Promoting Resilience in Disaster First responders: A Psychological First Aid-based Approach

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Core Competencies for Disaster Medicine and Public Health

- The following presentation may align with the following competencies from the academic article “Core Competencies for Disaster Medicine and Public Health”*
  - 2.0 Demonstrate knowledge of one’s expected role(s) in organizational and community response plans activated during a disaster or public health emergency
  - 3.0 Demonstrate situational awareness of actual/potential health hazards before, during, and after a disaster or public health emergency
  - 4.0 Demonstrate knowledge of personal safety measures that can be implemented in a disaster or public health emergency
  - 5.0 Demonstrate knowledge of personal safety measures that can be implemented in a disaster or public health emergency


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Objectives

• Describe Range of Psychological Sequela for 1st Responders in the aftermath of response to mass violence (and related research).
• Outline principles of Psychological First Aid (PFA) as these relate to peer/self care
• Outline the Implementation of a 1st Responder Stress and Resiliency training program based on principles of PFA
Defining “First Responders”
First Responders in Research

• Health Care Providers in High Stress Environments
• Firefighters
• Police Officers
• EMTs/Search and Rescue/Body Handlers
• Nontraditional: Construction Engineers, mechanics, carpenters, laborers
Combat Health Care

• PTSD in Vietnam Nurses (Carson et al., 2000)

• Tertiary Care Physicians, Nurses, and Support deployed on hospital ship to OIF:
  • Perceived threat to self predicted PTSD
  • Rates of PTSD, Depression, and care utilization higher than non-deployed controls (Grieger et al, 2003)
Health Care Workers in Epidemics

- 402 Health Care Workers and 155 Administrators after SARS quarantine of 57
  (Bai et al., 2004)
  - 5% met criteria for ASD with Quarantine being strongest predictor
  - 25% reported stigmatization, rejection at home or work, (professional isolation)*
  - 9% reported reluctance to work/resignation
Firefighters

- Volunteer Firefighters in Australia
  - Proximity to death, severity of trauma, perceived threat predict PTS/PTSD (Bryant et al., 1995, 1996)
  - CPR, personal losses, unemployment also contribute to symptoms/health care utilization (Morren et al., 2005)
- Rates of PTSD 13%-18%
  (Fullerton et al., 2004; McFarlane & Papay, 1992; North et al., 2002)
Police Officers

- Higher rates of depression, PTSD, and carotid artery thickness in Police Officers than age-matched controls (Violenti, et al., 2006)
- Increased MHPG response in 16 police academy recruits with history of childhood trauma than 59 without in response to training video of officers in high-stress (Otte et al., 2005)
Rescue workers/EMTs

- 82 Canine handlers had more PTSD and psychological distress than 32 non-deployed handlers 6 mos post 9/11 (Alvarez & Hunt, 2005)
- Comparison of Emergency Responders (207) to a plane crash to similar group (421) who did not.
  - Higher rates of ASD/PTSD at 13 months
  - Higher rates of depression 7 and 13 months; ASD (25%) at rates comparable to civilians (Fullerton et al., 2004)
Nontraditional 1st responders?

- 332/1114 Truck Drivers, Heavy Equipment Operators, and Carpenters post 9/11 responded to an open-ended narrative question about experiences.

Quantitative Interpretation?
30% shared painful physical/emotional symptoms…
Psychiatric Illness • PTSD • Depression • Complex Grief

Distress Responses

Behavioral Change

• Sense of vulnerability
• Insomnia
• Irritability, distraction

• Smoking
• Alcohol
• Over dedication

Traumatic Exposures and First Responders

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Defining Resilience

- Ability to “bounce back” from stressful or traumatic experience
- Domains of resilience:
  - Psychological Health
  - Physical Health
  - Occupational
  - Social/interpersonal, parental, etc., etc.
Encouraging Recovery in First Responders: Challenges

- Diverse Range of Responses Among Exposed Individuals
  - Individual responses vary (risk factors, past traumatic experience, training, additional stressors/illness)
  - Exposure varies

- Requirement for Occupational Continuity

- Perceived/Real Career Threat

- Barriers to Assessment/Care
  - Stigma
  - Availability
Can We Help First Responders Help Themselves/Help Each Other?

- Law Enforcement, Firefighters, others have embraced the notion of peer-support
  - Less stigma
  - Peers have “street credibility”
- Public Health Principles related to fostering resilience in Disaster Exposed Populations have emerged (9/11; Katrina).
Psychological First Aid:
Five Essential Elements of Immediate and Mid-Term Mass Trauma Interventions: Empirical Evidence

- Safety
- Calming
- Efficacy
- Connectedness
- Hope

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Hobfoll et al Psychiatry 70:2007
Principles of Psychological First Aid

- **Safety** - Decreases further threat exposure; provides “grounding” in context of trauma-altered cognition
- **Calming** - Reduces trauma-related anxiety that can interfere with decision making, and performance of life tasks, or generalize and lead to panic attacks, dissociation, PTSD, depression, anxiety, and somatic complaints
- **Efficacy (self & community)** - Increases beliefs about capability to manage distressing events through self-regulation of thought, emotions, and behavior
- **Connectedness** - Since increased social support is related to better emotional well-being and recovery following mass trauma
- **Hope/Optimism** - Because more favorable outcomes after mass trauma when persons retain hope for their future, positive expectancy, a feeling of confidence that life and self are predictable, other hopeful beliefs
First Responder Self Care: Basic Principles

- Exercise
- Mindfulness
- Social Connectedness
• Exercise
  • Work/Life balance
  • Preparation/Routines
• Mindfulness
  • Relaxation
  • Introspection (finding meaning)
• Connectedness
  • Retelling of story
  • Buddy aid/referral?
Self Care Principles and PFA

Self Care Principle
• Exercise
• Mindfulness
• Connectedness

PFA Principle
Safety, calmness, efficacy
Calmness, hope/optimism efficacy
Connectedness
Mobile Resources

VA NCPTSD

University of Minnesota
Resources

• First Responders: Self Care, Wellness, Health, Resilience & Recovery – New Jersey Critical Incident Stress Response

• http://www.njdcisr.org/elearn_firstresponders_pdf.html
Resources--SAMSHA

• A Guide to Managing Stress in Crisis Response Professions

• Podcast Self-care for Disaster Behavioral Health Responders

• http://www.samhsa.gov/trauma/#Responders
A PFA-Based Peer Support Program for CDC First Responders

CAPT Dori Reissman, Senior Advisor for Disaster Mental Health and Terrorism
Office of the Director, Division of Violence Prevention
National Center for Injury Prevention and Centers for Disease Control, Atlanta GA
CDC Response Paradigm

- Historically: short-notice response to national public health emergencies & international infectious disease outbreaks
  - “Backbone” of CDC response: Epi-Aide
  - Evolving: Complex & sustained missions
- Increase in diverse & large-scale global emergencies (e.g. Hurricanes Rita & Katrina in 2005, Tsunami of 2004)
Response Paradigm, cont.

- Increased CDC personnel in deployment cycle (team members/support staff)
  - More demands on logistical support
- Many presently involved have less experience in deployment operations
- Increased risk for personnel in:
  - Hostile environments
  - Contaminated environments
  - Increased variety of govt. and non-govt. agencies
Deployment Safety and Resiliency Team Member Training
The Deployment Safety and Resiliency Team (DSRT)

DSRT Role:

1. Responsibility for assessing and addressing the health, safety and resiliency of team members
2. Identification of, prevention of, and resolution of key safety problems
3. Conduct in-field, operational debrief/needs assessment before deployees return to regular duty
4. Provide peer support around deployment-related stressors
5. Assist in referral if situation exceeds DSRT training
Format & Schedule

Day 1:
1. Intro
2. Pre-training Evaluation (next)
3. Stress Response (signs)
4. Psychological First Aid
5. Assessment & Surveillance (+ application exercise)

Day 2:
6. Peer Support
7. Compassion Fatigue
8. Resilience
9. Scenario Based exercises
10. Post-training evaluation and course evaluation

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Training Objectives

1. Recognize range of responses (emphasis on maladaptive responses) to operational stressors/deployment operations

2. Possess and apply tools for self and team monitoring for stress reactions/responses

3. Demonstrate techniques for field intervention to mitigate stress responses
Training Materials: Principles, Models & Scales (sources)

• Principles of Psychological First Aid
• Model of Compassion Fatigue (Figley)
• American Red Cross- PFA
• Battlemind Warrior Resiliency
• Red Cross Mental Health Triage
• Provider Resiliency Training- AMEDD
• APA 10 Ways to Build Resilience
• PHQ-9, PCL-17, AUDIT, WHO DAS II, WHOQOL-BREF, CSTS Health Inventory

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Training Activities

• **Pre-test** to evaluate prior knowledge of concepts and techniques presented during the training

• **Pre-tests to assess baseline self-efficacy and familiarity/comfort with DSRT program and concepts**

• **Didactics on principles of Stress Response (Distress Responses vs. Illness), Compassion Fatigue, and principles of PFA**

• **Scenarios** prompting participants to draw on concepts and techniques learned during the training: identification of maladaptive symptoms, referral-making, utilization of assessments, and administration of PFA
Scenario:

You are among 10 CDC officers deployed in the immediate aftermath of a Tsunami in Southeast Asia to assess infectious threats in several decimated fishing villages.

First region you are visiting has experienced considerable civil strife in the face of ongoing economic hardship and there are guerilla force strongholds along your route to the villages.

Your two minivans travel under government escort from the airport with a plan for an unmarked government sedans on either in front of and behind your vehicles, and an armed guard to ride in each of your vehicles.

This seems a bit unnecessary to you....
About an hour into your drive your convoy stops because a vehicle in front of you appears stuck in the mud. To your shock and horror, a masked gunman appears from behind the passenger door as the guard in your lead vehicle exits to offer assistance.

A brief exchange of gunfire between your police escorts and three or four guerrillas ensues. After what seems like a barrage of bullets being fired over an eternity, the guerrillas speed off in their vehicle and in the end nobody (at least from your convoy) appears to have been injured.

It is obvious that all members of your team are both shocked and terrified by the experience. As you are closer to the fishing villages than the airport, your team leader decides to proceed.
Activity

At in-brief, you learn that the rebels are sympathetic with the plight of villagers and have not attacked villages at all. However, they are attempting awareness by attacking persons they view as “mere tourists unconcerned about the plight of their nation.”

Your mission will continue. Your team leader asks you to:

1) Address the team regarding how they might manage their individual reactions to the day’s events as well as help one another.
2) Provide input to her as to steps she can take to mitigate distress responses in her team.

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Post-Training Activities

• Post-tests to evaluate:
  • Content Knowledge on principles of PFA, assessment, and familiarity with DSRT program and concepts
  • Measures of perceived self-efficacy with regard to role of DSRT

• Immediate Post-training Program Evaluation to assess perceived utility of the training; solicit suggestions for improvement

• Post-deployment Evaluation to assess perceived utility; solicit improvement suggestions
Research Questions

• Does DSRT training increase participant measures of self-efficacy regarding peer-support and mitigation of stress response?
• Do participants find the training and resources useful (immediately and upon deployment)
• Is knowledge retained?
Conclusions

• First responders are not immune to the range psychological distress responses (or mental illness) seen in others in the aftermath of disaster

• Barriers exits that may prevent access to traditional avenues of care:
  • Stigma
  • Operational Tempo
Conclusions, cont.

• Principles of Self-Care for 1st responders map to principles of Psychological First Aid

• Merging of PFA, peer support (and technology) provide evidence-informed “vehicles” for mitigating distress & impairment in First Responders