

# **Psychological Interventions Following Disasters and Terrorism**

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# Background: Methodological Issues

- **Disasters are Chaotic and Intense**
  - **Controlled studies are difficult**
  - **Focus on assistance, not research**
- **Not all disasters are alike**
- **Random assignment to experimental and control groups is hampered**
- **Follow-up is difficult**

# How Do We Know How to Respond Following Disasters?

- Disaster Research
- Extrapolation
- Consensus
- Clinical Experience
- Customer feedback
- Program evaluation

# CMHS / NCPTSD

## Interagency Agreement

- Literature Reviews: impact, adult and child assessment/screening, interventions, training
- Consensus guidelines: mass violence, screening, intervention, ongoing threat, multi-cultural translation, public / mental health interface
- Case Studies
- Needs Assessment recommendations
- Online implementation manual / training materials
- Program evaluation plan
- Disaster research education and mentoring

# Evidence base for early intervention for adults

- High level of evidence:
  - none
- Medium level of evidence:
  - Cognitive behavioral therapy
- Low levels of evidence:
  - Debriefing, EMDR, Psychopharmacology, Psychodynamic therapy, “Alternative” therapies

# Evidence base for later-stage interventions for adults

- High level of evidence:
  - CBT
- Medium level of evidence:
  - EMDR, SSRIs
- Low level of evidence:
  - Psychodynamic therapy, “Alternative” therapies

# Evidence base for traumatic grief interventions: Adults

- Low levels of evidence:
  - All – there are not enough well controlled studies of any particular intervention at this point in time to draw firm conclusions

# MASS VIOLENCE AND EARLY INTERVENTION EXPERT CONSENSUS CONFERENCE

- **58 invited authorities in disaster mental health from six countries**
- **SAMSHA**
- **Department of Defense**
- **Department of Justice**
- **National Center for PTSD (VA)**
- **National Institute of Mental Health**
- **Red Cross**
- **DOJ**
- **Follow-up August, 2003**

# General Recommendations

- Interventions should be tailored
- Expect normal recovery.
- The presumption of disorder in the early post-incident phase is inappropriate.
- Target multiple outcomes.
- Promote normal recovery, resilience, and personal growth.

# General Recommendations

Take into account special needs of:

- Those with previous mental health problems
- Those who are disabled
- Other high risk groups

# Prior to Implementing I

- Goals should be clearly determined:
  - Who are we providing services for?
  - What are we doing?
  - Who will be conducting the intervention?
  - What outcomes do we want to see?
  - Phases of response

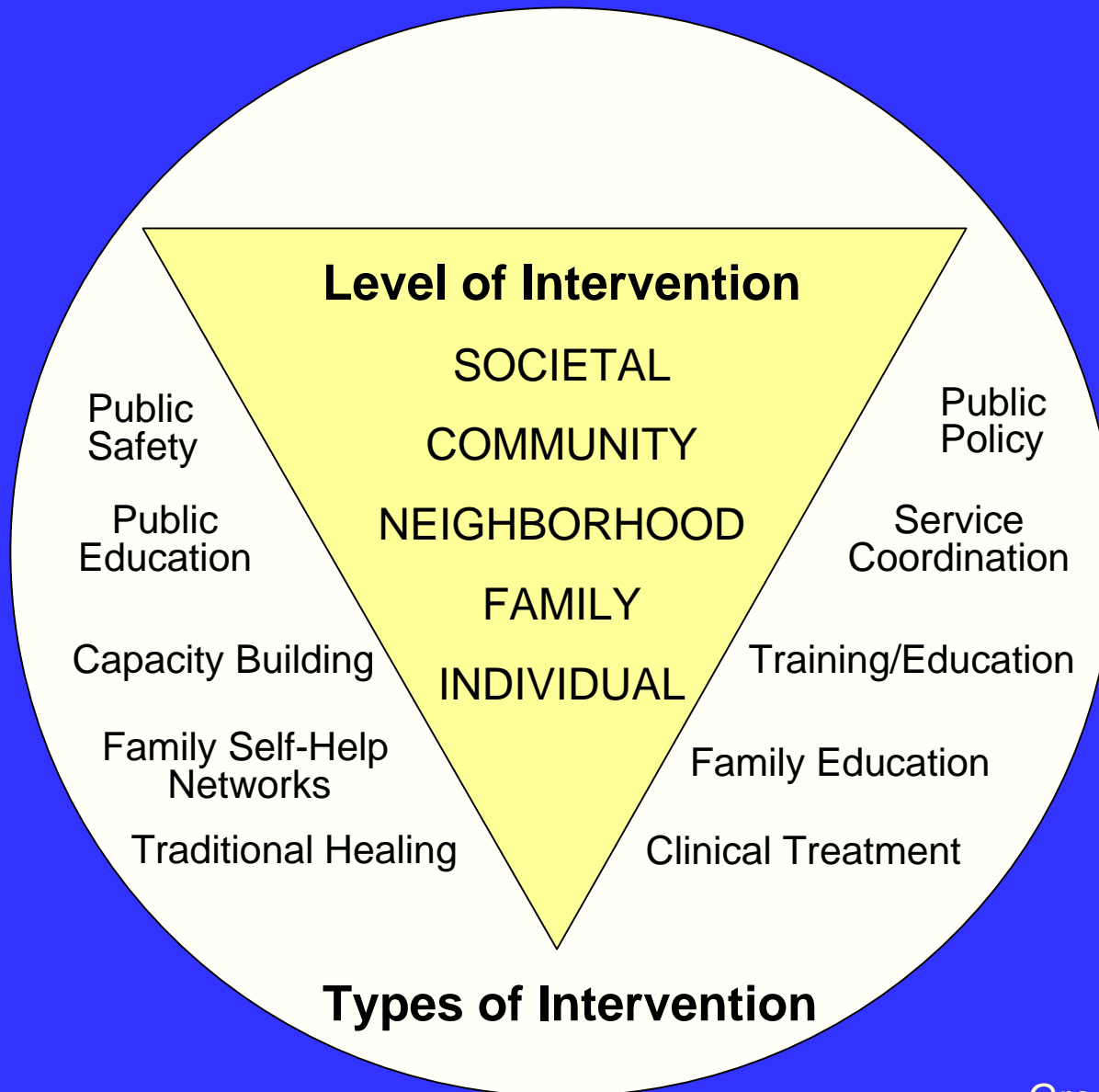
# Prior to Implementing II

- **The experience of the person needs to be taken into account to maximize acceptability**
- **Developmental and cultural issues must be addressed**
- **Intervention should be integrated into the natural helping network.**

# Prior to Implementing III

- **The program should be part of the framework for a system of care**
- **It should include elements of strengthening existing strengths and resources, as well as ameliorating symptomatic response**
- **The intervention program has to be practical, achievable and implementable at the program level.**

# Mental Health and Large-Scale Trauma



# Key Components of Early Intervention

1. Preparation
2. Provision for Basic Needs
3. Psychological First Aid
4. Needs Assessment
5. Monitoring of the Rescue and Recovery Environment
6. Outreach and Information Dissemination
7. Technical Assistance, Consultation and Training
8. Fostering Resilience/Recovery
9. Triage
10. Treatment

# Preparation

- Train
- Gain Knowledge
- Collaborate
- Inform and Influence Policy
- Set structures for Rapid Assistance



# Immediate Interventions Post-Trauma

# Debriefing

- **Does not consistently reduce risks of later developing PTSD or related adjustment difficulties.**
- **Poor Research Methodology**
- **No randomized controlled trials conducted with mass violence populations.**

# Why Might Debriefing Produce Negative Outcomes?

- Association between heightened arousal in acute phase and long-term psychopathology
- Dismantling dissociation and avoidance in immediate phase may be detrimental to some individuals
- Multiple and complex stressors with different timelines
- Potential for re-traumatization by hearing the stories of others

# Expert Panel: Debriefing

- **Timing:** For most people some avoidant “down time” is helpful, and debriefing can interrupt this process.
- **Systematic ventilation of feelings is the objectionable part of debriefing.**
- **“Mandatory” or exclusive offering are also objectionable.**
- **Not ideal format for assessment or education (it’s only presented once, and doesn’t give enough time for education or motivating behavior change).**
- **Might preclude other interventions**
- **Inappropriate for acutely bereaved persons, certain cultures**

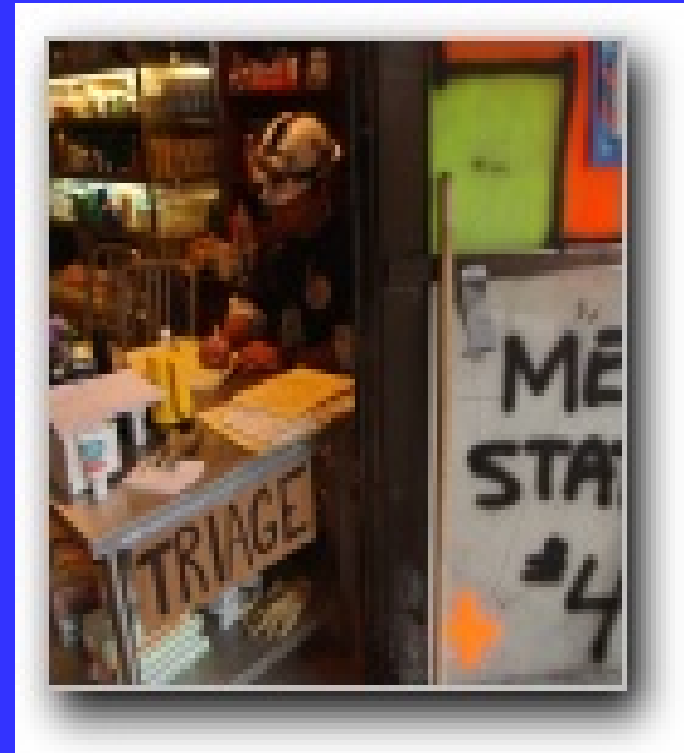
# Provision of Basic Needs

- Provide food and shelter
- Orient survivors to disaster and recovery efforts
- Facilitate communication with:
  - family
  - friends
  - community
- Reduce ongoing environmental threat



# Triage

- Assess survivors
- Identify vulnerable, high-risk individuals and groups,
- Provide referral and/or emergency hospitalization when indicated.



# The Context of Screening Following Mass Trauma

Screening should inform intervention

Take into account:

- (a) the **acceptability** of assessment and intervention
- (b) the **time after the event** when screening is planned.
- (c) the **methods** employed
- (d) the availability of **treatment resources** in a particular community

# Early Assessment Benefits

- **Early Assessment can:**
- **Identify problems that require immediate attention**
- **Identify possible vulnerabilities as well as sources of strength**
- **Flag individuals who warrant follow-up screening**
- **Modify early education to survivors and family so that it is most effectively tailored to their circumstances**

# Identifying Problems for Immediate Attention

Degree to which symptoms are tolerated by survivor or interfere with adaptive recovery:

- Are the responses interfering with adaptiveness of responses (i.e., avoidance and dissociation decreases social support and memory consolidation)
- Sleep, anxiety, depression, dissociation

# Prediction: Symptoms expressed following trauma

Overall, studies indicate:

- No particular symptom is pivotal in all settings
- No constellation of symptoms is pivotal
- Dissociation is useful but not pivotal
- Symptom severity in first few days fails to predict PTSD
- Symptom severity from 1-2 weeks post-trauma correlates highly with subsequent symptom severity

**McNally, Bryant, & Ehlers, 2003**

# Flagging: Risk Factors for Poor MH Outcomes:

- **Trauma/Stress** Severe exposure, injury, threat to life, extreme loss, disrupted community, high secondary stress
- **Survivors** Female gender, age 40-60, no experience coping, ethnic minority, low SES, prior psych history
- **Family Context** Adults with children, female with spouse, child with dysfunctional parent
- **Resource Context** Low belief in ability to control outcomes  
deteriorating social resources

# Flagging: Risk Factors for PTSD:

## Pre-trauma:

- Already suffering from anxiety and mood disorders
- Prior trauma
- Instability in family of origin
- Cognitive ability
- Neuroticism (proneness to experience irritability, depression, anxiety)

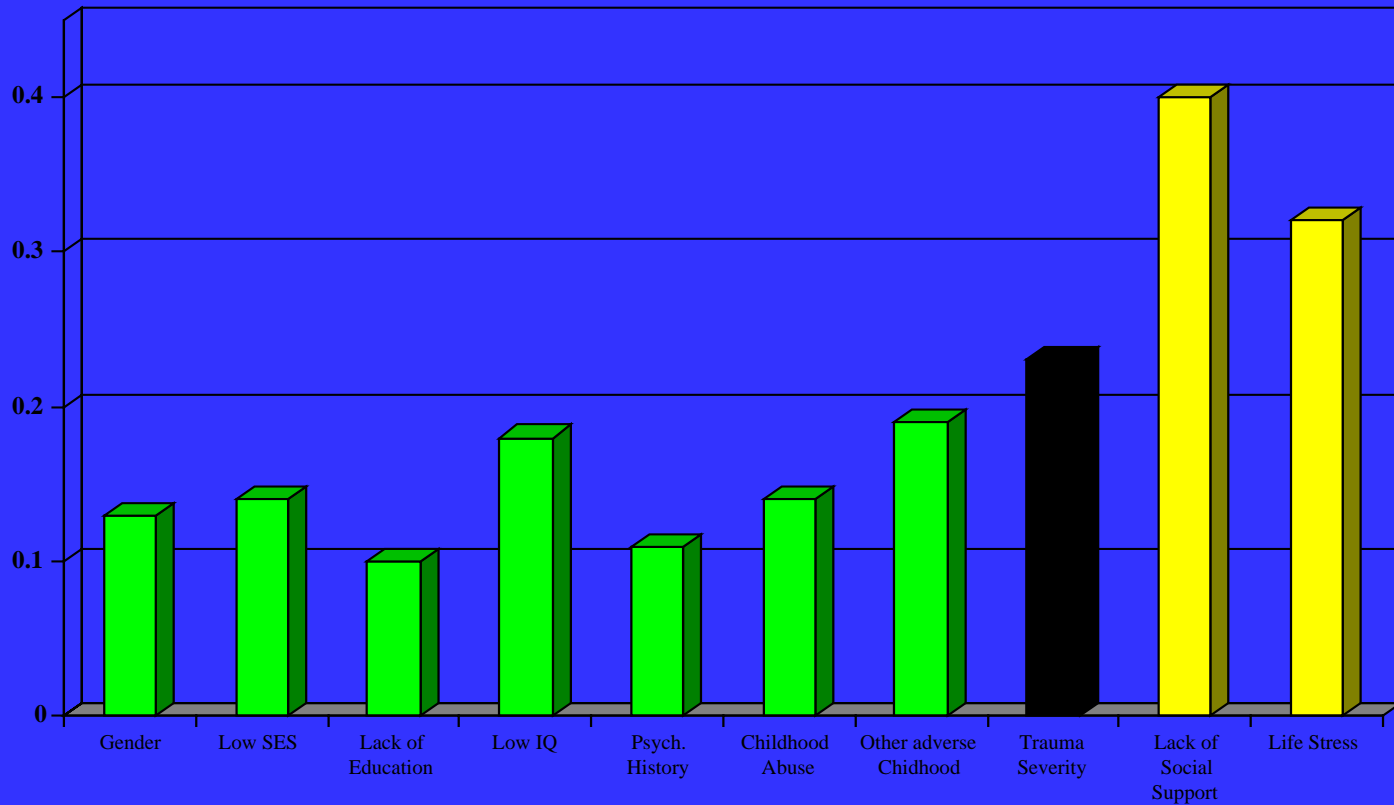
McNally, Bryant, & Ehlers, 2003

# Informing Intervention: Peri- and Post-Trauma Risk Factors

- Peritraumatic dissociation and panic
- Derealization and time distortion (one week post-trauma)
- Emotional numbing, motor restlessness and a sense of reliving the trauma (within one month post-trauma)
- Negative perceptions of other people's responses
- Negative perceptions of symptoms
- Exaggeration of future probability of trauma
- Catastrophic attributions of responsibility
- Attempts to avoid thinking about or reminders of the trauma

McNally, Bryant, & Ehlers, 2003

# Social Support and Subsequent Stress



*Brewin et al., 2000*

# **Risk Factors for Poor Post-Trauma Adjustment:**

**Lack of Social Support or Negative Response**

**Presence of secondary psychological stressors:**

- police interrogation**
- media attention**
- prolonged relocation**
- continued separation and estrangement from family and friends**
- Bewilderment**
- Disorientation**
- uncertainty about safety of self and significant others**
- missing family members'**
- continued lack of control over what is happening.**

# Recovery Factors

Recovery Is promoted by:

- Finding benefit
- Sense of relationship with the divine
- Trauma exposure-type treatment
- Other forms of treatment (supportive, stress inoculation, CBT, etc)
- Disclosure / Social support
- Perception that the social milieu accepts one's reactions and welcomes disclosure
- Seeing ourselves as heroes/survivors
- Positive emotions

# Necessary Assessment Information in Early Phases

Assess in respectful, sensitive way:

- Nature and extent of physical injuries and/or resource loss
- Current symptoms that impede adaptive recovery
- Pre-trauma risk factors
- Coping Efficacy and Skills
- Ongoing stress
- Social network
  - Strengths and the weakness of the survivor's immediate supporters
  - Possible negative reactions in the environment
- Possible negative interpretations of the event, of responsibility, of symptoms
- Linkages to resources for practical help

# Psychological First Aid

Meant for individuals experiencing acute stress reactions or who appear to be at risk for not being able to regain sufficient functional equilibrium on their own

Considered “safe” because it does not focus on emotional processing or detailed trauma narratives

The primary goals include:

- providing a sense of support
- establishing safety and security
- reducing stress-related reactions
- connecting to resources

# Psychological First Aid

- The interventions included in psychological first aid have not been tested empirically
- They are closer to principle of “do no harm” than interventions using emotional processing
- Further research is needed to determine if they are a sufficient measure for preventing long term distress and psychopathology in high risk individuals.

# Needs Assessment

## Assess:

- Whether survivors' needs are being adequately addressed
- The characteristics of the recovery environment
- What additional interventions and resources are required.



# Monitoring the Rescue and Recovery Environment

- Observe and monitor survivors for potential behavioral and physical health sequelae.
- Monitor the environment for:
  - ongoing stressors or toxins
  - services that are being provided
  - media coverage and rumors.



# Outreach and Information Dissemination

- Provide “therapy by walking around”.
- Utilize established community structures to provide information and support.
- Disseminate information via distribution of fliers and referral to websites
- Provided media with materials to help increase knowledge about trauma and recovery.



# Technical Assistance, Consultation and Training

- Provide knowledge, consultation, and training to organizations, leaders, responders, and caregivers
- Improve the recipient's capacity to re-establish community structure, foster family recovery/resilience, and safeguard the community.



# Fostering Resilience/Recovery

- Provide resources to improve:
  - social interactions
  - coping skills
  - risk assessment
  - self-assessment and referral.
- Provide group and family interventions
- Foster natural social support
- Look after the bereaved
- Repair community and organizational fabric



# Primary Factors in Resilience

- Having caring and supportive relationships within and outside the family
- The capacity to make realistic plans and take steps to carry them out
- A positive view of oneself and confidence in strengths and abilities
- Skills in communication and problem solving
- The capacity to manage strong feelings and impulses

# Primary Factors in Post-traumatic Recovery

- A sense of relationship with the divine
- Trauma treatment
- Disclosure and social support
- The perception that the social milieu accepts one's reactions and welcomes disclosure
- Seeing oneself as a hero or survivor rather than a victim (37).
- Positive emotions
- Finding Benefit (contradictory findings)

» Bonnano, 2004

# Primary Factors in Post-Traumatic Growth

- Positive reinterpretation
- Intervening positive life events
- Acceptance coping
- Intrinsic religiousness
- Initial stressfulness of the event
- Social support satisfaction.

# Post-Traumatic Growth Caveats

- Those who report growth do not necessarily experience it in all areas
- The presence of growth does not mean the absence of pain and distress
- As the losses become more overwhelming, the ability to adapt and cope may simply be overwhelmed, and the possibility of growth may actually diminish or disappear.
- Do not rush individuals towards growth

# Educating about Coping I: Emotion-Focused Coping

## Positive Outcomes:

- Expressing emotional reactions
- Gaining social support
- Focusing on positive emotionality

## Negative Outcomes:

- Venting about fears
- Behavioral disengagement (“giving up”)
- Denial
- Self-blame
- Mental disengagement
- Focus on emotions
- Self-distraction

•Liverant, Hofman, & Litz, in press

•Silver, 2002

# Educating about Coping II

- **Taking action to make the situation better inversely associated with anxiety and distress 6 months after 9-11 (Silver, 2002)**
- **Goodness-of-fit Hypothesis**
- **Need for fit between individual appraisal (uncontrollable nature of terror) and coping (self-soothing and emotion-focused vs. problem-focused).**

# Treatment

- Reduce symptoms and improve functioning via:
  - Education
  - Individual, family, and group psychotherapy,
  - Pharmacotherapy
  - Spiritual/existential support
  - Short-term or long-term hospitalization



# Peri-Traumatic Intervention: Clinical

- **Contain the immediate physiological and psychological responses**
- **Promote memory consolidation by other means (e.g., promote sleep).**
- **Treat specific symptoms when they interfere with normal healing processes.**
- **Increase controllability of the event and of subsequent rescue efforts.**
- **Follow progress by continued assessment of symptoms and global coping efficacy.**

# Cognitive Behavioral Techniques

Appear to have the most promising results in preventing subsequent psychopathology.

- Exposure techniques may be contraindicated in early phases
- When exposure therapy is contraindicated, other CB techniques may be effective
- There are no RCTs that have assessed the effectiveness of EMDR within the first four weeks of traumatic exposure.

# Traditional Mental Health Treatment...

- **Requires:**
  - Help-seeking behaviors
  - Acceptance of mental health label
  - High levels of distress
- **May not:**
  - be appealing for many trauma survivors
  - fully appreciate the context of ongoing stress
  - take into account health care behaviors and illnesses
  - adequately screen and treat for comorbidity

# Ethnocultural Outcomes

## Reduction of:

- Psychological distress
- Behavioral health problems
- Physical health problems
- Chronic Living problems
- Psychosocial resource loss
- Functional Impairment
- Race-related stress

# Ethnocultural Outcomes

## Increased:

- Coping Self-Efficacy
- Skills in recruiting and receiving social support
- Self-Perception of being linked with masterful community
- Religious / spiritual coping

# Ethnocultural Process

- Understand the nature of trauma and healing prior to action.
- Disaster brings together many cultures/resources/roles - a common experience may diminish barriers between cultures initially.
- Disaster creates multiple shifts in lives that have effects in the long-term.
- Over time, have to change assessment/goals.

# Ethnocultural Process

Include community members in:

- specifying what each of these outcomes means to them
- how they prioritize them in their own definition of recovery
- how and whether they're able to use them and access them
- how you can work together to support their prioritized goals.

# Ethnocultural Process

- Assess from both caregiver and client's perspective whether the client feels ethnic group is respected by caregivers
- Assess acculturation, racial and cultural identity
- Assess whether people know the individual unique stresses that are triggers for them and if they know what to do when they are vulnerable

# Ethnocultural Process

- Source of who is communicating education is important
- Make sure you have good resources in the community before you assess and target your goals

# Key Components of Early Intervention

1. Preparation (Train, gain knowledge, collaborate, policy, set structures)
2. Provision for Basic Needs (primary response, food, shelter, family)
3. Psychological First Aid (reduce arousal, support, family, coping strategies, risk communication)
4. Needs Assessment (survivors' needs, recovery environment)
5. Monitoring (individual symptoms, stressors, services, media)
6. Outreach and Information Dissemination (Media, family, individuals)
7. Technical Assistance, Consultation and Training (community leaders, other MH providers, primary care providers, emergency services)
8. Fostering Resilience/Recovery (group, family, coping skills, philosophy, foster social support, repair community)
9. Triage (ID, refer, hospitalize)
10. Treatment (psychopharm, CBT, referral, massage, acupuncture)

# Guidelines on Timing of Interventions

Phase	Pre-Incident	Impact (0-48 hours)	Rescue (0-1 week)	Recovery (1-4 weeks)	Return to Life (2 weeks - 2 years)
Role of Mental Health	Prepare	Basic Needs Psychological First Aid Monitoring the Impact Environment Technical Assistance, Consultation, and Training	Needs Assessment Triage Outreach and Information Dissemination Fostering Resilience and Recovery	Monitor the Recovery Environment	Treatment

# Basic Requirements for Early Intervention Providers

- Capacity to connect with wide range of individuals
- Tolerance for symptomatic behavior and strong expression of affect
- Capacity for rapid assessment of survivors
- Provide care tailored to timing of intervention, context, culture
- Recognition and response to emotional numbing processes
- Working sense of self capacities
- Provide clear, concrete information
- Shift from conventional clinical practice
- Capacity for self-care

# **The Bad News: Why Might Early Interventions be Ineffective**

- PTSD has a complex etiology.**
- The relative contribution of early and short interventions is necessarily small.**
- Early responses to trauma are changeable and a mixture of normal and abnormal behavior.**
- It is difficult to identify which persons are at risk for continued problems.**
- It is difficult to conduct interventions in early aftermath of disastrous events.**
- Ethnic, cultural, political, and economic factors may create differing goals**
- Trusted supports may not be available or prepared for traumatic stress response**

# **One Size Does NOT Fit All**

- **Variable Exposure Levels**
- **Some have had repeated traumatizations**
- **Ongoing adverse life circumstances**
- **Differing temperament / personality / level of consciousness**
- **Differing cultural perceptions of healing**
- **Compliance issues (motivation/avoidance)**
- **Fluctuating course of traumatic stress**

# The Good News

- 1. There are a number of interventions suggested by theory, research, and consensus**
- 2. There is guidance on the appropriate timing of interventions**
- 3. There are suggested ways to identify who should receive follow-up care**
- 4. Human Resilience is the Norm**
- 5. Research is providing clues to biological processes, theory-driven interventions**

# Take Home Messages

- **Multiple avenues of intervention for:**
  - **Who:** Different exposure levels, different types of individuals, different cultures, different ages, etc.
  - **When:** Different times
  - **Where:** Different settings
  - **What:** Different outcomes
- **Multidisciplinary, multiagency**
- **Evidence-Informed or consensus-informed as much as possible**
- **The more universal the intervention, the more choice people should have and the less the possibility for harm should be**
- **Emphasize Resilience and Community-Building**