The Attack on the World Trade Center

Pathways to Healing for Victims and Their Families

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Working with Survivors and Families

• Physical Facts
• Emotional Facts
• Psychosocial Effects
• Pathways to Recovery
  • Adaptation Trajectories
• Implications for Interventions
The Physical Facts

Deaths:

- WTC: 2,752
  - 343 firefighters, 60 police from NYPD and PA
  - 836 responders current count as of June 2009 (NY DOH)
- Pentagon: 184
- Flights: 246 on 4 planes

The Physical Facts

- Number of people who lost a spouse or partner: 1,609
- Estimated number of children who lost a parent: 3,051
- Number of families who received no remains: 1,717
- Percentage of Americans who knew someone hurt or killed: 20%
The Emotional Facts

- The impact of losses across time
- The impact of time across losses
- The “ripple effect” of traumatic loss within families and across communities

PSYCHOSOCIAL EFFECTS
Disasters cause serious psychological harm to a minority of exposed individuals.

Disasters produce multiple patterns of outcome, including psychological resilience.

Disaster outcomes depend upon a combination of risk and resilience factors.

Disasters put families and communities at risk.
Early Effects Post 9/11

- 4-8 weeks after WTC attacks: of 988 adults surveyed, 7.5% met diagnostic criteria for PTSD, 9.7% for MDD; 28.8% reported increase in tobacco, alcohol or marijuana use
- Predictors for PTSD were: Hispanic ethnicity, history of 2 or more stressors prior 9/11; experience of panic during or immediately after attacks; residence below Canal Street; loss of possessions/resources
- 4 months after 9/11, rates of PTSD had dropped to 2.9%, and MDD to 4.3%

Continuing Effects

- 12.6% prevalence rate two to three years post 9/11 among sample of 11,037 adults in lower Manhattan, with relationship between SES and PTSD risk (DiGrande, et al., 2008)
- Decrease of probable PTSD in urban primary care sample of 455 patients, assessed 1 and 4 years post-9/11, with rates dropping from 9.6% to 4.1%. Pre-9/11 major depressive disorder strongest predictor of PTSD (Neria, et al., 2010)
Continuing Effects

- Increase in perceived social benefits post-9/11, including increased prosocial behavior, religious and/or political engagement in a sample of 1382 adults.

- Lower rates of distress and post-traumatic stress and greater positive affect and life satisfaction 3 yrs post-9/11 associated with increased religiosity beginning 2 months post-9/11 (Poulin, et al., 2009)

PATHWAYS TO RECOVERY
Adaptation to Traumatic Events

Three Sources of Influence

<table>
<thead>
<tr>
<th>Person Characteristics</th>
<th>Event Characteristics</th>
<th>Post-Event Environment</th>
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<tbody>
<tr>
<td>Gender (female)</td>
<td>Events of man-made violence and human intention</td>
<td>“Secondary assaults” – i.e., unempathic, blaming, nonsupportive response from support systems</td>
</tr>
<tr>
<td>Age (children and older adults)</td>
<td>Dose-response relationship</td>
<td>Protection from further stress and trauma</td>
</tr>
<tr>
<td>Prior psychiatric history</td>
<td>Proximity</td>
<td>Social support</td>
</tr>
<tr>
<td>Prior exposure to trauma</td>
<td>Intensity</td>
<td>Resource loss</td>
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<tr>
<td>History of multiple losses</td>
<td>Prolonged exposure</td>
<td></td>
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<td>Prolonged hyperarousal</td>
<td>Exposure to grotesque images</td>
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<td></td>
<td>Inability to flee</td>
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Adaptation Trajectories

<table>
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<tr>
<th>Time in Relation to PTE</th>
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<tr>
<td>Pre</td>
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<tr>
<td>Poor</td>
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- Stress Resistance
- Resilience
- Protracted Recovery
- Severe Persisting Distress

(Adapted from Friedman, Keane, Resick (Eds), 2007)
Most distress-related reactions dissipate over time, typically within a three-month period
  • Severe problems typically seen in less than 30% of adults and youth sampled
Those that fail to show improvement after approximately 6 months are at risk for more chronic problems, including PTSD
Kessler (1995) found that 1/3 of people with PTSD fail to recover after many years
What Are We Preventing?
Psychosocial Consequences of Exposure to PTE

- Depression
- Anxiety
- PTSD
- Traumatic grief
- Substance abuse
- Interpersonal conflicts
- Spiritual distress

- PTSD is a *disorder of non-recovery*

What Are We Promoting?
More Than The Absence of Disorder

- Resilience
- Self-efficacy
- Adaptive coping
- Engagement/Connection
- Meaning

*Salutogenesis* – remaining healthy in the face of challenges
Maslow’s Hierarchy of Needs

- Self-Actualization
- Esteem Needs
- Belongingness and Love Needs
- Safety Needs
- Biological and Physical Needs

Five Essential Elements of Interventions

- Safety
- Calming
- Self-efficacy
- Connectedness
- Hope

(Hobfoll, et al., 2007)
Models of Intervention: Timeline

("timing is everything" - almost)

Early Intervention

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<tr>
<th>0 - 10 days</th>
<th>10 days – 6 months</th>
<th>6 months and beyond*</th>
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<tbody>
<tr>
<td>PFA</td>
<td>Crisis Intervention Skills for Psychological Recovery</td>
<td>Targeted Treatments CPT Traumatic Grief</td>
</tr>
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</table>

* In “Screen and Treat” model, may begin treatment much sooner

PFA – Psychological First Aid
CPT - Cognitive Processing Therapy

Targets for Early Intervention

- Social Support
- Self-efficacy
- Resiliency
Understanding Social Support

- Support Network Resources
  - Depth and breadth of social network

- Supportive Behaviors
  - Specific interactions that promote connection

- Received vs. Perceived Support
  - Moderate correlation between the two types
  - Perceived support may be more critical to longer term recovery

Five Supportive Functions

- Emotional support
- Instrumental support
- Informational support
- Companionship support
- Validation
Peer Support: How Is It Helpful?

- **Mechanisms of Action:**
  - Stress-Buffering Model
    - Particularly influential during periods of stress because of positive influences on emotions, cognitions and behaviors
  - Main Effect Model
    - Constant influences on distress-related decisions, behaviors and outcomes, independent of the stressful event
      - Social influence
      - Information provided by social networks
      - Provision of tangible services
      - Positive psychological states – belonging, security, sense or purpose, connection, self-worth
    - Positive outcomes are a result of increasing motivation to address (rather than avoid) problems, and improving problem-solving

Promoting Resilience

- Differentiating stress resistance from resilience
- Differentiating resilience from post-traumatic growth
- Shift from resilience-related attributes to more dynamic resilience-related mechanisms
- Involves a multidimensional understanding:
  - Identification of those at increased risk
  - Mitigating the effects of vulnerability factors
  - Increase accessibility of protective factors
Longer-Term Issues

- Shift from intervention to treatment

- The changing nature of grief
  - Shift from pain of remembering to fear of forgetting

- The chronicity of trauma-spectrum disorders
  - PTSD as an inability to forget
  - Development of co-morbid disorders
    - Depression/Mood Disorders
    - Substance Use Disorders

Fostering Humanity: Sustaining Community Engagement

- Build community capacity

- Leverage social capital: Extent to which community members demonstrate:
  - A sense of shared responsibility for the general welfare of community members
  - A collective competence in confronting situations that threaten the integrity of the community

(Lloyd Potter, SAMHSA Summit, New Orleans, LA, May 24, 2006)
Conclusions

- Despite research contraindicating single session debriefing, CISD remains a common form of immediate psychological intervention (Bonanno, Brewin, Kaniasty & Greca, 2010)
- PFA has emerged as a best practice for immediate intervention
- Most research support for effectiveness of intervention during short-term (1 month) and longer-term (1 year+) recovery periods
- Limited research support for early interventions, largely due to methodological challenges
- Emerging support for “screen and treat” model (Brewin, et al., 2008)

Further Questions/Future Directions

- How can we use emerging science regarding natural recovery from trauma to promote these healing processes in those who are at risk for more complicated traumatic stress reactions?
- What cultural practices can be adapted to serve as more universal interventions?
- How do we assess the “timing” of interventions?
- How can we promote joint communities of practice-based evidence?
LESSON ONE:
We cannot prepare for everything.

LESSON ONE-A:
Not every question has an answer.
LESSON TWO:  
There are many paths to recovery.

LESSON THREE:  
Faith and family are what we turn to in times of crisis.
LESSON THREE-A: There are many ways of defining faith and family

LESSON FOUR: Resilience may be learned as well as earned.
LESSON FIVE:
We may need to improve our ability to learn from lessons learned.

“May we lose no one we love
From the shelter of our hearts.”

John O’Donohue
“For Lost Friends”