Policing, Stress, and Resilience

Headquarters, Washington, DC

Gina Orton, M.D.

Medical Officer

Selden F. Cooper, LCSW-C, CEAP, M.Ed.

Employee Assistance Counselor

Employee Assistance Unit

Federal Bureau of Investigation

Body-Mind Survival

- Much of law enforcement training is devoted to honing the skills necessary for physical survival on the "street".
- What about protecting the embodied mind and spirit?
- An imbalance?
- What is being short-changed/neglected?
- What are the costs of such neglect?
- The following will attempt to redress this imbalance by presenting an integrated, systemic, holistic Mind-Body approach to stress in general, law enforcement stress in particular, and the development and maintenance of resilience.

Complexity

LE Occupational Stress: An Inherently Complex Phenomena

- The Nature of the Work: A "Critical" Occupation, and a "Calling"
- The Individual: Strengths and Vulnerabilities
- Pre-Occupational History, Influences, and Exposures
- The Organizational Context (the "agency" leadership, policies, "ethos")
- The Community Context
- Exposures: Type, Intensity, Frequency
- Career Stage
- Coping Repertoire
- Group/Organizational Response to Exposures
- Support System
- Psychological Flexibility and Resiliency (individual, group, organizational)

Stressors and Stress

- A stressor is any stimulus that activates the human stress response; any demand that requires adaptation by the organism.
- Stressors can be:
 - Discrete events, expected or unexpected
 - Typical ("normal") or Extraordinary (beyond usual, "every-day" experience)
 - Conditions, circumstances, contexts that endure/are prolonged
 - Internal, external, or both
 - "Positive" events, or changes in circumstances, can function as stressors, as well as "negative" developments.
 - Thoughts and appraisals; interpretations of experience and resources.

Stressors and Stress

- Stress is the Body-Mind Reaction to a stressor.
- Dimensions of the Stress Equation include:
 - The event(s), conditions, context.
 - Type of Stressor:
 - Developmental/normative (life-cycle transitions)
 - Natural vs. human-mediated (accidental, negligent, intentional)
 - Time-limited vs. prolonged/repetitive (acute, or chronic/cumulative)
 - Intensity and scope of the experience
 - Age at which the exposure occurs
 - Individual, group, and community factors (vulnerabilities and resources)
 - Larger social Influences (economy, timeliness and adequacy of response)

There Are Stressors, and There Is Stress.

Stressors

- The "daily hassles"
- Normal acute events
- Chronic stressors
- Traumatic events/Critical Incidents
 - Discrete events
 - Repetitive exposures
- Exposure to prolonged sub-threshold traumatic stress; AKA "Chronic Duress"
- Also: Both positive and negative events

Stress

- "Everyday" low-level stress (background)
- Temporary grief, situational reactions
- "Wear and Tear" (erosive)
- Traumatic/Critical Incident Stress
 - Acute Stress Injury/PTSI/D
 - "Complex" PTSI/D
- Cumulative stress that can evolve into a "Complex" form of Stress Injury
- Eustress and Distress

A Rapid Survey of the Human Stress Response

- Evolved to maximize survival odds in the "State of Nature" (fight, flight, hide/freeze, play dead).
- Two Autonomic Nervous Systems:
 - Sympathetic: rapid arousal, emergency mobilization for F-F-F
 - Parasympathetic: calming and recovery (RR)
- In the modern world, the SNS can work against us; triggered in situations in which F-F-F is not appropriate, and it can get "stuck" in the "on" position, resulting in "wear and tear", damaging the Body-Mind system at a cellular level.

A Little More on Stress

- Stress is normal, natural; absence of stress is dead.
- Therefore, we cannot eliminate stress completely.
- While prolonged, excessive stress can literally kill, normalrange stress can challenge, invigorate and energize.
- Our challenge is regulate our stress by maintaining its fluctuations within an optimal range; neither too high, nor too low, most of the time.
- This can be done by learning how to dampen the reactivity of the SNS (the stress response), and activating the PNS (the "relaxation" response).
- And, by enhancing one's coping repertoire (resources).

- By far, most of the attention to First-Responder Stress has been given to Critical Incident Stress (CIS); elaborate protocols have been developed to address such exposures, and are often invoked as an SOP for such exposures.
- Critical Incidents are the "Big-T" traumas (extraordinary events) that have the potential to inflict severe damage on the Body-Mind-Spirit system.
- What might be exceptional and infrequent experiences for the general public can become routine for first responders.

• Classic Definition:

- Direct personal experience which threatens survival, serious injury, physical integrity, or the witnessing such an event.
- An experience which creates intense fear, horror, a sense of helplessness, and overwhelms usual coping mechanisms.
- Recently, there has been an increasing awareness that an event does not have to be imminently life-threatening to be traumatic.
- Traumatic events have physiological, emotional, cognitive, social, and spiritual impacts, that can range from mild to extreme, transitory (acute) to prolonged (chronic). The enduring effects of trauma are primarily carried in the body.
- The classic hallmarks of PTSI/D are re-experiencing (intrusion), hyper-arousal, numbing, and avoidance.
- People can emerge from trauma with Post-Traumatic Growth; more resilient, with a more realistic and flexible orientation to life, feeling more truly alive.

- Traumatic exposures can leave unprocessed residuals in implicit (non-verbal) memory that can be activated (triggered) by experiences, both actual and symbolic, that resemble the original event.
 - In the words of Cherri Maples, referring to "accumulated" traumatic stress: "It might not be the first incident, or the second, or the third, or the fifteenth, but maybe it's the hundredth incident you respond to that puts you over the top…"
- The experience of trauma can be highly subjective, explaining why a
 person who has previously coped "well" with such events, may be
 strongly affected by another; it may be that officer's "hundredth", or
 some aspect of the current event may trigger an association with a
 log-ago unprocessed experience that "comes out of nowhere."

Examples of "Large-T" Traumas; Experiencing and Witnessing:

- Imminent threat to survival of oneself or a colleague.
- Serious injury to oneself or a colleague.
- Line-of-Duty death of a colleague.
- Death of a colleague, not in-the-line-of duty.
- Officer-involved shootings, use of lethal force.
- Mass casualty events, especially mass violence/terroristic incidents.
- Crimes committed against children, and deaths of children.
- Exposure to particularly gruesome crime or accident scenes.
- Major, prolonged disasters.

LE Occupational Stress: Cumulative

- Less recognized and addressed as a source of undue morbidity and premature mortality is cumulative stress associated with policing; i.e., day-in-day-out exposure to sub-critical incident stressors; so-called "small-t" traumas.
- Such exposures can be ambiguous, prolonged, repetitive, unnoticed; often shrugged-off as "just part of the job", or "no big-deal".
- The toll exacted by such exposures can be insidious, erosive/corrosive, progressive, and unrecognized.
- The metallurgical metaphor: material, rated load, actual load, strain, distortion, residual stress, fatigue, resiliency, time-age, corrosion, preventive maintenance, reinforcement, collapse potential, reducing the load, taking out-of-service.

LE Occupational Stress: Cumulative

Examples of "Small-t" Traumas; Responding to and Witnessing:

- Gratuitous human cruelty and brutality inflicted by humans on other humans.
- Everyday human suffering and "small-scale" tragedies, and grief.
- Interpersonal, often "senseless" violence.
- Serious injuries and premature death.
- Exploitation and injustice, especially directed toward the defenseless.
- Hopelessness and despair (resulting in "fast" or "slow" suicide).

Plus: Confrontation with one's limits, and those of social systems, in preventing and mitigating such suffering and injustices, and organizational dysfunction; becoming "dis-illusioned".

LE Occupational Stress: Cumulative Formulations

- Prolonged Duress Stress Disorder (Scott and Stradling)
- Stealth Stress (Asken)
- Residual Stress (Figley; Paton, et. al.; Violanti)
- Post-Traumatic Demoralization Syndrome (Pearson)
- Emergency Responder Exhaustion Syndrome (Fay, et. al.)
- Police and Public Safety Complex PTSD (Rudofossi)
- Complex Police Spiral Trauma (Papazoglou)
- Sub-Syndromal, Sub-Threshold, or "Partial" PTSD

Again, there has been increasing recognition that an exposure does not have to be directly life-threatening to be distressing.

LE Occupational Stress: Other Dimensions

- "Vicarious traumatization"; witnessing "the very sad and the very violent...in the most trauma-sensitive of professions."
- A "kindling" like effect can occur; a progressive sensitization (anaphylaxis metaphor).
- Complicated by maladaptive coping mechanisms, such as emotional shut-down, social isolation, cynicism/suspiciousness, substance use, over-work, etc.
- Can eventuate in "Passive"/"Indirect" Suicide; i.e., "Death by a Thousand Cuts", inflicted by the context and the self.
- Meanwhile: "Life Goes On"—"The Full Catastrophe"; "Human, All-Too-Human."
- Relationships between factors are rarely linear; instead, multivariate, multidetermined, interactional, often recursive (self-reinforcing, as in a spiral).

"Failure" as a Stressor

- A radical proposition: "Failure" in the emergency services is inevitable; we cannot...all...(fill in the blanks); this does not however, equate to we cannot make a difference.
- Failure is not tolerated well by perfectionists (first responders), yet is an inescapable reality of their experience.
- "Black and White" Thinking (binary/dichotomous: "either-or").
- Under conditions of cumulative stress, one can become fixated on perceived failures to the exclusion of coexisting successes; the right Hemispheric "Negativity-Bias".
- This perception can become personalized "(I am a failure").

Exhaustion

- Exhaustion, the depletion of coping energy and vitality, is a long-term outcome of unrelenting, prolonged stress arousal.
- Some "First Responder Exhaustion Syndrome" indicators are:
 - Depressed mood and "dysphoria"
 - Isolation/detachment/distancing
 - Mental and physical exhaustion
 - Anger/irritability/over-reactivity
 - Resorting to maladaptive coping mechanisms
 - "Moral Disengagement"
 - "Burnout"
- The above resemble the concept of Demoralization.

Upshot of CLEOS

- Cumulative LE Occupational Stress can, over time, in combination with toxic environmental exposures, and adoption of maladaptive coping mechanisms, insidiously erode and compromise the physical and mental health, and social and job-functioning of LEOs (associated with metabolic syndrome, CVD, and reduced lifespan; the *Cortisol-Connection*, and neurogenic inflammation).
- Another radical proposal: annual toll exacted by CLEOS and Demoralization may exceed that of felonious action, accidental deaths, and suicide combined, due to undue morbidity and premature mortality (no "Wall").
- Typically, the occupational link goes unrecognized; morbidity and mortality is attributed to physical disease processes, without recognition of an underlying psychosomatic (stress-related) etiology, involving indirect/passive forms of self-destruction.
- Another assault is on the "Assumptive World", the realm of meaning/values.

Warning Indicators of Damaging LE Stress

- Deterioration in relationships, personal (family) and professional.
- Accelerated medical illnesses.
- Cynicism, suspiciousness, mistrust and the loss of innocence (everyone is suspect).
- Progressive professional and individual isolation.
- Inability to rest or relax.
- Combination of physiological wear and tear, manifested as trouble with sleeping, eating and intimacy.
- Increase in risk taking, failure to obey rules.
- Blunting of or exaggeration of emotions.

LE Suicide

- The topic of LE suicide is controversial; that it happens is recognized, but, there is debate regarding its prevalence, and causation.
- "The Badge of Life" stated that "Stress does not lead to PTSD or suicide. Trauma leads to PTSD or suicide". While Critical Incidents have clearly been associated with suicide, overwhelming acute, and/or prolonged undue stress can result in suicide (even sudden death by disease).
- The incidence of LE suicide may be underestimated as a function of medical examiners classifying a death as an "accident" to spare survivors the emotional and practical repercussions of death attributed to suicide.
- There are a plethora of ways to self-destruct that introduce ambiguity.

LE Suicide: Direct and Indirect; Intentional and Sub-Intentional

- The classic image of LE suicide is that of an officer "eating his/her gun."
 - Familiarity with, ease of access, and lethality of firearms are risk-factors.
 - Plausible deniability (accidental discharge while cleaning the weapon).
- Overt, dramatic means are not the only forms of self-destruction:
 - Risk-taking behaviors: on-the-job and/or off-the job.
 - Substance abuse.
 - Unhealthy lifestyles.
 - Non-compliance with medical advice.
- Of great concern is the incidence of murder-suicides perpetrated by LEOs, typically involving family members, or romantic partners.

Acute Risk Factors for LE Suicide

- Exposure to a Critical Incident involving perceived "failure".
- Death of a close colleague (partner).
- Relationship distress or dissolution (including litigation).
- Significant financial reversals.
- Being the object of a criminal or internal affairs investigation.
- Involvement in use of lethal force resulting in death.
- Onset of significant physical illness, debility, or disability.
- Separation from service, including dismissal or retirement.
- Alcohol abuse or dependency.

Greater danger: several of the above occurring simultaneously. Any of the above coinciding with significant personal life stressors and/or general population risk factors.

Warning Signs of Potential LE Suicide

- Bad behavior, breaking rules or ethics
- Thinking that is dark, threatening or foreboding
- Isolation, bitter, empty, hollow existence, closed ranks, refusal to listen
- Depressed, demoralized, despondent, languishing with suicidal ideation
- Violence: excessive force on duty, domestic/intimate partner
- Hostility and rage
- Major psychiatric dysfunction (clinical depression)

What Is Resilience/Resiliency?

- The ability to "bounce back" after encountering difficulty.
- The capacity to "bounce forward" (Hass, 2016), into Post-Traumatic Growth.
- APA: "the process of adapting well in the face of adversity, trauma, tragedy, threats, and even significant sources of stress..."
- It is "complex, multidimensional, and dynamic in nature", and, "...depends not only on the individual, but also on available resources...and on the characteristics of specific cultures and religions, communities, societies, and governments..." (Southwick and Charney, 2012)

What Is Resilience/Resiliency?

- "Adaptive capacity"; "...the capacity of agencies and officers to draw upon their own individual, collective, and institutional resources and competencies to cope with, adapt to, and develop from the demands, challenges, and changes encountered during and after a critical incident, mass emergency, or disaster." (Paton, et. al., 2008).
- The above authors go on to state that this entails "...adopting a perspective that assumes that salutary outcomes occur when individuals and groups can use their psychological and physical resources and competencies in ways that allow them to render challenging events coherent, manageable, and meaningful (Antonovsky, 1990)..."

- Critical Incidents are major perturbations that produce disequilibrium, including disruptions/challenges to the preexisting "Assumptive World."
- Disequilibrium can propel a person to a new level of adaptation, one more capable of responding to current or future demands (i.e., with trauma, to Post-Traumatic Growth; PTG), or it can degrade functioning, rendering a person incapable of effective response to those demands.
- Insidious, prolonged cumulative stress may not rise to an acute level of intensity sufficient to disrupt the existing assumptive world, so as to trigger Post-Traumatic Growth.
- The Challenge: to equip people with skills conducive to rendering their experience coherent, manageable, and meaningful in advance of such exposures; what Paton, et. al. (2008), term "...a general capacity to adapt...to unpredictable circumstances".

Stress Hardiness/Resistance:

- "A coping style...which involves a constellation of personality characteristics associated with high performance under stressful conditions:
- 1. Commitment: the tendency to engage fully in life activities (engagement);
- 2. Perceived control: belief in one's ability to exercise effective control over life circumstances (an internal locus of control);
- 3. Challenge: the tendency to view adversity as a challenge for which one is capable of surmounting (that one possesses the requisite capabilities).

Kobasa (1979); Kobasa, et. al. (1982); Bartone (1999); and Maddi (2005), as summarized in Southwick and Charney (2012), p.7.

Southwick and Charney: The Ten Resilience Factors

- 1. Realistic optimism
- 2. Facing fear
- 3. Moral compass
- 4. Religion and spirituality
- 5. Social support

- 6. Resilient role models
- 7. Physical fitness
- 8. Brain fitness
- 9. Cognitive & emotional flexibility
- 10. Meaning

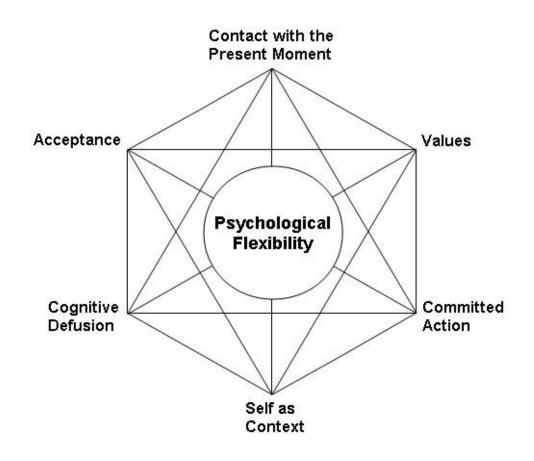
Stress Inoculation

- Stress inoculation is a long-standing strategy, by which people are prepared to function in highly-stressful environments through graduated and controlled exposure to the demands they will face when so deployed (the principle of successive approximation).
- This technique has proven effective in assisting people to develop the capacity for functioning in such demanding circumstances.
- However, stress inoculation has been found to have a "down-side", which is that, even graduated exposure, in a "safe" setting, can result in decrements in cognitive/executive/higher-order functioning.
- Later: there is a way to mitigate this adverse effect of stress inoculation, while retaining its benefits (opportunity for recovery).

Psychological Flexibility

- Psychological Flexibility is defined by Acceptance and Commitment Therapy
 (ACT) as: "...contacting the present moment as a conscious human being,
 fully and without needless defense—as it is and not what it says it is—and
 persisting with or changing behavior in the service of chosen values..."
 (Hayes, Strosahl, and Wilson, 2012).
- The six core processes of Psychological Flexibility are:
 - 1. Flexible Attention to the Present Moment
 - 2. Acceptance/Willingness
 - 3. Cognitive Defusion
 - 4. Perspective-Taking
 - 5. Values Clarity
 - Committed Action consistent with one's values

Psychological Flexibility



Psychological Flexibility

- Operating in concert, the six core processes support the development of an open, aware, and engaged posture toward experience.
- Acceptance in ACT consists of a willingness to engage with reality as it presents itself, with receptivity and non-defensiveness, while working effectively within the constraints of that situation to change what can be changed; taking the opportunity to make a difference.
- Commitment denotes a dedication to live one's life in accordance with deeplyheld and cherished personal and professional values, even at significant costs to oneself; i.e., the preservation of psychological, moral, and spiritual Integrity.

Preventive Maintenance

<u>Practices conducive to Building Psychological Flexibility and Resiliency.</u>

- Contemplative practices: Mindfulness and other forms of meditation
- "Centering" prayer.
- Yoga.
- Martial Arts, such as tai-chi and Qigong.
- Relaxation techniques, biofeedback, visualization
- Wellness initiatives: healthy exercise and nutrition, hobbies
- Life itself as a meditative practice.

Therapeutic Interventions

- Mindfulness-Based Interventions
- Eye Movement Desensitization and Reprocessing
- Cognitive Behavioral Therapy
- Somatic Therapies (Energy Psychology)
- Medications

Definition of Mindfulness

Awareness
that arises
from paying attention
on purpose

in the present moment non-judgmentally

Full Catastrophe Living (2005)

Jon Kabat-Zinn, Ph.D.

The Mindfulness Orientation

- Mindfulness Practices anchors one in the present moment, as opposed to ruminating about the past, worrying about the future, or being lost in thought.
- It strengthens our capacity to fully focus on what is occurring in the present moment, as it is, and to resist distraction.
- It serves to take us out of the Default Network Mode of the Mind; a left-hemispheric shift takes place (away from the "Negativity Bias").
- It educates as to the habits of the mind when left to its own devices.
- Mindfulness is a form of *mental training* through the practice of attentional *monitoring* and *control* (focusing and shifting).
- It renders one less reactive and more consciously responsive.

Benefits of Mindfulness

- Medical and Psychological Benefits have been demonstrated by research, including:
 - Neuroplasticity effects (beneficial changes in brain structure)
 - Increased cognitive flexibility, learning, and creativity
 - Optimal regulation of the autonomic nervous system (allostasis)
 - Optimal immune system functioning
 - Enhanced mood regulation and affect/distress tolerance
 - Reduced anxiety and susceptibility to depressive relapse
 - Substance Abuse Relapse Prevention
 - Pain management without opiates
 - Improved working memory, situational awareness, information processing, and decision-making under stress
 - Prophylaxis for PTSD (tentative)
 - Enhanced capacity to exercise choice (responsive, not reactive)

Working Memory

- Jha and Stanley have demonstrated in pilot projects with the Marines, Army, and Navy that MP can serve to preserve working memory capacity in military personnel deployed to high-stress environments, as well as to promote resilience.
- Improvements in information processing, situational awareness, and self-awareness under pressure.
- Integration of the "thinking" (slow) and "survival" (fast) brains.
- Balancing (recruiting/integrating) the SNS and PNS
- Raises stress threshold and reduces potential for dysregulation
- Reduces detrimental cognitive effects of stress inoculation through including opportunity for recovery (grounding and release)
- Stanley and Jha have suggested the MP may exert some protective effect for PTSD

Other Benefits

- Davidson, et. al. (2003) reports improved immune functioning with MP.
- MP is associated with lower baseline cortisol levels.
- MBSR may lower the stress-related neurogenic inflammatory response implicated in psychosomatic and psychiatric illness.
- MP practice activates the dorsolateral prefrontal cortex which conduces to enhanced affect regulation and stability.
- MP may have a protective effect on Teleomeres.
- MP can enhance the capacity for empathy.

Performance and Wellness Enhancement

- In the Military: Mindfulness-Based Mind-Fitness Training.
- Law Enforcement: Mindfulness-Based Resiliency Training.
- Utilized by professional sports teams, major corporations and some major universities.
- Mindfulness can serve as a form of "Preventive Maintenance" to offset the effects of both acute and chronic stress on the Body-Mind-Spirit System; It can provide Rest, Recuperation, Restoration of Balance, and Repair.

Benefits to LE Agencies

- Conservation of the Human Resource: officers.
- Cost-Savings: reduced turnover, burnout, health costs, disability claims, accidents, premature medical retirements, and mortality.
- Risk-Management: fewer excessive-force citizen complaints.
- Improved performance, officer job-satisfaction, labor relations, and community relations.
- Consistent with the "Protector" ethos.

Viktor Frankl, M.D.

Concentration camp survivor and originator of "Logotherapy"; literally, a therapy of *Meaning*.

"Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom."

We can exercise this freedom by "remembering to remember"; slowing down, taking the "sacred pause", reflecting, and then responding/choosing with Wisdom, which is what a more Mindful posture toward life allows us to do. We can expand Frankl's "space" through cultivating awareness, discernment, and presence, in the company of compassion for self and others.

Mindfulness

Ciarrochi, Joseph and John T. Blackledge (2006). Mindfulness-Based Emotional Intelligence Training: A New Approach to Reducing Human Suffering and Promoting Effectiveness. In Ciarrochi, Joseph, Joseph, P. Forgas, and John D. Mayer, Eds. Emotional Intelligence in Everyday Life (2nd. Ed.). New York: Psychology Press.

Ciarrochi, Joseph, John Blackledge, Linda Bilich, and Virginia Bayliss (2007). Improving Emotional Intelligence: A Guide to Mindfulness-Based Emotional Intelligence Training. In Ciarrochi, Joseph and John D. Mayer (Eds.). Applying Emotional Intelligence: A Practitioner's Guide. New York: Psychology Press.

Chaskalson, Michael (2011). The Mindful Workplace: Developing Resilient Individuals and Resonant Organizations with MBSR. Chichester, West Sussex, UK: Wiley-Blackwell.

Chiesa, Alberto and Alessandro Serretti (2009). Mindfulness-Based Stress Reduction for Healthy People: A Review and Meta-Analysis. *The Journal of Alternative and Complementary Medicine*, 15(5), 593-600.

Chopko, Brian A. and Robert C. Schwartz (2009). The Relation Between Mindfulness and Posttraumatic Growth: A Study of First Responders to Trauma-Inducing Incidents. *Journal of Mental Health Counseling*, 31(4), 363-376.

DeValve, Michael J., Cary D. Adkinson (2008). Mindfulness, Compassion, and the Police in America: An Essay of Hope. *Human Architecture: Journal of the Sociology of Self-Knowledge*, 6(3), 99-104.

Gardner, Frank L. and Zella E. Moore (2007). The Psychology of Enhancing Human Performance: The Mindfulness-Acceptance-Commitment (MAC) Approach. New York: Springer.

Grossman, Paul, Ludger Niemann, Stefan Schmidt, and Harold Walach (2004). Mindfulness-Based Stress Reduction and Health Benefits: A Meta-Analysis. *Journal of Psychosomatic Research*, 57, 35-43.

Hanson, Rick (2013). Hardwiring Happiness: The New Science of Contentment, Calm, and Confidence. New York: Harmony Books.

Jha, Amishi, Elizabeth Stanley, and Michael J. Baime (2010). What Does Mindfulness Training Strengthen? Working Memory as a Functional Marker of Training Success. In Baer, Ruth A. <u>Assessing Mindfulness and Acceptance Processes in Clients</u>. Oakland, CA: Context Press.

Jha, Amishi, Elizabeth Stanley, Anastasia Kiyonaga, Ling Wong, and Lois Gelfand (2010). Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience. *Emotion*, 10(1), 54-64.

Klatt, Maryanna D., Janet Buckworth, and William B. Malarkey (2008). Effects of Low-Dose Mindfulness-Based Stress Reduction (MBSR-Id) on Working Adults. *Health Education and Behavior*, Vol. XX (X), 1-14.

Kabat-Zinn, Jon (1994). Wherever You Go, There You Are: Mindfulness Meditation in Daily Life. New York: Hyperion.

Kabat-Zinn, Jon (2005). Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness. New York: Delta.

Kabat-Zinn, Jon (2005). Coming to Our Senses: Healing Ourselves and the World Through Mindfulness. New York: Hyperion.

Kabat-Zinn, Jon and Richard J. Davidson, Eds. (2011). The Mind's Own Physician: A Scientific Dialogue with the Dalai Lama on the Healing Power of Meditation. Oakland, CA: New Harbinger.

Niemiec, Ryan M. (2014). Mindfulness and Character Strengths: A Practical Guide to Flourishing. Cambridge, MA: Hogrefe.

Ricard, Matthieu, Antoine Lutz, and Richard J. Davidson (2014). Mind of the Meditator: Contemplative Practices That Extend Back Thousand of Years Show a Multitude of Benefits for Both Body and Mind. *Scientific American*, 311(5), November, 38-45.

Ryan, Tim (2012). A Mindful Nation: How a Simple Practice Can Help Us Reduce Stress, Improve Performance, and Recapture the American Spirit. Carlsbad, CA: Hay House.

Stanley, Elizabeth A. and Amashi P. Jha (2009). Mind Fitness and Metal Armor: Enhancing Performance and Building Warrior Resilience. *Joint Force Quarterly*, 55 (4th Quarter), 144-151.

Strosahl, Kirk D. and Patricia J. Robinson (2015). In This Moment: Five Steps to Transcending Stress Using Mindfulness and Neuroscience. Oakland, CA: New Harbinger.

Williams, Mark and Danny Penman (2011). Mindfulness: An Eight-Week Plan for Finding Peace in a Frantic World. New York: Rodale.

Williams, Kimberly (2006). Mindfulness-Based Stress Reduction (MBSR) in a Worksite Wellness Program. In Ruth A. Baer, Ed. Mindfulness-Based Treatment Approaches: Clinician's Guide to Evidence Base and Applications. Burlington, MA: Academic Press.

Mindfulness and Meditation in Law Enforcement

- Chopko, Brian A. and Robert C. Schwartz (2009). The Relation Between Mindfulness and Posttraumatic Growth: A Study of First Responders to Trauma-Inducing Incidents. Journal of Mental Health Counseling, 31(4), 363-376.
- DeValve, Michael J., Cary D. Adkinson (2008). Mindfulness, Compassion, and the Police in America: An Essay of Hope. Human Architecture: Journal of the Sociology of Self-Knowledge, 6(3), 99-104.
- Elliott, Jennifer and Mary Partlow Luttamus (2014). Officer Safety Corner—Yoga and Mindfulness Program: City of Falls Church Police Department. *Police Chief*, 81 (July, 2014), 12-13.
- Ellison, Katherine, W. (2004). Stress and the Police Officer (2nd Ed.). Springfield, IL: Charles C. Thomas (pp.105-107).
- Goerling, Richard (2012). Police Officer Resilience and Community Building. *Proceedings of the American Society of Business and Behavioral Science*. ACBBS Annual Conference, February, 2012, 394-397.
- Goerling, Richard (2014). Officer Safety Corner: The Role of Mindfulness Training in Policing a Democratic Society. *The Police Chief*, 81 (April 2014), 10-11.
- Goerling, Richard (2014). Police Culture in America Has Lost Its Way. *Mindful*.
- O'Hagan, Maureen (2013). To Pause and Protect. Mindful, October 2013, pp.42-51.
- Rogers, Brant and Richard Goerling (2010). Resilience, MBSR, Law Enforcement Culture and Training; Breaching the Barriers to Mindfulness Integration. 8th Annual International Scientific Conference for Clinicians, Researchers, and Educators, Center for Mindfulness in Medicine, Health Care, and Society, University of Massachusetts Medical School, April 7-11, 2010.
- Stanley, Elizabeth A. and Amashi P. Jha (2009). Mind Fitness and Metal Armor: Enhancing Performance and Building Warrior Resilience. Joint Force Quarterly, 55 (4th Quarter), 144-151
- Williams, Virginia, Joseph Ciarrochi, and Frank Patrick Deane (2010). On Being Mindful, Emotionally Aware, and More Resilient: Longitudinal Pilot Study of Police Recruits. Australian Psychologist, 45(4), 274-282.

Psychological Flexibility and Contextual Behavioral Science in the Workplace

Andrew, Michael E., Janie L. Howsare, Tara A. Hartley, Erin M. McCanlies, Cecil M. Burchfiel, and John M. Violanti (2014). Protective Attributes: Resilience in Policing. In Violanti, John M. (Ed). <u>Dying for the Job: Police Work Exposure and Health</u>. Springfield, IL: Charles C. Thomas

Bond, Frank W. and Paul E. Flaxman (2006). The Ability of Psychological Flexibility and Job Control to Predict Learning, Job Performance, and Mental Health. In Hayes, Steven C., Frank W. Bond, Dermot Barnes-Holmes, and John Austin. <u>Acceptance and Mindfulness at Work: Applying Acceptance and Commitment Therapy and Relational Frame Theory to Organizational Behavior Management</u>. New York: Haworth Press.

Bond, Frank W., Steven C. Hayes, and Dermot Barnes-Holmes (2006). Psychological Flexibility, ACT, and Organizational Behavior. In Hayes, Steven C., Frank W. Bond, Dermot Barnes-Holmes, and John Austin. Acceptance and Mindfulness at Work: Applying Acceptance and Commitment Therapy and Relational Frame Theory to Organizational Behavior Management. New York: Haworth Press.

Ciarrochi, Joseph, Linda Billich, and Claire Godsell (2010). Psychological Flexibility as a Mechanism of Change in Acceptance and Commitment Therapy. In Baer, Ruth A. <u>Assessing Mindfulness and Acceptance Processes in Clients</u>. Oakland, CA: Context Press.

Flaxman, Paul E. and Frank W. Bond (2010). Acceptance and Commitment Training: Promoting Psychological Flexibility in the Workplace. In Baer, Ruth A. <u>Assessing Mindfulness and Acceptance Processes in Clients</u>. Oakland, CA: Context Press.

Flaxman, Paul E., Frank W. Bond, and Fredrik Livheim (2013). The Mindful and Effective Employee: An Acceptance and Commitment Therapy Training Manual for Improving Well-Being and Performance. Oakland, CA: New Harbinger.

Gardner, Frank L. and Zella E. Moore (2007). The Psychology of Enhancing Human Performance: The Mindfulness-Acceptance-Commitment (MAC) Approach. New York: Springer.

Hayes, Steven C., Frank W. Bond, Dermot Barnes-Holmes, and John Austin (2006). <u>Acceptance and Mindfulness at Work: Applying Acceptance and Commitment Therapy and Relational Frame Theory to Organizational Behavior Management</u>. New York: Haworth Press.

Kashdan, Todd B. and Jonathan Rottenberg (2010). Psychological Flexibility as a Fundamental Aspect of Health. Clinical Psychology Review, 30, 865-878.

McCracken, Lance M. (2013). Committed Action. In Kashdan, Todd B. and Joseph Ciarrochi (Eds). Mindfulness, Acceptance, and Positive Psychology: The Seven Foundations of Well-Being. Oakland, CA: Context Press.

Resiliency

- Andrew, Michael E., Janie L. Howsare, Tara A. Hartley, Erin M. McCanlies, Cecil M. Burchfiel, and John M. Violanti (2014). Protective Attributes: Resilience in Policing. In Violanti, John M. (Ed). Dying for the Job: Police Work Exposure and Health. Springfield, IL: Charles C. Thomas.
- Bartone, Paul T. and Charles L. Berry (2011). Leading for Resilience in High Risk Occupations. In Paton, Douglas and John M. Violanti, (Eds.) Working in High Risk Environments: Developing Sustained Resilience. Springfield, IL: Charles C. Thomas.
- Chaskalson, Michael (2011). The Mindful Workplace: Developing Resilient Individuals and Resonant Organizations with MBSR. Chichester, West Sussex, UK: Wiley-Blackwell.
- Cornum, Rhonda, Michael D. Matthews, Martin E. P. Seligman (2011). Comprehensive Soldier Fitness: Building Resilience in a Challenging Institutional Context. American Psychologist, 66(1), 4-9.
- Elliott, Jennifer and Mary Partlow Luttamus (2014). Officer Safety Corner—Yoga and Mindfulness Program: City of Falls Church Police Department. Police Chief, 81 (July, 2014), 12-13.
- Flaxman, Paul E., Frank W. Bond, and Fredrik Livheim (2013). The Mindful and Effective Employee: An Acceptance and Commitment Therapy Training Manual for Improving Well-Being and Performance. Oakland, CA: New Harbinger.
- Frederickson, Barbara L. (2011). Emotional Fitness and the Movement of Affective Science from Lab to Field. American Psychologist, 66(1), 35-42.
- Goerling, Richard (2012). Police Officer Resilience and Community Building. Proceedings of the American Society of Business and Behavioral Science. ACBBS Annual Conference, February, 2012, 394-397.
- Miller, Laurence (2008). Mettle: Mental Toughness Training for Law Enforcement. Flushing, NY: Looseleaf Law Publications.
- Meichenbaum, Donald (2012). Roadmap to Resilience: A Guide for Military, Trauma Victims, and Their Families. Clearwater, FL: Institute Press.
- Paton, Douglas and John M. Violanti (2008). Law Enforcement Response to Terrorism: The Role of the Resilient Police Organization. International Journal of Emergency Mental Health, 10(2), 125-136.
- Paton, Douglas, John M. Violanti, P. Johnson, K.J. Burke, J. Clarke, and D. Keenan (2008). Stress Shield: A Model of Police Resiliency. International Journal of Emergency Mental Health, 1092), 95-108.
- Rogers, Brant and Richard Goerling (2010). Resilience, MBSR, Law Enforcement Culture and Training; Breaching the Barriers to Mindfulness Integration. 8th Annual International Scientific Conference for Clinicians, Researchers, and Educators, Center for Mindfulness in Medicine, Health Care, and Society, University of Massachusetts Medical School, April 7-11, 2010.