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PTSD and Natural Disasters

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Presentation Goals

- ◆ Review of psychological impact of disaster
- ◆ Risk and resilience factors
- ◆ Red Cross three-element intervention strategy



Photo courtesy of the Red Cross



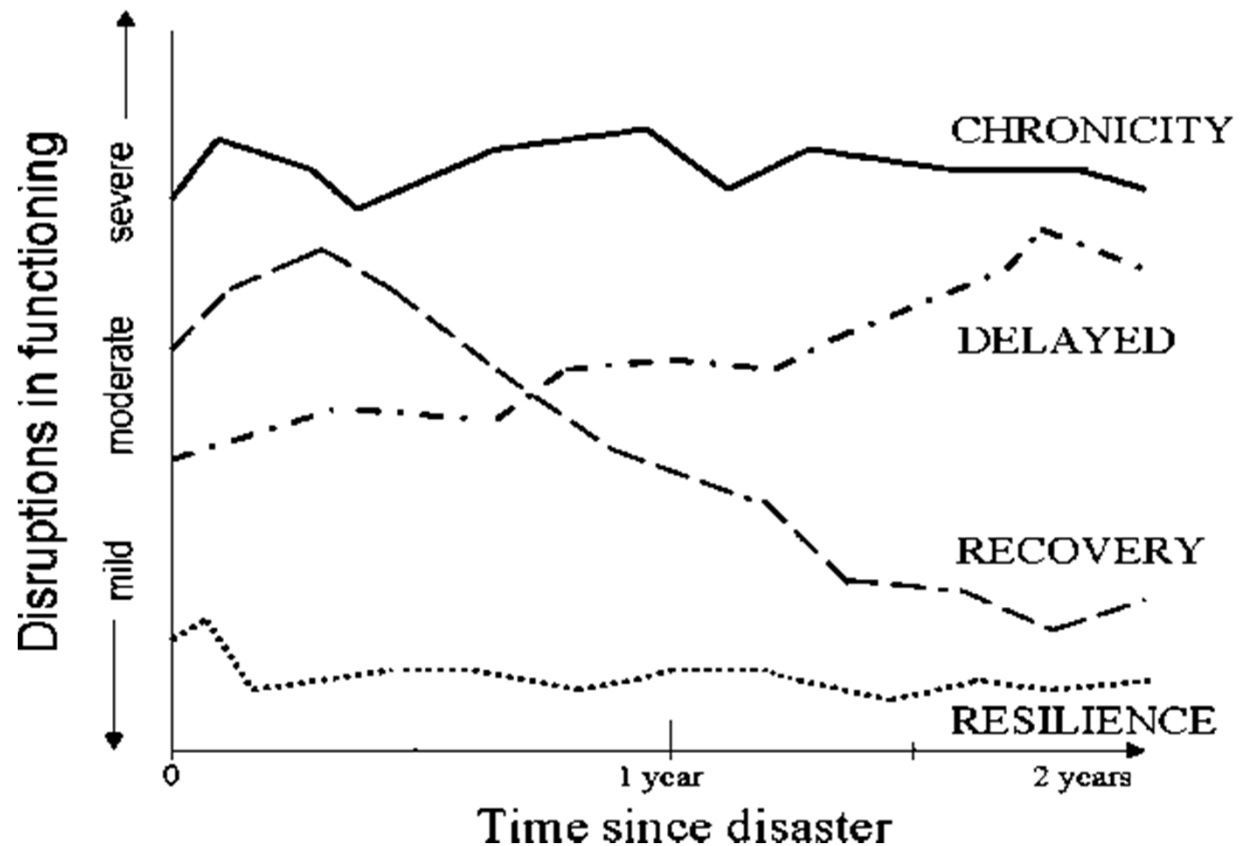
Psychological Impact of Disaster

- ◆ **Many people are resilient**
 - The most common outcome
 - More than 50 percent of population resilient after 9/11
- ◆ **On average, 30-40 percent of *direct* victims of disaster will experience one or more disorders such as post-traumatic stress disorder (PTSD), depression or anxiety**
 - Children emerge with greater risk
 - Five to 10 percent of people in the community-at-large
 - 10-20 percent of responders are at risk
- ◆ **Early intervention reduces risk**



Four Prototypical Trajectories of Disaster Outcome

Adapted from “Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events?” by G.A. Bonanno, 2004, American Psychologist, 59, p. 21. Copyright 2004 by the American Psychological Association.





Psychological Complications of Disaster

- ◆ Observed in a *minority* of the exposed population
- ◆ PTSD: Depends on severity of exposure and number of risk factors
 - More common among youth during first few months
 - Declines over first year
- ◆ Depression and anxiety: occurs independently of PTSD, directly related to exposure



Pakistan Earthquake, 2010
Photo courtesy of the Red Cross



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Psychological Complications of Disaster

- ◆ **Prolonged and traumatic grief: 10-15 percent**
 - Related to exposure
 - Number of deaths increases likelihood
- ◆ **Suicide and suicidal ideation**
 - Generally suicides do not increase
 - Suicidal ideation tied to exposure or loss
- ◆ **Substance abuse**
 - Increased use for people who were users prior to disaster
 - More pronounced among those with PTSD



Risk and Resilience Factors

- ◆ “No one single dominant predictor of disaster outcome.” (Bonanno et al. 2010)
- ◆ Factors appear to be additive
- ◆ Each has small to moderate effect
- ◆ Factors change based on life circumstances and environmental resources

Photo courtesy of the Red Cross



Joplin, MO 2011



Risk and Resilience Factors

- ◆ **Pre-disaster context (community or individual)**
- ◆ **Age, gender, race-ethnicity**
- ◆ **Preparation and prior exposure**
- ◆ **Perceived social support**
- ◆ **Economic resources**
- ◆ **Exposure – dose-response effect**
 - Proximal – directly related to the disaster itself
 - Distal – the disaster's aftermath



Red Cross Three-Element Intervention Strategy

- ◆ Triage and mental health surveillance using PsySTART
- ◆ Promotion of resilience & coping skills
- ◆ Interventions to mitigate psychological complications of disaster



California Wildfires 2009
Photo courtesy of the Red Cross



Element 1: Triage and Mental Health Surveillance

- ◆ **Based on exposure-based risk factors**
- ◆ ***Individual Psychological Triage:***
 - To identify high risk clients
 - To prioritize interventions
 - To make rapid referrals
- ◆ ***Mental Health Surveillance for Incident Management.***
 - To deploy to areas with **higher ratios** of high risk clients
 - To focus on exposure in addition to symptoms
 - To inform state and local mental health agencies of client needs
 - To monitor worker exposure



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PsySTART Individual Triage Tool

PsySTART™ Mental Health Triage System		
DANGER TO SELF OR OTHERS?		<input type="checkbox"/> Y <input type="checkbox"/> N
FELT/EXPRESSED EXTREME PANIC?		<input type="checkbox"/> Y <input type="checkbox"/> N
FELT DIRECT THREAT TO LIFE OF SELF and/or FAMILY MEMBER?		<input type="checkbox"/> Y <input type="checkbox"/> N
SAW / HEARD DEATH or SERIOUS INJURY OF OTHER?		<input type="checkbox"/> Y <input type="checkbox"/> N
DEATH OF PARENT, CHILD or FAMILY MEMBER?		<input type="checkbox"/> Y <input type="checkbox"/> N
DEATH OF PET?		<input type="checkbox"/> Y <input type="checkbox"/> N
SIGNIFICANT DISASTER-RELATED ILLNESS or PHYSICAL INJURY TO SELF or FAMILY MEMBER?		<input type="checkbox"/> Y <input type="checkbox"/> N
TRAPPED or DELAYED EVACUATION?		<input type="checkbox"/> Y <input type="checkbox"/> N
FAMILY MEMBER CURRENTLY MISSING or UNACCOUNTED FOR?		<input type="checkbox"/> Y <input type="checkbox"/> N
UNACCOMPANIED CHILD?		<input type="checkbox"/> Y <input type="checkbox"/> N
HOME NOT LIVABLE?		<input type="checkbox"/> Y <input type="checkbox"/> N
SEPARATED FROM IMMEDIATE FAMILY DURING EVENT?		<input type="checkbox"/> Y <input type="checkbox"/> N
PRIOR HISTORY OF MENTAL HEALTH CARE?		<input type="checkbox"/> Y <input type="checkbox"/> N
NO TRIAGE FACTORS IDENTIFIED		
	If yes, contact site supervisor and DMH immediately.	
	If yes, contact DMH as soon as possible.	
Contact DMH at the end of your shift for all other risk factors.		
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<small>2011.04.25</small>		



Mental Health Surveillance

If stats called in: Time _____ to _____ (supervisor / manager)

DRO# _____ DRO District / Site: _____

Date: _____ Person completing form: _____

DMH contact with staff tally box	Total numbers of DMH contacts with staff: _____	Total numbers of DMH exit interviews with staff: _____
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Sheet _____ of _____

	Client 1	Client 2	Client 3	Client 4	Client 5	Client 6	Client 7	Client 8	Client 9	Client 10	Client 11	Client 12	Client 13	Client 14	Client 15	Client 16	Client 17	Client 18	Client 19	Client 20	Total										
EXPRESSED THOUGHT OR INTENT TO HARM SELF/OTHERS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	PURPLE	Triage Level								
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FELT DIRECT THREAT TO LIFE OF SELF and/or FAMILY MEMBER?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3				RED						
SAW / HEARD DEATH or SERIOUS INJURY OF OTHER?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4					RED					
DEATH OF PARENT, CHILD OR FAMILY MEMBER?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5						RED				
DEATH OF PET?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6							RED			
SIGNIFICANT DISASTER RELATED ILLNESS or PHYSICAL INJURY of SELF or FAMILY MEMBER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7								RED		
TRAPPED or DELAYED EVACUATION?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8									RED	
HOME NOT LIVABLE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9										RED
FAMILY MEMBER CURRENTLY MISSING OR UNACCOUNTED FOR?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10										
CHILD CURRENTLY SEPARATED FROM ALL CARETAKERS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11	RED									
FAMILY MEMBERS SEPARATED AND UNAWARE OF THEIR LOCATION / STATUS DURING AN EVENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12			RED							
PRIOR HISTORY OF MENTAL HEALTH CARE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13				YELLOW						
PRIOR HISTORY OF DISASTER EXPERIENCE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14					YELLOW					
NO TRIAGE FACTORS IDENTIFIED?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15				GREEN						
Adult Client 18 years or over	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Total Adults: _____								
Child Client under 18 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Total Minors: _____								



Element 2: Promotion of Resilience and Coping Skills

- ◆ **Enhanced Psychological First Aid**
- ◆ **Individual psychoeducation**
- ◆ **Public health messaging and consultation**
- ◆ **Community resilience training**



2003 California Wildfires
Photo courtesy of the Red Cross



Element 3: Disaster Mental Health Interventions

- ◆ **Secondary assessment**
- ◆ **Referrals to community resources**
- ◆ **Crisis intervention**
- ◆ **Casualty and grief support**
- ◆ **Advocacy**

Photo courtesy of the Red Cross





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Humanity begins at home.