical techniques in order to characterize the distribution of variables, starting at the most refined level of measurements. This strategy provided us with familiarity with the data and allowed us to determine if the data met the assumptions required by the intended statistical testing procedures. Factor analysis was applied to all new scales, and all scales underwent correlation procedures. Overall levels of perceived workstress (and cross-over stress) were determined (**Specific Aim #1**) for all respondents. Stressors and coping strategies were identified and characterized, and adverse outcomes in officers were measured (**Specific Aim #2**) by cross-classifying independent variables with the outcome variable (perceived stress) appropriate to the level of measurement. The relationship between adverse outcome (including spousal abuse) and perceived stress was also determined (**Specific Aim #3**). In addition, we cross-classified independent variables with the outcome variables to understand how these variables interrelated. Procedures appropriate to this goal included contingency tables and two sample t-tests. Based upon these preliminary analyses, we developed a parsimonious model for workstress risk using logistic regression. Multiple regression and path analysis were used to allow for the controlled analysis of the relationships between the four major constructs. All models were tested with variance-covariance

matrices. We used logistic regression because it allowed us to analyze the joint effects of a set of independent variables (e.g., stressors) on the probability of dependent variables (e.g., perceived stress). Structural equation analytic techniques are in the process of being used in order to determine the relationship of the theoretical model constructs (path analysis) (**Specific Aim #4**). Data summaries were prepared in graphical and tabular form for use by the TQM teams (**Specific Aim #5**)

PHASE 4 (TQM PROCESS)

a. Overview

A total of three TQM intervention development teams were formed. These teams worked on the common goal "to identify police stress reduction and prevention strategies." Their results were forwarded to one additional team "the intervention assessment teams", and their goal was "to determine the cost-effectiveness, feasibility, and acceptability of the recommended interventions." The team process we followed is briefly described below.

b. TQM team membership recruitment

A total of six members served on each of three teams: law enforcement personnel will serve on three teams and law enforcement spouses will serve on three other teams. In addition, one other team was formed to conduct intervention assessments, and this also consisted of six members each with representation from each of the previous three teams; both officers and spouses served on this final assessment team. Volunteers for participation on the TQM teams were recruited using a variety of techniques as follows:

1. Officers were recruited by informational flyers posted in each of the 14 Baltimore Police Department buildings.
2. Notices were placed in the Fraternal Order of Police newsletter.
3. Spouses were recruited through announcements in the FOP newsletter.
4. Management and supervisors were recruited by sending flyers to police headquarters and requesting that they forward them to all managers. All flyers had the study office phone number listed so that potential recruits can call.
5. All potential team members were interviewed by phone by the principal investigator to ensure that they understood the purpose and function of the team and to ensure that they could commit to the entire schedule of meetings.
6. All team members received a small honorarium for their efforts (meals were served at all meetings).

c. Intervention Development Process

The teams followed the team format as detailed in the "Joiner Method Handbook".⁷⁴ This handbook operationalizes Demming's quality concepts, including problem-solving through continuous improvement and continuous feedback.

1. Each team was guided by an experienced team facilitator who was present at each meeting along with the principal investigator and one or two other study staff members.
2. Each of the three teams consisted of six to eight members. The spouse teams consisted of six spouses (or partners).
3. Each team chose their own team leader.

4. Each team met for two and one-half hours each week for a total of three weeks. Each team meeting covered two sessions so that all the material was covered. Police teams met at pre-arranged times so as not to interfere with officers' scheduled work rotations. Dinner was served at each meeting.

5. Each team member received (a) workbook on the TQM methodology, (b) a packet of baseline data (both indicator and survey data), and (c) a Team Workbook. The first team meeting was devoted to team building exercises and a discussion of TQM methods. At each meeting, teams reassessed their progress towards their goals.

6. Meetings were held at the Fraternal Order of Police headquarters.

7. Each team prepared recommendations in both written and graphical formats. These were presented to senior Police Department administration, the Advisory board, members of the "Intervention Assessment Teams," and the study investigators and consultants.

d. TQM Intervention Assessment Team Process

One Intervention Assessment team took all of the recommendations of the previous teams and determined which of these could actually be recommended for implementation. This team was guided by the TQM process. The Intervention Assessment team was responsible for determining the cost effectiveness of the interventions, the feasibility of implementations, and the acceptability to both officers and management (and spouses) (**Specific Aim #6**). This team was charged with conducting informal cost effectiveness estimates.

Given that the average cost per year for psychological services for the Baltimore Police Department is \$150,000, it is likely that the cost of most interventions would be cost effective if implemented, and the overall net cost to the police department would be low.

e. Selection Bias

Since we only sampled law enforcement personnel from one police department, our results may not be generalizable to all police forces, especially those in non-urban settings. Nevertheless, this study expands previous work by generating information on urban-based enforcement personnel in several important ways; 1) data were collected from officers from all ranks so comparison by job category and rank were made. Also, analyses were directed at determinants using relative rather than absolute measures, thereby enhancing generalizations of observed associations.

f. Non-Responder Bias

Non-responder bias would have been a problem if a large number of employees had failed to complete and return the survey. Fortunately, we had an excellent response.

g. Cross-Sectional Design

This design precludes the determination of causality at this point in time; therefore, only associations can be determined. However, the cross-sectional design is the most efficient design to glean information in a timely manner.

h. Validity of Self-Reports

Since workers were asked to provide self-reports on their perception of stress

and their stress outcomes, these responses may not be accurate because the respondents may have wanted to provide socially desirable responses. This is a concern in most studies that seek to measure sensitive issues and non-normative behaviors. However, the anonymous nature of the study may have helped to mitigate this effect. Internal validity and cross-checking of responses showed that this problem was probably minimal. Also the spouse abuse questions were validated by the abuse attitudes scale. Recall bias should also not be a serious problem as we will be asking respondents to recall events that occurred within the previous six months.

i. Survival Bias

Workers who quit, retired, or died because of their experiences with stress were not represented. Thus our results may under-represent these “exposed” workers and lead to inaccurate rates of stress outcomes. This is difficult to control for a study of this nature.

F. Dissemination of Data

a. Intramural Dissemination

All internal communications was handled by the Baltimore Police Department and was pre-approved by their legal and public information departments, both of which were represented on our advisory board. Press conferences were approved jointly between Johns Hopkins University and the Baltimore Police Department offices of public affairs.

b. Extramural Dissemination

In order to inform the law enforcement community, several approaches are

needed. All extramural information will be pre-reviewed by senior Baltimore Police Department administration as a courtesy. Using a variety of media (e.g., print, video, computer), we hope to make two tangible products available: (1) a synopsis of study results including the new stress scale and (2) detailed direction on how to follow the TQM methodology to develop stress-prevention recommendations. We hope to collaborate with our agency partners in preparing these materials for the law enforcement community. In addition, articles will be written and submitted to journals for publication (e.g., *Journal of Applied Psychology*, *Journal of Family Psychology*, *Journal of Occupational Health Psychology*, *Work and Stress*, *American Journal of Public Health*), including law enforcement journals (*Journal of Police Science*, *Criminal Justice and Behavior*, *Journal of Criminal Justice*). Articles will be prepared for the popular press (*Police Chief*, etc.) Study investigators have presented research findings at a variety of conferences intended to reach the target audience (NIJ Symposia and other national conferences such as the American Public Health Association Conference).

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QUESTIONNAIRE

JHU Project SHIELDS Questionnaire September 1998

Thank you for taking the time to fill out this questionnaire. Since this questionnaire is completely anonymous, please DO NOT write your name or any identifying marks anywhere on these pages.

I. Background Information

(1) **What is your gender?**
1 Male 2 Female

(2) **Year of birth:** 19_____

(3) **What ethnic group do you belong to?**
1 African-American 2 Caucasian 3 Hispanic 4 Other

(4) **Highest level of education completed:** ...
1 High School 2 Some College 3 College 4 Graduate School

(5) **How many years have you been a sworn employee of the Baltimore Police Department (BPD)?**

(6) **What is your current rank?**
1 Officer Trainee 4 Detective
2 Officer 5 Sergeant
3 Agent 6 Lieutenant or above

(7) **Did/do you serve in the military?**
1 Yes 2 No

(8) **Do you routinely have contact with suspects?** ..
1 Yes 2 No

(9) **What is your marital status?**
1 Married
2 Live-in partner
3 Divorced/Separated
4 Single
5 Widowed

(10) **What is the total # of times you have been married?**

(11) **Were you married before you joined the force?**
1 Yes, to my current spouse 2 Yes, to a former spouse
3 No

(12) **How many children are living in your home now (full or part time)? If none, please check N/A.**
 # children _____ * N/A _____

If you are currently married or with a significant other, please answer the following questions. (If not, please check N/A)

(13) **What is the gender of your spouse/significant other?** 1 Male 2 Female 3 N/A

(14) **Does your spouse or significant other have a job?**
1 Yes 2 No 3 N/A

(15) **If yes, is he/she a police officer?**
1 Yes 2 No 3 N/A

(16) **If yes, does he/she work for the BPD?**
1 Yes 2 No 3 N/A

(17) **What is the highest level of education completed by your spouse/significant other?**
1 High School 2 Some College 3 College 4 Graduate School

(18) **If your spouse/significant other has been married before, please indicate how many times (not including this marriage)**
 # marriages _____ * N/A _____

II. Work Attitudes

Please check the box that best describes how much you agree with the following statements:

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(19) There is good and effective cooperation between units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(20) I can trust my work partner	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(21) I view my work as just a job - it is not a career	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(22) There is not enough time at the beginning or end of the day for my chores at home	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(23) It is likely I will look for another full-time job outside this department within the next year ..	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(24) Compared to my peers (same rank), I find that I am likely to be more criticized for my mistakes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(25) I feel that I am less likely to get chosen for certain assignments because of "who I am" (e.g., race, gender, sexual orientation, physical characteristics)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(26) Within the department, gender related jokes are often made in my presence	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(27) When I am assertive or question the way things are done, I am considered militant	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(28) Promotions in this department are tied to ability and merit	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(29) Media reports of alleged police wrong-doing are biased against us	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(30) The administration supports officers who are in trouble	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(31) I have had to make split second decisions on the street that could have had serious consequences	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(32) The department tends to be more lenient in enforcing rules and regulations for female officers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(33) Some police officers would put their work ahead of anything - including their families ..	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(34) Female officers are held to a higher standard than male officers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

III. Events at Work

If you have ever experienced any of the following, please indicate how much it emotionally affected you. Please check N/A if you have not experienced it.

- | | Not at all | A little | Very much | N/A |
|--|----------------------------|----------------------------|----------------------------|----------------------------|
| (35) Making a violent arrest | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (36) Shooting someone | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (37) Being the subject of an IID investigation | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (38) Responding to a call related to a chemical spill | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (39) Responding to a bloody crime scene | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (40) Personally knowing the victim | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (41) Being involved in a hostage situation | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (42) Attending a police funeral | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| (43) Experiencing a needle stick injury or other exposure to blood and body fluids | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |

Did ANY extremely stressful event you experienced in the past cause you to feel any of the following, for 3 months or more?

- | | Yes | No |
|---|----------------------------|----------------------------|
| (44) Cause you to have intrusive or recurrent distressing thoughts, memories, or dreams about the event | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| (45) Make you avoid things related to the event (i.e., thoughts, places, conversations) | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| (46) Make you feel detached from people and activities that are important to you | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

Please check the box that best describes how much you agree with the following statements:

- | | Strongly Agree | Agree | Neither Agree / Disagree | Disagree | Strongly Disagree |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| (47) I can obtain helpful stress debriefing when I need it (i.e., not just going to a bar) | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (48) I feel that I can rely on support from my family, friends, etc. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (49) I feel optimistic or hopeful about the future .. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (50) I feel like I am on automatic pilot most of the time | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (51) I feel like I need to take control of the people in my life | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (52) I feel burned out from my job | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (53) I feel like I am at the end of my rope | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(54) I feel I treat the public as if they were impersonal objects	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(55) I have accomplished many worthwhile things in this job	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
(56) My beliefs about my personal safety, spirituality, etc., have been changed by my experiences at work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

IV. Dealing With Stress

When dealing with stressful events at work, how often do you:

	Never	Sometimes	Frequently	Always
(57) Draw on your past experiences from a similiar situation you have been in before	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(58) Stay away from everyone, you want to be alone	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(59) Talk with your spouse, relative or friend about the problem	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(60) Smoke more to help you relax	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(61) Pray for guidance and strength	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(62) Make a plan of action and follow it	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(63) Exercise regularly to reduce tension	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(64) Yell or shout at your spouse/significant other, a family member, or a professional	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(65) Let your feelings out by smashing things	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(66) Hang out more with your fellow officers at a bar	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(67) Gamble	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(68) Increase your sexual activity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(69) Rely on your faith in God to see you through this rough time	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(70) Try to act as if nothing is bothering you	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

During the past 6 months...

(71) Did you ever worry or feel guilty about your alcohol consumption?	<input type="checkbox"/> 1 Yes	<input type="checkbox"/> 2 No	<input type="checkbox"/> 3 N/A (Do Not Drink)
(72) Did you ever drink more than you planned?	<input type="checkbox"/> 1 Yes	<input type="checkbox"/> 2 No	<input type="checkbox"/> 3 N/A (Do Not Drink)
(73) Did you have periods when you could not remember what happened when you were drinking?	<input type="checkbox"/> 1 Yes	<input type="checkbox"/> 2 No	<input type="checkbox"/> 3 N/A (Do Not Drink)

V. Health Section

Do you suffer from the following health problems? Please check all that apply.

	Yes	No		Yes	No
(74) Migraines	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	(75) Diabetes	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
(76) Chronic low back pain	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	(77) High blood pressure	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
(78) Liver disease	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	(79) Foot problems	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
(80) Heart disease	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	(81) Reproductive problems	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
(82) Chronic insomnia (unable to sleep)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²			
(83) Do you currently smoke cigarettes, cigars. or a pipe?	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	(84) Have you had any serious injury (i.e., car accident. etc..) in the past 6 months?	<input type="checkbox"/> ¹	<input type="checkbox"/> ²

In the past 6 months, how often did you have (check all that apply):

	Never	Sometimes	Frequently	Always
(85) Pains or pounding in your heart and chest	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(86) Faintness or dizziness	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(87) Loss of sexual interest or pleasure	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(88) Feelings of low energy or slowed down	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(89) Thoughts of ending your life	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(90) Feelings of being trapped or caught	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(91) Headaches or pressure in your head	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(92) Blaming yourself for things	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(93) Feeling blue	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(94) Nausea, upset stomach, stomach pains	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(95) Suddenly scared for no reason	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(96) Feeling no interest in things	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(97) Trouble getting your breath	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(98) A lump in your throat	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(99) Feeling hopeless about the future	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(100) Spells of terror or panic	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(101) Feeling so restless you couldn't sit still	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(102) Crying easily	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
(103) Feeling that something bad was going to happen to you at work	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴

How often are the following statements true?

	Never	Sometimes	Frequently	Always
(104) I feel tired at work even with adequate sleep	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(105) I am moody, irritable, or impatient over small problems	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(106) I want to withdraw from the constant demands on my time and energy from work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(107) I feel negative, futile or depressed about work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(108) I think that I am not as efficient at work as I should be	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(109) I feel physically, emotionally and spiritually depleted .	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(110) My resistance to illness is lowered because of my work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(111) My interest in doing fun activities is lowered because of my work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(112) I feel uncaring about the problems and needs of the public when I am at work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(113) I have difficulty concentrating on my job	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
(114) When I ask myself why I get up and go to work, the only answer that occurs to me is "I have to"	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

VI. Behaviors

Have you ever gotten out of control and been physical (e.g. pushing, shoving, grabbing) with:

(115) A fellow officer	Yes	No	(116) Your child(ren)	Yes	No	N/A	
	<input type="checkbox"/> 1	<input type="checkbox"/> 2		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
(117) Your spouse/significant other .	Yes	No	N/A	(118) Your pet(s)	Yes	No	N/A
	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Have these people ever gotten physical with you?

(119) A fellow officer	Yes	No	(120) Your spouse/significant other	Yes	No	N/A
	<input type="checkbox"/> 1	<input type="checkbox"/> 2		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
(121) Your parents (when you were a child)	Yes	No	(122) Did your parents ever get physical with each other?	Yes	No	Don't Know
	<input type="checkbox"/> 1	<input type="checkbox"/> 2		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
(123) Suspects or civilians	Yes	No				
	<input type="checkbox"/> 1	<input type="checkbox"/> 2				

VII. Work - Home Issues

Please check the box that best describes how much you agree with the following statements:

- | | Strongly Agree | Agree | Neither Agree / Disagree | Disagree | Strongly Disagree | N/A |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| (124) I often get home too physically and emotionally exhausted to deal with my spouse/significant other | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| (125) I encourage my spouse/significant other to spend time with their family and friends | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |

- | | Strongly Agree | Agree | Neither Agree / Disagree | Disagree | Strongly Disagree |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| (126) I catch myself treating my family the way I treat suspects | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (127) At home, I can never shake off the feeling of being a police officer | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (128) A person who refuses to have sex with his or her spouse/significant other is asking to be beaten | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (129) I expect to have the final say on how things are done in my household | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (130) It is okay for a person to get physical (e.g., shoving, grabbing, smacking) with his or her spouse/significant other if they've been unfaithful | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (131) Getting physical once in a while can help maintain a marriage/relationship | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| (132) There is no excuse for people getting physical with their spouse/significant other | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

Thank you for your time and effort. Your input will be valuable in identifying ways to make your work environment a better place. If you have any questions, comments or need more information, please call the office of Dr. Robyn Gershon listed on your cover letter.

410-955-3046

Theoretical Model: SHIELDS

Category	Item	In the quest?	Source	Item #s from questionnaire	If no, possible source	Complete scale?
Demographics						
	Age, gender, education, length of service, marital status, race	Y	standard, focus groups	s1q1,2,3,4,5,8,9, 10		ok
	Spousal demographic information	Y	W, fg	s2		ok
	Career orientation (social activist role)	Y	Westat	s3Aq7,8		? Info to come from westat
	Fear and perception of risk	?	fg	new 11.5		no
	Health status	N			prison quest.	?
	Life events	?	Saranson (cut)	s1q19		no
	Impulse control	N				
	Locus of control	N				
	Obsessive worry, self esteem, social anxiety	N				
	Other jobs, school, hobbies	Y	fg, westat	s1q16		no

Theoretical Model: SHIELDS

Category	Item	In the quest?	Source	Item #s from questionnaire	If no possible source	Complete scale?
Demographics						
	Age, gender, education, length of service, marital status, race	Y	standard, focus groups	s1q1,2,3,4,5,8,9, 10		ok
	Spousal demographic information	Y	W, fg	s2		ok
	Career orientation (social activist role)	Y	Westat	s3Aq7,8		? Info to come from westat
	Fear and perception of risk	?	fg	new 11.5		no
	Health status	N			prison quest.	?
	Life events	?	Saranson (cut)	s1q19		no
	Impulse control	N				
	Locus of control	N				
	Obsessive worry, self esteem, social anxiety	N				
	Other jobs, school, hobbies	Y	fg, westat	s1q16		no

Category	Item	In the quest?	Source	Item #s from questionnaire	If no possible source	Complete scale?
	Personality (Type A, aggressiveness, achievement oriented, impatience, restlessness, hyper-alertness, explosiveness)	N				
	Risk taking and sensation seeking tendencies	N				
Stressors: Organizational/management associated						
	Authoritarianism	Y?	Westat	s3A, s3C?		? Info from westat
	Communication-related	N?				
	Coordination and cooperation between units	Y	Cooper	s3Aq3		no
(not exactly, related to one below)	Court related duties	Y	Cooper	s3Aq1, s3Bq13		
	Decision making control	N				
	Discrimination, harassment (gender, sexual orientation, race)	Y	westat, fg	s3Aq12-17, s3Cq4,7,8,10, s4q1		? Info from westat
	Down-sizing impact	N				

Category	Item	In the quest?	Source	Item #s from questionnaire	If no, possible source	Complete scale?
	Personality (Type A, aggressiveness, achievement oriented, impatience, restlessness, hyper-alertness, explosiveness)	N				
	Risk taking and sensation seeking tendencies	N				
Stressors: Organizational/management associated						
	Authoritarianism	Y?	Westat	s3A, s3C?		? Info from westat
	Communication-related	N?				
	Coordination and cooperation between units	Y	Cooper	s3Aq3		no
(not exactly, related to one below)	Court related duties	Y	Cooper	s3Aq1, s3Bq13		
	Decision making control	N				
	Discrimination, harassment (gender, sexual orientation, race)	Y	westat, fg	s3Aq12-17, s3Cq4,7,8,10, s4q1		? Info from westat
	Down-sizing impact	N				

Category	Item	In the quest?	Source	Item #s from questionnaire	If no, possible source	Complete scale?
	Job/task factors (time pressures, work load, work pace)	Y	cooper	s3Aq2, s3Dq1-4	:	yes?
	Lack of administrative support	Y	westat, cooper	s3Aq6,21,s3Cq2,5,8,9		no? Info form westat
	Lack of group support (cohesiveness)	Y	westat, cooper	s3Aq3,5,9.5 (new) s3Cq6		
Stressors: Police operations (job associated)						
(Not exactly - similar to one above)	Court failures	Y	Cooper	s3Aq1,s3Bq13		
(Same as above)	Dealing with the criminal justice system	Y	Cooper	s3Aq1,s3Bq13		
	Dealing with the families of victims/perpetrators	N				
	Dealing with the media	Y	Cooper	s3Aq20		no
	Dealing with perpetrators	Y	fg, westat	s3Bq2,5,6,7,12		
	Dealing with the public	Y	Cooper	s3Aq19		
	Death, injury to self or co-worker, threat of harm (hazardous working conditions)	Y	Westat	s3Bq1,3,4,7,10,11,12		

Category	Item	In (ho-quest?)	Source	Item #s from questionnaire	If no possible source	Complete scale?
	Job/task factors (time pressures, work load, work pace)	Y	cooper	s3Aq2, s3Bq1-4		yes?
	Lack of administrative support	Y	westat, cooper	s3Aq6,21,s3Cq2,5,8,9		no? Info form westat
	Lack of group support (cohesiveness)	Y	westat, cooper	s3Aq3,5,9.5 (new) s3Cq6		
Stressors: Police operations (job associated)						
(Not exactly - similar to one above)	Court failures	Y	Cooper	s3Aq1,s3Bq13		
(Same as above)	Dealing with the criminal justice system	Y	Cooper	s3Aq1,s3Bq13		
	Dealing with the families of victims/perpetrators	N				
	Dealing with the media	Y	Cooper	s3Aq20		no
	Dealing with perpetrators	Y	fg, westat	s3Bq2,5,6,7,12		
	Dealing with the public	Y	Cooper	s3Aq19		
	Death, injury to self or co-worker, threat of harm (hazardous working conditions)	Y	Westat	s3Bq1,3,4,7,10,11,12		

Category	Item	In the quest?	Source	Item #s from questionnaire	If no, possible source	Complete scale?
(Again - repeated)	External contacts (courts, lawyers, etc.)	Y	Cooper	s3Aq1, s3Bq13		
	Investigatory crime	?				
	Lack of respect and personal recognition	Y	fg, westat, cooper	s3Aq12, 18, s3Cq8, 10		
	Lack of necessary equipment	Y?	Cooper	s3Aq2, s3Dq2		
(same as one before)	Lack of resources	Y?	Cooper	s3Aq2, s3Dq2		
	Militarism	N				
(Repeat of supervisor questions)	Style of supervision (over supervision, under supervision)	Y	cooper, westat,	s3Aq6, 14, s3Cq2, 5, 9, s3Eq1		
	Paperwork	Y	cooper	s3Dq4		no
	Pay, benefits	Y?	fg	s1q20		no
	Poor physical environment at work	N				
(Not this exact issue)	Promotion (stagnation, over-promotion)	N	westat, cooper	s3Bq18, s3Cq3, 10, s3Eq5		
	Responsibilities without any authority/autonomy	N				
(Y or N, not if has effect)	Shift work	Y	fg	s1q15		

Category	Item	In the quest?	Source	Item #s from questionnaire	If no possible source	Complete scale?
(Again - repeated)	External contacts (courts, lawyers, etc.)	Y	Cooper	s3Aq1,s3Bq13	:	
	Investigatory crime	?				
	Lack of respect and personal recognition	Y	fg, westat, cooper	s3Aq12,18,s3Cq8,10		
	Lack of necessary equipment	Y?	Cooper	s3Aq2, s3Dq2		
(same as one before)	Lack of resources	Y?	Cooper	s3Aq2, s3Dq2		
	Militarism	N				
(Repeat of supervisor questions)	Style of supervision (over supervision, under supervision)	Y	cooper, westat,	s3Aq6,14,s3Cq2,5,9,s3Eq1		
	Paperwork	Y	cooper	s3Dq4		no
	Pay, benefits	Y?	fg	s1q20		no
	Poor physical environment at work	N				
(Not this exact issue)	Promotion (stagnation, over-promotion)	N	westat, cooper	s3Bq18,s3Cq3,10, s3Eq5		
	Responsibilities without any authority/autonomy	N				
(Y or N, not if has effect)	Shift work	Y	fg	s1q15		

Category	Item	In the ques?	Source	Item #s from questionnaire	If no possible source	Complete scale?
	Technological changes and challenges	N				
(Not as such - as above)	Unnecessary bureaucratic paperwork	Y	cooper	s31Dq4		
Non-work stressors: work-family conflicts						
	Time constraints (absence from home)	N?		(?s on exhaustion - s7)		
	Unpredictable schedules	N?		(Same)		
	Family/household responsibilities	Y		s1q17		
(no elder)	Eldercare/child care	Y		s1q7		
	Social support (social isolation)	Y	mini	s4Cq19		
Coping Mechanisms						
	Passive avoidance		B&M has 3 methods: active cognitive, active behavioral, and avoidance, with 2 focuses: problem vs. emotion focused			
	Passive avoidance/harmful					
	Anger					
(As above)	External support	Y	mini	s4Cq19		
	Cognitive (informed)					

Category	Item	In the quest?	Source	Item #s from questionnaire	If no possible source	Complete scale?
	Technological changes and challenges	N				
(Not as such - as above)	Unnecessary bureaucratic paperwork	Y	cooper	s3Dq4		
Non-work stressors: work-family conflicts						
	Time constraints (absence from home)	N?		(?s on exhaustion - s7)		
	Unpredictable schedules	N?		(Same)		
	Family/household responsibilities	Y		s1q17		
(no elder)	Eldercare/child care	Y		s1q7		
	Social support (social isolation)	Y	mini	s4Cq19		
Coping Mechanisms						
	Passive avoidance		B&M has 3 methods: active cognitive, active behavioral, and avoidance, with 2 focuses: problem vs. emotion focused			
	Passive avoidance/harmful					
	Anger					
(As above)	External support	Y	mini	s4Cq19		
	Cognitive (informed)					

TOTAL QUALITY MANAGEMENT: TEAM FINDINGS

TOTAL QUALITY MANAGEMENT TEAM FINDINGS

Project Summary:

This past year, researchers from the Johns Hopkins University, School of Public Health, worked closely with the Fraternal Order of Police (FOP) and Baltimore Police Department (BPD) leadership to conduct a police stress survey. This collaborative study was recently successfully completed and a summary of the results is provided below. One of the most important aspects of the study was the generation of stress management/stress prevention strategies, and the results of this last phase of the study are summarized on the final page of this report. This is also a good moment to thank the many officers, spouses, FOP & BPD leadership, the research team, and the many volunteers for helping to make this important study a tremendous success. The results from Baltimore will hopefully be used to help make police work less stressful for police officers throughout the country. Finally, the study was generously supported by the National Institute of Justice, an agency actively seeking to improve the health and well being of the nation's law enforcement personnel.

Study Results:

There were 1100 completed questionnaires returned to the study office, this represented a 70% response rate. The officers completing the questionnaire were very similar to the general make-up of the police force in general. For example, 85% of the officers were male, the average age was 36 years and most had one or two years of a college education. On average, the officers had been on the force eleven years, 18% had the rank of sergeant and higher. About a third of the officers had served in the military, and almost 10% of the officers had spouses who were also police officers.

Stressors

There were many different things that tended to "stress" officers, and the most stressful were situations which are often referred to as "critical incidents." Examples of these include attending a police funeral, being the subject of an Internal Investigation Department (IID) investigation, experiencing a needle stick, involvement in a shooting, a violent arrest, or a hostage situation. Of all the other aspects of policing that were stressful, by far the single most important one was the feeling many officers had of not being supported when they were in trouble. In other words, some officers felt that if they made the right decision everything was fine, but if they made a wrong one or a questionable one, then they felt very alone. Whether this really is true or not - the perception of 66% of the officers is that they feel isolated from the department if they get in trouble.

Perceived Stress, Health and Well-Being

Roughly one-quarter of the officers would be classified as having "high stress" levels. Those that did were more likely to report symptoms of anxiety (pounding chest),

or depression (low energy, loss of interest), or somatic symptoms (headaches) than officers with lower levels of perceived stress. Also, officers with high stress levels were much more likely to report heavy alcohol use, smoking, more injuries, and higher rates of chronic health problems such as chronic lower back pain, migraines, high blood pressure, and insomnia. Female officers with high levels of stress also reported high rates of reproductive health problems and very high rates of headaches and migraines. Of particular interest was the relationship between stress and spousal abuse (domestic violence), and there was a highly significant connection between spousal abuse and high levels of stress. The use of alcohol combined with high levels of stress served as a "spark", and it increased the risk for domestic violence.

Sadly, some officers appear to be "burned out" on policing, with about one-third reporting that they are on "automatic pilot", or "burned out from my job", 13% were not optimistic about the future.

There can be no doubt that policing is stressful work. Many different studies have shown that police officers have one of the most difficult, demanding and stressful occupations. Throughout the country, it is becoming increasingly difficult to retain and hire police officers. Yet the results of this study are somewhat reassuring because a large majority of officers appear to be able to successfully cope with the pressures of the job. In order to identify ways to help lessen the stress for all officers, Total Quality Management teams, including one for spouses, were formed to work on possible solutions. Their recommendations are summarized below:

Total Quality Management Team Recommendations

Dealing with stressful situations

A. Problem: Attending police funerals (i.e., getting upset and stressed by the realization of vulnerability).

Possible Solutions:

1. Honest and thoughtful discussions related to the reality of the job, led by experienced officers and counselors and programmed into the academy training curriculum.
2. Debriefing should be conducted at the slain officer's district and made available to all district commanders who request it for their employees.
3. Review the entire critical incident debriefing policy and procedures, update and improve as necessary. This should be done at least every 3-5 years.
4. Increased utilization of the chaplaincy program in this area.

B. Problem: Bloody crime scene (i.e., again this increases the officers perception of risk)

Possible Solutions:

1. Show a video of a bloody scene and follow this with a therapist led discussion on vulnerability. Do this during academy training

C. Problem: Needlestick injury (i.e., officers fearful about HIV infection and AIDS)

Possible Solutions:

1. Develop and publicize policy and protocol so officers can get post-exposure prophylaxis in two hours and provide HIV/AIDS training for officers.

D. Problem: Perceived lack of support for officers in trouble.

Possible Solutions:

1. Regular management training for all supervisory personnel. They should be trained to identify officers at risk for getting in trouble, so that they can help prevent it. If the officer is already in trouble, they should be taught the methods that can assist the officer and help him/her through their time of trouble. Again the chaplaincy program might be utilized to provide support.
2. Have members of the advisory board and the commissioner meet periodically with officers and recent retirees for candid small group discussions on this matter.
3. Clarify policies on paid/unpaid administrative leave.

Measures to lessen the perception of stress and/or improve coping skills

A. Problem: Officers are not as fit as they could be. This makes them more vulnerable to stress.

Possible Solutions:

1. Conduct mandatory annual physical and psychological evaluations.
2. Support gym attendance by allowing work outs during work time.
3. Support a public safety gym and fitness program that officers can attend
4. Sponsor a wellness program, support sessions with individual trainees, nutrition counselors, etc.
5. Support confidentiality of all but the most serious issues when dealing with mental health and physicians. Officers don't want to reveal anything that may get them in trouble- consequently they don't get the help they need.
6. Have a private waiting areas for any form of counseling.

B. Problem: Lack of advancement.

Possible Solutions:

1. Install computers at FOP and provide linkage for distance learning (degree

- programs) (make them available also to spouses).
2. Start a management leadership and mentorship program.

C. Problem: Wear and tear on officers related to paper work and paper trails.

Possible Solutions:

1. Install computers in all districts and eventually cars or provide laptops, paid for by corporate sponsors or Microsoft.

D. Problem: Improve the overall status of policing, including equity issues.

Possible Solutions:

1. Have the FOP work with BPD with officers' best interests in mind and working in a collaborative, not adversarial manner.
2. Examine the status of female police officers and assign this to a high level commission. This should include everything (e.g., recruitment, training, clothing requirements, etc.) and basically all other policies and procedures that pertain to female police. The overall goal of the commission should be to document existing policies and practices and determine, what, if any, changes are needed to improve the working environment for female police officers.

Strategies to target adverse stress-related outcomes

A. Problem: Alcoholism

Possible Solutions:

1. The FOP should sponsor an AA group for officers only.
2. Annual screening for alcohol abuse (at the time of the annual physical).
3. Training of Sergeants and above on early warning signs so they can help officers before they get into trouble.

B. Problem: Accidents

Possible Solutions:

1. Support special "police-level driving" school for all new officers (while still in the academy).
2. Any officer involved in an accident should be required to take this program and periodically a random number of officers should also be assigned for retraining.

C. Problem: Spousal abuse in police families.

Possible Solutions:

1. Support and encourage effective communication and partner commitment. This

promotes stability in the workforce and has been shown to decrease turn-over. This will also help minimize the threat of domestic violence. There are several ways to do this.

- ▶ Send trained spouses to the academy to serve as facilitators on discussions related to how policing affects the marriage and the family.
 - ▶ Have trained "successful" seasoned police couples serve as mentors to new police couples.
 - ▶ Sponsor police couples only "Marriage Encounter" weekends.
 - ▶ Sponsor more couples activities, actively encourage spouse participation in social events, parties, picnics, coffee hours, prayer sessions, pre-nuptial training, couples counseling, marriage therapy, communication skills classes, parenting workshops, etc. Make the spouses more a part of the police officers work life.
 - ▶ Encourage the revitalization of the women's auxiliary group. They need to conduct a needs assessment to find out ways to involve partners and strengthen families (e.g., daycare vouchers, child care sharing for vacations, support groups for families with teens, eldercare issues, upcoming retirements, etc).
 - ▶ Support for non-traditional partnerships and other family members is needed (e.g., for girlfriend/boyfriend, parents, teens, etc.)
 - Provide information to police families via FOP regarding numerous police web sites.
2. Give officers cell phones, beepers, so they can be reached by families at all times.
 3. Limit the amount of overtime officers are allowed to do. Conduct financial planning and finance management for new recruits (mandatory) and then sponsor many diverse financial programs for all officers and families.
 4. Sponsor retirement planning programs. Help officers to make successful transitions.
 5. Ensure that BPD policies on spousal abuse are clear and strictly enforced (zero tolerance). The department should provide liaison services so spouses can get the help and services they need (this will encourage them to report such incidences).
 6. Sponsor a mental health hot line (24 hour) service for officers in trouble of any sort. (Anonymous with the encouragement of referrals).

D. Problem: Poor coping skills.

Possible Solutions:

1. Hire trainers to provide "hardiness training" for officers identified at especially high risk because of poor coping skills. They could self-refer or be referred by their sergeants.

Miscellaneous recommendations

A. Problem: Promotions viewed sometimes as "unfair."

Possible Solutions:

1. Re-examine the entire exam and promotion procedures and policies and compare these tests with other agencies.
2. Provide job descriptions for each position.

B. Problem: Sub-optimal management skills

Possible Solutions:

1. Provide mentors or coaches for all new supervisors (e.g., sergeants).
2. Evaluate supervisors on an annual basis (use anonymous surveys), make staff performance and staff conduct one of the tools to evaluate managers competency.

C. Problem: Lack of upward advancement.

Possible Solutions:

1. Provide coaches/mentors (e.g., retirees) to help officers preparing for exams, interviews, etc.
2. For women, minority members, etc., actively support mentorship programs, and group activities (similar to the Vanguard). Assign mentors to individuals interested in management positions. Sponsor a management training program. Have individuals interested in management meet informally with the Commissioner for advise, support. Have a women's management core group form to support more junior women.

Project SHIELDS Data

Demographics	
Gender	
Males	85%
Females	15%
Average age	36 years
Ethnicity	
Caucasian	64%
Other	36%
Education	
Some college	55%
College	26%
Average years in service	11.5 years
Current rank	
Officer	54%
Agent	6%
Detective	14%
Sergeant	13%
Lieutenant	5%
Have served in the military	35%
Marital state	
Married	60%
Live in partners	8%
Divorced	12%
Single	19%
Widowed	0.5%
Spouse/partner is a police officer	9%
With Baltimore Police Department	7.5%

Stressors	
Attending a police funeral	55%
Being the subject of an IID	34%
Experiencing a needlestick injury	30%
Making a violent arrest	19%
Personally knowing the victim	16%
Responding to a bloody crime scene	16%
Shooting someone	8%
Hostage situation	8%
Chemical spill response	4%


Health Problems	
Chronic low back	35%
Foot problems	23%
Migraine	20%
High blood pressure	16%
Chronic insomnia	15%
Reproductive problems	6%
	(18% of women)
Heart disease	3%
Diabetes	3%
Liver disease	1%

Behavioral Problems	
Current smokers	24%
Serious accidents in past 6 months	9%
Physical abuse	
Fellow Officer	7%
Spouse	7%
	(18% of women)
Children	7%
Pets	8%

Psychological Problems	
Low energy	22%
Headaches	12%
Loss of interest	6%
Loss of sexual interest	5%
Feeling something bad	4%
Pounding in the chest	4%
Thoughts of ending life	1%

Critical Incidents	Number	% Agree/ Strongly Agree
Workplace/Stress Environment		
Making split second decisions on the street that could have had serious consequences	922	88.23
Some police officers would put their work ahead of anything, including their families	777	72.89
Coworker Environment		
There is good and effective cooperation between units	526	49.76
I can trust my work partner	811	76.65
Unfair Treatment		
I feel that I am less likely to get chosen for certain assignments because of "who I am" (e.g., race, gender, sexual orientation, physical characteristics).	391	36.64
Within the department, gender related jokes are often made in my presence	307	28.96
The department tends to be more lenient in enforcing rules and regulations for female officers	445	41.82
Female officers are held to a higher standard than male officers	121	11.36
Work Satisfaction		
I view my work as just a job, it is not a career	214	20.28
It is likely I will look for another full-time job outside this department within the next year	222	20.77
Administrative Support		
Compared to my peers (same rank), I find that I am likely to be more criticized for my mistakes	193	18.19
When I am assertive or question the way things are done, I am considered militant	277	26.16
Promotions in this department are tied to ability and merit	175	16.45
The administration supports officers who are in trouble	87	8.25

RESULTS/ABSTRACTS



**Health and Well Being in
Aging, High Stress
Workers**

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Abstract

The issue of occupational health risks among aging workers is a problem of growing importance. By the year 2010, the proportion of U.S. employees in the 45-64 age group is expected to grow at a faster rate than any other age group. One important factor related to the health and well being of aging workers is the effect of work stress, both acute and chronic. Older workers who have experienced high levels of work stress, with associated occupational health-related behaviors, may be at an increased risk of poor health outcomes related to stress. In order to examine this relationship, a cross-sectional survey was conducted of older police officers.

Responses were obtained from 1188 officers (response rate 79%), including a subsample of 126 officers over 50 years of age. Analyses were conducted on the joint and interactive effects of stress on the physical and psychosocial well being of officers. The results were as follows:

- Occupational stress was significantly associated with health problems (OR=1.72, CI, 1.13-2.64):
 - High blood pressure
 - Low back pain
 - Heart disease
 - Depression
 - Sleep problems
 - Asthma

The frequency of health problems was significantly higher in older officers than in those < 50 years of age. These results indicate that older workers may be at risk for significant occupational health problems, and appropriate risk reduction strategies are needed, especially for high risk work positions.

Introduction

Background:

- Employees in high stress jobs are at increased risk for stress-related adverse outcomes.
- Police officers are known to be a work population at high risk for psychosocial work stress.

Problem:

Aging workers employed in high risk, high stress jobs may be especially at risk for adverse health outcomes. This is a problem of growing importance because of the rapidly aging U.S. workforce affecting all job sectors, including policing, nursing, EMS, etc. Police Departments are beginning to experience labor shortages leading to an increasing reliance on older workers. Keeping older workers on the job safely and effectively will be labor priority in the coming years.

Research Question:

What is the relationship between age, perceived work stress, and stress-related adverse outcomes in a population of older police officers?

Study Design:

An anonymous questionnaire was developed and self-administered to police officers from an inner-city, high crime index Police Department.

Study Methods

The 132-item Police Stress Questionnaire was developed
It evaluated the following major constructs:

Demographics:

- Age
- Gender
- Ethnicity
- Education
- Tenure on the job
- Current Rank
- Marital Status

Work Place Stressors:

- Organizational Failures
- Critical Incidents
- Job/Team Demands
- Control/Authority Issues

Perceived Work Stress:

- Police Workstress Scale (P-WSS)

Coping Strategies:

- Cognitive Coping
- Disengagement
- Passive Behavioral
- Maladaptive
- Active Behavioral

Stress-Related Outcomes:

- Psychological
- Physiological
- Behavioral

Study Methods

- Self-administered anonymous questionnaire at roll call visits
- All on-duty officers at roll call were eligible to participate
- All analyses were conducted using SPSS Software
- Most items had Likert-type responses
- All scales (including several new ones) underwent extensive factor analysis

Results

Demographics:

- Gender (male): 84% (N= 126)
- Age (mean): 34 years
- Education (13+ years): 85%
- Tenure (mean): 28 years (range 2-44 years)
- Current Rank:
 - Officer: 44%
 - Agent: 6%
 - Detective: 10%
 - Sergeant and higher: 40%
- Contact with suspects: 60%
- Marital Status:
 - Married/ Living with Partner: 81%
 - Divorced: 17% (1-3x)
 - Single/Widowed: 2%

Results
Stressors: Critical Incidents

% of Male (Increase) Officers

	Younger < 50	Older ≥ 50	P
Violent arrest	21%	24%	NS
Shooting someone	30%	48%	< .05
Being the subject of IC investigation	52%	50%	NS
Responding to a chemical spill	9%	12%	< .01
Stoody crime scene	17%	14%	NS
Personally knowing the victim	27%	42%	< .01
Hostage situation	13%	18%	< .05
Attending police funerals	65%	78%	< .01
Needless injury	51%	50%	NS

Results
Stressors: Work Organization

	Younger < 50 (n=64)	Older ≥ 50 (n=129)	P
Trust			
• "I can trust my partner"	77%	80%	NS
Support			
• "The administration supports officers who are in trouble..."	8%	9%	NS
Compensation			
• "I don't feel there is paid and adequate compensation for my work."	27%	41%	< .05
Organizational fairness			
• "Promotions are not based on ability and merit."	58%	68%	< .05
• "The Department tends to do more toward in enhancing fees and reputations for female officers."	41%	56%	< .001

Results
Associations Between Stressors and Stress

	OR
• Critical Incidents	9.3
• Work Organization	3.5
• Demographics	1.8

Results
Physiological Outcomes

	Younger < 50 (n=94)	Older ≥ 50 (n=129)	OR
• Migraines	21%	15%	NS
• Dizziness	2%	9%	4.72
• Head Pain	34%	45%	1.83
• High Blood Pressure	13%	41%	4.38
• Low Blood Pressure	1%	1%	NS
• Fast Pulse	20%	25%	1.56
• Restlessness	18%	9%	NS
• Chronic Pain			

Results
Behavioral Outcomes

	Younger < 50 (n=94)	Older ≥ 50 (n=129)	OR
• Smoking	23%	32%	1.92
• Alcohol/Drugs	9%	9%	NS
• Asthma	20%	20%	NS
• Gambling	1%	1%	NS
• Ability to Spend/Save	9%	5%	NS

* Significant

Results
Psychological Outcomes

	mean scores		p
	<50	≥50	
Scales			
Depression	1.47	1.51	NS
Somatization	1.39	1.43	NS
Anxiety	1.27	1.28	NS
*Significant Differences- Items			
Chest Pain	1.38	1.57	< .01
Fatigue	1.28	1.38	< .05
Loss of Sleep	1.40	1.58	< .01
Interact:			
Feeling Blue	1.72	1.88	< .01
Excitement	3.94	3.71	< .05

Results
**Associations Between Perceived
Stress and Health Outcomes**

- High blood pressure
- Lower back pain
- Anxiety
- Chronic liver disease
- Heart disease
- Reproductive health

Results
**Associations Between Perceived
Stress and Behavioral Outcomes**

- Higher stress
- 3 times more likely to abuse spouse/partner
- 5 times more likely to report alcoholism

Conclusions

1. Older police are more likely to:
 - be adversely affected by critical incidents
 - have higher stress-related health problems
 - have higher workstress levels
2. Perceived stress was significantly related to various adverse outcomes.

Recommendations

1. Older workers in high stress jobs should be evaluated for stress and stress-related health problems.
2. Interventions aimed at identification, prevention and managing stress and stress-related health problems are needed for high stress employees, including older employees.



Health and Well Being in Aging, High Stress Workers

**Robyn R.M. Gershon
Xianbin Li, Carla Storr,
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Abstract

The issue of stress-related health effects among aging workers is a problem of growing importance. By the year 2005, the proportion of U.S. employees in the 45-64 age group is expected to grow at a faster pace than any other age group. One important factor related to the health and well being of aging workers is the effect of workstress, both current and cumulative. Older workers who have experienced high levels of workstress, with associated sub-normal health-related behaviors, may be at an increased risk of poor health outcomes related to stress. In order to examine this relationship, a cross-sectional survey was conducted of older police officers.

Responses were obtained from 1100 officers (response rate 70%), including a subsample of 126 officers over 50 years of age. Analyses were directed at the joint and independent effects of stress on the physical and psychological well being of officers. The results were as follows:

•perceived stress was significantly associated with health problems (OR=4.72, CI., 2.12-9.84):

- high blood pressure
- low back pain
- heart disease
- insomnia
- migraines

• depression (OR= 3.93, CI., 1.88-20.56).

The frequency of health problems was significantly higher in older officers than in those < 50 years of age. These results indicate that older workers may be at risk for significant stress-related health problems, and appropriate risk reduction strategies are needed, especially for high risk work populations.

Introduction

Population:

- Employees in high stress jobs are at increased risk for stress-related adverse outcomes.
- Police officers are known to be a work population at high risk for psychosocial work stress.

Problem:

Aging workers employed in high risk, high stress jobs may be especially at risk for adverse health outcomes. This is a problem of growing importance because of the rapidly aging U.S. workforce affecting all job sectors, including policing, nursing, EMS, etc. Police Departments are beginning to experience labor shortages leading to an increasing reliance on older workers. Keeping older workers on the job safely and effectively will be labor priority in the coming years.

Research Question:

What is the relationship between age, perceived workstress, and stress-related adverse outcomes in a population of older police officers?

Study Design:

An anonymous questionnaire was developed and self-administered to police officers from an inner-city, high crime index Police Department.

Study Methods

The 132 item police stress questionnaire was developed.

It included the following major constructs:

Demographics

- Age
- Gender
- Ethnicity
- Education
- Tenure on the job
- Current Rank
- Marital Status

Work Place Stressors:

- Organizational Factors
- Critical Incidents
- Job/Task Demands
- Control/Authority Issues

Perceived Work Stress:

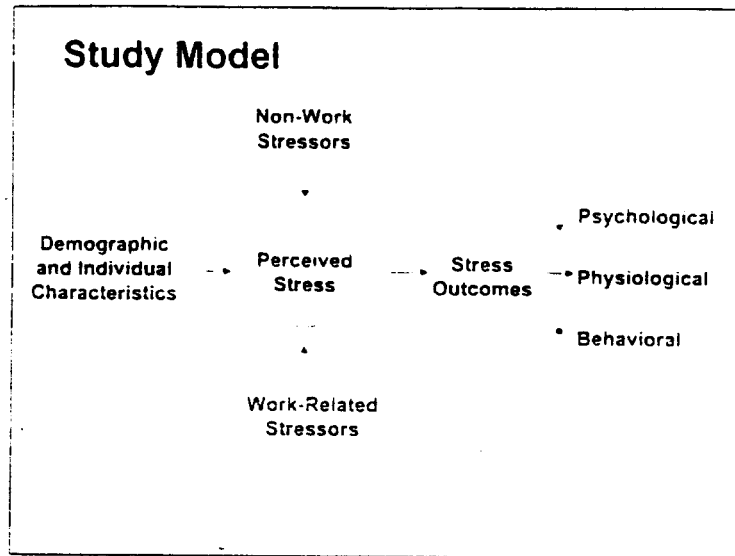
- Police Workstress Scale (α = .89)

Coping Strategies:

- Cognitive Coping
- Disengagement
- Active Behavioral
- Passive Behavioral
- Maladaptive

Stress-Related Outcomes:

- Psychological
- Physiological
- Behavioral



Study Methods

- Self-administered anonymous questionnaire at roll call visits
- All on-duty officers at roll call were eligible to participate
- All analyses were conducted using Stata Software
- Most items had Likert-type responses
- All scales (including several new ones) underwent extensive factor analysis

Results

Demographics

- Gender (male): 84% (N= 126)
- Age (mean): 54 years
- Education (13+ years): 85%
- Tenure (mean): 28 years (range 2-44 years)
- Current Rank:
 - Officer: 44%
 - Agent: 6%
 - Detective: 10%
 - Sergeant and higher: 40%
- Contact with suspects: 60%
- Marital Status:
 - Married/ Living with Partner: 81%
 - Divorced: 17% (1-3x)
 - Single/Widowed: 2%

Results

Stressors: Critical Incidents

% Very Much Emotionally Affected

	Younger	Older	P
	<50	≥ 50	
Violent arrest	21%	24%	NS
Shooting someone	30%	48%	<.05
Being the subject of IIC investigation	52%	50%	NS
Responding to a chemical spill	9%	13%	<.01
Bloody crime scene	17%	14%	NS
Personally knowing the victim	27%	42%	<.01
Hostage situation	13%	18%	<.05
Attending police funeral	65%	78%	<.01
Needlestick injury	54%	60%	NS

Results

Stressors: Work Organization

	Younger	Older	P
	< 50 (N=948)	≥ 50 (N=126)	
Trust			
• "I can trust my partner."	77%	80%	NS
Support			
• "The administration supports officers who are in trouble..."	8%	9%	NS
Cooperation			
• "I don't feel there is good and effective cooperation between units."	27%	41%	<.05
Organizational Fairness			
• "Promotions are not tied to ability and merit."	56%	68%	<.05
• "The Department tends to be more lenient in enforcing rules and regulations for female officers."	41%	66%	<.001

Results

Associations Between Stressors and Stress

	OR
• Critical Incidents	9.3
• Work Organization	3.5
• Demographics	1.8

Results

Physiological Outcomes

	Younger < 50 (N=946)	Older ≥ 50 (N=126)	OR
• Migraines	21%	14%	NS
• Diabetes	2%	9%	4.73
• Back Pain	34%	45%	1.63
• High Blood Pressure	13%	41%	4.59
• Liver Disease	1%	1%	NS
• Foot Problems	22%	32%	1.66
• Reproductive	5%	9%	NS
• Chronic Insomnia	16%	13%	NS

Results Behavioral Outcomes

	Younger < 50 (N=946)	Older ≥ 50 (N=126)	OR
• Smoking	23%	32%	1.62
• Accident/Injury	9%	6%	NS
• Alcohol	20%	20%	NS
• Gambling	1%	1%	NS
• Abuse to Spouse/Partner	3%	5%	NS

* Significant

Results Psychological Outcomes

	mean scores		
	<50	≥50	p
Scales			
Depression	1.47	1.51	NS
Somatization	1.39	1.43	NS
Anxiety	1.27	1.28	NS
*Significant Differences- Items			
Chest Pain	1.38	1.57	<.01
Faintness	1.28	1.38	<.05
Loss of Sexual Interest	1.40	1.58	<.01
Feeling Blue	1.72	1.88	<.01
End of my Rope	3.94	3.71	<.05

Results
**Associations Between Perceived
Stress and Health Outcomes**

- High blood pressure
- Lower back pain
- Anxiety
- Chronic liver disease
- Heart disease
- Reproductive health

Results
**Associations Between Perceived
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- Higher stress
- 3 times more likely to abuse
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alcoholism

Conclusions

1. Older police are more likely to:
 - be adversely affected by critical incidents
 - have higher stress-related health problems
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2. Perceived stress was significantly related to various adverse outcomes.

Recommendations

1. Older workers in high stress jobs should be evaluated for stress and stress-related health problems.

2. Interventions aimed at identification, prevention and managing stress and stress-related health problems are needed for high stress employees, including older employees.

The Public Health Implications of Law Enforcement Stress



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Funding provided by NHI



Project Collaborators



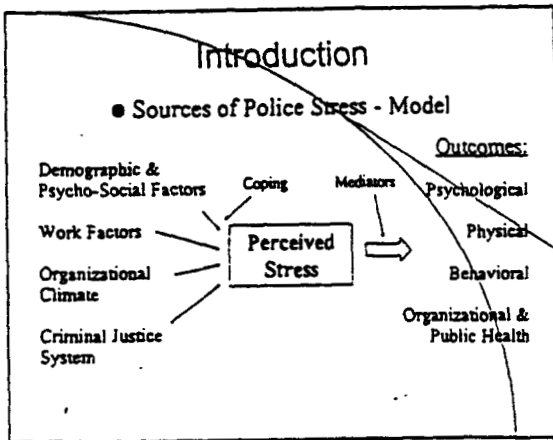
- Baltimore Police Department
 - Colonel Margaret Patzen
- Fraternal Order of Police
 - Gary McLhinney
- Johns Hopkins Research Team
 - Antonio Escamilla, MD
 - Dana LaFon, MS
 - Christine Karkashian, MA
 - David Vlahov, PhD
- Project SHIELDS Advisory Board

Presentation Outline

- Introduction
 - Law Enforcement Stress - prevalence, incidence, and correlates
- Project SHIELDS Data
 - Psychological, physical, and behavioral outcomes related to police stress
- Public Health Implications of Police Stress
 - Economic and organizational implications

Introduction

- Sources of Police Stress
- Measures of Police Stress
- Epidemiology of Police Stress



Introduction

- Measures of Police Stress
 - Project SHIELDS Stress Scale, 11 items, $\alpha = .89$
 - "I feel negative, futile, or depressed about work"
 - "I think that I am not as efficient at work as I should be"
 - "My interest in doing fun activities is lowered because of my work"
 - "I feel uncaring about the problems and needs of the public when I am at work"
 - "When I ask myself why I get up and go to work, the only answer that occurs to me is I have to"

Introduction

- Epidemiology of Police Stress

Magnitude:
 State & Local Law Enforcement =
 922,000 FTE

663,535	Sworn
+ 74,500	Federal Officers
738,035	Total Sworn

Gender: < 15% Women
 < 25% Minority

Introduction

- Epidemiology of Police Stress Statistics

- ◆ High levels work stress, PTSD
- ◆ High suicide rates *3rd highest of 130 occupations*
(2.9 ratio compared to other municipal workers)
- ◆ Alcohol abuse
- ◆ Increased vulnerability over time
 MMPI → somatization ↑, anxiety ↑, alcohol ↑

Introduction

- Epidemiology of Stress

- Increased risk of mortality (>10 years tenure) and morbidity from:
 - Cancer (especially digestive and bladder)
 - Heart disease
 - ↑ Hypertension, blood pressure
 - ↑ Triglycerides, lipoproteins
 - ↑ Acute MI
 - ↑ Chronic back
 - Rates ~ 20-25% alcoholism
 - Drug use = 2-10%

Project SHIELDS Data

● Respondents:
N=1106 (70% response rate)

- Male 36%
- Mean Age 36 years
- Mean Tenure 11.5 years
- Caucasian 64%
- Married/Partner 68%
- Military 35%
- Some college or + 85%

Project SHIELDS Data

● Major Stressors

- Critical Incidents

"If you have ever experienced any of the following, please indicate how much it emotionally affected you." (% reporting "very much")

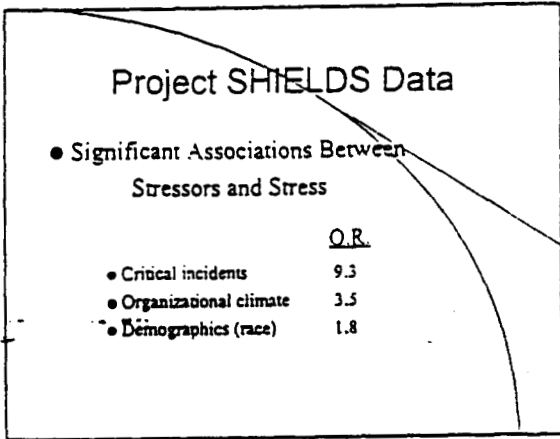
- Attending a police funeral (55.4%)
- Being the subject of an IID investigation (33.8%)
- Experiencing a needle stick injury or other exposure to blood or body fluids (29.7%)
- Making a violent arrest (19.3%)
- Personally knowing the victim (16.3%)

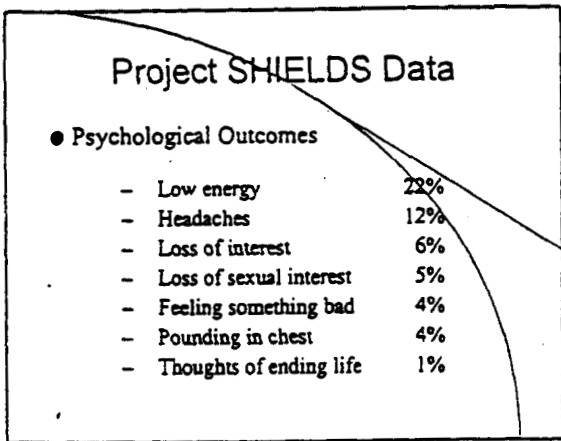
Project SHIELDS Data

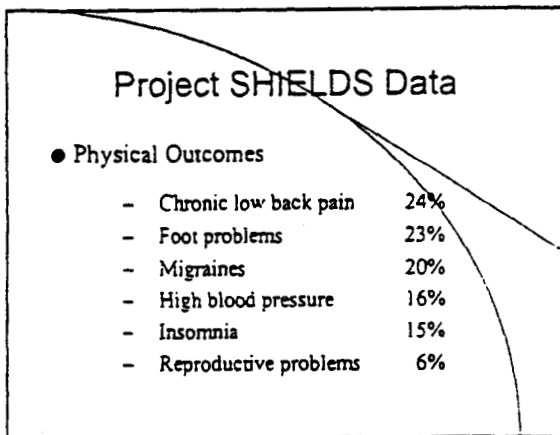
● Major Stressors

- Organizational & Job Related (% reporting "agree")

- I have had to make split second decisions on the street that could have had serious consequences (88.2%)
- Some police officers would put their work ahead of anything - including their families (72.9%)
- Media reports of alleged police wrong-doing are biased against us (66.9%)
- The administration does not support officers who are in trouble (66.2%)
- There is not enough time at the beginning or end of the day for my chores at home (58.3%)







Project SHIELDS Data

- Behavioral Outcomes
 - Smoking 24%
 - Alcohol
 - males 20%
 - >34 21%
 - Injuries 9%

Project SHIELDS Data

- Physical Abuse

Target	Officers		Total
	Men	Women	
Spouse/Partner	56/748 (7%)	20/109 (18%)	76/857 (9%)
Children	67/714 (9%)	10/110 (9%)	77/824 (9%)
Fellow Officer	21/916 (7.8%)	4/153 (3%)	75/1069 (7%)

Project SHIELDS Data

- Behavioral Outcomes
 - Significant Associations with Physical Spousal Abuse

	O.R.
● Work stress	3.12
● Female gender	2.78
● History of parental abuse	2.72
● History of parents abusing each other	2.58

Project SHIELDS Data

- Stress → Outcomes Relationships

Officers with High Stress are:

- 30% more likely to report poor health
- 3 times more likely to abuse spouses/partner
- 5 times more likely to report alcoholism
- 5 times more likely to have somatization
- 6 times more likely to have anxiety
- 10 times more likely to have depression

Public Health Implications of Police Stress

- Variables to Consider
 - Cost of hiring process
 - Cost of training recruits
 - Cost of retraining officers
- Turnover Rates
 - Cost of employee turnover
 - Cost of stress-related illness and injuries
 - Psychiatric
 - Medical (Workers' Comp)
 - Cost of lost productivity (absenteeism)
 - Cost of aberrant behaviors
 - Legal fees
 - PR costs

Public Health Implications of Police Stress

- Cost Estimates
 - Hiring/screening = \$2,500-\$3,000 for each final candidate
 - Training recruits = \$14,000/each x 100/year, 8% drop-out rate
 - Retraining officers = @ \$1000/year/each
 - Turnover rates = roughly 3% (but 30% of resignations occur 18-24 months after academy training)
 - Stress-related illness
 - Psychiatric (~\$200,000/year)
 - Medical (\$250-300,000/year)
 - Aberrant behaviors - legal - \$ (- 70 dvr/year)

Conclusions & Recommendations

- Law Enforcement Agencies
 - Determine prevalence of stress
 - Identify root causes (structural changes)
 - Address root causes
 - Focus on improved person/job fit, select for resiliency - work hardiness
 - Continue to trend/monitor indicators (e.g., accident rates, workers' compensation, turnover, etc.)

Police Family Values

Early Detection/Intervention Programs to
Identify Abusive Officers



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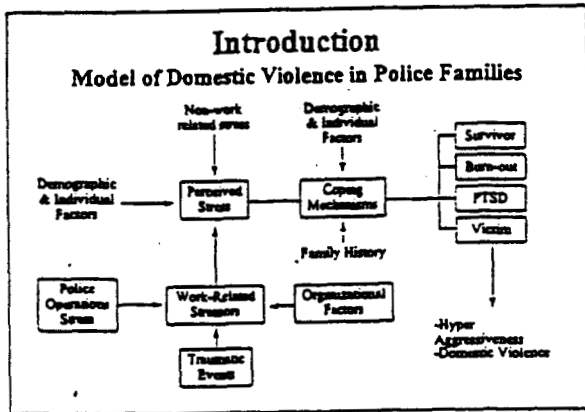
Discussion Outline

- Introduction
 - Background Information
 - Model of Domestic Violence in Police Families
 - Risk Factors
- Case/Control Study
 - Outline
 - Screening Tool Development
- Conclusions & Recommendations

Introduction
Background Information

Extent of the Problem

- Workforce
- Data on Domestic Violence in Police Families
 - 1992 Survey of 300 officers - 40%
 - ◆ Anecdotal Reports



Introduction
Characteristics of the "Victim"

- Pessimism
- Shattered core beliefs
- Heuristical thinking
- Numbness
- Desensitization
- Reasserts control

Risk Factors for Domestic Violence

Psychological

- Poor impulse control
- Low masculinity
- Dominance issues
- Poor self-esteem & ego
- Intolerance
- Paranoia
- Passive-aggressive tendencies
- Avoidance patterns
- Anti-social personality
- Depressive

Risk Factors for Domestic Violence

Demographic & Individual Factors

- Family history of violence
- Poor communication skills
- Maladaptive coping mechanisms
 - ◆ Drinking, smoking, drugs, unsafe sex, gambling, risk taking
- Attitudes about spousal abuse
- Stereotypical views about women
- Anger in marriage (marital conflict)

Risk Factors for Domestic Violence

Attitudes About Spousal Abuse

- Wife beating is justified
- Wives gain from beatings

**Case/Control Study
Outline**

Sample: 200 cases & 200 controls

Analysis:

- Significant differences in the two groups
 - IID file
 - Personnel file - Demographics
 - MMPI
- Patterns of abuse

**Case Control Study
Screening Tool**

- Questionnaire
 - Surrogate measures (e.g., attitudes)
 - Stress & coping
 - Family history
 - Personality & psychological traits
- Standard Psychological Assessments
 - MMPI
- Intensive Interview
 - Family members, girlfriends, spouses, etc.

Conclusions & Recommendations

Future Research Questions

- Effectiveness of these screening tools
- Targeted interventions

Project SHIELDS

A study to help Identify, Evaluate, and Limit Departmental Stress



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LEFS Meeting
November 23 - 24, 1998

Funding Provided by NIJ

Project SHIELDS Study Collaborators

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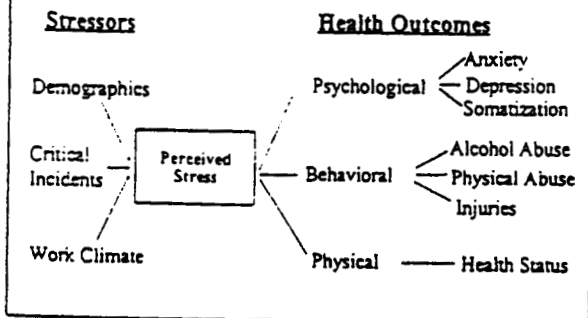
Study Objectives

- Phase One - Survey
 - Prevalence, correlates, and consequences of police stress
 - ◆ Relationship between police stress and cross-over stress in police spouses
 - Relationship between police stress and domestic violence in police families

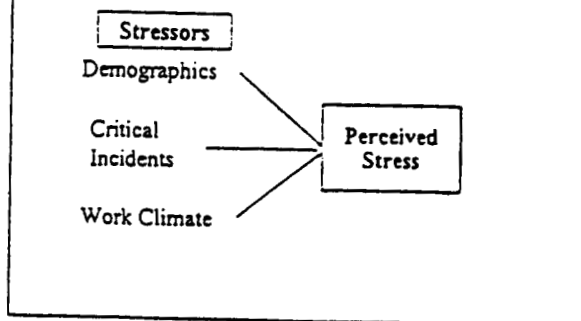
Study Objectives

- Phase Two - Interventional
 - Participatory action research format
 - TQM Teams: to identify interventions based on the data

Police Stress Model



Police Stress Model



Stressors

Demographics N= 1103
(68% Response Rate)

- Male 85%
- Average Age: 36 years
- Average Tenure: 11.5 years
- Caucasian 64%
- Married/Partnered 68%
- Military Background 35%

- Education:
- High School 15%
- Some College 55%
- College Grad 30%

Stressors

Critical Incidents and Emotional Well Being:

- Police Funeral 67%
- Needle Stick 54%
- I/D Investigation 52%
- Shooting Someone 32%
- Knowing Victim 29%
- PTSD Symptoms 25%
- Violent Arrests 21%
- Bloody Scene 17%
- Hostage Situation 13%
- Chemical Spill 9%

Stressors

Work Climate: Equity

	Women	Men
• Criticized	29%	16%
• "Chosen"	34%	37%
• Gender Jokes	43%	27%
• Militant	26%	26%
• Promotion	19%	16%

*p < .05

Perceived Stress

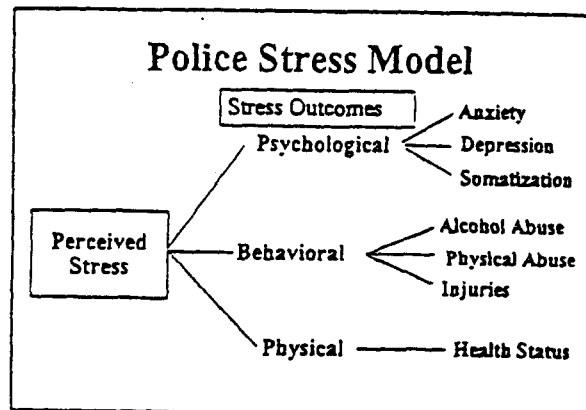
Mean = 18.5
 Median = 18.0
 Range = 11-44
 SD = 5.3

Associations

Stressors ————— Stress

	Odds Ratio
Demographics (race)	1.8*
Critical Incidents	9.3*
Work Climate	3.5*

*p < .05



Outcomes - Psychological

- Low Energy 22%
- Headaches 12%
- Loss of Interest 6%
- Loss of Sexual Interest 5%
- Feeling Something Bad 4%
- Puffing Chest 4%
- Ending Life 1%

Outcomes- Behaviors

- Smoking 24%
- Alcohol 17%
 - ◆ males 20%
 - ◆ age ≥34 21%
- Injuries 9%

Outcomes- Physical Abuse

- Fellow Officer 7%
- Children 9%
- Spouse 9%
- Parents (each other) 21%
- Parents (when child) 33%

Outcomes- Physical

- Chronic Lower Back Pain 35%
- Foot Ailment 23%
- Migraines 20%
- High Blood Pressure 16%
- Insomnia 15%
- Liver Disease 20%
- Reproductive Problems 6%
- Diabetes 3%
- Heart Disease 3%

Associations

Stress → Psychological

	Odds Ratio
Anxiety	6.4*
Depression	10.7*
Somatization	5.1*

*p < .05

Associations

Stress → Behaviors

	Odds Ratio
Alcohol	5.0*
Physical abuse (Any)	3.5*
Physical abuse (Spouse)	3.1*

*p < .05

Associations	
Stress	Physical
	Odds Ratio
Health Status	1.3*

*p < .05

Feelings About Work	
● On Automatic Pilot	33%
● Burned out From My Job	31%
● "To work, I have to..."	17%
● Not Optimistic	13%
● End of My Rope	9%

Conclusions	
Stressors and Stress	
● Race	
● Critical incidents	
● Work climate	

Conclusions	
Stress and Health Outcomes	
● Psychological	
● Behavioral	
● alcohol	
◆ physical abuse	
● Health Status	

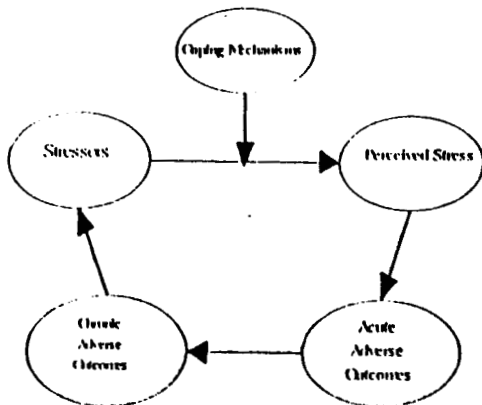
Recommendations
1. Future analysis: coping
2. TQM
3. Interventions

STUDY PURPOSE

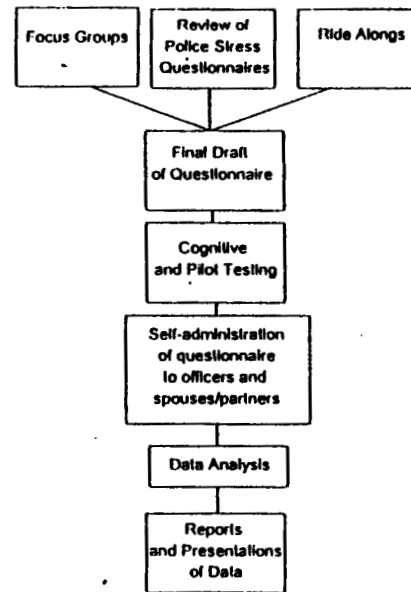
In October of 1997, Project SHIELDS, a 4 phase (questionnaire development, questionnaire administration, analyses, TQM), 18 month study, was funded to meet two specific aims:

- ▶ To apply epidemiological tools to assess and characterize police stress and its relationship with domestic violence in police families.
- ▶ To develop risk reduction strategies based on the recommendations of Total Quality Management Teams using a participatory action research model.

THEORETICAL MODEL



Questionnaire Development and Administration



STUDY RESULTS

(N=1106 officers)

Stressors:

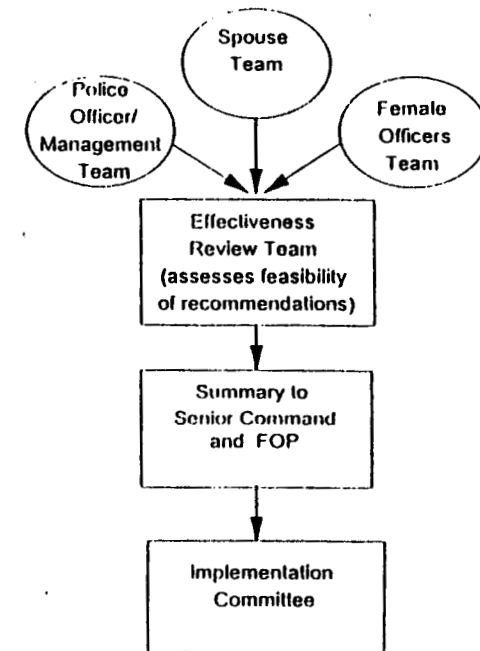
critical incidents and organizational climate

Significant Adverse Outcomes:

- ▶ Psychological (19% thoughts of ending their life)
- ▶ Physical (health problems)
- ▶ Behavioral (24% smoking, 21% alcoholism, 9% injuries, 9% spousal abuse)

TQM Phase

In early 1999, three different Total Quality teams of officers and management were formed.



The teams worked with researchers using a participatory action research approach to identify potential interventions based on the data.

TQM Results

Problem: Critical Incidents

Dealing with unavoidable stressful situations.

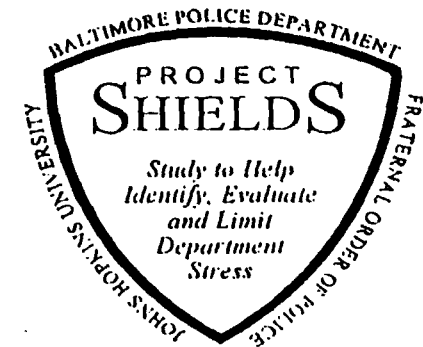
- A. Attending Police Funerals
 - Discuss risk at academy level.
 - Mandatory debriefing
 - Increase chaplaincy program.
- B. Bloody Crime Scene
 - Vulnerability, risk perception, and preparation training at academy level.
- C. Needlestick Injuries
 - Departmental BBP and PEP polices and education
- D. Perceived Lack of Support for officers in trouble.
 - Clear policies and procedures on management of infractions.
 - Mandatory management training for all supervising personnel.
 - Access recent retirees

Problem: Lessen "felt stress" and improve coping skills.

- A. Lack of physical and mental fitness.
 1. Conduct mandatory annual physical and psychological evaluations.
 2. Support gym attendance by allowing work outs during work time.
 3. Support a public safety gym and fitness program that officers can attend.
 4. Sponsor a wellness program with trainers, nutrition counselors, etc.
 5. Support confidentiality.
 6. Have a private waiting area for any counseling.
- B. Lack of advancement
 1. Install computers at FOP and provide linkage for distance learning.
 2. Start a management leadership and mentorship program.
- C. Paperwork Burden
 1. Install computers in all districts and cars, laptops, paid for by corporate sponsors.
- D. Overall Status of Policing
 1. Have the FOP and command work collaboratively.
 2. Examine the status of female police officers and assign this to a high level commission. All aspects must be considered (e.g., recruitment, training, clothing requirements, etc.) and that pertain to female police.

Problem: Targeting my adverse stress-related outcomes

- A. Alcoholism
 1. The FOP should sponsor an AA group for officers only.
 2. Training of Sergeants and up on early warning signs.
- B. Accidents
 1. Support special "police-level driving" school at academy.
 2. Officers involved in accidents should be required to take this program and periodically a random number of officers should also be assigned for retraining.
- C. Spousal Abuse
 1. Support and encourage effective communication and partner commitment. There are several ways to do this.
 - Send trained spouses to the academy discuss how policing affects the marriage and family.
 - Have trained "successful" seasoned police couples serve as mentors to new police couples.
 - Sponsor police couples only "Marriage Encounter" weekends.
 - Sponsor more couples activities, actively encourage spouse participation in social events, parties, picnics, coffee hours, prayer sessions, pre-nuptial training, couples counseling, marriage therapy, communication skills classes, parenting workshops, etc. Make the spouses more a part of the police officers' work life.
 - Encourage the women's auxiliary group. They need to conduct a needs assessment to find out ways to involve partners and strengthen families (e.g., daycare vouchers, child care sharing for vacations, support groups for families with teens, eldercare issues, upcoming retirements, etc.)
 - Support for non-traditional partnerships and other family members is needed (e.g., for girlfriend/boyfriend, parents, teens, etc.)
 - Provide information to police families via FOP regarding numerous police web sites.
 2. Give officers cell phones, beepers, so they can be reached by families at all times.
 3. Limit the amount of overtime. Conduct financial planning and management for new recruits (mandatory) and sponsor programs.
 4. Sponsor retirement planning programs.
 5. Ensure that BPD policies on spousal abuse are clear and strictly enforced (zero tolerance).
 6. Sponsor a mental health hot line (24 hour).



Project Shields

A Collaborative Project Between

The Johns Hopkins University
School of Public Health,
The Baltimore Police Department
&
The Fraternal Order of Police

National Institute of Justice
Corrections and Law Enforcement
Family Support Meeting

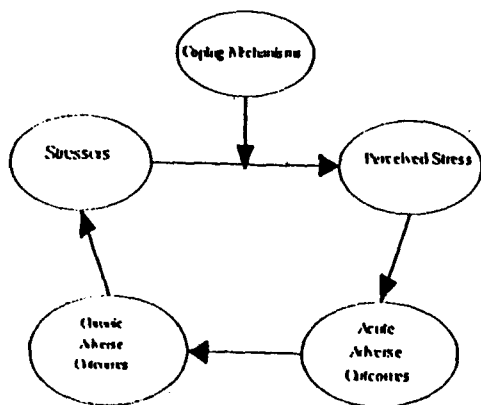
February 2000
Funding provided by NIJ

STUDY PURPOSE

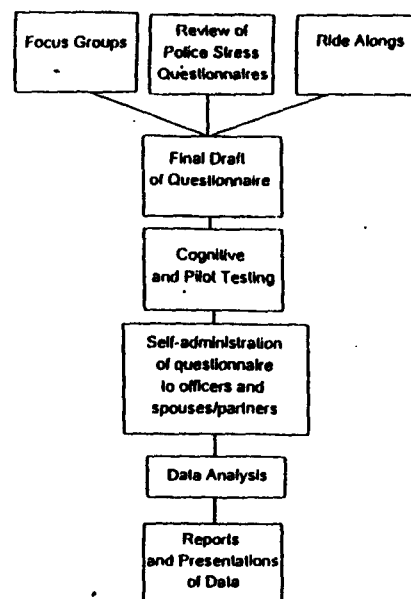
In October of 1997, Project SHIELDS, a 4 phase (questionnaire development, questionnaire administration, analyses, TQM), 18 month study, was funded to meet two specific aims:

- ▶ To apply epidemiological tools to assess and characterize police stress and its relationship with domestic violence in police families.
- ▶ To develop risk reduction strategies based on the recommendations of Total Quality Management Teams using a participatory action research model.

THEORETICAL MODEL



Questionnaire Development and Administration



STUDY RESULTS

(N=1106 officers)

Stressors:

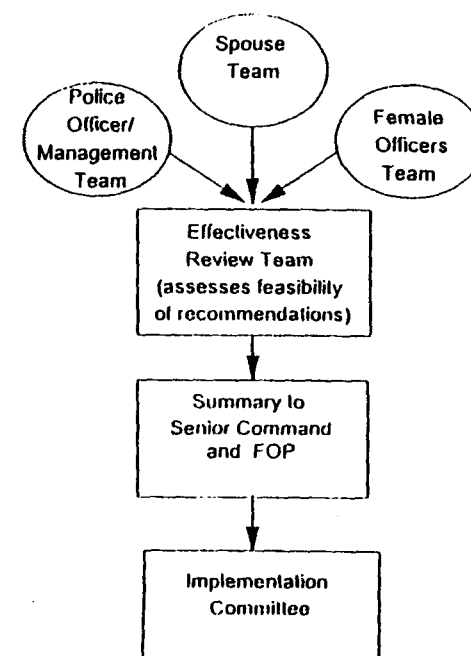
critical incidents and organizational climate

Significant Adverse Outcomes:

- ▶ Psychological (19% thoughts of ending their life)
- ▶ Physical (health problems)
- ▶ Behavioral (24% smoking, 21% alcoholism, 9% injuries, 9% spousal abuse)

TQM Phase

In early 1999, three different Total Quality teams of officers and management were formed.



The teams worked with researchers using a participatory action research approach to identify potential interventions based on the data.

TQM Results

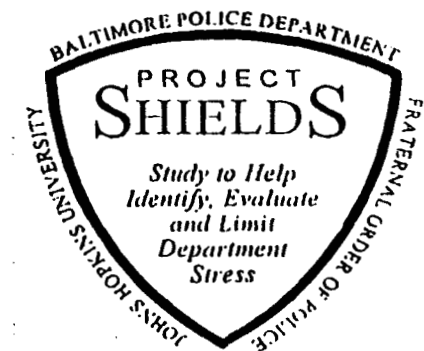
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National Institute of Justice
Corrections and Law Enforcement
Family Support Meeting

February 2000
Funding provided by NIJ

National Symposium on Law Enforcement Families



Roby R.M. Gershon, MHS, DrPH
Johns Hopkins University
School of Public Health




Funding p

Partnerships

- Baltimore Police Department
 - Colonel Margaret Patten
- Fraternal Order of Police
 - Gary McLhinney
- House of Ruth
 - Odette Johnson

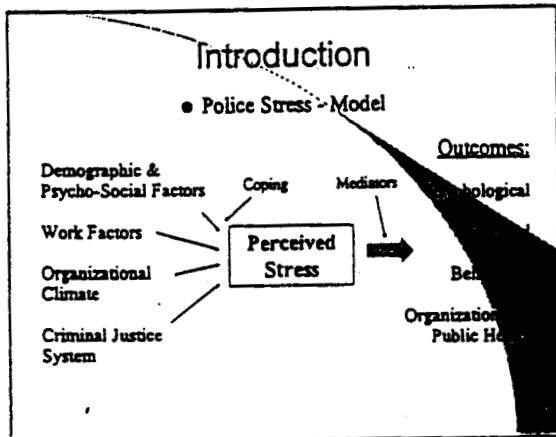
Presentation Outline



- Introduction
 - Epidemiology of Law Enforcement Stress
 - Project SHIELDS Data
 - Psychological, physical, and behavioral outcomes related to police stress
- Public Health Implications of Police Stress
 - Economic and organizational implications

Introduction

- Sources of Police Stress
- Measures of Police Stress
- Epidemiology of Police Stress
 - Prevalence
 - Incidence
 - Risk factors



Introduction

- Measures of Police Stress
 - Project SHIELDS Stress Scale, 11 items, $\alpha = .89$
 - "I feel negative, futile, or depressed about work"
 - "I think that I am not as efficient at work as I should be"
 - "My interest in doing fun activities is lowered because of my work"
 - "I feel uncaring about the problems and needs of the public when I am at work"
 - "When I ask myself why I get up and go to work, the only answer that occurs to me is / have to"

Introduction

- Epidemiology of Police Stress

Magnitude:
 State & Local Law Enforcement =
 922,000 FTE

663,535	Sworn
+ 74,500	Federal Officers
738,035	Total Sworn

Gender: < 15% Women
 < 25% Minority

Introduction

- Epidemiology of Police Stress Statistics
 - ◆ High levels work stress, PTSD
 - ◆ High suicide rates *3rd highest of 130 occupations*
(2.9 ratio compared to municipal workers)
- Alcohol abuse ↑
- ◆ Increased vulnerability over time
 MMPI → somatization ↑, anxiety ↑, alcohol ↑

Introduction

- Epidemiology of Stress
 - Increased risk of mortality (>10 years tenure) and morbidity from:
 - Cancer (especially digestive and bladder)
 - Heart disease
 - ↑ Hypertension, blood pressure
 - ↑ Triglycerides, lipoproteins
 - ↑ Acute MI
 - ↑ Chronic back
 - Rates - 20-25% alcoholism
 - Drug use = 2-10%

Project SHIELDS Data

● Respondents:
N=1106 (70% response rate)

- Male 86%
- Mean Age 36 years
- Mean Tenure 11.5 years
- Caucasian 85%
- Married/Partner 68%
- Military 35%
- Some college or + 85%

Project SHIELDS Data

● Major Work Stressors

- Critical Incidents

"If you have ever experienced any of the following, please indicate how much it emotionally affected you." (% reporting "very much")

- Attending a police funeral (55%)
- Being the subject of an IID investigation (34%)
- Experiencing a needle stick injury or other exposure to blood or body fluids (30%)
- Making a violent arrest (19%)
- Personally knowing the victim (16%)

Project SHIELDS Data

● Major Stressors

- Organizational & Job Related (% reporting "agree")

- I have had to make split second decisions on the street that could have had serious consequences (88%)
- Police work must come before anything - including their families (72%)
- Media reports of alleged police wrong-doing are often against us (67%)
- The administration does not support officers who are in trouble (66%)
- There is not enough time at the beginning or end of the day for my chores at home (58%)

Project SHIELDS Data

● Significant Associations Between Stressors and Stress

	<u>O.R.</u>
● Critical incidents	9.3
● Organizational climate	3.5
● Demographics (race)	1.8

Project SHIELDS Data

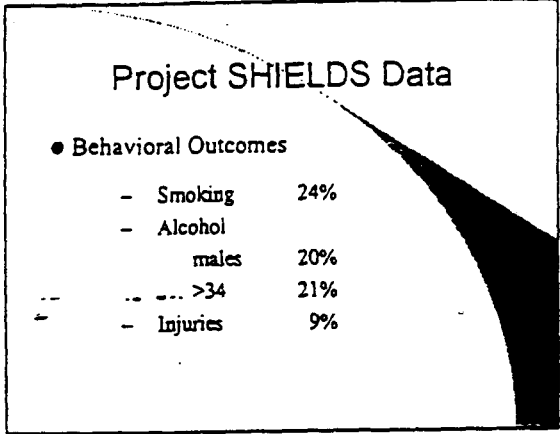
● Psychological Outcomes

- Low energy	22%
- Headaches	12%
- Loss of interest	6%
- Loss of sexual interest	5%
- Feeling something bad	4%
- Pounding in chest	4%
- Thoughts of ending life	1% (n=11)

Project SHIELDS Data

● Physical Outcomes

- Chronic low back pain	24%
- Foot problems	23%
- Migraines	20%
- High blood pressure	16%
- Insomnia	15%
- Reproductive problems	6%



Project SHIELDS Data

- Physical Abuse

Target	Officers		Total
	Men	Women	
Spouse/Partner	7%	18%	
Children	9%	9%	9%
Fellow Officer	8%	3%	7%

Project SHIELDS Data

- Behavioral Outcomes
 - Significant Associations with Physical Spousal Abuse

	O.R.
● Work stress	3.12
● Female gender	2.78
● History of parental abuse	2.72
● History of parents abusing each other	2.58

Project SHIELDS Data

- Stress → Outcomes Relationship

Officers with High Stress are:

- 30% more likely to report poor health
- 3 times more likely to abuse spouses/partners
- 5 times more likely to report alcoholism
- 5 times more likely to have somatization
- 6 times more likely to have anxiety
- 10 times more likely to have depression

Public Health Implications of Police Stress

- Variables to Consider
 - Cost of hiring process
 - Cost of training recruits
 - Cost of retraining officers
- Turnover Rates
 - Cost of employee turnover
 - Cost of stress-related illness and injuries
 - Cost of lost productivity (absenteeism)
 - Cost of aberrant behaviors

Psychiatric
 Medical
 (Workers' Comp)
 Legal fees
 PR damage


Public Health Implications of Police Stress

- Cost Estimates
 - Hiring/screening = \$2,500-\$3,000 for each final candidate
 - Training recruits = \$14,000/each x 100/year, 8% drop-out rate
 - Retraining officers = @ \$1000/year/each
 - Turnover rates = roughly 3% (but 30% of resignations 18-24 months after academy training)
 - Stress-related illness (Total)
 - Psychiatric (~\$200,000/year)
 - Medical (\$250-300,000/year)
 - Aberrant behaviors - legal - 5 (50-70 dv/year)

Conclusions & Recommendations

- Law Enforcement Agencies
 - Determine prevalence of stress
 - Identify root causes (structural changes)
 - Address root causes
 - Involve frontline and families in prevention strategies
 - Focus on improved person/job fit
 - Continue to track/monitor indicators (e.g., accident rates, workers' compensation, turnover, etc.)

Domestic Violence in Police Families:
Early Detection/Intervention Programs to Identify Abusive
Officers
Mid-Atlantic Regional Community Policing Institute
by



Robyn R.M. Gershon, MHS, DrPH
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Partnerships

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Discussion Outline

- Introduction
 - Background information
 - Models of Domestic Violence in Police
Families
 - Risk Factors
- Project SHIELDS Data
 - Outline
 - Results
- Case-Control of Study of Police
Officers Accused of Domestic Violence
 - Results
- Conclusions and Recommendations

Introduction
Background Information

Extent of the Problem

- Workforce
- Data on Domestic Violence in Police Families
 - 1992 survey of 300 officers - 40%
 - Anecdotal data

Introduction

- Epidemiology of Police Stress

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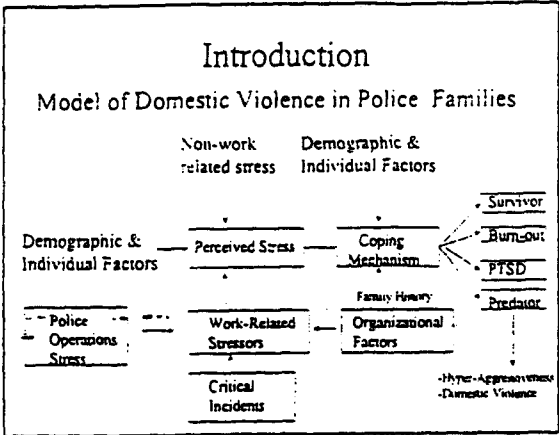
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 - High suicide rates *3rd highest of 130 occupations (2.9 ratio compared to other municipal workers)*
 - Alcohol abuse
 - Increased vulnerability over time

MMPI → somatization ↑, anxiety ↑, alcohol ↑



- ### Introduction
- #### Characteristics of the "Predator"
- Pessimism
 - Shattered core beliefs
 - Heuristical thinking
 - Numbness
 - Desensitization
 - Reasserts control

- ### Project SHIELDS
- Measures of Police Stress
 - Project SHIELDS Stress Scale. 11 items, $\alpha = .89$
 - "I feel negative, futile, or depressed about work"
 - "I think that I am not as efficient at work as I should be"
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 - Mean Age 36 years
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 - Military 35%
 - Some college or + 85%

Project SHIELDS Data

- Major Stressors
 - Critical Incidents
"If you have ever experienced any of the following, please indicate how much it emotionally affected you." (% reporting "very much")
 - Attending a police funeral (55.4%)
 - Being the subject of an IID investigation (33.8%)
 - Experiencing a needle stick injury or other exposure to blood or body fluids (29.7%)
 - Making a violent arrest (19.3%)
 - Personally knowing the victim (16.3%)

Project SHIELDS Data

- Significant Associations Between Stressors and Stress

	<u>O.R.</u>
• Critical incidents	9.3
• Organizational climate	3.5
• Demographics (race)	1.8

Project SHIELDS Data

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- Loss of sexual interest 5%
- Feeling something bad 4%
- Pounding in chest 4%
- Thoughts of ending life 1%

Project SHIELDS Data

• Behavioral Outcomes

- Smoking 24%
- Alcohol
 - males 20%
 - >34 21%
- Injuries 9%

Project SHIELDS Data

• Physical Abuse

Target	Officers		Total
	Men	Women	
Spouse/Partner	56/748 (7%)	20/109 (18%)	76/857 (9%)
Children	67/714 (9%)	10/110 (9%)	77/824 (9%)
Fellow Officer	21/916 (2.8%)	4/153 (3%)	25/1069 (2.7%)

Project SHIELDS Data

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 - Significant Associations with Physical Spousal Abuse

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Case Control Study Overview

- Methodology
 - Known abusers v.s. random controls
 - Record review
 - Demographics
 - MMPI scores
 - Are there significant demographic differences between cases and controls?
 - Are there significant MMPI score differences between cases and controls?

Methodology Design

Review of Cases of Domestic Violence 1992-1998

106 Cases of Domestic Violence		
Demographic Data	Abused Domestic Violence Data (RD)	MMPI Data

Controls 1992-1998

106 Controls	
Demographic Data	MMPI Data

Results Demographics

		Cases (N = 106)	Controls (N = 106)
Gender (90)	Male	84% (n=89)	86 M
	Female	16% (n=17)	14 F (15)
Age	Mean = 33 years		
Race	African American	n = 58	n = 28
	Caucasian	n = 29	n = 54
	Other	n = 1	n = 6

Results Demographics

		Cases	Controls
Years on the Force	Mean	8.5	6.1
Unit	Patrol	73	72
	Investigation	15	14
	Administration 8	2	
	Other	9	17

Results
Domestic Violence Cases

Relation

- Male Abuser
 - Wife=48% (n=43)
 - Girlfriend=25% (n=22)
 - Former wife/girlfriend=27% (n=24)

Results
Domestic Violence Cases

Relation

- Female Abuser
 - Husband=12% (n=2)
 - Boyfriend=35% (n=6)
 - Former husband/boyfriend=18% (n=3)
 - Girlfriend/partner=35% (n=6)

Results
Domestic Violence Cases

Allegations

- 68% Actual assault
- 9% Threat
- 3% Harassment
- 20% Other

Results
Domestic Violence Cases

Final Depositions
61% Closed, unsupported, no testimony
17% Closed, lack of physical evidence
16% Pending
5% Sustained/corroborated
1% Not sustained

Results
Domestic Violence Cases

Department Actions Taken
17% Of accused were arrested
26% Had a protection order issued
64% Were suspended from duty
≥ 80% Cases closed

Results
Domestic Violence Cases

Prior History
23% Had one prior
2% Had two or three priors
3% Had > three priors

Results
Domestic Violence Cases

Assignment
50% Of all domestic violence cases came from four districts

The four districts also had the four highest violent crime rates.

Results

MMPI

- No Significant Differences on Ten Clinical Scales & Three Validity Scales
- Trends in Domestic Violence Cases:
 - ↑ depression
 - ↑ social introversion
 - ↑ masculine/feminine
 - ↑ hypomania

Conclusions

- Some demographic differences noted
- Police department took action, victim withdrew charge
- Most abusers had a prior history
- Abusers come from high risk districts
- MMPI cannot differentiate - at least not as a screening tool

Recommendations

- Develop a better screening tool ("Resiliency")
- Screen for coping, attitudes, history
- Probe history more thoroughly
- Target high risk districts for interventions, rotate officers

Recommendations

- Develop support for victims of domestic violence - support must be tangible
 - health care benefits
 - safe house
 - group support
 - police department liaison
