



**COPS**  
Community Oriented Policing Services

**BJA**  
Bureau of Justice Assistance  
U.S. Department of Justice



Officer Safety and Wellness (OSW) Group Meeting Summary

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# Psychological Health

February 4, 2013

This project was supported by cooperative agreement number 2011-CK-WX-K023 awarded by the Office of Community Oriented Policing Services, U.S. Department of Justice. The opinions contained herein are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice. References to specific agencies, companies, products, or services should not be considered an endorsement by the author(s) or the U.S. Department of Justice. Rather, the references are illustrations to supplement discussion of the issues.

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Recommended citation:

Stephens, Darrel W., and Lisa Mantel. 2014. *OSW Group Meeting Summary: Psychological Health, February 4, 2013*. Washington, DC: Office of Community Oriented Policing Services.

Published 2014

e02146626

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## Overview of the Officer Safety and Wellness Group

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THE U.S. DEPARTMENT OF JUSTICE'S OFFICE OF COMMUNITY ORIENTED POLICING SERVICES (COPS OFFICE) AND BUREAU OF JUSTICE ASSISTANCE (BJA) ESTABLISHED THE OFFICER SAFETY AND WELLNESS (OSW) GROUP TO PROVIDE A NATIONAL FORUM FOR CONVERSATIONS ABOUT HOW TO REDUCE DEATHS AND INJURIES.

Comprised of representatives from law enforcement agencies and associations, federal agencies, and the research community, the purpose of the OSW Group is to bring law enforcement thought leaders, criminal justice practitioners, and other colleagues together to share their broad perspectives on improving officer safety and wellness. Participants contribute information and ideas with the goal of enhancing subject-related products, tools, resources, and services available to the field. In addition, the group encourages the nation's law enforcement agencies to adopt cultures of safety and wellness.

During the initial kick-off meeting held in July 2011, the OSW Group identified the 16 focus areas that would guide future meetings as well as the overall mission of the group (see sidebar). The following 16 areas were further defined and prioritized in the subsequent September 2011 meeting, also considered the first official meeting, after which the COPS Office produced a summary report (see Fiedler 2011):

1. Injuries and death due to gunfire
2. Premeditated and unprovoked ambush situations
3. Rifle/long-gun threats/assault weapons
4. Education and training
5. Leadership and safety practices
6. Emergency vehicle operation and safety
7. Physical health (e.g., fatigue, alcohol, weight, and nutrition)
8. Psychological health
9. Foot pursuit safety
10. Task force operations (federal and local)
11. Offenders (behavior during incident and history)
12. Court security
13. Deployment strategies and communications technologies
14. Maintaining good health
15. Equipment
16. Former military in law enforcement

All meeting summary reports as well as information about future meeting topics are available on the COPS Office OSW Group web page: [www.cops.usdoj.gov/Default.asp?Item=2603](http://www.cops.usdoj.gov/Default.asp?Item=2603).

### The OSW Group Mission

The OSW Group will contribute to the improvement of officer safety and wellness in the United States by convening a forum for thoughtful, proactive discussion and debate around relevant programs and policies within the law enforcement field. Information and insight gained and shared will help enhance programs, policies, and initiatives related to officer safety and wellness.

### The OSW Group Goals

- To create an opportunity and environment for law enforcement organizations and researchers to collaborate on improving officer safety and wellness
- To bring law enforcement organizations and researchers together quarterly to share knowledge and information about officer safety and wellness initiatives
- To disseminate information and best practices to the field through the government and law enforcement organizational communications mechanisms

## Introduction

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On February 4, 2013, the OSW Group convened its sixth meeting to discuss the psychological health of officers in terms of helping law enforcement to improve officer safety and wellness. Subject-matter experts provided research findings and focused specifically on the impact of police officer stress, resilience, and fatigue. Participants also heard presentations on specific psychological health initiatives at police departments in Austin, Texas; Columbus, Ohio; and Fresno, California.

In keeping with the OSW Group's mission, the group dedicated the latter half of the day to obtaining participants' recommendations based upon their skills, knowledge, and expertise by asking them to answer the following questions in terms of organizational leadership, research, policy, training, and best practices and programs (see "Discussion and Action Agenda" on page 22):

- **Leadership:** What is the role of the chief executive and the management team in dealing with psychological health challenges in policing? What is the role of employee organizations in dealing with psychological health challenges in policing? What is the role of individual employees in dealing with psychological health challenges in policing?
- **Research:** What are the law enforcement psychological health research gaps?
- **Policy:** What policies should police agencies have in place to address psychological health issues?
- **Training:** What type of training should departments provide employees to help them cope with the psychological challenges in policing?
- **Practice/Programs:** What specific practices or programs should departments have to help reduce stress and improve psychological health of officers?

During the meeting, the OSW Group addressed eight of the OSW Group's top priorities:

1. Injuries and death due to gunfire
2. Premeditated and unprovoked ambush situations
3. Rifle/long-gun threats/assault weapons
4. Education and training
5. Leadership and safety practices
6. Emergency vehicle operation and safety
7. Physical health (e.g., fatigue, alcohol, weight, and nutrition)
8. Psychological health

The following sections of this report provide a summary of the February 2013 meeting, including the subject-matter experts' presentations and participants' recommendations that law enforcement agencies can use to help improve officer safety and wellness regarding psychological health.

## Initial remarks

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The meeting opened with introductory comments from Bernard K. Melekian, then director of the COPS Office, and Denise O'Donnell, director of BJA. Both recognized the joint work of BJA and the COPS Office and stressed the importance of finding ways to address the psychological issues that affect law enforcement officers.

Darrel Stephens, executive director of the Major Cities Chiefs Association, also addressed the group, acknowledging the important work the OSW Group has accomplished while also recognizing there is still much work to be completed.

## Research on the Impact of Police Officer Stress

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### Police Stress and Health: The Mind-Body Nexus

*John M. Violanti, Ph.D., Research Professor, Department of Social and Preventive Medicine, University of Buffalo*

Dr. John Violanti presented on the nexus of police stress and health and how psychological health affects physiological health of police officers.

#### *What is stress?*

While there are more than 3,000 definitions of “stress,” it is essentially a psychological strain when one is overwhelmed and unable to deal with issues (Goldberger and Breznitz 1993).

A key type of stress is post-traumatic stress disorder (PTSD). Approximately 10–17% of police officers in the United States have PTSD symptomology (Carlier et al. 1997; Maia et al. 2007; McCaslin et al. 2006). PTSD may result from threatened death, serious injury, threat to one's physical integrity, or such events occurring to other persons. According to the American Psychiatric Association (2000), an essential feature of PTSD is the development of characteristic symptomology, which includes the following:

- Re-experiencing the traumatic event
- Avoidance of stimuli associated with the trauma
- Numbing of general responsiveness
- Symptoms of increased physiological arousal

During the physiological stress response, the sympathetic nervous system (SNS) activates, and the human body releases epinephrine (i.e., adrenaline) and norepinephrine within seconds. The hypothalamic pituitary-adrenal axis (HPA) releases stored energy (e.g., glucose/fatty acids) to deal with emergencies via glucocorticoids (e.g., cortisol). This is a slower onset that occurs within minutes of a stressor (Chrousos 1998).

Naturally, the human body tries to adapt to stressors by producing adrenaline, cortisol, and other chemical messengers (McEwen 2005). For example, an overheated body will naturally start to sweat to cool down through the autonomic system. If these chemical messengers continue for a long period of time, the body will experience allostatic overload (i.e., being stressed out), which results in wear and tear on the body and brain (ibid.).

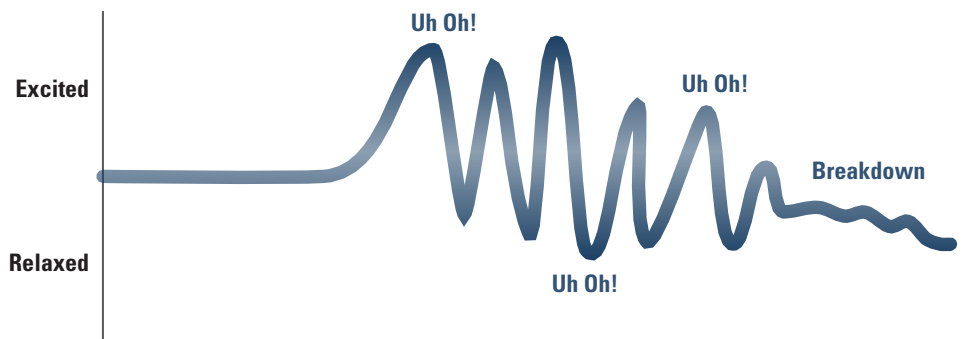
In a healthy stress pattern (see figure 1), one recovers quickly from a stressor. In an unhealthy stress pattern (see figure 2), one is unable to recover quickly and ends up functioning at a lower level because of allostatic overload (McEwen and Wingfield 2003).

**Figure 1. A healthy stress pattern**



Source: McEwen and Wingfield 2003

**Figure 2. An unhealthy stress pattern**



Source: Adapted from McEwen and Wingfield 2003

### ***Buffalo Cardio-Metabolic Occupational Police Stress study***

Violanti was one of the researchers in the Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS) study, funded by the Centers for Disease Control and Prevention's National Institute of Occupational Safety and Health (NIOSH), that looked at 464 police officers from Buffalo, New York, for over five years (Violanti, Burchfiel, et al. 2006). In this study, Violanti and his colleagues collected demographic and employment information and conducted health and stress screens measuring the following variables:

- Cortisol (stress hormone)
- Ultrasound brachial and carotid artery plaque thickness
- Body composition (body fat and bone density)

- Blood pressure changes when moving from lying down to standing
- Body measures (e.g., height, weight, waist circumference, and BMI)
- Physical activity
- Alcohol consumption (current and lifetime)
- Dietary intake
- Smoking (current and lifetime)
- Psychosocial factors (e.g., stress, depression, PTSD, and life events)
- Sleep quality and quantity
- Screening for sleep apnea
- Shift work: 5-year, day-to-day compilation

BCOPS researchers found significant health disparities among police officers compared to the U.S. general population: police had not only higher levels of traditional cardiovascular disease risk factors, including BMI, metabolic syndrome, and total cholesterol, but also higher levels of nontraditional cardiovascular disease risk factors, including higher percentages for those who work nonday shifts, depression, and shorter sleep time (Hartley, Burchfiel, Fekedulegn, Andrew, and Violanti 2012).

#### **Metabolic syndrome**

Having three or more of the following key components indicate the presence of metabolic syndrome (Grundy et al. 2005):

- Abdominal obesity
- High triglycerides
- Low high-density lipoprotein (good) cholesterol
- High blood pressure
- High fasting glucose

In terms of officers, those with severe PTSD had a three-fold higher prevalence of the metabolic syndrome than those reporting the fewest PTSD symptoms (Hartley, Burchfiel, Fekedulegn, Andrew, Knox, and Violanti 2012). Police stress, particularly organizational pressure and lack of support, was significantly and positively associated with the metabolic syndrome (ibid.). Last, officers who worked nights and either had less than six hours of sleep or worked more overtime had a four-fold greater number of metabolic syndrome components than officers working the day shift (Violanti, Burchfiel, Hartley, et al. 2009).

#### **Cortisol**

This stress hormone is normally released in a pulsatile fashion with the frequency and amplitude of these episodes declining over the course of the day, resulting in a well-characterized diurnal pattern (i.e., high in the morning, low in the evening). However, in chronic stress, this pattern may change so that levels of cortisol are not elevated upon awakening and/or fail to return to baseline within a period of several hours (McEwen and Wingfield 2003).



Violanti and colleagues found that officers with more severe PTSD symptoms had slightly higher mean awakening cortisol levels than those with less severe symptoms, indicating a dysregulation of the stress hormone cortisol (Violanti, Burchfiel, Fekedulgen, et al. 2009). Furthermore, based on work during the previous two weeks, night and afternoon shift workers had a significantly diminished awakening salivary cortisol response pattern compared with day shift workers, indicating a dysregulation of cortisol, which may lead to diseases of the cardiovascular system (ibid.).

#### Artery health

Artery reactivity refers to how the artery reacts after it is experimentally cuffed and then released. Violanti and his colleagues used the brachial artery (in the arm) to obtain this measurement. The wider the artery expands, the healthier the artery. Arteries that do not expand well may be indicators of future heart disease.

In looking at brachial artery health and PTSD, Violanti and his colleagues found that officers with high levels of PTSD symptoms had two-fold less artery flexibility and expansion than those with lower symptoms (Violanti, Burchfiel, Fekedulgen, et al. 2009).

The same study also measured the thickness of the carotid arteries. The thicker the carotid artery, the more likely plaque has built up in the walls of the artery, indicating the possibility of future heart disease. Police officers had increased artery thickness compared with a similarly aged civilian population sample from the same geographical region (see Joseph, et al. 2009).

#### Shift work

Sleep deprivation and shift work disrupt the 24-hour sleep-wake circadian cycle. This can produce a “double-barreled effect” when experienced together with stress (Violanti, Burchfiel, Hartley, et al. 2009).

Violanti and colleagues discovered that age-adjusted incidence of injury was significantly elevated in officers working night shift (by 72%) and afternoon shift (by 66%) compared to those working the day shift (Violanti, Fekedulegn, et al. 2013).

Compared to officers with the lowest perceived stress, female officers with the highest levels of perceived stress were nearly four times more likely to have poor sleep quality; male officers were nearly six times more likely to have poor sleep quality (Charles et al. 2007).

#### Cancer

Officers were at a higher risk of developing cancer as well. Researchers compared records for officers who worked between 1950 and 2005 against cancer registry records and discovered that 18.2% developed cancer; officers also had an elevated risk of Hodgkin’s lymphoma (Gu et al. 2012). The risk of brain cancer was slightly elevated among officers and was significantly increased for officers with 30 or more years of service (ibid.).

#### Suicide

Policing inherently involves exposure to upsetting events in the workplace, including human misery, negative public image, abused children, and death. Such exposure can take a toll on the mental of officers and may ultimately result in suicide (Violanti, O’Hara, and Tate 2012).

Although O'Hara and colleagues have yet to publish their latest research, an estimated 126 officers died as a result of suicide, according to 2012 estimates (O'Hara et al. 2013). This number is down from the previous years of 2008 and 2009. Although suicide estimates have decreased, intervention still remains an important issue.

Violanti and colleagues disproved the notion that retired officers are more likely than working officers to commit suicide. They looked at employment, retirement, and mortality records for a large group of police officers and found that suicide rates were 8.4 times higher in working officers as compared to officers who had retired or left the department for other reasons (e.g., resigned) (Violanti, Gu, et al. 2012).

Violanti and colleagues also discovered that smaller police departments had a significantly higher suicide rate than large departments. Possible reasons include lack of availability for mental health assistance, increased workload and danger, and community visibility (Violanti, Fekedulegn, et al. 2013).

#### **PTSD and effects on the brain**

PTSD is thought to be a behavioral manifestation of stress-induced changes in brain structure and function. Alterations in neurotransmitters and neuroreceptors result in changes in neuronal function in specific brain areas involved in the stress response.

According to Shucard and colleagues (2012), police officers with higher re-experiencing PTSD scores tended to have higher arousal ratings of pictures of traumatic police incidents and reduced amygdala, thalamus, and globus pallidus volumes. There was also a trend toward higher re-experiencing and reduced hippocampal volume. The amygdala, thalamus, and globus pallidus volumes are the centers of the brain that deal with fear and memory. Reduced volume of these centers can result in the officer being unable to extinguish the fear associated with the trauma experienced.

In a related brain imaging study, researchers found that police officers with increased PTSD symptoms had difficulty distinguishing between what is important and what is not when faced with dangerous situations (Violanti, Shucard, and Shucard 2011).

#### ***Suggested interventions***

Taking all of these studies and health risks into consideration, Violanti shared with the OSW Group a summation of suggested interventions from Violanti's and other researchers' work.

First, police officers should have annual medical exams, although police organizations may face resistance from unions that fear their members would face disciplinary action if, for example, they are overweight or have a health problem. To help circumvent this, unions and police organizations should work together to better understand the problems. There is also significant variation in departments; some have significant labor-management conflicts while other departments have a more supportive environment.

Second, the suicide rate among police officers is higher than the general population (Violanti, Hartley, et al. 2012). Violanti, Hartley, and colleagues (2012) found that the suicide rate among police officers was 15.3/100,000 compared to 11/100,000 in the U.S. general population. Thus, suicide awareness is essential not only among line personnel but also among supervision to help recognize the signs and symptoms of suicide and mental health problems (Clark et al. 2012).

Third, departments should develop a peer support program. Officers generally prefer to talk with other officers before talking with a mental health professional. If needed, peer support personnel can develop mental health networks of professionals who understand police problems (Police Chief Magazine 2007).

Fourth, a recent suggestion made by the Badge of Life (2013) group involves a yearly “mental health check,” where an officer may go to a counselor or peer support officer once a year to discuss any concerns or life problems. This can help to alleviate small problems before they become big ones ([www.BadgeofLife.com](http://www.BadgeofLife.com)).

Fifth, it is important to introduce behavioral intervention at the academy before stress occurs. Called an “inoculation effect” (Meichenbaum 1996), this involves preparing the recruit for future stress and providing an understanding of the effects of stress when not managed properly.

Sixth, obesity stands out as one of the biggest precursors to developing cardiovascular disease in police officers (Violanti, Fekedulegn, et al. 2012). Lifestyle factors such as diet, no smoking, exercise, and proper sleep can decrease obesity and should be part of police training for both recruit and in-service programs. While current police budgets likely do not have sufficient funds to provide time and/or facilities for exercise, many health insurance programs now offer funds for subscribers to participate in health clubs at either reduced or no cost.

Seventh, recent findings suggest that lack of support can increase stress in officers (Hartley, Burchfiel, Fekedulegn, Andrew, Knox, and Violanti 2012). Supportive organizations can also increase resiliency among officers when faced with stress (Paton et al. 2010).

In these times of budgetary concerns, it is difficult to convince governments to provide funds for police health and stress interventions. Despite this, providing such funds is fiscally sound because fit officers have less absenteeism (Rivera 2001). Departments that have initiated wellness programs for their personnel have improved cardiovascular risk factors and reduced the rate of complications in their officers (Anshel and Kang 2008). However, departments can play only a partial role in maintaining healthy officers. Good health is ultimately the responsibility of the individual officer.

### ***Future BCOPS work***

Violanti and his research group at NIOSH are presently conducting a five-year follow-up study for which they will reexamine the same stress and health factors of the officers involved in the first study. This will enable the researchers to measure changes in health factors over time and suggest more definitive causal connections between stress, PTSD, and police health.

## Assessment of Health Risks in Law Enforcement Cohorts

*Sandra L. Ramey, Ph.D., R.N., Assistant Professor, College of Public Health, University of Iowa*

Dr. Ramey reviewed a multitude of studies on the variety and prevalence of risk factors and cardiovascular disease (CVD) among police officers. These studies spanned approximately 14 years and included data from 16 different police departments ranging in size from less than 30 officers to more than 2,000. The purpose of these studies was to find ways to address these risk factors and improve the health of police officers. Ramey provided the OSW Group with a summary of the studies and their findings.

### *Cardiovascular disease studies*

**CVD Risk and Morbidity in Nine Midwestern States (2001).** This study included 2,800 participants from highway patrol departments from nine Midwestern states. Researchers looked at stress and other risk factors for CVD. Key findings included a higher prevalence of hypertension, hypercholesterolemia (high cholesterol), tobacco use, and elevated body mass compared to the general population. The best predictors of CVD among law enforcement were time in the profession and stress. Researchers found a significant direct association of stress with CVD and an indirect association of stress with CVD by potentiation of three risk factors: physical inactivity, cholesterol, and hypertension. While most of the officers perceived their health to be good or excellent, there was a disconnect between the perception of health and CVD risk. Although officers had greater CVD risk factors, CVD morbidity rates were similar to the general population.

**Kidney Stones and CVD (2003).** This study looked at officers from the Oklahoma Department of Public Safety. Researchers found that those who had kidney stones were also overweight, had high cholesterol, and had high blood pressure. Researchers also found that Native American officers had a disproportionately higher prevalence of kidney stones.

**Milwaukee Police Department (2004).** This study surveyed 672 officers to establish a baseline. Then researchers conducted 40 one-on-one interviews as well as focus groups in each of Milwaukee's seven police districts. Researchers found that officers

- had higher rates of hypertension (27.4%) than the general Wisconsin population (17.6%);
- were more likely to be overweight (71.6%) than the general Wisconsin population (60.8%);
- used tobacco and were inactive less than the general Wisconsin population (32.1% to 49.4%, and 11.2% and 17.5%, respectively);
- were the same as the general Wisconsin population in terms of actual risk for CVD.

**Retirees of Milwaukee Police Department (2006–2007).** This study looked at the health of 305 retirees. This was an important study because of a phenomenon called the healthy worker effect. Because the rates of actual morbidity from CVD in working officers are frequently similar to those in the general population this study looked at what happens when officers retire. This is important because when researchers look at cohorts of working officers, quite likely the people with severe CVD have self-elected out of the working group through disability or retirement. Researchers found a greater prevalence of high blood pressure, high cholesterol, and obesity. The results suggest an association between law enforcement and an increase in CVD.

**Stress Mediators in Law Enforcement (2008–2009).** This study looked at 71 officers from the Milwaukee Police Department and examined sources of both personal and organizational stress. Researchers found that an increase in job demands was associated with certain biomarkers, for example, IL-6 and perceived stress.

**Des Moines Police (2009–2010).** This study looked at 336 officers from the Des Moines Police Department and surveyed sleep, vital exhaustion, and stress while focusing on gender differences within the department. Researchers found that high cholesterol in males was twice that of females, and vital exhaustion scores were higher in females than males. Vital exhaustion is defined as extreme fatigue that manifests with feelings of irritability and demoralization. Also, the bivariate relationships with CVD and vital exhaustion, age, and stress were statistically significant.

**Body Mass Index Misclassification, C-Reactive Protein, and Sleep (2008–2009).** This study looked at 95 subjects and determined that the actual prevalence of obesity was underestimated using BMI, resulting in a missed opportunity for early intervention. The C-reactive protein (an inflammatory marker) was positively associated with total stress. Also, sometimes people are wrongly classified as overweight when in fact they have a lot of lean muscle mass. In terms of sleep quantity and quality, officers on nonday shifts (more often younger officers) are 14 times more likely to sleep less and 2.5 times more likely to experience poor sleep.

**Physical Activity Study (2010).** This study looked at 119 officers from six departments. Officers wore an armband that objectively measured physical activity using the SenseWear Pro3 armband pattern recognition monitor. The SP3 integrates data from a dual-axis accelerometer along with that from sensors assessing heat flux, skin temperature, and galvanic skin response. Worn on the posterior aspect of the upper arm, the SP3 records total energy expenditure, step counts, and metabolic equivalents over a 24-hour period. Officers wore the monitor on three work days and three days off. Officers were surveyed about sleep, vital exhaustion, depression, and stress. Researchers found that the profession is primarily sedentary with bursts of activity. Officers expended more energy per hour, took more steps, and had higher metabolic equivalents on their days off. Researchers also found that 31% of officers were mild to moderately depressed, with one in three saying that the symptoms of depression they experienced makes the job difficult.

### ***Conclusions and recommendations***

Preliminary conclusions reveal that stress contributes to CVD directly and through a relationship with several risk factors, specifically hypertension, high cholesterol, and physical inactivity. These risk factors are greater in police, including those risk factors innate to the profession (e.g., shift work and physical activity). Ramey added that while many studies associate CVD with sitting time, a new study that Ramey will soon publish indicates that even if people exercise only on the weekends, they can still cut their CVD rate.

In addition to these studies, thirty years of research supports that cardiovascular disease is an issue among police officers. Stress is a major player and contributes to 90% of chronic disease. Knowing what researchers and the field know now, Ramey argues that not taking action to address CVD among officers becomes an ethical issue if no one intervenes.

Taking all of this information into consideration, Ramey recommends that police departments begin teaching officers stress management skills at the academy and continue providing officers with awareness of health risks at in-service training. By teaching stress resilience intervention, officers learn how to modify

their physiological response to stress. This method improves heart rate variability, blood pressure, sleep, and other risk factors. Officers can practice the techniques with a small bio-monitoring device and realize benefits in 12 weeks. This type of intervention has the potential to save departments thousands of dollars per year by reducing chronic disease and reducing the number of officers on disability.

Ramey also recommends surveying officers to see how they would like to receive intervention on addressing stress and other health risks, as well as partnering with academia to share costs, thereby benefiting both the departments and researchers. Increasing public awareness of efforts to improve police health is also beneficial.

Ultimately, all of this research demonstrates that the burden of stress management falls on both the individual and the organization. However, when the primary stressor is the organization itself rather than the job, it is important to train police leadership to be better leaders and recognize the relationship between the job and health. While the stress resilience intervention program targets officers, there also needs to be buy in and demonstration from leadership. Organizational leaders must be aware of the stress factors. At the academy, officers must be trained properly and need to be aware that this job will show them things they have not seen before. By encouraging the health of their own officers, police departments will save money.

## **Resilience and Fatigue: Research-Based Traction for Action**

*Bryan Vila, Ph.D., Professor of Criminal Justice and Criminology, Director, Simulated Hazardous Operational Tasks Laboratory, Washington State University*

Dr. Vila talked to the OSW Group about reducing fatigue and improving resiliency among police officers. To start, fatigue and resilience must be thought about systematically, and change must be anchored in hard science. This approach provides an impartial basis for finding a common ground between management and labor, as well as a risk basis for fiscal decisions (Vila 2010).

The work of police officers involves critical job tasks such as interacting with people, deadly force judgment and decision making, and driving (often while distracted). Job performance is highly influenced by neuropsychological factors such as cognitive functioning, risk propensity, and how well officers manage their implicit biases (see Violanti, Fekedulegn, et al. 2013; James et al. 2013; Waggoner et al. 2012). Work-related fatigue often contributes to performance impairment, accidents, injuries, and increased operating costs. Over the long term, chronic fatigue increases mortality and morbidity (see Vila 2006; Violanti, Burchfiel, Hartley, et al. 2009).

Police officers sleep less and drive drowsy more often than the general population. In fact, 53% of police officers get less than 6.5 hours of sleep daily versus 30% of the general public, and 40% of police officers screen positive for (mostly undiagnosed) sleep disorders (see Vila 2000; Rajaratnam et al. 2011; National Sleep Foundation 2009). In a study involving 2,566 U.S. and Canadian officers, researchers found (AAA Foundation for Traffic Safety 2004):

- 91% routinely fatigued
- 14% usually tired at the beginning of work
- 85% drive while drowsy
- 39% fell asleep at the wheel

Fatigue reduces resiliency. When combined with sleep loss, hours of work, and other circadian factors, it also reduces our ability to form sound judgments, deal with complex stressful situations, and assess fatigue-related impairment. Fatigue narrows perception, increases anxiety and fearfulness, and reduces perspective and understanding. It also degrades cognitive abilities and increases irritability, hostility, and the tendency to shift blame. As shown in figure 3, organizational issues such as understaffing lead to overwork and job stress, which in turn lead to difficulty getting adequate sleep. Taken together, this combination of factors tends to negatively affect officers' domestic life, health, wellness, and nutrition—which are key components of resiliency, health, and wellness. As they decline, so too does officers' work capacity, which exacerbates understaffing (Vila and Samuels 2011).

Fatigue management requires cooperation between employees and management. On the management side, sleep disruption and overwork from shift work, schedule changes, overtime, and moonlighting causes employee fatigue (83% of all agencies have policies restricting off-duty employment)(Reaves 2010). On the employee side, recreational, family, and personal activities cause employee fatigue. Employees are also responsible for how much they choose to moonlight.

At the OSW Group meeting, Vila argued that organizational leadership should focus on the work capacity of the officer, rather than just staffing numbers. If officers are exhausted, they are more likely to get injured, make serious errors, and miss important information. They also are more likely to anger people whom they come in contact with instead of calming them down. Officers are more capable and safe when they are well rested and can manage stressful situations.

To change organizational culture, employees and management must recognize their common stake in fatigue management. Managers cannot afford to ignore fatigue-related risk management and human capital management issues, and labor cannot afford to ignore fatigue-related safety and health issues. This means that representatives of management and labor need to work together as a team to develop fatigue management policies.

Unfortunately, strained relationships between police management and labor can make it difficult to work together on issues such as fatigue management that involve conditions of work. One way to overcome this obstacle is for both sides to agree to rely on hard scientific evidence from an impartial expert researcher to help them develop fatigue management policies that balance the needs of their organization and community with the needs of officers.

Once the team develops an initial fatigue management policy, Vila recommended refining it over time by learning from experience. For example, the management-labor fatigue team should meet regularly and review evidence from fatigue monitoring activities using scientifically validated technologies, such as wrist actigraphs and fatigue risk-assessment modeling. They also should review the responses of line personnel and conduct after-action debriefings about incidents in which fatigue is a suspected factor. As the team identifies problems or opportunities for improvement, they should fine-tune the policy, improve counterstrategies, and integrate fatigue management into procedures, policies, rules, and the organizational culture.

Managing fatigue is critical to police operations involving decision making, information collecting and reporting, resilience and adaptability in high-threat confrontations, and operational safety and health. However, the magnitude of fatigue effects in police operations is unknown.

In a study conducted by Vila's lab and funded by the Office of Naval Research (ONR) and California Commission on Peace Officers Standards and Training (California POST),<sup>1</sup> researchers assessed fatigue associated with work and rest schedules in real-world environments and its impact on patrol officers' deadly force judgment and decision making, driving, cognitive abilities, and tactical social interaction skills. The study involved randomized, controlled laboratory experiments with 80 patrol officers, who were each measured twice in rested and fatigued conditions. The researchers used high-fidelity training simulators, interval-level metrics,<sup>2</sup> wrist actigraphy, and novel brain imaging devices to measure fatigue in both the laboratory and in the field.

Preliminary results revealed that fatigued night shift workers had significantly more lapses in attention, a key mechanism through which fatigue adversely affects operational performance. To be more specific, the analysis showed that officers driving in a fatigued condition is considerably worse than in the rested condition—especially for officers working night shifts, who were more than twice as likely to have collisions during the experiments. This effect was even more pronounced when a simple distraction task was added to the driving simulation.<sup>3</sup>

Vila also provided several recommendations in the areas of training, health screening, smart napping, and shift work. First among them is recognition that fatigue is a safety issue, being well-rested gives officers an important “alertness edge.” It is also important to understand that diet, exercise, and personal habits affect sleep, as does caffeine intake. The circadian phase also affects alertness. Effective fatigue management can reduce risks. Thus, Vila recommends that officers learn how to manage their own fatigue and monitor one another for fatigue symptoms.

For police departments, Vila recommends they advise officers to get screened by a sleep physician if they are not getting enough sleep or feel tired even after sleeping long enough to be rested. The most common sleep disorder is obstructive sleep apnea (OSA), which affects one-third of American police officers. OSA symptoms include snoring, drowsiness while awake, depression, irritability, and memory loss. Long-term consequences of OSA include high blood pressure, heart attack, stroke, depression, and car crashes. Risk factors for sleep apnea include being overweight, more than 40 years old, large neck size (greater than 17 inches for men), alcohol or tobacco use, and family history.

To address fatigue, Vila recommends smart napping in a quiet, dark, and cool environment with the use of foam earplugs and a sleep mask to block noise and light. The ideal time for napping is between 1 AM and 6 AM, or between noon and 2 PM. If an officer is going to be awake for a long time, Vila suggests napping

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1. ONR grant no. N000141110185, CalPOST contract no. 00112338.

2. Developed with funding from National Institute of Justice grant no. 2008IJCX0015.

3. These results will be published in late-2014 in three articles in a special edition of *Policing: An International Journal of Police Strategies and Management*, which is devoted to research results of the California POST Situation-Appropriate, Focused, and Educated (SAFE) Driving Campaign.



early or napping before going on duty if the officer did not get enough sleep earlier in the day. It is easier to prevent fatigue than to restore alertness. Moreover, while longer naps improve alertness, naps longer than 40 minutes require additional time to wake up to dispel sleep inertia.

In addressing shift work, Vila recommends leaving time for 8 hours of sleep between shifts and providing at least 11 hours off between shifts. He also recommends officers receive at least two days off after a series of night shifts and normally not work more than 12 hours on duty, though a 9-hour maximum is better, especially for officers whose shifts force them to sleep during the day. When working at night, reduce monotony, increase light levels, monitor fatigue, and take safe opportunities to nap.

Going forward, research is underway to address the multitude of distractions that officers are exposed to in their patrol car, including the radio, mobile data terminal, cell phone, and license plate reader. Vila cautions that the human brain cannot truly multitask. Instead, people shift rapidly from one focus of attention to another. This means that when an officer driving a patrol car pays attention to a mobile data terminal, GPS, cell phone, etc., he or she can't also focus on the road.

### **Impact of Shift Length: An Experimental Study**

*Karen L. Amendola, Ph.D., Chief Operating Officer, Police Foundation*

Dr. Amendola presented research she conducted with her colleagues at the Police Foundation on the impact of shift length in work performance, health, safety, quality of life, and other outcomes. In their survey, Amendola and colleagues found that agencies had been moving away from 8-hour shifts over the last several years, despite the lack of research on the effects of longer shifts (Amendola, Slipka, et al. 2011). She noted that many California agencies changed shift lengths in response to labor unions' concerns about the officers' commute times. As that began to happen, 12-hour shifts became necessary to recruit the best candidates.

Based on data from 2009, small agencies (50–100 officers) favor both 8- and 12-hour shifts; mid-sized agencies (101–200 officers) almost equally distribute 8-, 10-, and 12-hour shifts; and large agencies (more than 200 officers) generally use 10-hour shifts.

In her multi-site randomized experiment, Amendola looked at whether shift length in law enforcement affects any important outcomes, testing 8-, 10-, and 12-hour shifts. The study involved a total of 270 officers from Detroit, Michigan, and Arlington, Texas, who were assigned to one of three conditions: 8-, 10-, or 12-hour shifts within the specific shift schedule (i.e., day, evening, or midnight). Researchers measured performance data using laboratory simulations (e.g., driving, shooting, and reaction time) and departmental data (e.g., accidents, injuries, and sick leave). The research also involved self-reported data, including validated measures of stress, quality of life and work, work-family conflict, sleep diaries, and alertness logs. Knowing that fatigue builds over time, the lab measures were taken during the last 3 hours of the officers' shifts.

Researchers found no significant differences for any of the laboratory measures (driving and shooting simulators, interpersonal reactions, or reaction time) or departmental data on stops, reports, and summonses/tickets across 8-, 10-, and 12-hour shifts. Researchers also found no significant differences across the shift lengths in health and stress or personal quality of life. However, researchers found that

working 10-hour shifts improved officers' quality of work life (i.e., job satisfaction, schedule satisfaction, and organization commitment).

Although there were no significant differences among the shifts for sleep quality or sleep disorders, officers working 10-hour shifts slept .59 hours more per night, or 4 hours more per week. This suggests that 10-hour shifts could lead to reductions in fatigue for already overtired police officers. There was also no significant difference among the shifts for objectively measured fatigue. However, officers reported being sleepier on the 12-hour shifts, despite the fact that officers often underestimate their subjective levels of fatigue. In addition, officers on 12-hour shifts reported lowered levels of alertness across their shifts.

Researchers also found that officers assigned 10-hour shifts work significantly less overtime than those on 8- or 12-hour shifts, although those working 12-hour shifts also worked substantially less overtime than those on 8-hour shifts.

Considering agencies are concerned with liability and risk to the community, 10-hour shifts may be viable in larger agencies. Officers have improved quality of work life; sleep increases by half an hour over a 24-hour period; and officers work significantly less overtime. However, Amendola acknowledged the difficulty in developing 10-hour schedules that capitalize on the busy times of the day without having unnecessary overlapping of officers. Job satisfaction can also subside over time. Twelve-hour shifts should be implemented with caution due to the increased subjective fatigue and decreased alertness. In addition, rotating shifts have long been established as having negative health effects, such as cancer, stroke, and CVD. Longer shifts across industries have also shown increased risk in long-term health problems.

In addition to developing workable schedules, Amendola cautioned that there is still a large gap in studying the effect of overtime and off-duty employment. Many agencies have policies about off-duty employment, but agencies do not monitor it well because many feel it falls outside the purview of the employment relationship.

All of Amendola's studies can be found at <http://www.policefoundation.org/content/shift-length-experiment>.

## Police Agency Psychological Health Initiatives

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One of the most effective ways of gaining insight into managing the psychological health of officers is to review the various programs that agencies have implemented. The OSW Group heard from representatives from three law enforcement agencies in Austin, Texas; Columbus, Ohio; and Fresno, California.

### Austin (Texas) Police Department

*Lt. Greg Moss, Professional Standards Division, Risk Management Section*

The Austin Police Department (APD) serves a population of 825,000 people with 2,300 employees in one of the fastest growing cities in America. The APD takes an all-encompassing approach to employee wellness efforts by providing the following:

- Psychological Services
- PEER Support Program
- Chaplains Program
- Returning Officer Program
- Other wellness benefits

Regarding the first, Dr. Carol Logan, who has been with the department since 2003, heads Psychological Services. As the clinical director of PEER Support Program, she provides services for 2,200 employees. Logan is also a practitioner of eye movement desensitization and reprocessing (EMDR), which some research has shown to be effective in treating PTSD, especially with law enforcement officers because it effectively gets through the strong defenses that many officers have.

Second, Sergeant Dan Armstrong, a recovering alcoholic who was close to losing his job, leads the PEER Support Program, which began in 2008 and facilitates recovery by providing pre-crisis intervention from co-workers trained to give specialized social support specific to the law enforcement profession. It is designed to augment, but not replace, other outreach programs such as the employee assistance program (EAP), the chaplain program, psychological services, and wellness services.

PEER Support personnel include six teams made up of a total of 48 volunteers, both sworn and non-sworn, 25 of whom are trained in critical incident stress management (CISM) debriefing. The teams serve as a referral source for services, and their conversations are confidential. A peer support volunteer will break that confidentiality only if there is an admission of a criminal act or abuse, or an indication of intent to harm one's self or others. Since 2008, peer support contacts have increased from 200 to more than 1,000.

Historically, police culture has failed to acknowledge the impact of stress and trauma on officers. While some officers dealt with the stress of the job relatively well, others leave the profession, and still others turn to negative coping behaviors such as alcohol. The two key components to stimulating cultural change are policy and administrative support. In addition, police departments need to afford supervisors the ability to use alternative discipline as a means of training and education.

Art Acevedo, APD's chief of police, made it clear that he wants his officers to get help before an issue becomes a crisis. To provide this help, peer support volunteers reach out to an officer who, for example, had a negative interaction with internal affairs during an interview where the officer was the subject of an investigation.

Third, the Chaplains Program, which began in 2008, is a collaborative effort between Psychological Services, PEER Support, and the training academy. It comprises 22 volunteer chaplains and offers spiritual support, personal and family counseling, and ministerial services for APD officers and employees, as well as their immediate family members.

The chaplains are available to assist in times of injury, illness, the death of a loved one, and other traumatic situations. They are available upon request and in other circumstances when needed. Chaplains participate in a Duty Chaplain On-Call Program for critical incidents and visit area commands. In addition, each volunteer chaplain is required to participate in the APD ride-along program once a quarter. As a vital link with the Austin faith community, chaplains also provide the APD with input on community problems, needs, concerns, and interests as expressed by the faith community.

Fourth, the Returning Officer Program includes two components. The first component maintains contact with the officers' family members while the officers begin their military deployment. The second component is for returning officers, who must go through a physical and psychological assessment and retraining. They are not cleared to return to patrol until the checklist is complete.

Last, other wellness benefits provided by the APD include confidential counseling for alcohol and drug issues, voluntary health screenings, fitness evaluations, and physical exams. Officers seeking civil service promotion must have a physical exam prior to being promoted. Officers that work in units that have physical fitness requirements are allowed to work out while on duty or use flexible schedules that provide time for exercise.

The APD is a drug- and alcohol-free workplace that requires random and critical incident drug testing, and personnel have a duty to report both employees and supervisors. Supervisors also have a duty to get assistance for the employee.

## **Columbus (Ohio) Division of Police**

### ***Deputy Chief Tim Becker***

The Columbus Division of Police (CPD) currently employs approximately 1,900 sworn officers and 250 civilian personnel and services a residential population of more than 760,000 people. Chief Becker discussed with the OSW Group the psychological wellness programs offered by the department:

- Professional, mandatory counseling for traumatic incidents with a licensed psychologist prior to returning to work
- Employee Assistance Program, a confidential service provided at no cost to members that may be voluntary or mandated by the department

- Peer Assistance Team, comprising sworn personnel who receive special training on common issues, serve as the confidant, and make appropriate referrals
- Officer Support Team, a volunteer program comprised of personnel who have gone through traumatic events and are trained to respond immediately to the scene of an incident to offer guidance to the employee without discussing the current incident (no confidentiality agreement for this team)

In addition to these programs, the CPD has established internal controls to monitor employee wellness. For example, any employee that calls in sick because of stress, depression, illness, or injury that may indicate a safety concern must receive clearance by a mental health or medical professional. There is also a mandatory review at the commander level for any personnel who are out sick four or more times per year. The CPD also offers a return to work program that evaluates and counsels employees with long-term absences or restrictions to determine if and when they can return to full duty.

The Employee Action Review System (EARS) Committee is a semi-annual review of personnel using force or receiving complaints at a higher rate than their peers (top 15%) to evaluate whether or not patterns of conduct exist that warrant additional follow through by the chain of command. This does not generate disciplinary action but rather retraining.

The department also conducts random drug and alcohol testing on a monthly basis in accordance with the respective collective bargaining agreements. Positive tests result in mandatory actions. Since enacting this policy 15 years ago, the CPD has found only been two positive tests for drugs (marijuana). On the other hand, the CPD not only had more positive tests for alcohol but also found that alcohol caused 78% of serious discipline cases.

CPD's Training Bureau proactively creates training topics to address wellness issues such as nutrition and stress. Furthermore, each academy class hosts a "Family Night" to advise family members of available assistance and common issues faced by new officers.

The CPD also partners with the Columbus Public Health department, which offers a program called "Healthy Columbus" to all CPD employees. As part of this program, employees can take advantage of fitness classes, dietary programs, medical screenings, flu shots, and informational health fairs.

Sworn personnel hired after January 1, 2008 are required to participate in annual physical fitness testing. Those hired before that date may participate on a voluntary basis. The annual fitness test includes a medical questionnaire about the state of the employees' health, which is reviewed by medical professionals, who evaluate whether the employees can safely wear a gas mask. If issues arise, the medical personnel consult with CPD human resources professionals to determine if the employee is fit for duty. Approximately 70% of agency-sworn personnel participate in the annual fitness test. Although officers do not face discipline if they fail to meet standards, they can face disciplinary action if they fail to participate.

Participants must also complete an annual physical examination, either by the police department's designated doctor or by the participants' own physicians. A health risk appraisal is also included. Participants are eligible for vacation leave and financial incentives, based on the member's achievement and the overall level

of participation by all sworn personnel, respectively. There is also mandatory lead testing for all personnel assigned to CPD ordinance functions; hearing testing for ordinance, heliport, and crime lab personnel; and physical fitness testing for personnel assigned to the SWAT, helicopter, and recruit training sections.

The CPD hired an industrial hygienist at the end of 2012 to coordinate internal safety programs and conduct risk analyses of data within the CPD to identify problems “lying in wait.”

## **Fresno (California) Police Department**

### *Officer Al Hernandez*

The Fresno Police Department (FPD) serves a population of 495,000 people with a workforce of 800 sworn and 200 nonsworn personnel. Officer Hernandez, FPD’s Employee Services Bureau (ESB) coordinator, presented to the OSW Group the department’s wellness programs.

Through the ESB, the department sought to encourage connection, credibility, and confidentiality with its employees, and its mission is to proactively address challenges unique to members of the FPD. The core components of this program include member education regarding stress and resource development to help members effectively manage stress in a confidential manner. The ESB wanted to create an environment where members could seek services that allow them to be content, healthy, and well-balanced, making them better suited to deliver police services to the public.

The ESB coordinates training, serves as the point of contact for members to access services following a critical incident, promotes awareness, and fosters member awareness in recognizing warning signs of improperly managed job stress. Specific components of the ESB include the following seven services:

1. Companion Officer Program
2. Chaplains Program
3. Wellness Program
4. Psychological Services
5. Military Reentry
6. Structured Assistance for Valued Employees
7. Early Alert System

Regarding the first, the Companion Officer Program has 26 trained volunteer peer support officers, who are selected through an oral interview process by the program co-chairs. The peer support officers are divided into three teams of eight. Each team is on call every third month. They can show up at the scene of an incident to support officers who may need to speak with someone, respond to critical incident stress management (CISM) debriefings, and participate in biannual training. This program also includes a “First Responder Meeting,” which is similar to a 12-step program where officers talk about life challenges (alcohol, relationships, etc.) at off-site locations.

Second, the Chaplains Program provides spiritual support to FPD personnel and their families through counseling, encouragement, and resources. It is led by a retired FPD officer and includes 15 additional on-call chaplains.

Third, the Wellness Program provides fitness programs, nutrition plans, risk factor reduction techniques, and consultations throughout the year for officers who have fitness and health concerns. Officers are rewarded monetarily for meeting participation requirements. The average payout is \$750.

Fourth, the Psychological Services department, through Avante Health Counseling Services, provides mental health, chemical dependency, and employee assistance program services for depression, stress, grief and loss, and financial issues. Employees receive up to six visits per year at no cost. This program provides immediate access to high-quality resources with specialized training in police psychology.

Fifth, officers returning from military duty are provided mentors to assist in reentering the department. They are also provided training on new policies, procedures, laws, and changes in equipment and technology.

Sixth, Structured Assistance for Valued Employees (SAVE) relies on supervisors to identify potential problems before they become discipline issues. It includes a mandatory intervention for employees that demonstrate observable difficulties in dealing with traumatic events, professional challenges, or personal problems. It is not a substitute for discipline but rather is meant to help address issues before they become disciplinary problems.

Seventh, the Early Alert System (EAS) focuses on detecting and correcting officers' deficiencies before they become significant performance issues. The program provides positive, confidential, nondisciplinary intervention with training and counseling to assist members with performance problems.

In the future, the ESB plans to hold biannual retirement seminars, targeting officers retiring within that period. The goal is to prepare officers for the psychological and financial issues they may experience in retirement. The program will focus on health benefits, workman's compensation, Social Security, long-term care, reserve unit, association support, and life after law enforcement wellness.

Hernandez recommends that departments considering the development of an Employee Services Bureau focus on making sure the right person is selected for the position, someone who can maintain trust and confidentiality. Hernandez believes the individual should be an officer, not an administrator, and should maintain access and contact with officers through briefings and riding with patrol officers in the field. It is also important for this individual to continue to seek additional funding sources for the program.

Hernandez ended his presentation by sharing a personal story with the OSW Group. Five years ago, he was out drinking on his day off. As he drove home intoxicated, he hit a pole and damaged his vehicle. His first thought was to ditch the car, but he realized that he had a drinking problem. He had been a police officer for 25 years at that point and had been stopped before and let go without further action. Knowing what would happen, he ended up calling his sergeant and was arrested. The following day, he went to see the chief of police and was ultimately suspended. Although it was humiliating, every person he spoke with told him that he did the right thing by addressing his problem. Two years after this incident, the chief offered him the position of coordinator for the ESB, a position he maintains today. Hernandez has been sober for five years.

## Discussion and Action Agenda

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Based on the research, case studies, background reading, individual expertise, and discussions throughout the day, the OSW Group broke into smaller groups to discuss and identify recommendations and observations for police agencies to consider that might help contribute to improved safety and wellness for officers. The smaller groups discussed improving psychological wellness in the five areas highlighted in the introduction (see page 3)—leadership, research, policy, training, and practice/programs. The OSW Group meeting facilitator, Bascom “Dit” Talley, asked each group to respond to the questions outlined below:

### Leadership

**Q:** What is the role of the chief executive and the management team in dealing with psychological health challenges in policing?

- See past differences (both the chief and union leader), and work together for the benefit of the officers. Create and exhibit a partnership with the bargaining unit and work collectively.
- Show they care, and gain political support to get funding for programs that help. Conduct a cost benefit analysis.
- Create a culture where officers are comfortable seeking out help.
- Highlight success stories.
- Lead by example, and demonstrate commitment with actions.
- Communicate to officers why the department is making a particular change. Explain the long-term benefits and cost benefits.
- Recognize that sometimes the chief needs to set ground rules and ensure that officers follow them. Officers will work too many overtime or secondary employment hours for short-term gains that may not be in their long-term interests.
- Recognize the threat of officer suicide. More officers kill themselves than are killed in the line of duty.

**Q:** What is the role of employee organizations in dealing with psychological health challenges in policing?

- Educate and inform. Also provide encouragement to fellow officers.
- Partner with a nonprofit to provide 24/7 confidential peer counseling and referral services, such as Safe Call Now at [www.safecallnow.org](http://www.safecallnow.org).
- Train leaders on understanding and managing organizational stress.
- Provide confidential counseling for officers. One department provides funding to allow officers four free visits, which could be extended to six.
- Establish a non-line-of-duty death wall to bring attention to officers who died because of traffic incidents, suicide, or domestic violence.
- Institute a peer counseling program.
- Watch for early warning signs (unions, coworkers, and first line supervisors).



**Q:** What is the role of individual employees in dealing with psychological health challenges in policing?

- Recognize leaders can come from any rank, including officers and unions. (In other words, everyone should reach out to an officer who may be experiencing a psychological health challenge, and every officer and union leader should ensure psychological health is an agency priority.)
- Educate officers on the “see something, say something” campaign as applied to fellow officers.
- Eliminate the peer pressure faced by recruits at the academy.
- Share stories, even on an informal basis.
- Provide tools for officers to manage stress. One department provides all recruits with *Emotional Survival for Law Enforcement: A Guide for Officers and Their Families*.

## Research

**Q:** What are the law enforcement psychological health research gaps?

- Look for patterns between officers’ work hours, health, and safety. For example, 10% of officers work 70–80% of the overtime for the entire organization.
- Research the impact of street police work on aging officers.
- Increase the impact of limited funding through partnerships with federal agencies like the U.S. Department of Defense and U.S. Department of Justice.
- Research the impacts of intervention strategies. Nearly all of the research is focused on describing the problem.
- Determine what works in both the short and long term.
- Examine the impact of police disciplinary practices on the psychological health of officers.

## Policy

**Q:** What policies should police agencies have in place to address psychological health issues?

- Provide training to supervisors to assist them with recognizing and responding appropriately to problems.
- Provide routine critical incident stress debriefings and post-incident counseling in response to critical incidents.
- Develop a policy for officer-involved shootings that recognizes the psychological aspects of these incidents on officers.
- Provide anonymous high-quality counseling.
- Establish a policy to educate family members on what options are available when an officer develops certain behaviors (e.g., domestic violence). Help family members get help for officers.

## Training

**Q:** What type of training should departments provide employees to help them cope with the psychological challenges in policing?

- In-service training programs should annually reaffirm what services are available for officers and communicate this on a regular basis.
- Departments should encourage mentorships with more experienced officers.
- Training should include stress management techniques.
- Investigators should receive special training in officer-involved shootings.
- All employees should receive training on recognizing the signs and symptoms of stress.
- Training representatives should be dispatched to critical incidents to assess training needs.
- Departments should provide prosecutors training on use of force.

## Practice/Programs

**Q:** What specific practices or programs should departments have to help reduce stress and improve psychological health of officers?

- Screen officers for sleep disorders, and refer them for help when problems are identified.
- Discuss, publish, and share the lessons departments learned from their experiences in dealing with psychological health issues.
- Encourage officers visiting websites similar to Gordon Graham's Fire Fighter Close Calls, [www.firefighterclosecalls.com](http://www.firefighterclosecalls.com), where officers can learn from mistakes. Although departments may be concerned with liability.
- Encourage peer support and counseling. The U.S. Marshal's office has one of the best policies, which could provide a model for other agencies to follow.

## Conclusion

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Improving psychological health is a challenging and long-term endeavor for law enforcement agencies. It requires understanding the full range of issues involved with officer health, stress response and management, and organizational management. The OSW Group discussion at this meeting focused on advancing research, improving the response to officer stress, and reducing the risks of related disease. Based on a thoughtful, full-day deliberation, the group identified points for consideration regarding gaps in research, areas to improve training, reviews of policies and procedures, and practices to improve psychological wellness among officers. There is more work to do in this area, but this meeting and resulting report begins the national discussion and helps to identify the best practices for training, policies, procedures, and programs.

## Appendix A: OSW Group Meeting Agenda

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U.S. Department of Justice  
Office of Justice Programs  
810 Seventh Street NW  
Washington, DC  
Monday, February 4, 2013

- 8:15 – 8:30 AM Participant Arrival**
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- 8:30 – 9:00 AM Welcome**  
by Bernard K. Melekian, then Director, Office of Community Oriented Policing Services  
by Denise O'Donnell, J.D., Director, Bureau of Justice Assistance
- 
- Meeting Purpose**  
Presenter: Darrel Stephens, Executive Director, Major Cities Chiefs Association
- 
- 9:00 – 9:15 AM Introduction of Participants**  
Facilitator: Bascom "Dit" Talley, Faculty Coordinator, Johns Hopkins University
- 
- 9:15 – 10:30 AM The Impact of Police Officer Stress**  
Presenter: John M. Violanti, Ph.D. Research Professor, Department of Social and Preventive Medicine, University of Buffalo  
Presenter: Sandra L. Ramey, Ph.D., R.N., Assistant Professor, College of Public Health, University of Iowa
- 
- 10:30 - 10:45 AM Break**
- 
- 10:45 – 12:00 PM Resilience and Fatigue**  
Presenter: Bryan Vila, Ph.D., Professor of Criminal Justice and Criminology, Director of Simulated Hazardous Operational Tasks Laboratory, Washington State University  
Presenter: Karen Amendola, Ph.D., Chief Operating Officer Police Foundation
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- 12:00 – 12:45 PM Lunch**
- 
- 12:45 – 2:15 PM Police Agency Psychological Health Initiatives**  
Presenter: Lt. Greg Moss, Austin (TX) Police Department  
Presenter: Deputy Chief Tim Becker, Columbus (OH) Police Department  
Presenter: Officer Al Hernandez, Fresno (CA) Police Department
- 
- 2:15 – 2:30 PM Break**

*Continued on next page*

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**2:30 – 4:00 PM Improving Psychological Health: Group Discussion and Action Agenda**

Participants will address the following issues in the context of psychological health:

- **Leadership:** What is the role of the chief executive and the management team in dealing with psychological health challenges in policing? What is the role of employee organizations in dealing with psychological health challenges in policing? What is the role of individual employees in dealing with psychological health challenges in policing?
- **Research:** What are the law enforcement psychological health research gaps?
- **Policy:** What policies should police agencies have in place to address psychological health issues?
- **Practice/programs:** What specific practices or programs should departments have to address these issues?
- **Training:** What type of training should departments provide employees to help them cope with the psychological challenges in policing? (Examples of department and other training that is available or needed)
- **Practice/Programs:** What specific practices or programs should departments have to help reduce stress and improve psychological health of officers?

Facilitator: Bascom "Dit" Talley, Faculty Coordinator, Johns Hopkins University

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**4:00 – 4:10 PM Closing Comments**

by Darrel Stephens, Executive Director, Major City Chiefs Association

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**4:10 PM Adjourn**

## Appendix B: OSW Group Meeting Attendees

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**Joseph Akers**

Interim Executive Director  
National Association of Black Law Enforcement  
Officers

**Karen L. Amendola, Ph.D.**

Chief Operating Officer  
Police Foundation

**Tim Becker**

Deputy Chief  
Columbus Division of Police

**Christie L. Bogle**

AFOSI Liaison to the IACP  
International Association  
of Chiefs of Police

**Jim Bueermann**

President  
Police Foundation

**Patrick A. Burke**

Assistant Chief  
Metropolitan (DC) Police Department

**Pamela J. Cammarata**

Associate Deputy Director  
Bureau of Justice Assistance

**Brett Chapman, Ph.D.**

Social Science Analyst  
National Institute of Justice

**Nancy C. Demme**

Captain  
Training and Education Division  
Montgomery County (MD) Police Department

**Alexander L. Eastman, M.D.**

Lieutenant and Deputy Medical Director  
Dallas (TX) Police Department

**Joshua A. Ederheimer**

Principal Deputy Director  
Office of Community Oriented  
Policing Services

**Craig W. Floyd**

Chairman and Chief Executive Officer  
National Law Enforcement Officers  
Memorial Fund

**Stephanie A. Garbarczuk**

Law Enforcement Coordination Manager  
United States Attorney's Office – DC

**Alan M. Goldberg**

Chief  
Takoma Park (MD) Police Department

**Elliott E. Grollman**

Commander  
Federal Protective Service

**David L. Harlow**

Assistant Director of Investigative Operations  
U.S. Marshalls Service

**William Haskell**

Public Safety Sector Coordinator  
National Institute for Occupational Safety  
and Health

**Al Hernandez**

Officer  
Fresno (CA) Police Department

**Dennis Hyater**

Program Manager  
Commission on Accreditation for Law  
Enforcement Agencies

**Hope D. Janke**

Director, Public Safety Officers' Benefits

**William Johnson**

Executive Director  
National Association of Police Organizations

**Matthew Klein**

Commander  
Metropolitan (DC) Police Department

**David Klinger, Ph.D.**

Associate Professor  
University of Missouri – St. Louis

**Ron Malega, Ph.D.**

Statistician  
Prosecution and Adjudication  
Statistics Unit  
Bureau of Justice Statistics

**Leonard Matarese**

Director  
Research and Project Development  
International City/County  
Management Association

**Bernard K. Melekian**

Then Director  
Office of Community Oriented  
Policing Services

**Michael Miller**

Detective  
Metropolitan (DC) Police Department

**Roger Miller**

Federal Bureau of Investigation

**Brian Montgomery**

Physical Scientist  
National Institute of Justice

**Greg Moss**

Lieutenant  
Austin (TX) Police Department

**Denise O'Donnell, J.D.**

Director  
Bureau of Justice Assistance

**William H. Petty, Ph.D.**

Visiting Fellow  
U.S. Department of Justice  
Office for Victims of Crime

**Sandra Ramey, Ph.D., RN**

Assistant Professor  
College of Public Health  
University of Iowa

**Timothy M. Richardson**

Senior Legislative Liaison  
National Fraternal Order of Police

**Daniel Rodriguez**

Lieutenant  
Commander, Special Operations Section  
Anne Arundel County (MD)  
Police Department

**William Sarvis**

Director, Medical Services Branch  
Metropolitan Police (DC) Department

**Ted Stanich**

Acting Deputy for the Criminal  
Investigation Division  
Environmental Protection Agency

**Darrel Stephens**

Executive Director  
Major Cities Chiefs Association

**Bascom "Dit" Talley**

Faculty Coordinator  
Johns Hopkins University

**Captain Barry M. Thomas**

Chief Deputy  
Story County (IA) Sheriff's Office

**Bryan Vila, Ph.D.**

Professor of Criminal Justice  
and Criminology  
Washington State University

**John Violanti, Ph.D.**

Research Professor  
University of Buffalo  
Department of Social and Preventive Medicine

**Sandra Webb, Ph.D.**

Deputy Director of Community  
Policing Advancement  
Office of Community Oriented Policing  
Services

**David Williams**

Lieutenant  
Jefferson City (MO) Police Department

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## **Appendix C: OSW Group Presenters' Profiles**

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### **Karen L. Amendola, Chief Operating Officer, Police Foundation**

At the Police Foundation in Washington, D.C., Karen L. Amendola, Ph.D., manages state, local, and federal grants and contracts; directs research; and supervises police and research fellows. Amendola has conducted training and made numerous presentations to police and criminal justice audiences from the United States and abroad in such areas as democratic policing, early warning systems, recruitment, selection, ethics, and community policing. Her current research includes assessing evidentiary strength in eyewitness ID cases, evaluating technology, and examining police shift practices. Amendola serves as chairman of the board for the National Partnership for Careers in Law, Public Safety, Corrections, and Security and as a member of the Research Advisory Board of the Innocence Project (New York). Previously, Amendola served over five years on the Scientific Review Committee of the U.S. Department of Defense's Polygraph Institute (now National Center for Credibility Assessment). She earned her Ph.D. in industrial and organizational psychology from George Mason University in Virginia.

### **Timothy Becker, Deputy Chief, Columbus Division of Police**

Deputy Chief Timothy Becker joined the Columbus Division of Police (CPD) in December 1988. The CPD currently employs approximately 1,900 sworn officers and 250 civilian personnel and services a residential population of more than 760,000. There are six subdivisions within CPD, each headed by a deputy chief, under Chief of Police Kim Jacobs. Becker is currently assigned as the administrative deputy chief, overseeing fiscal, HR, and training operations, as well as policy creation and accreditation. Becker has held assignments in all six subdivisions throughout the course of his career.

Becker obtained a bachelor of arts in journalism from The Ohio State University and expects to earn a master of science in public safety leadership from Capella University in March 2013. Becker is a graduate of the FBI National Academy and the Northwestern University School of Police Staff and Command.

Becker is married to a Columbus police officer and is the proud father of three sons, ages 17, 15, and five.

### **Albert Hernandez, Officer, Fresno Police Department**

Albert Hernandez was born and raised in Fresno, California. He was hired in 1983 with the Fresno Police Department and has worked in various units, including Patrol, Tactical Teams, Police Activities League, Mounted Patrol, and Employee Services. He received Officer of the Year Awards in 1992 and 2000 and the Life Saving Award in 1996 for saving a five-year-old girl from drowning. His training includes First Responder Support Network, Group Crisis Intervention, International Critical Incident Stress Foundation, Traumas of Law Enforcement Training, Peer Support Counseling, and Individual Crisis Intervention and Peer Support. He has developed a reputation for supporting fellow officers when needed. Many officers benefit from his compassion and desire to help others in his profession. He is married to his wife, Wendy, and they have five children. In his free time, he goes to one of the many sporting events that his children participate in all over the state.

### **Greg Moss, Lieutenant, Austin Police Department**

Lt. Moss has served the citizens of Austin and its police department for 20 years. He is a 1991 graduate from the University of Texas-Austin, with a bachelor's degree in psychology. He has been recognized by the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE) as a "Master Peace Officer" since 2002. He is a graduate of Austin Police Department's Leadership Command College and is a member of the Texas Police Association.

During his career, he has worked various assignments, including patrol, the Fugitive Apprehension unit, and the Executive Protection unit. As a supervisor and manager, he has directed patrol officers, the Sex Offender Apprehension and Registration (SOAR) unit, and the Missing Persons unit. He has also served



as the operations lieutenant for the South Bureau Command. His current assignment in Risk Management encompasses several units, including Psychological Services, Peer Support, Policy Development, the Guidance Advisory Program, and the Random Drug Testing program.

**Sandra Ramey, Assistant Professor, College of Public Health, University of Iowa**

Sandra Ramey, Ph.D., RN, received her Ph.D. from Iowa State University, her MSN from the University of Iowa, and her BS from St. Francis.

Ramey joined the Adult and Gerontology faculty in 2006 after serving as an assistant professor at Marquette University for three years. Ramey's research program investigates the relationships among cardiovascular disease (CVD) risk factors and CVD morbidity in large law enforcements cohorts. Her work has extended to nine Midwestern states and currently is located within the Milwaukee Police Department where she studies inflammatory markers of stress as well. While health promotion has primarily been the focus of Ramey's work, other interests include extending her work to the Cherokee Nation in Tahlequah, Oklahoma, exploring contributing factors to the prevalence of CVD and risk in the Native American population. Ramey was selected by the American Nurses Association to represent nursing at the Center for Disease Control and Prevention-American Medical Association Readiness Conference held in Washington, D.C., in July 2004.

Most recently she served as a reviewer for the National Nurse Emergency Preparedness Initiative, supported by Homeland Security and American Association of Colleges of Nursing. Ramey has a secondary appointment in the College of Public Health at the University of Iowa and works with multidisciplinary graduate students in the Occupational Health Nursing Program.

**Bryan Vila, Professor of Criminal Justice and Criminology, Washington State University**

At WSU Spokane, Bryan Vila, Ph.D., serves as the director of the Simulated Hazardous Operational Tasks Laboratory. Prior to joining WSU in July 2005, he directed the Division of Crime Control and Prevention Research at the U.S. Department of Justice's National Institute of Justice. Vila has served as principal investigator or co-principal investigator on \$7.6 million in externally funded research projects. He has brought eight grants/contracts totaling \$5.5 million to WSU in the past six years. Vila received his Ph.D. in ecology from the University of California, Davis in 1990.

He has held tenured faculty positions at the University of California, Irvine and the University of Wyoming. He was honored with the College of Liberal Arts Outstanding Career Achievement in Scholarship award for 2012 for his research on the impact of fatigue and stress on police performance, his publication record, and his successful grantsmanship.

Before he became an academic, Vila served as a law enforcement officer for 17 years—including nine years as a street cop and supervisor with the Los Angeles County Sheriff's Department, six years as a police chief helping the emerging nations of Micronesia develop innovative law enforcement strategies, and two years in Washington, D.C., as a federal law enforcement officer.

**John Violanti, Research Professor, University of Buffalo**

John M. Violanti, Ph.D., is a research professor in the Department of Social and Preventive Medicine (SPM), School of Public Health and Health Professions at the University of Buffalo, State University of New York and has been associated with SPM for 22 years. Violanti is also a member of the University at Buffalo School of Medicine and Biomedical Sciences graduate faculty.

He is a police veteran, serving with the New York State Police for 23 years as a trooper, member of the Bureau of Criminal Investigation, and later as a coordinator of the Psychological Assistance Program (EAP) for the state police.

Violanti has authored more than 50 peer-reviewed articles on police stress and post-traumatic stress disorder, police mortality, and suicide. He has also written and edited fourteen books on topics of police psychological and physical health issues. Violanti has lectured internationally and at the FBI academy on matters of police stress, trauma, and suicide.

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## About BJA

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THE BUREAU OF JUSTICE ASSISTANCE'S (BJA) mission is to provide leadership and services in grant administration and criminal justice policy development to support local, state, and tribal justice strategies to achieve safer communities.

BJA has four primary components: the Policy Office, Programs Office, Planning Office, and Public Safety Officers' Benefits Program Office. The Policy Office provides national leadership in criminal justice policy, training, and technical assistance to further the administration of justice. It also acts as a liaison to national organizations that partner with BJA to drive policy and help disseminate information on promising practices. The Programs Office coordinates and administers state and local grant programs and acts as BJA's direct line of communication to state, local, territorial, and tribal governments by providing assistance and coordinating resources. The Planning Office coordinates the planning, communications, and budget formulation and execution; provides overall BJA-wide coordination; and supports streamlining efforts. The Public Safety Officers' Benefits Program Office provides death and education benefits to survivors of fallen law enforcement officers, firefighters, and other first responders and disability benefits to officers catastrophically injured in the line of duty.

BJA's overall goals are to (1) reduce and prevent crime, violence, and drug abuse and (2) improve the functioning of the criminal justice system. To achieve these goals, BJA programs emphasize enhanced coordination and cooperation of federal, state, and local efforts. BJA's objectives in support of these goals are to:

- Encourage the development and implementation of comprehensive strategies to reduce and prevent crime and violence
- Encourage the active participation of community organizations and citizens in efforts to prevent crime, drug abuse, and violence
- Provide training and technical assistance in support of efforts to prevent crime, drug abuse, and violence at the national, state, and local levels
- Reduce the availability of illegal weapons and develop strategies to address violence in our communities
- Enhance the capacity of law enforcement agencies to reduce crime
- Improve the effectiveness and efficiency of all aspects of the adjudication process, including indigent defense services
- Assist states in freeing prison space for serious and violent offenders through the design and implementation of effective correctional options for nonviolent offenders
- Enhance the ability of criminal justice agencies to access and use new information technologies
- Encourage and support evaluation of the effectiveness of funded programs and dissemination of program results

## About the COPS Office

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THE OFFICE OF COMMUNITY ORIENTED POLICING SERVICES (COPS OFFICE) is the component of the U.S. Department of Justice responsible for advancing the practice of community policing by the nation's state, local, territory, and tribal law enforcement agencies through information and grant resources.

Community policing is a philosophy that promotes organizational strategies that support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime.

Rather than simply responding to crimes once they have been committed, community policing concentrates on preventing crime and eliminating the atmosphere of fear it creates. Earning the trust of the community and making those individuals stakeholders in their own safety enables law enforcement to better understand and address both the needs of the community and the factors that contribute to crime.

The COPS Office awards grants to state, local, territory, and tribal law enforcement agencies to hire and train community policing professionals, acquire and deploy cutting-edge crime fighting technologies, and develop and test innovative policing strategies. COPS Office funding also provides training and technical assistance to community members and local government leaders and all levels of law enforcement.

The COPS Office has produced and compiled a broad range of information resources that can help law enforcement better address specific crime and operational issues, and help community leaders better understand how to work cooperatively with their law enforcement agency to reduce crime.

- Since 1994, the COPS Office has invested more than \$14 billion to add community policing officers to the nation's streets, enhance crime fighting technology, support crime prevention initiatives, and provide training and technical assistance to help advance community policing.
- To date, the COPS Office has funded approximately 125,000 additional officers to more than 13,000 of the nation's 18,000 law enforcement agencies across the country in small and large jurisdictions alike.
- Nearly 700,000 law enforcement personnel, community members, and government leaders have been trained through COPS Office-funded training organizations.
- To date, the COPS Office has distributed more than 8.57 million topic-specific publications, training curricula, white papers, and resource CDs.

COPS Office resources, covering a wide breadth of community policing topics—from school and campus safety to gang violence—are available, at no cost, through its online Resource Center at [www.cops.usdoj.gov](http://www.cops.usdoj.gov). This easy-to-navigate website is also the grant application portal, providing access to online application forms.