

Psychological first aid

Emergency care for terrorism



and disaster survivors

Knowing the basics of psychic resilience can help you prevent long-term psychopathology and determine who needs medication and monitoring.

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The night started like any other for Dr. Z. Kids in bed (too late) by 10:30, dog out by 11, fell asleep reading journal by 11:15. Sirens jolt her out of a solid stage 4. Her eyes widen, pulse quickens, mouth dries as she follows the glow of the TV into the living room. On TV, fire frames shots of tearful faces, body bags, and firefighters in protective suits. She catches the announcer's voice: "...explosion at City Power and Light nuclear facility at 3:10 AM today. Fifty-five are known dead, and thousands are being told to evacuate. The blast's cause is unknown, but terrorism is suspected."

As her numbness slowly ebbs, Dr. Z's questions rise insistently. How can I help the survivors? My patients? My children? What if the media call me? How could I have been better prepared for this?

Disaster shakes us to our human and biological core. More than any other clinical encounter, it reminds us that psychiatrists share the vulnerabilities of those we seek to help. Yet it also reminds us that even simple concepts and interventions can mobilize the healing process.

Are you ready to provide emergency psychiatric care following a disaster in your community—be it a nuclear accident, tornado, airplane



Table 1

'Psychological first aid' for disaster survivors

Re-create sense of safety

- Provide for basic needs (food, clothing, medical care)
- Ensure that survivors are safe and protected from reminders of the event
- Protect them from onlookers and the media
- Help them establish a "personal space" and preserve privacy and modesty

Encourage social support

- Help survivors connect with family and friends (most urgently, children with parents)
- Educate family and friends about survivors' normal reactions and how they can help

Re-establish sense of efficacy

- Give survivors accurate, simple information about plans and events
- Allow survivors to discuss events and feelings, but do not probe
- Encourage them to re-establish normal routines and roles when possible
- Help resolve practical problems, such as getting transportation or relief vouchers
- Discuss self-care and strategies to reduce anxiety, such as grounding and relaxation techniques
- Encourage survivors to support and assist others

Responses that do go awry appear to be associated with abnormally low cortisol and persistent adrenergic activation, leading to sensitization of the fear response.² Reminders of trauma or persistent stressors—such as pain, problems with finances or housing, or bereavement—may exacerbate sensitization. On the other hand, preclinical studies suggest that social support^{3,4} and active coping⁵ mitigate physiologic stress responses, confirming numerous clinical observations that associate lack of social support and avoidant coping with eventual PTSD development.

Three basics. Just as our emergency medicine colleagues must often revert to life-support basics, we must remind ourselves of biology's three basics for psychic resilience:

- safety (including—as much as possible—protection from reminders of trauma and ongoing stress)
- meaningful social connection
- re-establishing a sense of efficacy to overcome helplessness (*Table 1*).

Like the stress response, these protective factors seem hard-wired into our biological make-up. They form the foundation for all phases of disaster psychiatry interventions, from planning to immediate interventions through long-term follow-up.

crash, or terrorist act? Here is evidence—some counterintuitive—that can help you prepare.

DISASTER'S PSYCHOBIOLOGY

Human reactions to disaster are often conceptualized as the mammalian survival response: flight, fight, and fright (freezing). In most cases, these reactions are adaptive and dissipate after safety is restored. Posttraumatic stress disorder (PTSD) develops in about 5% of natural disaster victims and 33% of mass shooting victims.¹

ning to immediate interventions through long-term follow-up.

DISASTER PLANNING

As a mental health professional, plan to operate within established disaster plans and agencies, not only for the sake of efficiency but also because structure and support are paramount in disaster situations. Check with the American Psychiatric Association's local branch to determine if a disaster mental health plan exists. If not, explore how

Table 2

Normal reactions to disaster for adults and children

All ages

Emotional	Shock, fear, grief, anger, guilt, shame, helplessness, hopelessness, numbness, emptiness Decreased ability to feel interest, pleasure, love
Cognitive	Confusion, disorientation, indecisiveness, worry, shortened attention span, poor concentration, memory difficulties, unwanted memories, self-blame
Physical	Tension, fatigue, edginess, insomnia, generalized aches and pains, startling easily, rapid heartbeat, nausea, decreased appetite and sex drive
Interpersonal	Difficulties being intimate, being over-controlling, feeling rejected or abandoned

Children's age-specific disaster responses

Preschool	Separation fears, regression, fussiness, temper tantrums, somatization Sleep disturbances including nightmares, somnambulism, night terrors
School-age	May still have the above, as well as excessive guilt and worries about others' safety, poor concentration and loss of school performance, repetitious re-telling or play related to trauma
Adolescent	Depression, acting out, wish for revenge, sleeping and eating disturbances, altered view of the future

to work directly with local American Red Cross chapters and hospitals, which recruit personnel for the Disaster Medical Assistance Teams mobilized by the public health service.

Immediate disaster mental health plans vary in detail according to local needs and resources but should at least address:

- providing on-site interventions
- disseminating information about responses to trauma
- identifying and publicizing local mental health resources.

IMMEDIATE INTERVENTIONS

Immediately following a disaster, psychiatrists are frequently asked to assist with on-site crisis and medical interventions, evaluate survivors with unusual or intense reactions, and provide public education about psychological reactions to disaster.

On-site response. All responders, regardless of dis-

cipline, should provide disaster survivors with “psychological first aid,” which is directed at re-establishing safety, connection, and efficacy. Basic crisis intervention principles are useful when support and reassurance are not enough.⁶

For example, relaxation exercises can reduce anxiety and improve sleep. Use focused, structured relaxation tools—such as progressive muscle relaxation and breathing training—as unstructured exercises can exacerbate dissociation and re-experiencing. Grounding techniques, by which survivors learn to focus all senses on immediate surroundings, often alleviate dissociation and flashbacks.

Care for children. Because children's reactions to disaster greatly depend on their caregivers' responses (social referencing), focus acute interventions for children on:

- re-connecting them with their families
- reducing caregivers' distress
- educating caregivers about providing age-



appropriate information and support (see *Related resources*).

Medical care. As physicians, psychiatrists may be called upon to intervene medically. Although it is generally advisable to stay within our usual practice, medical personnel may be in short supply. Fortunately, Good Samaritan laws exist in every state, and the potential for a successful malpractice suit against a physician responding in a disaster is almost zero, unless the physician's performance is grossly negligent (such as moving the neck of a patient with obvious head or neck injuries).⁷

Principles regarding informed consent and right to refuse treatment—along with the usual exceptions—apply during disasters.

Evaluating survivors in shelters and hospitals requires knowing the normal and abnormal responses to disaster, being able to differentially diagnose changes in mental status, and understanding risk factors for trauma's psychiatric sequelae. Aside from PTSD, trauma's long-term effects include other anxiety disorders, depression, substance abuse, and eating disorders. In addition to the usual components of a psychiatric evaluation, assessments must address event-related factors such as proximity to the disaster, loss of significant others or property, physical injuries, immediate needs, and social support.⁸

Normal stress reactions. Frequently described as "a normal response to an abnormal situation," the normal stress reaction is multidimensional and depends on the person's developmental level (*Table 2*). About 10% to 25% of survivors experience intense affect and dissociation, whereas a similar number may appear unusually calm.

Interventions beyond the "first aid" described above are not usually needed unless individuals:

- are a danger to themselves or others
- are psychotic
- have no social supports

- cannot perform tasks necessary for self-care and to begin the recovery process.

Always re-assess when there is any question about a survivor's immediate reaction to trauma.

In DSM-IV-TR's trauma-related diagnoses, the symptom clusters often do not capture many disaster survivors' subjective experience: the shattering of fundamental beliefs regarding themselves (invulnerability), the world (predictability, safety), and others (trust, benevolence).⁹ By empathizing with these responses, you can help survivors feel less isolated and estranged.

Differential diagnosis. Survivors' mental status changes may be manifestations of the stress response, but they also may represent:

- exacerbations of pre-existing psychiatric or general medical conditions
- hypoxemia, hypovolemia, or CNS trauma from physical injury
- responses to medications used for resuscitation or pain control, such as atropine, epinephrine, lidocaine, or morphine.

Effects of bioterrorism agents must also be considered. For example, organophosphorus compounds such as the nerve agents sarin and soman can cause impaired concentration, depression, and anxiety. Anthrax can cause rapidly progressing meningitis.¹⁰ Delirium must be differentiated from dissociation; patients with dissociation can be re-oriented, and changes will resolve with time rather than fluctuate.¹¹

Psychopathology risk factors. Multiple studies have addressed risk factors for post-disaster psychiatric sequelae (usually PTSD). In general, risk increases with repeated trauma exposure (including TV viewing), prior trauma, lack of social support, injury, pre-existing psychiatric problems, traumatic bereavement (having witnessed the violent death of a loved one), avoidant coping, and having strong negative beliefs about the meanings of normal stress reactions such as tearfulness, anxiety, and insomnia.

Risk of PTSD increases with repeated trauma exposure, including TV viewing

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Because a recent meta-analysis supports these observations,¹² follow-up evaluation for signs of PTSD is recommended for:

- survivors with one or more of the risk factors discussed above
- vulnerable groups such as rescue workers, children, and dependent individuals
- survivors whose symptoms persist after 2 months.¹³

Decompensation immediately after a disaster seems to be the exception for psychiatric patients, despite their longer-term vulnerability. One psychiatrist who in 1989 survived Hurricane Hugo—the most intense storm to strike the Mid-Atlantic region in 100 years—noted that demand for inpatient psychiatric services did not increase in the storm’s aftermath. The only patient calls she received were inquiries about her own physical safety.¹⁴

Caregivers and rescue workers—including psychiatrists—are also disaster survivors, and you need to tend to your needs for safety and support. Consult frequently with colleagues within and outside the disaster area, as much for support as for information and guidance.¹⁵ Remember also that rescue workers are occasionally targets for victims’ rage at their circumstances. Anticipating and explaining this displacement reduces its toxicity.

USING MEDICATIONS

Uses psychotropics judiciously in the first 48 hours of trauma. Medication effects may interfere with neurologic assessment of the injured, and monitoring and follow-up may not be possible.

However, drug therapy should start quickly when survivors are acutely psychotic or their behavior endangers themselves, others, or the milieu. Medications usually include a fast-acting benzodiazepine and/or an antipsychotic, as described in guidelines for managing agitation.¹⁶ Always provide structure and supervision for medicated patients.

No guidelines exist for using medications to manage distressing—but less-severe—acute stress-related symptoms. Some experts advocate

Table 3

Psychoeducation: Simple messages for workers and trauma survivors

Get adequate rest, food, sleep

Avoid exposure to trauma cues, including TV images

Seek support from loved ones and peers

Talk about events and feelings only if this feels comfortable and helpful

Return to normal routine as much as possible

Take action to rebuild, but at a reasonable pace

Reach out to others who may need assistance

Get help:

- immediately for abnormal reactions (psychosis, suicidality, risky behavior including substance abuse)
- if normal reactions (insomnia, anxiety, mild dissociation) persist beyond 2 months
- if at high risk for persistent reaction (bereaved, injured, prior trauma or psychiatric disorder, no social support)

using adrenergic antagonists such as clonidine, guanfacine, and beta blockers to reduce excessive arousal. These drugs have not been adequately studied in this setting, however, and may harm those with cardiovascular instability from pre-existing conditions or injuries.

Short-term (<1 week) benzodiazepine use for panic symptoms and severe insomnia is acceptable, but longer-term use may increase PTSD risk.¹⁷ A selective serotonin reuptake inhibitor may help individuals with pre-existing PTSD or depression, if you can arrange follow-up.

IN THE AFTERMATH

‘Debriefing.’ Critical incident stress debriefing (CISD) is a structured, one-session group inter-



Table 4

How to interact with news media during and after a disaster

For organizations

Identify a spokesperson with media experience beforehand

Ensure that the spokesperson is well-informed about all aspects of the disaster

For spokespersons

Always

- Reply immediately to news media requests; find out the reporter's deadline and refer the caller if you cannot meet it
- Clearly identify yourself and the organization you represent
- Understand what the reporter needs—what's "behind the story"
- Use simple, declarative sentences; avoid medical jargon
- Emphasize one or two points
- Be accurate and honest but use a positive, hopeful frame
- On TV, look at the interviewer, not the camera

Never

- Speak off the record
- Discuss individual cases
- Speculate on diagnosis or treatment for someone you have not examined (such as a terrorist leader)

vention in which survivors' experiences and emotional reactions are discussed and education and follow-up recommendations are provided. Developed by Mitchell in 1983,¹⁸ CISD was widely used until systematic evaluations revealed that it did not alleviate psychological distress or prevent PTSD.¹⁹

Thus, although survivor meetings may provide information, education, screening, and support, avoid detailed discussions of events and emotions. Any meetings should be conducted by mental health clinicians and should not be mandatory. Reserve the term "debriefing" for operational reviews by rescue personnel.²⁰

Public education. Educate survivors, rescue workers, health care providers, teachers, and relief agency workers. Provide concise, simple messages as suggested in *Table 3*. News media provide our most effective means of reaching out to survivors, which is why having a pre-existing relationship is so important. Some guidelines for working with the media are presented in *Table 4*.

Outreach. Numerous educational resources are available for survivors and their caregivers (see *Related resources*). Other potentially useful outreach tools include:

- meetings with teachers' organizations
- continuing medical education activities for primary care providers
- telephone hot lines.

LEGAL AND ETHICAL ISSUES

Disaster scenes are chaotic and informal, and professionals must be flexible, often providing general support and information rather than specific clinical interventions. However, it is important in each encounter to decide whether a patient-physician relationship has begun.

As a general rule, a physician-patient relationship is established whenever diagnosis or treatment is discussed. Once that happens, briefly document:

- signs and symptoms
- working diagnosis
- suicide or violence potential
- treatment and/or follow-up plans.

Confidentiality may be difficult to preserve in chaotic situations involving workers from many agencies. Even in disasters, however, you must obtain permission before sharing information unless the individual's situation is emergent.

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Table 5

Keys to effective disaster psychiatry

Be prepared

- Contact your local American Psychiatric Association district branch or American Red Cross chapter to learn about existing mental health disaster plans
- Remember the three basics of psychic resiliency: safety, support, and efficacy
- Know your place, ask for help, and use existing resources

Care for survivors

- Your presence alone may be healing
- Assess thoroughly; symptoms may be related to medical issues or pre-existing conditions, not just stress response
- Do no harm; avoid psychological debriefing interventions and unnecessary medications
- Follow up with survivors who exhibit risk factors or symptoms persisting >2 months
- Consider trauma-focused CBT for survivors with acute stress disorder

Care for yourself

- As a survivor, tend to your own safety and self-care needs
- Consult frequently with colleagues within and outside the disaster area for support, information, and guidance

LONG-TERM INTERVENTIONS

Longer-term disaster interventions include continued outreach and education and needed follow-up services. Existing structures may provide effective follow-up, but additional resources are often needed.

Federal programs. Following a presidential-declared disaster, the Federal Emergency Management Agency (FEMA) provides funding

for crisis counseling. Programs are typically funded for 9 to 15 months and administered through the emergency services and disaster relief branch of the Substance Abuse and Mental Health Services Administration (SAMHSA) and community mental health organizations. Examples include Project Heartland following the 1995 Oklahoma City federal building bombing and Project COPE following California's 1989 Loma Prieta earthquake.

Cognitive-behavioral therapy. For adult survivors with acute stress disorder, specific cognitive-behavioral therapy (CBT) provided by trained therapists may prevent PTSD and other trauma sequelae, such as depression.²¹ CBT interventions may begin as early as 2 weeks after trauma and focus sequentially on anxiety management, cognitive restructuring, imaginal exposure followed by in vivo exposure, and relapse prevention.

Three controlled trials found 6-month PTSD rates of 14% to 20% among acute stress disorder patients treated with CBT, compared with 58% to 67% with supportive counseling.²²⁻²⁴ Although studies of interventions immediately following trauma are lacking, trauma-focused CBT is also recommended for children.²⁵ Evidence-based treatments for PTSD are discussed in detail elsewhere.²⁶

NOT UNPREPARED AFTER ALL

With some reflection, Dr. Z realized she had the tools to help her community. Her feelings of helplessness receded as she envisioned how she could help survivors understand their experiences, re-create a sense of safety, restore important connections to loved ones, and begin to rebuild their lives (*Table 5*).

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Related resources

For clinicians

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- ▶ Hillman JL. *Crisis intervention and trauma: new approaches to evidence-based practice*. New York: Kluwer Academic/Plenum Publishers, 2002.
- ▶ Office of the Surgeon General Web site on medical aspects of nuclear, biological, and chemical warfare. <http://www.nbc-med.org>

For survivors and clinicians

- ▶ National Center for Post-Traumatic Stress Disorder. Disaster mental health: Dealing with the aftereffects of terrorism. <http://www.ncptsd.org/terrorism/index.html>
- ▶ Substance Abuse and Mental Health Services Administration. Emergency mental health and traumatic stress. <http://www.mentalhealth.org/cmhs/EmergencyServices/default.asp>
- ▶ American Academy of Child and Adolescent Psychiatry. Talking to children about terrorism and war. <http://www.aacap.org/publications/factsFam/87.htm>

DRUG BRAND NAMES

Clonidine • Catapres
Guanfacine • Tenex

DISCLOSURE

The authors report no financial relationship with any company whose products are mentioned in this article or with manufacturers of competing products.

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Prepare a mental health response to possible traumatic events. During a disaster, provide "psychological first aid," and use medications judiciously. Expect survivors to be resilient, but provide follow-up for those at risk for abnormal stress responses. Tend to your own needs by consulting with colleagues for support, information, and guidance.

BottomLine