

Managing the Psychological Consequences of Terrorism



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Disaster and Terrorism Branch (DTB)

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- NJ Department of Human Services, Division of Mental Health and Addiction Services' DTB is the federally recognized behavioral health authority to oversee the disaster behavioral health response.
- Preparedness - trainings for emergency response partners and Disaster Response Crisis Counselors (DRCC) through out the state
- Rapid Assessment, Deployment and Response team (RADAR)
- Response & Recovery – DRCC response and FEMA-funded disaster Crisis Counseling Programs (CCPs) such as NJ Hope and Healing



Goal & Objectives

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Our goal is to improve the participants' ability to form accurate behavioral assumptions related to acts of both conventional and unconventional terrorism in order to be better prepared to respond to these complex events

Following completion of the program, participants will be able to:

- Describe the behavioral response to acts of conventional terrorism
- Identify the unique psychosocial effects of unconventional terrorism
- Discuss strategies, skills and techniques used to help manage the psychosocial consequences of terrorism



This is not a program about...

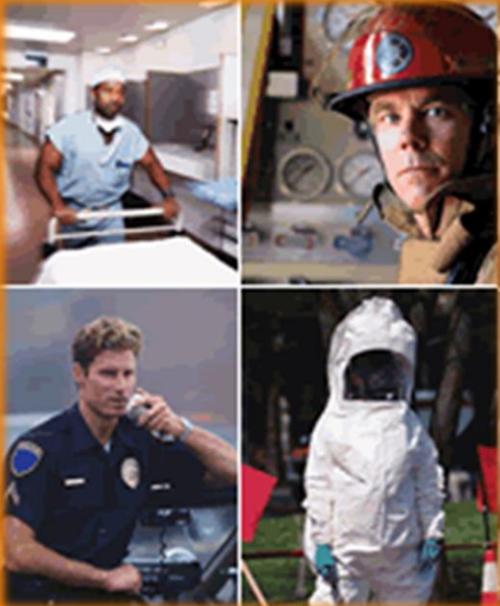
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- The psychology of terrorists: individuals or groups
- Radicalization or recruitment of terrorists
- Behavioral analysis or threat assessment



Intended Audience

- Emergency Management
 - Planners
 - Decision-makers
- First Responders
- First Receivers
- Public health workers
- Behavioral health workers
- All disciplines involved in the tactical response to disasters, terrorism and emergencies



Module One

Key Concepts in Disaster Behavioral Health Impact & Intervention

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Defining Conventional Terrorism

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We will focus on acts of mass violence and conventional terrorism, such as:

- Bombing
- Mass Shooting, Active Shooter
- Vehicular Assault (Ram Attacks)
- Fire as a Weapon
- Mass Kidnapping/Hostage-taking*



Boston Marathon Bombing



*Note: Human captivity experiences produce a range of complex and long-lasting mental health consequences not discussed here.



Defining Unconventional Terrorism

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For our purposes, acts of unconventional terrorism will include:

- Chemical
- Biological
- Radiological
- Nuclear

The Overarching Goal of Terrorism

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To affect political, social, economic, or religious change through the use of fear and intimidation, when:

- unable to accomplish objectives through democratic or other legitimate processes
- unable to directly confront an opposition militarily
- The systematic use of violence to create a general climate of fear in a population



The Ultimate Tool of the Terrorist...

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is not chemical,
biological, nuclear or
radiological...



it is psychological.
Terror is fear.

A Behavioral Sciences Approach

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For many years, emergency management professionals worked under a simple assumption:

When a disaster strikes, people will follow disaster plans and procedures

But work by psychologists and other behavioral scientists has found that this idea fails to consider the often-surprising behavior of people during emergencies



A Key Concept

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“In order to react successfully to a disaster, you must understand human behavior better than anyone else in your community.”

(McEntire, D. (2007). Disaster Response and Recovery. 91. Hoboken, NJ: John Wiley & Sons, Inc.



Research Implications

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Research suggests that the general population may not react to disasters and public health emergencies in the manner anticipated by emergency management professionals

This unanticipated behavior can:

- Complicate tactical responses
- Lead to greater physical harm for greater numbers of people
- Lead to higher rates of long-term mental health problems



Human Behavior: *Lewin's Equation*

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**Behavior is a Function
of Person and Environment**

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

Key Concepts

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- Response is phase-specific
- Response is hazard-specific
- In certain events, the behavioral “*footprint*” will outsize the medical or physical impact of the crisis



Anticipating the Psychological Footprint

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Many emergency scenarios (i.e., CBRN, disease outbreaks, etc.) can become complex behavioral emergencies:

- Sarin gas attack-Tokyo subway 3/95
 - Psychological casualties : Medical Casualties = **4:1**
- Radiation accident- Goiânia 9/87
 - Psychological casualties : Medical Casualties = **500:1**

Kawana, N., Ishimatsu, S., and Kanda, K. (2001). *Psychophysiological Effects of the Terrorist Sarin Attack on the Tokyo Subway System*. *Military Medicine* 166:23-6.

Becker, S. (2001). *Psychosocial Effects of Radiation Accidents.* in *Medical Management of Radiation Accidents*. 2nd ed. Boca Raton, FL. CRC Press.



The “Bookends” Concept

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- Events which have clear “bookends” tend to produce acute stress reactions and PTSD-like symptoms
- Events which lack “bookends” and have the element of invisibility result in chronic stress reactions and longer-term behavioral consequences

General Behavioral Response Types

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- Type I: Neighbor-helps-neighbor
- Type II: Neighbor-fears-neighbor
- Type III: Neighbor-competes-with- neighbor



About Panic

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- Panic is related to the perception that there is a limited opportunity for escape, a high-risk of being injured or killed, or that help will only be available to the very first people who seek it
- Panic is unlikely in most disaster scenarios



Perception of Limited Opportunity for Escape

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August 31, 2005- Baghdad:

953 Iraqis were crushed to death or drowned in a stampede on the Al-Aaimmah bridge as vast crowds of Shiite pilgrims were sent into panic by rumors of suicide bombers in their midst

Disasters can create crowds



Crowds can create disasters

Module Two

The Psychosocial Impact of Conventional Terrorism

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Unlike Other Disasters

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- Shattered sense of safety; “safe places” no longer feel safe
- An identified responsible party.
- Spontaneous; Lack of preparation- Attacker(s) has initial tactical advantage.
- Innocent victims
- Children & adolescents may be primary actors
- Loss of life is more substantial than loss of property

Psychological Threats

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In addition to the physical threat presented by the attack, the situation is likely to entail several foreseeable psychological hazards, including:

- High-level of personal threat
- Child victims
- Prolonged/protracted incident (esp. if evolving to barricade or hostage situation)
- High media interest
- Personal knowledge of a victim(s)
- Possible Line of duty death
- Serious injury to self/colleagues
- Multiple casualties
- Killing or wounding innocent persons

At-Risk Populations

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- Public Safety Workers /First Responders
- Children and youth
- Parents or caregivers of children
- Older adults
- People with prior trauma history
- People with serious mental illnesses
- People with disabilities
- People with a history of substance abuse
- Low-income groups



Impact of Events

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Two types of trauma:

Individual trauma

- May cause stress and grief
- May cause fatigue, irritability, hopelessness, and relationship conflicts

Collective trauma

- May damage community support
- May affect individual coping



Defining Traumatic Stress [1]

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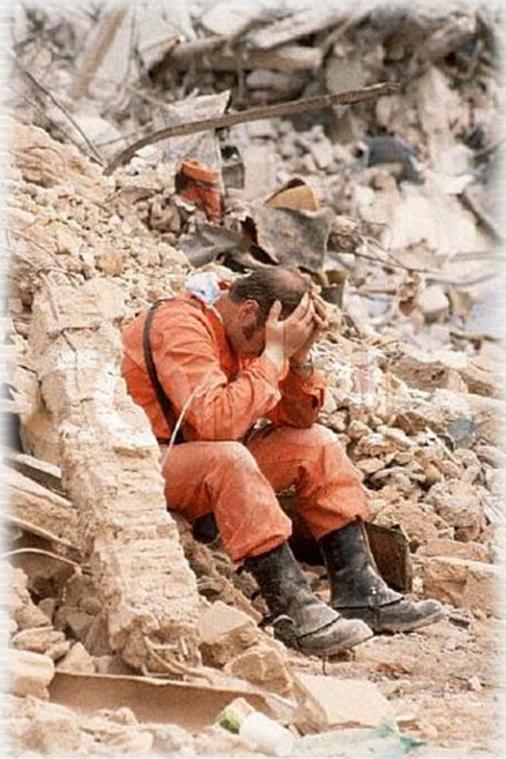
“Traumatic stress refers to the emotional, cognitive, behavioral and physiological experiences of individuals who are exposed to, or who witness, events that overwhelm their coping and problem solving abilities”



Lerner, M. & Shelton, R. (2001). *Acute Traumatic Stress Management: Addressing Emergent Psychological Needs During Traumatic Events*. Commack, NY: The American Academy of Experts in Traumatic Stress.

Defining Traumatic Stress [2]

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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 Posttraumatic Stress Disorder (PTSD).”

Lerner, M. & Shelton, R. (2001). *Acute Traumatic Stress Management: Addressing Emergent Psychological Needs During Traumatic Events*. Commack, NY: The American Academy of Experts in Traumatic Stress.



Post-incident Psychological Effects

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- The psychological consequences of directly experiencing or witnessing a mass violence are often serious
- In mass shootings, the prevalence of post-disaster diagnoses (predominantly PTSD) in studies ranged from 10% to 36%
- Much higher percentages reported sub-threshold PTSD, and very few participants reported no symptoms



Norris, F. (2007). "Impact of Mass Shootings on Survivors, Families, and Communities", PTSD Research Quarterly, Vol. 18, No. 3, 1-8.



Acute Stress Disorder

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The rates of Acute Stress Disorder following traumatic incidents vary, with higher rates reported for human-caused trauma

- Typhoon: 7%
- Industrial accident: 6%
- Mass shooting: 33%
- Violent assault: 19%
- MVA: 14%



Bryant, R. (2000). *Acute Stress Disorder*. PTSD Research Quarterly, 11(2), 1-7.



Potential Long Term Effects

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- Free-floating anxiety and hypervigilance
- Underlying anger and resentment
- Uncertainty about the future
- Prolonged mourning/inability to resolve losses
- Diminished capacity for problem solving
- Isolation, depression, hopelessness
- Health problems
- Significant lifestyle changes



Module Three

The Psychosocial Impact of Unconventional Terrorism

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CBRN: A Unique Type of Crisis

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- Psychological issues following CBRN emergencies are unique because of the public's intense fear of the hazards, strong sense of fatalism, and social stigma attached to persons exposed or contaminated
- The greatest impacts of CBRN emergencies may be psychosocial



*Weapons of Mass Disruption
vs. Mass Destruction*

Why Terrorists Would Use CBRN Agents



They can cause injuries and illnesses which are difficult to diagnose and treat

Some CBRN agents may lack antidotes for medical protection and treatment

They are difficult to detect in the environment



Special Problems with CBRN Incidents

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- Poorly understood outside of limited professional group
- Subject of controversy within the professional community
- Public and scientific uncertainty likely to characterize incidents



The Psychophysiological Response to CBRN Terrorism

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The effects of CBRNs are derived from two sources:

- The action of the substance on the brain and body
- The implications of the terrorist act on the human psyche

Limited information is available on the psychological response to CBRN events

The Psychological Difference

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CBRN incidents are unique due to public's intense fear and limited knowledge of these hazards:

- Invisible, silent, odorless
- Only detectable using specialized equipment
- Not well understood by the public
- There is great concern for:
 - Long-term health effects
 - Delayed health effects (Future Orientation)
- Pregnant women fear damage to the fetus

Operational Assumptions [1]

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During CBRN emergencies, both people contaminated by hazardous materials and those without contamination, can suffer adverse psychological effects

Several factors may contribute:

- Lack of understanding of radiation and the screening process
- Delayed impact of exposure
- Mistrust of officials who are unable to provide consistent and clear-cut guidance regarding safety measures
- Ongoing stress due to the uncertainty about the cause of any future illness



Operational Assumptions [2]

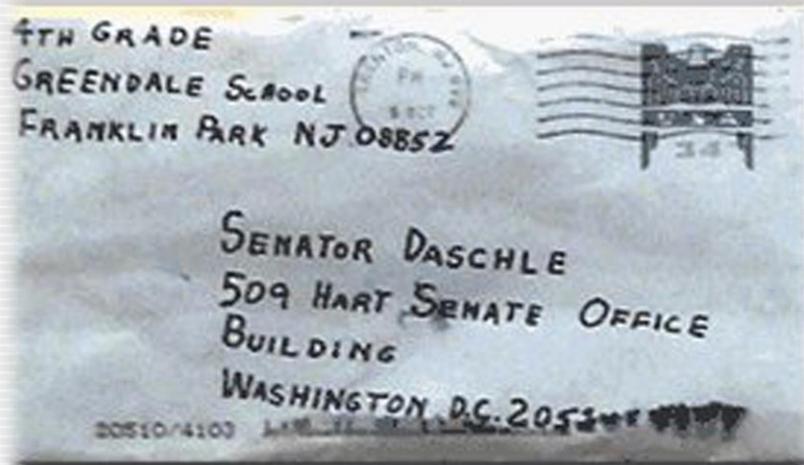
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- In many disasters, the majority of survivors experience normal psychological responses to the abnormal disaster event and recover without mental health interventions
- Because the effects of CBRNs can be long-term, the health consequences for future generations can mean an ongoing burden of anxiety and stress



Terror-Producing Aspects of CBRN Events

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- Potential for high number of casualties
- Limited availability of treatments
- Uncertainty about effectiveness of treatments
- Contagion
- Dispersion of biological casualties

Silent Disasters...

Odorless, Invisible, Quiet



Response Dynamics

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- Disrobing in public
- Wash-downs in chemical or other solutions (smells, tastes, tactile experience, etc.)
- Periods of isolation & observation
- The sight of responders in protective suits
- General confusion or lack of information shared with victims



Some of the emergency activities related to CBRN response can add to the traumatic experience

Planners Must Consider the Possibility of...

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- Extreme fear and panic
- Blame and mistrust of Authorities
- Mass sociogenic illness
- Misattribution of normal arousal



Factors that may inhibit emergency response efforts and complicate physical and psychological recovery

Behavioral Reactions in CBRN Emergencies

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There are significant differences in phases of behavioral reactions in CBRN disasters. Extreme fear of may lead to:

- People not assisting victims, including medical personnel and even family members
- Lack of social support systems reduces the heroic efforts often undertaken to assist victims
- Stigma of those exposed further isolates individuals and prolongs recovery
- For survivors of such events, the return to “*normal*”, or pre-event mental health may not occur for generations



Reactions to CBRN Incidents

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- Unusual physical complaints known as Medically Unexplained Physical Symptoms and Multiple Idiopathic Physical Symptoms (MUPS & MIPS)
- Overwhelming fear and anxiety
- Greater anger and mistrust
- Higher ratio of psychiatric : medical casualties
- High levels of healthcare-seeking behavior



Goiânia, Brazil: September 1997

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- Central Brazil, Goiânia incident, about 1 million residents at the time of the accident
- Equivalent to a large-sized dirty-bomb scenario in Manhattan

Goiânia, Brazil: September 1997

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- The radioactive source was stolen, broken open and dispersed
- The material was moved around the city for about 16 days



Abandoned medical clinic in Goiânia contained a 1,400 Curie radioactive cesium (Cs^{137}) source

Fear-inducing Injuries

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- Initial medical impressions were that those sickened were exposed to some sort of rare tropical disease



Impact of Event

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- 1,375 curie Cesium-137 spread throughout a neighborhood
- External and internal exposure hazards
- Four victims died within four weeks, 60 over the next decades
- Twenty victims hospitalized
- 249 people had detectable external and/or internal contamination
- **112,000 screened (500 screened for each victim, i.e. 500: 1 ratio)**
- Site remediation took months to complete (October 1987-March 1988)



Neuropsychiatric Casualties

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- 5,000 had psychosomatic symptoms (8%)
 - Rash around neck and upper body
 - Vomiting
 - Diarrhea
- **o (zero) were contaminated**

Psychosocial Response

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- Acute Fear/Stigma
- EMS personnel abandoning patients
- Hospital staff/MDs refusing to report to work
- Pilots refusing to fly individuals from the region
- Crowd stoning hearses, coffins and graves of those killed
- Discrimination by community; agricultural products from the region were banned



Social Stigma...

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- Can be experienced by those contaminated or potentially contaminated
- People may choose not to assist victims of radiation disasters
- Lack of social support hinders resilience and recovery efforts
- Stigma can also be associated with receiving mental health services

Behavioral & Cognitive Reactions

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Following toxic exposures, victims often report:

- Feeling trapped in their own bodies
- Self- and social isolation; being avoided by others
- Obsessive thinking about the event
- Damaged and helplessness



Long-Term Behavioral Health Response [1]

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Long-term reactions include:

- Apathy
- Resignation
- Decreased tolerance to additional stressors
- Irritability, hostility, aggression

These reactions are more likely than classic PTSD-type responses



Long-Term Behavioral Health Response [2]

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- Obsessive/compulsive responses
- Hyper-vigilance
- Other stress related illnesses
- Sociogenic illnesses



Chronic Stress vs. Acute Stress

Module Four

Psychosocial Consequence Management

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Preparing for the Psychosocial Impact [1]



- All types of terrorism are intended to inflict psychological and social damage, therefore managing the psychosocial impact of such events must be a priority and initiated from the onset of operations
- Planners must create pathways to facilitate the rapid integration of disaster behavioral health services into operations
- Responders should possess basic behavioral response skills

Both individual and group behavioral responses must be anticipated and planned for



Preparing for the Psychosocial Impact [2]



- Since CBRN terrorism is a relatively new and rare phenomena, many assumptions are based upon the response to the few actual events
- Predictive models estimate an overwhelming need for public outreach, education and immediate mental health care in the wake of a CBRN event



Psychosocial Response Priorities



- Basic Needs: Food, shelter, transportation, and medical services
- Surge capacity and triage of “worried well”
- Human Services: Family reunification, child care, housing, job assistance, crime victim advocacy
- Risk and crisis communications
- Psychological First Aid and Crisis Counseling
- Surveillance for psychological consequences
- Treatment for acute and long-term effects of the trauma



Intervention Types

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- Psychological First Aid
- Crisis Counseling
- Informational Briefings
- Crime Victims Assistance
- Community Outreach
- Psychological Debriefing
- Psycho-Education
- Mental Health Consultation

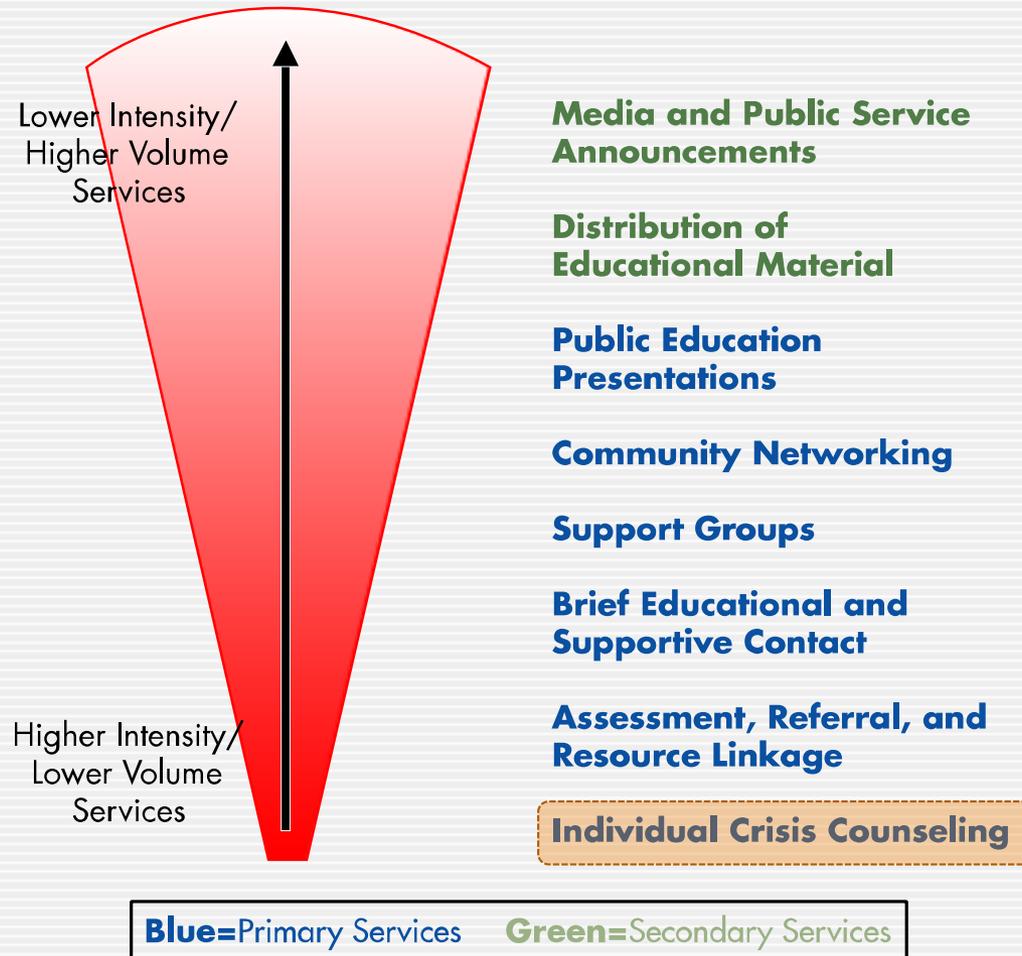


U.S. Department of Health and Human Services. (2005) Mental health response to mass violence and terrorism: a field guide; p. 12. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration



Range of Support Services

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Disaster & Terrorism
Branch
BY THE OFFICE OF PUBLIC HEALTH AND EMERGENCY SERVICES



Source: FEMA/ SAMHSA Crisis Counseling Program

A Working Definition

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“Psychological first aid (PFA) refers to a set of skills identified to limit the distress and negative behaviors that can increase fear and arousal.”

(National Academy of Sciences, 2003)



Psychological First Aid is...

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- as natural, necessary and accessible as medical first aid
- means nothing more complicated than assisting people with emotional distress resulting from an accident, injury or sudden shocking event
- Like medical first aid skills, you don't need to be a doctor, nurse or highly trained professional to provide immediate care to those in need



The Purpose of Psychological First Aid

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- Reduce physiological arousal
- Mobilize support for those who are most distressed
- Facilitate reunion with loved ones and keep families together
- Provide education about available resources and coping strategies



Where to Use Psychological First Aid

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- Community Reception Centers
- On the frontline of a disaster or crisis
- Points of Dispensing (POD's) medication or supplies
- ER's and Field Hospitals
- Shelters, Disaster Recovery Centers, Family Assistance Centers
- Crisis Hot Lines, Phone Banks
- Other community settings



Who Should Deliver Psychological First Aid?

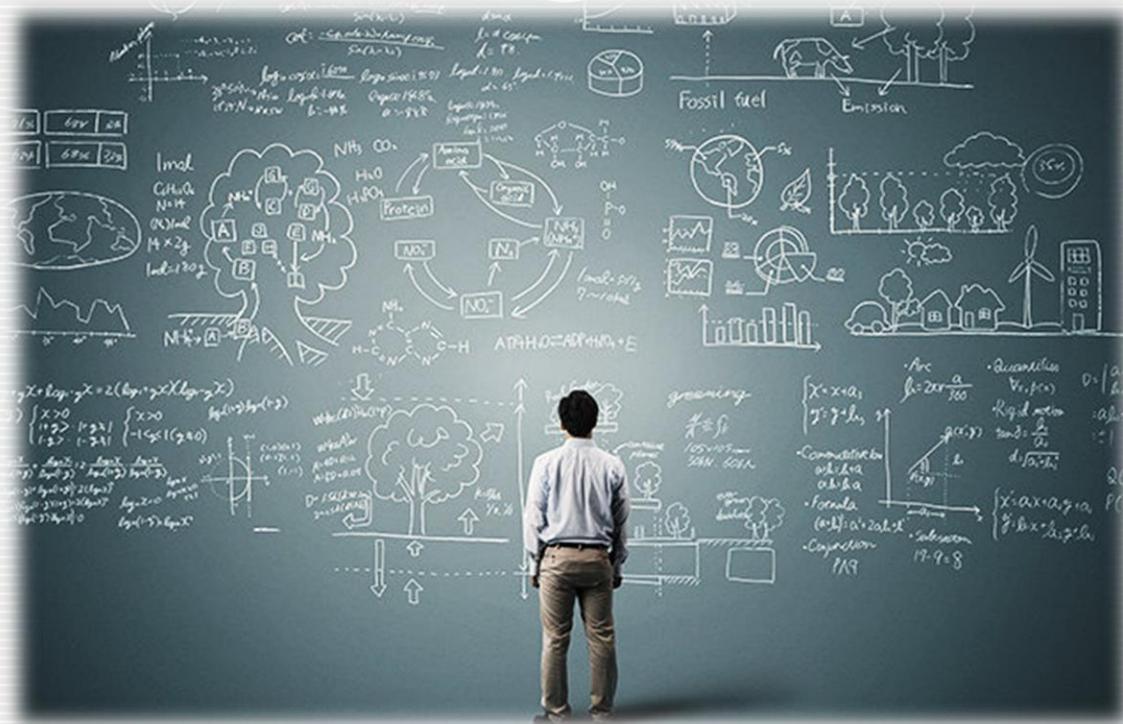
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- Mental Health Professionals
- Para-professionals (i.e.-health care, school crisis teams, CERT and MRC, Faith-based Relief Workers, etc.)
- Non-professionals (i.e.-community members, co-workers, etc.)



Wrap Up: Key Points in Summary

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Take Aways

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- As “disasters of human intention,” acts of terrorism and mass violence produces higher rates of psychological casualties than other disasters
- As a generalization, acts of conventional terrorism may result in acute, PTSD-like reactions, while unconventional terrorism produces a range of reactions that is more somatic and chronic
- It is important, therefore, that leaders, planners and responders are knowledgeable in the type of behavioral responses associated with different types of crises to enable effective responses for affected individuals, families, organizations and communities



Thank You!



For More Information

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Disaster & Terrorism Branch

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About the Presenter

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- Member, Association of Threat Assessment Professionals
- Advisor, Morris County (NJ) Active Shooter Rescue Task Force
- Diplomate, National Center for Crisis Management
- Diplomate, American Academy of Experts in Traumatic Stress
- Board Certified Expert in Traumatic Stress (BCETS)
- Police Surgeon, International Society of Police Surgeons; New Jersey Police Surgeons team (Psych. Trauma Specialist)
- On-scene Responder & Supervisor: '93 and 9/11 World Trade Center attacks; NJ Anthrax Screening Center; TWA Flight 800; Unabomber Case; Int'l kidnappings, police hostage negotiation team member
- Qualified Expert: to the courts and media on violence prevention and response
- Author: Many published articles and book chapters addressing the behavioral sciences in violence prevention, disaster and terrorism response

