

Operational Stress Control in Disaster Response and Recovery

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Presented for
NJVOAD Conference 2017



Wednesday, April 5, 2017

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About the Presenter

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- Responder
 - '93 & 9/11 WTC attacks
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Operational Psychology

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The use of clinical, cognitive and social psychological concepts for their tactical value.

“...a unique set of applied psychology theories and techniques for consultation with security professionals.”



Palarea, R. 2007. “Operational Psychology: An Emerging Discipline.”



Operational Stress Control

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- Operational Stress Control is the management of stress as an element of the crisis environment to meet strategic and tactical goals.
- It is not simply generic stress management for wellness purposes.
- It seeks to identify the unique stressors anticipated in various crisis conditions and develop effective counter-measures.



Operational Stress Control: *It's Your Job as a Leader & Teammate*

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- Stress control is not the job of the EAP or mental health service providers.
- Leaders and Team Members must understand:
 - The causes of stress.
 - The effects of stress on performance.
 - Warning signs of extreme stress reactions.
 - Strategies and techniques for managing stress.

...in the interest of sustaining /resuming operations, protecting personnel and assets during crisis situations.



Operational Stress Control: *It's Your Job as a Leader & Teammate*

(Cont.)

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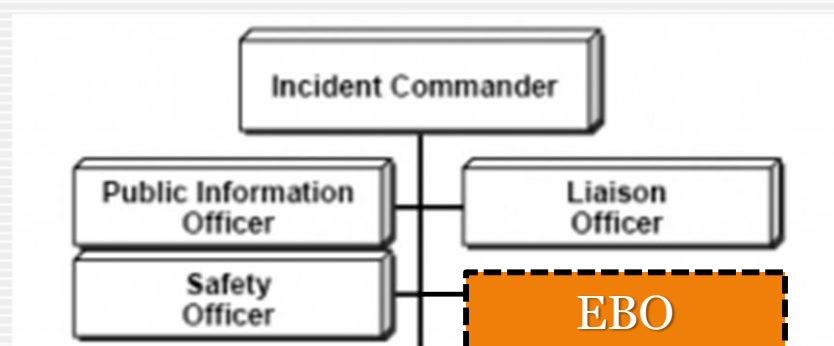
- Crisis responders (Business Continuity, Security, others) in extreme stress may be operating at reduced capacity and cannot fully support the mission.
- Leaders are uniquely positioned to observe and influence the psychological functioning and wellness of crisis responders in their organizations.
- The two primary objectives of operational stress control are:
 - To preserve crisis responder functioning.
 - To preserve individual health and well-being.



OPSTRESS in the Literature

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- Crimando, S, Lahad, M, & Rogel, R. (2012). **The Emergency Behavior Officer (EBO): The Use of Accurate Behavioral Information in Emergency Preparedness and Response in Public and Private Sector Settings.** Hughes, R., Kinder, A. & Cooper, C. (Eds.) *The International Handbook of Workplace Trauma Support*. 227-239. Wiley-Blackwell. London, UK.
- Kehoe, M. & Usher, L. **“Safeguarding Officer Mental Health Before and After Mass Casualty Incidents,”** *The Police Chief* 83 (June 2016): 26–31.
- Nicoletti, J., Garrido, S. and Kirschner, M. **“Supporting the Psychological Recovery of First Responders Following a Mass Casualty Event,”** *The Police Chief* 83 (June 2016): 40–45.



The Nature of Crises

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- Distressing or dangerous events.
- Create uncertainty.
- Perception that event will be upsetting or disrupting.
- Inability to cope using customary methods.
- Potential for positive or negative outcomes.



Understanding Human Behavior: *Lewin's Equation*

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$$B = f(P, E)$$

BEHAVIOR IS A FUNCTION
OF PERSON AND ENVIRONMENT



Stress is Normal, *but...*

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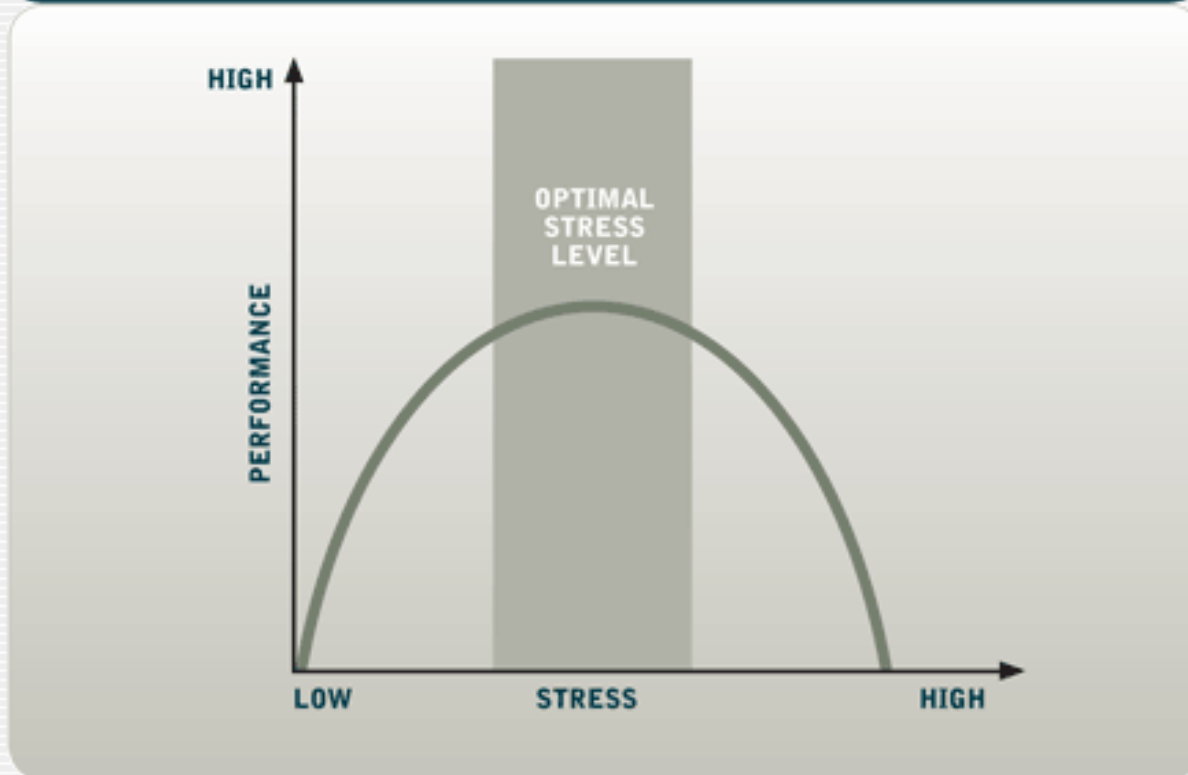
- Stress is an elevation in a person's state of arousal or readiness, caused by some stimulus or demand, real or perceived.
- In general, as stress arousal increases, health and performance actually improve. Within manageable levels, stress can help sharpen our attention and mobilize our bodies to cope with threatening situations.
- An optimum level of stress can act as a creative, motivational force that drives a person to achieve incredible feats.
- At some point, stress arousal reaches maximum effect. Once it does, all that was gained by stress arousal is then lost and deterioration of health and performance begins.



The Stress/Performance Link

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STRESS MANAGEMENT



The Physiology of Good Stress: *Eustress*

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- Stress allows us to perform better—it alerts us to the need to **fight, flee, or freeze**.
- Stress produces cortisol, which improves memory and enhances immune function.
- Stress increases the level of adrenaline in the body, which increases strength and endurance.
- Stress provides a spike in blood pressure, flooding our muscles and brain with oxygen.



The Physiology of Bad Stress: *Distress*

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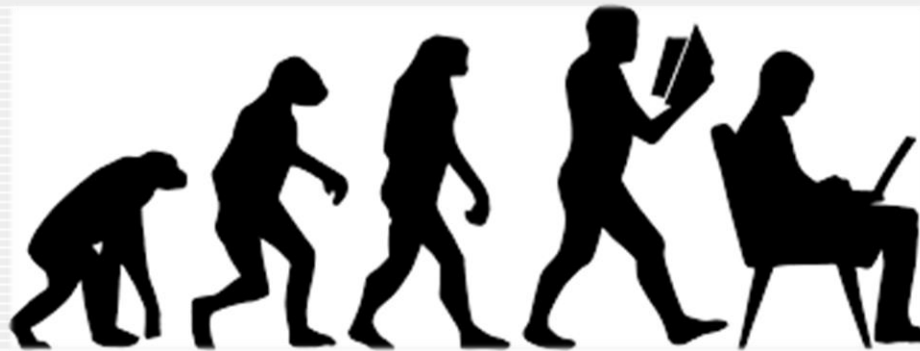
- The allostatic system (controls hormones that mediate the effects of stress—especially on the cardiovascular system) become too charged with no chance to vent the buildup of energy.
- Increases in cortisol, endorphins, adrenaline, and other hormones can become harmful.
- The overload can damage memory, hurt your immune system, and enlarge your stomach.



The Neuroscience of Stress

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- Some researchers believe humans evolved to have a stress response during fight-or-flight scenarios.
- The physical and cognitive changes we go through once we perceive a threat could potentially aid us in survival.
- The near-instantaneous sequence of hormonal changes and physiological responses helps someone to fight the threat off or flee to safety.



The Neuroscience of Stress:

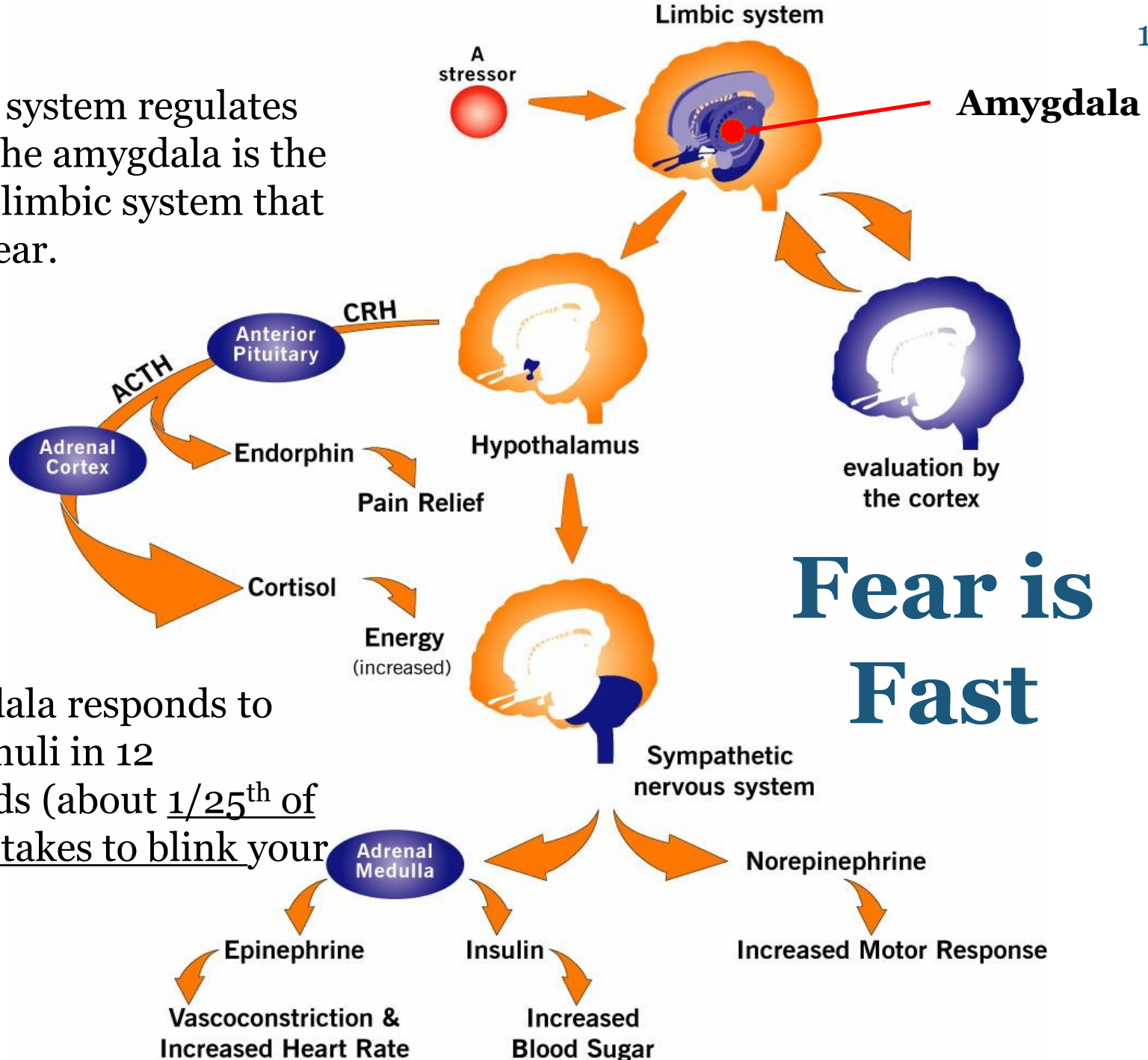
Stress Hormones

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- **Epinephrine**: Most people recognize this hormone as “adrenaline.” Epinephrine triggers increased lung and heart activity. The increased blood flow to your brain can make you feel more awake and aware.
- **Cortisol**: This hormone changes the way you metabolize glucose and regulate blood pressure. During stressful situations, Cortisol gives your body the burst of energy characteristic in a fight or flight response.



The limbic system regulates emotion. The amygdala is the part of the limbic system that regulates fear.



The amygdala responds to fearful stimuli in 12 milliseconds (about 1/25th of the time it takes to blink your eye).

Stress Tolerance

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Elite soldiers' brains also responded differently to the surge of hormones when it was occurring. Along with high levels of a chemical called **DHEA** that seems to mute the more negative aspects of stress, Navy SEALs have elevated concentrations of a neurotransmitter called **Neuropeptide Y**, which binds to synapses in the frontal cortex and modifies the way it responds to noradrenaline.

The effect is likely to prevent some of the undesirable effects of noradrenaline, such as dissociation and cognitive narrowing, while allowing it to keep amping up performance in other parts of the brain.



Biol Psychiatry. 2000 May 15;47(10):902-9.



Defining Traumatic Stress

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“Traumatic stress refers to the emotional, cognitive, behavioral and physiological experiences of individuals who are exposed to, or who witness, events that overwhelm their (normal) coping and problem solving abilities”

(Lerner & Shelton, 2001)



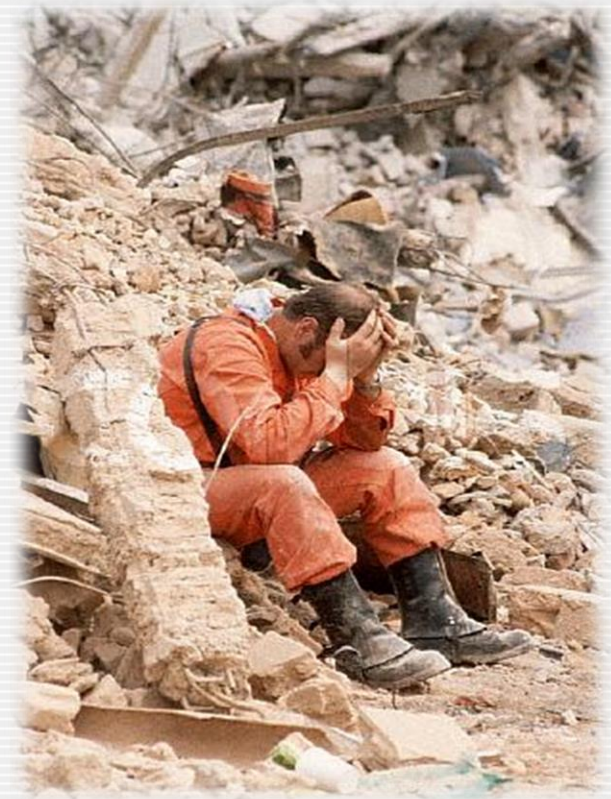
Defining Traumatic Stress

(Cont.)

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“Traumatic stress disables people, causes disease, precipitates mental disorders, leads to substance abuse, and destroys relationships and families. Additionally, traumatic stress reactions may lead to Post Traumatic Stress Disorder (PTSD)”.

(Lerner & Shelton, 2001)



Typical Disaster Stress Reactions

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Physical

- Shock symptoms
- Insomnia
- Loss of appetite
- Headaches
- Muscle weakness
- Elevated vital signs

Affective

- Depressed, anxious
- Numbing
- Constricted affect
- Guilt, shame, doubt
- Intolerance of response
- Global pessimism

Cognitive

- Distractibility
- Duration/Sequence distortion
- Declining work/school performance
- Recurrent intrusive recollections
- Flashbacks, Nightmares

Behavioral

- Clinging, isolation
- Re-enactments of the trauma
- Increased substance abuse
- Hypervigilance
- Elevated startle reflex



Spiritual Reactions

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- Spiritual beliefs influence how people make sense of the world:
- Survivors may seek the comfort that comes from spiritual beliefs.
- Spiritual beliefs will assist some survivors with coping and resilience.
- Survivors may question their beliefs and life structure.



Atypical Response Patterns

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Physical

- Chest pain
- Respiratory Trouble
- Loss of Consciousness
- Cardiac arrhythmias or palpitations

Affective

- Suicidal Ideation
- Homicidal Ideation
- Catatonia; Mania



Cognitive

- Pervasive disorientation
- Blackouts
- Psychotic Symptoms
- Amnesia

Behavioral

- Self-injurious acts
- Total lack of self-care
- Dangerousness to self, others and property



Chronic Traumatic Exposure

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Type I Trauma

- Single blow, dangerous event
- Isolated, rare experience
- Sudden, surprising, brief
- Classic PTSD response
- Vivid recall
- Intrusive & Avoidant thought
- Hyperarousal
- Quicker recovery time

Type II Trauma

- Multiple, chronic, repeated
- Variable, long-standing
- Feels helpless to prevent it
- Memories are fuzzy
- Dissociation
- Characterological changes
- Longer recovery times
- Poorer recovery prognosis

Terr, L., 1991



Potential Long-term Effects

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When the stress response is active for a prolonged period of time, it can damage the cardiovascular, immune and nervous systems. People develop patterns of response to stress that are as varied as the individuals.



- Free-floating anxiety and hypervigilance.
- Underlying anger and resentment.
- Uncertainty about the future.
- Diminished capacity for problem solving.
- Isolation, depression, hopelessness..
- Health problems.
- Significant lifestyle changes.



Post-Traumatic Stress Disorder (PTSD)

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- PTSD is marked by clear biological changes as well as psychological symptoms.
- PTSD is complicated by the fact that it frequently occurs in conjunction with depression, substance abuse, problems of memory and cognition, and other problems of physical and mental health.
- The disorder is also associated with impairment of the person's ability to function in social or family life, including occupational instability, marital problems and divorce, family discord, and difficulties in parenting (NCPTSD, 2005).



Acute Stress Disorder (ASD)

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- Acute Stress Disorder is characterized by the development of severe anxiety, dissociative, and other symptoms that occurs within one month after exposure to an extreme traumatic stressor (e.g., witnessing a death or serious accident). As a response to the traumatic event, the individual develops dissociative symptoms.
- The symptoms that define ASD overlap with those for **PTSD**. One difference, though, is that a **PTSD** diagnosis cannot be given until symptoms have lasted for one month.

**ACUTE
STRESS
DISORDER**



Secondary Traumatic Stress

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- Secondary Traumatic Stress (STS) is an occupational hazard in trauma intervention providers. (Figley, 1992)
- It can result from:
 - Cumulative stress from hearing disaster stories.
 - Feeling overwhelmed by the depth of grief, anger or frustration expressed by survivors.
 - Over-identification or enmeshment with survivors.
 - Unrealistic expectations of reliving emotional pain.

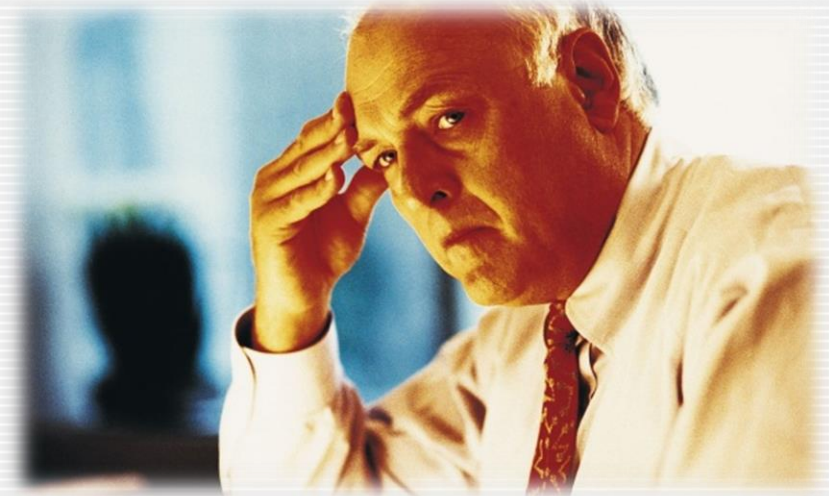


Burnout

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“A state of extreme dissatisfaction with one’s work, characterized by:

1. Excessive distancing from others
2. Impaired competence
3. Low energy
4. Increased irritability
5. Other signs of impairment and depression resulting from individual, social, work environment and societal factors.”



Figley, C., 1994



Substance Use/Abuse

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- Increased substance use or abuse is also a concern.
- While researchers appear to be divided on whether substance abuse disorders increase following a disaster, there is evidence to suggest that substance use increases.
- While substance use increases alone do not qualify as substance abuse disorders, they can create potential health and safety problems.

Task Saturation

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- “Task Saturation” is too much to do with not enough time, not enough tools, and not enough resources. It can be real or imagined, but in the end it can do the same thing.
- When the sum of these tasks exceeds the responder’s capability to deal with them effectively, he or she becomes task saturated and unable to perform any one of the tasks proficiently.
- ***As task saturation increases, performance decreases; as task saturation increases, executional errors increase.***



Helmet Fire

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- Helmet fire is a mental state characterized by unnaturally high stress, task-saturation and loss of situational awareness.



Task Saturated People Are Not Heroes, They are Dangerous

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- During disaster activations, overworking and ignoring functional needs (e.g., sleep, meals, contact with family, etc.) can sometimes be promoted as a badge of honor.
- Don't take pride in overworking. Overworked/Task Saturated people are dangerous to the operation.



"We've been in the office for three days straight. Some of us are sleeping on the floor. Another guy is walking around like a zombie with his hand tied to a coffee pot."



Signs of Task Saturation

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- Shutting Down is when you simply stop performing.
- Cognitive Lock In is sticking with your first decision, no matter what.
- Compartmentalizing/Target Fixation is an intense focus on one thing to the exclusion of all else.
- Channelizing is when you act busy, but all your doing is organizing and reorganizing lists and doing things sequentially, but not actually producing effective results.



“Cognitive Lock-In”

Sticking with your first decision, no matter what

Operational Stress Continuum

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READY

REACTING

INJURED

ILL

- Good to go
- Well trained
- Prepared
- Cohesive, collaborative teams
- Ready homes/families

- Distress or impairment
- Mild and temporary
- Anxious, irritable or sad
- Physical and/or behavioral changes

- More severe or persistent distress or impairment
- May leave lasting memories or reactions

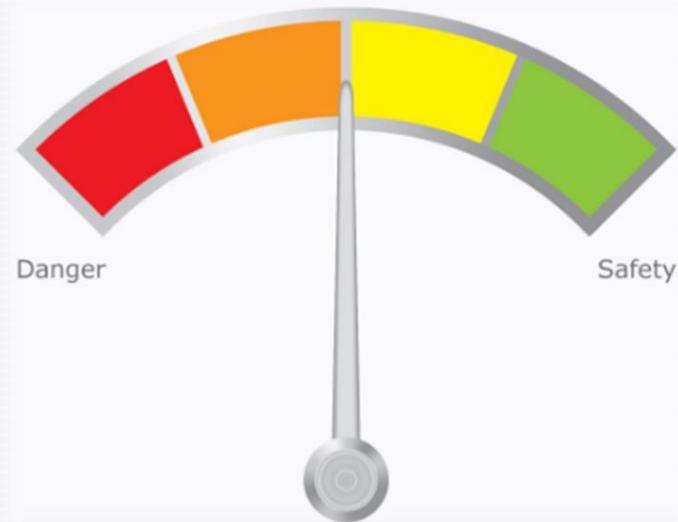
- Stress injuries that don't heal without help
- Symptoms persist, get worse or initially get better then return worse.



READY

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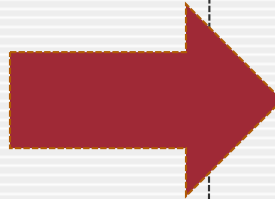
- Good to go.
- Continue to monitor for signs of loss of function in the future if concerned.



REACTING

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- Difficulty relaxing or sleeping.
- Loss of interest in social or recreational activities.
- Unusual or excessive fear, worry or anger.
- Recurring nightmares, troubling memories.
- Hyper-startle reflex to noise.
- Difficulty performing normal duties.
- Any change from normal personality.

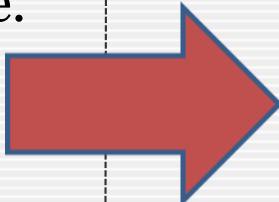


- Ensure adequate sleep and rest.
- Manage home-front stress.
- Discussion in small groups (stress tips).
- Refer to medical or EAP support if reactions persist.



INJURED

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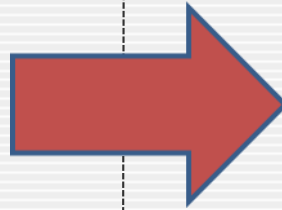
- Inability to fall asleep or stay asleep.
 - Withdrawn from social or recreational activities.
 - Uncharacteristic outbursts of rage or panic.
 - Nightmares or memories that increase heartrate.
 - Inability to control emotions.
 - Suicidal or homicidal thoughts.
 - Loss of usual concern for moral values.
- 
- Keep safe and calm.
 - Rest and recuperation.
 - Refer to medical and/or mental health services.
 - Mentor back to full duty/functioning.
 - Reintegrate with Team when stabilized.



ILL

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- Stress problems that last for several weeks.
- Stress problems that don't get better over time.
- Stress problems that get worse over time.



- Refer to medical/mental health services.
- Ensure compliance with recommended treatment.
- Mentor back to full duty/functioning, is possible.
- Reintegrate with Team if/when possible.



Operational Stress Control

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- Everyone involved in a disaster or threatening event is affected by it, including crisis responders and managers.
- Good planning should anticipate the psychological consequences and minimize disruptions to operations.
- Operational Stress Control requires a range of interventions at multiple levels in the pre-event, event, and post-event phases.



Operational Stress Control is Proactive

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- A operational stress management plan for crisis responders focuses both on the environment and the individual.
- A clear organizational structure with defined roles and responsibilities for line staff crisis responders, leads, supervisors, and managers reduces the potential for staff stress.
- An effective manager is familiar with the many facets of crisis responder stress and takes a wide range of steps to integrate stress control strategies in the workplace.



Elements of Operational Stress Control

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- Effective management structure and leadership;
- Clear purpose, goals, and training;
- Functionally defined roles;
- Administrative controls;
- Team support; and
- Plan for stress management.

OPERATIONAL
STRESS CONTROL



Stress Control Leadership

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- As a supervisor or manager you must assume shared responsibility for promoting a positive and healthy work environment, and not rely exclusively on workers initiating their own self-care practices.
- Stress control should address both the crisis responder and the organization.
- Adopting a proactive perspective allows both responder and organizations to anticipate stressors and shape responses, rather than simply reacting to a crisis when it occurs.



Pre-Crisis Phase

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- A clear understanding of roles and procedures is critical to helping individuals manage stress. Training and preparedness in incident management procedures are therefore key to stress management.
- Establish clear lines of authority and responsibilities to minimize confusion and stress.
- Provide regular training on stress management.
- Develop guidelines to help workers prepare for deployment.
- Maintain an updated list of family members' contact information for each employee.
- Have a pre-established plan for how employees will check on their families if disaster strikes during work hours.



During a Crisis

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- Clearly define individual roles and reevaluate if the situation changes.
- Institute briefings at each shift change that cover the current status of the work environment.
- Partner inexperienced team members with experienced veterans. The buddy system is an effective method to provide support, monitor stress, and reinforce proper procedures.
- Rotate workers from high-stress to lower stress functions.
- Initiate, encourage, and monitor work breaks.
- During lengthy events, implement longer breaks and days off, and curtail weekend work as soon as possible.



During a Crisis (Cont.)

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- Implement flexible schedules for team members who are directly impacted by an event). This can help them balance home and job responsibilities.



After a Crisis

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- The ending of the crisis response, whether it involved immediate response or long-term recovery work, can be a period of mixed emotions for Team Members.
- While there may be some relief that crisis operations are ending, there is often a sense of loss and "letdown," with some difficulty making the transition back into family life and the regular job.
- The following are some action steps that can help ease the disengagement and transition process for Team Members.



After a Crisis

(Cont.)

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- Allow time off for workers who have experienced personal trauma or loss. Transition these individuals back into the organization by initially assigning them to less demanding jobs.
- Develop protocols to provide workers with stigma-free counseling so that workers can address the emotional aspects of their experience.
- Institute a debriefing process to help workers put their experiences in perspective and to validate what they have seen, done, thought, and felt.
- Provide educational in-services or workshops around stress management and self-care.
- Offer group self-care activities and acknowledgments.



Barriers to Managing Stress

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- It is every leader's job to help Team Members understand that it is okay to seek help.
- Some leaders may question this, but ask yourself which person you would rather have working beside you, the person who has received help for their stress issues or the person who needs help but is not getting it or is self-medicating in other ways (substance abuse)?
- You may think that by taking action you'll hurt their career, but not taking action can be even worse.
- We need to care about Team Members as a people, not just worry about their career.
- Getting help will not necessarily negatively impact their career, but poor job performance will.



Adjust Your OPTEMPO

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- As the operation shifts from Response to Recovery it will be necessary to shift the operational tempo accordingly.
- You are moving from Sprint to Marathon mode.
- Pace yourself for the long haul.



Be Aware of Person-Role Conflict

50

Stress caused by a division of loyalties between roles and responsibilities in personal and professional realms.



Self-Care Tips

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1. Familiarize yourself with signs of stress.
2. Get enough rest, exercise regularly, and maintain a healthy diet.
3. Have a life outside of your job.
4. Avoid tobacco, alcohol, drugs, and excessive caffeine.
5. Draw strength from faith, friends, and family.



Self-Care Tips

(Cont.)

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6. Maintain your sense of humor.
7. Have a personal preparedness plan.
8. Participate in training offered at your workplace.
9. Get a regular physical checkup.
10. Ask for help if you need it.



For Crisis Responders & Leaders:

Closing Thoughts

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- Stress is not a badge of honor; Learn to manage stress as an element of the operational environment.
- Acknowledge it exists.
- Acknowledge it can create problems.
- Identify the symptoms.
- Understanding the warning signs.
- Work proactively to manage it.
- **Make operational stress control a formal part of your disaster response process.**



Thank You!



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55

US Department of Health and Human Services , Substance Abuse and Mental Health Services Administration. A Guide to Managing Stress in Crisis Response Professions. Publication No. SMA 4113.

US Department of Health and Human Services , Substance Abuse and Mental Health Services Administration. Managing Stress During a Crisis-A Guide for Supervisors. Publication No. NMH06-0235.

Navy Leader's Guide to for Managing Sailors in Distress: Operational Stress Control. US Navy, Naval Center for Combat and Operational Stress Control. Last accessed online on 11/ 3/16
http://www.med.navy.mil/sites/nmcphc/Documents/LGuide/op_stress.aspx



For More Information

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DISASTER & TERRORISM BRANCH

New Jersey Department of Human Services
Division of Mental Health & Addiction Services

Office: 609-777-0728

Web: www.state.nj.us/humanservices/dmhas/home/disaster

