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C H A P T E R 8

The Immediate Response to Disaster

Guidelines for Adult Psychological First Aid

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Nearly every survivor of mass violence or disaster experiences stress-related reactions in the immediate aftermath. Most recover. Nonetheless, in a communitywide disaster, the subset of survivors (11–15%) who develop posttraumatic stress disorder (PTSD) or other adverse mental health outcomes may number tens of thousands (Galea et al., 2002; Green & Solomon, 1995; McFarlane, 1995; Norris, 1992; Rubonis & Bickman, 1991).

As Chapters 8, 9, and 11 (this volume) demonstrate, preparedness and the systemic response to the mental health needs of survivors raise complex issues. Here the focus is on the issues specific to adult Psychological First Aid, one component of emergency public health services in the immediate response to disaster.

WHAT IS PSYCHOLOGICAL FIRST AID?

Psychological First Aid (PFA) is defined here as the use of pragmatic-oriented interventions delivered during the immediate-impact phase (first 4 weeks) to individuals who are experiencing acute stress reactions or who appear at risk for being unable to regain sufficient functional equilibrium by themselves, with the intent of aiding adaptive coping and problem solving. PFA is meant to be embedded in a systemic response involving mental

health, public health, medical, and emergency response systems and federal, state, local, and nonprofit agencies (including non-mental health agencies such as law enforcement, fire and rescue, school systems, social services, etc.). Finally, PFA happens in the context of community intervention (publicly disseminated information about risk, resources, and care of self and family; memorials, VIP visits, etc.) and community-level surveillance/assessment related to service needs.

Though PFA has not been empirically tested, it was endorsed by an international expert panel following mass violence or disaster because it is composed of empirically defensible interventions unlikely to be harmful when used in a conservative and culturally sensitive way related to the formulation of problems and ways of coping (see Watson, 2004). It is considered “safe” because it does not focus on emotional processing or detailed trauma narratives, is not meant to be “mandatory,” and should be only used with individuals who meet certain criteria (National Institute of Mental Health, 2002).

The origins of PFA are tied to crisis intervention (Lindemann, 1944; Shneiderman, Farberow, & Litman 1970) and the early disaster work of Raphael (1977) and Farberow (1978). In the late 1980s, critical incident stress debriefing (CISD), a protocol originally developed to mitigate stress response among emergency personnel (Mitchell, 1983), was increasingly used with victims of communitywide disasters. By the end of the 1990s, disaster mental health services were seen by many new to the field (planners, policymakers, and responders) as synonymous with debriefing (see Deahl, 2000)—despite a growing literature on PFA and principles of disaster mental health care (American Red Cross, 1991, 1995; DeWolfe, 2000; Farberow, 1978; Hartsough, 1985; Lystad, 1985; Myers, 1994; Raphael, 1986; Weaver, 1995; Young, Ford, Ruzek, Friedman, & Gusman, 1998) and the initial empirical evidence indicating that debriefing in general has no demonstrable preventive effect (Bisson & Deahl, 1994; Charlton & Thompson, 1996; Foa & Meadows, 1997; Gist, 1996; Kenardy & Carr, 1996; Rose, Bisson, & Wesseley, 2001).

Several recent reviews concluded that CISD cannot prevent long-term psychological sequelae, or it may worsen the outcomes of some individuals. Ørner, Kent, Pfefferbaum, Raphael, and Watson (Chapter 7, this volume) review this literature in detail.

WHO IS IN NEED OF PSYCHOLOGICAL FIRST AID?

If nearly all survivors experience acute stress reactions and most recover on their own, who is in need of PFA? Broadly speaking, two conceptual domains may be used for determining which survivors might benefit: indi-

viduals who exhibit extreme acute stress reactions (see Table 8.1) and those with notable risk factors linked to adverse mental health outcomes (see Table 8.2).

Assessment of risk factors may be used to monitor “high-risk individuals” and target the postdisaster factors that can be ameliorated. Risk assessment should enable disaster mental health (DMH) workers to avoid “overhelping” or denying the survivor the self-efficacy to mobilize existing resources (Gilbert & Silvera, 1996).

How do DMH workers engage survivors to gather sufficient information to determine if risk factors are present and if PFA is warranted? Young (2002) suggests guidelines for engaging survivors in settings in which survivors generally congregate (i.e., outreach) and conversing informally to assess risk. Survivors have imminent practical concerns and rapport is best established with topics related to present worries. While establishing rapport, talking about immediate concerns begins the assessment.

Postdisaster risk factor assessment of resource loss and immediate needs may help DMH workers assist in negotiating resources for survivors, a high-priority task in the immediate aftermath. It is also an opportunity to assess survivors’ beliefs in their capacity to cope with the resulting losses and demands. The belief that one can manage demands related to the disaster has been shown to predict good psychological outcomes (e.g., Benight, Ironson, et al., 1999; Benight, Swift, Sanger, Smith, & Zeppelin, 1999). A survivor’s response to the question “Do you believe you can cope with _____?” can help workers weigh the need for more in-depth services. The assessment process necessarily involves timing questions. Questions about perceived capacities to cope are clearly reasonable at

TABLE 8.1. Extreme Acute Stress Reactions

These reactions include:

- Extreme anxiety resulting in basic functional impairment.
 - Dissociative symptoms include survivors experiencing pronounced:
 - Detachment.
 - Derealization.
 - Depersonalization.
 - Dreamlike interpretation of their surroundings.
 - Prolonged, intense, and uncontrollable, distressful emotions (objectively or subjectively perceived).
 - Prolonged inability to sleep or eat, or neglect of other basic self-care needs.
 - Extreme cognitive impairment to include:
 - Confusion.
 - Poor concentration.
 - Poor decision making.
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TABLE 8.2. Risk Factors Associated with Postdisaster Adverse Mental Health Outcomes

These factors include:

Predisaster factors

- Female gender (Caldera, Palma, Penayo, & Kulgren, 2001; Goenjian et al., 1995; Norris, Kaniasty, Conrad, Inman, & Murphy, 2002).
- Age in the years of 40–60 (Gleser, Green, & Winget, 1981; Thompson, Norris, & Hanacek, 1993).
- Ethnic-minority-group membership (Palinkas, Petterson, Russell, & Downs, 1993; Perilla, Norris, & Lavisso, 2002).
- Poverty or low socioeconomic status (Dew & Bromet, 1993; Hanson, Kilpatrick, Freedy, & Saunders, 1995; Phifer, 1990).
- Presence of exposed children in the home (Bromet et al., 2000; Havenaar et al., 1997; Solomon, Bravo, Rubio-Stipec, & Canino, 1993).
- Psychiatric history (Dew & Bromet, 1993; Lonigan, Shannon, Taylor, Finch, & Sallee, 1994; North et al., 1999).

Within-disaster factors

- Bereavement (Green, Grace, & Gleser, 1985; Green et al., 1994; Murphy, 1984).
- Injury (Briere & Elliot, 2000; Norris & Uhl, 1993; Shariat, Mallonee, Kruger, Farmer, & North, 1999).
- Severity of exposure (Bravo, Rubio-Stipec, Canino, Woodbury, & Ribera, 1990; Palinkas, Petterson, Russell, & Downs, 1993; Pynoos et al., 1993).
- Peritraumatic reactions, including panic (Chung, Werrett, Farmer, Easthope, & Chung, 2000; Fullerton, Ursano, Tzu-Cheg, & Bharitya, 1999; Koopman, Classen, & Spiegel, 1996; McFarlane, 1989; Weisaeth, 1989).
- Horror (Clearly & Houts, 1984).
- Life threat (Bland et al., 1997; Briere & Elliot, 2000; Norris & Uhl, 1993).

Postdisaster factors

- Resource deterioration (Arata, Picou, Johnson, & McNally, 2000; Freedy, Shaw, Jarrell, & Masters, 1992; Smith & Freedy, 2000).
- Relocation or displacement (Najarian, Goenjian, Pelcovitz, Mandel, & Najarian, 2001; Norris & Uhl, 1993; Riad & Norris, 1996).
- Social support deterioration (Bland et al., 1997; Smith & Freedy, 2000).
- Marital distress (Norris & Uhl, 1993).
- Loss of home/property and financial loss (Bland, Leary, Farinero, & Trevisan, 1996; Briere & Elliot, 2000; North et al., 1999).
- Decline in perceived social support (Kaniasty & Norris, 1993; Kaniasty, Norris, & Murrell, 1990; Solomon, Bravo, Rubio-Stipec, & Canino, 1993).
- Alienation and mistrust (Baum, Gatchel, & Schaeffer, 1983; Dohrenwend, 1983).
- Avoidance coping (Clearly & Houts, 1984; Maes et al., 1998; North et al., 1999).

In addition, other risk factors have been noted (McNally, Bryant, & Ehlers, 2003) including:

- Negative perceptions of other people's responses.
- Negative perceptions of symptoms.
- Exaggeration of future probability of trauma.
- Catastrophic attributions of responsibility.
- Secondary stressors.

postdisaster day 14 but may or may not be reasonable or informative at day 3 because of wide-ranging circumstances, personal characteristics, and history of survivors. Workers should take a case-by-case approach.

Asking survivors to talk about their “within”-disaster experience may be accomplished through inquiries about whereabouts (exposure), separation from family, bereavement, and displacement. Soliciting detail or any enhanced narrative related to exposure is unwarranted. Such narration outside multiple-session treatment could potentially harm (Bisson, 2003; Shalev, 2000).

Assessing predisaster risk factors may be accomplished via presenting brief educational points about risk related to previous traumatization and psychopathology, rather than through direct questions about chronic stress or psychiatric history. For example, a DMH worker might say:

“We know from research and from talking with many survivors, that people with major health or financial concerns before a disaster, or who have had to cope with depression, anxiety, schizophrenia, or substance abuse are more often vulnerable after an event like this. The same is true for people previously traumatized. If this is your situation, you may need to take extra care or want to talk longer with a mental health professional when time permits.”

If rapport is established, clinical judgment can decide whether to ask such questions:

“What kind of stress were you dealing with before all this happened?”
“Have you ever been through anything traumatic before?”

As part of any engagement or assessment process, workers should try to identify sources of strength and past successful coping.

OBJECTIVES AND INTERVENTIONS OF PFA

The principal objective of PFA can be stated as aiding the adaptive coping and problem-solving processes of survivors who appear at risk for being unable to regain sufficient functional equilibrium on their own. Problems may be related to safety and security, extreme acute stress reactions (see Table 8.1), and associated risk factors (see Table 8.2). Correspondingly, the primary objectives of PFA include establishing safety, reducing extreme acute stress-related reactions, and connecting survivors to resources that are restorative and better address respective problems through more in-depth services. Even in cases in which individuals are in need of PFA, not all

interventions corresponding to the objectives are required. The following algorithm is a guide regarding the need for interventions:

1. If necessary, first help to establish safety, and provide basic support.
2. If necessary, seek to reduce extreme acute stress-related reactions via:
 - a. Interventions for specific traumatic stressors.
 - b. Arousal reduction interventions.
3. If necessary, connect survivors to restorative resources via:
 - a. Active help with problem solving.
 - b. Referral.

Establishing Safety

Physical care is psychological care. DMH workers are not in the role of meeting survivors' physical needs, but if "first on-scene" as many were on 9/11, workers may give direction to areas away from danger, toxic and harsh elements, and exposure to further traumatic stimuli. Safe areas may vary from neighborhood to neighborhood. Common locations include designated shelters, information centers, emergency rooms, churches, schools, community centers, hotels, and medical clinics. Providing water, food, warmth, and respite gives basic support; it also can reassure survivors of altruism. Other interventions may be intrusive if the survivor is exhausted, hungry, and cold (Holloway & Fullerton, 1994; Raphael & Newman, 2000).

Reducing Extreme Acute Stress Reactions

Goal two of PFA is reducing extreme acute stress reactions from emotional, cognitive, physiological, or behavioral effects. There are at least two approaches to conceptualizing PFA to reduce severe stress: (1) describing interventions that address specific disaster-related stressors and (2) describing a "toolkit" of interventions to reduce severe disaster-related stress. Both conceptual approaches are used here. Whichever approach is used, all interventions require cross-cultural competency and the ability to exhibit empathy, genuineness, and positive regard for others.

Interventions for Specific Disaster-Related Stressors

Sudden Unexpected Bereavement. Violent death of a loved one has been linked with PTSD (Breslau et al., 1998). When working with the bereaved in the acute phases, workers must respect individual timing (e.g., avoidance may be a way to cope with grief).

TABLE 8.3. Conversational Guidelines for Working with the Bereaved

Possible things to say

“I am sorry that he/she is gone.”

“I can’t imagine what you are going through.”

Suggestions:

Mention the name of the deceased during conversations.

Acknowledge the degree of distress and painful emotion that the survivor is willing to express.

Things *not* to say

“You should be glad the deceased passed quickly.”

“She/he’s in his or her resting place now.”

“I know how you feel.”

“It is God’s will.”

“It was his or her time to go.”

“Let’s change the subject.”

“It was probably for the best given what happened.”

“You are strong enough to deal with this.”

Providing support to individuals who suffer the death of a loved one is one of the more challenging aspects of DMH work. Weaver (2000) suggests that “less is more”; it is less what one says and more how one listens; it is knowing when to remain silent and when to intervene. Workers may encourage the bereaved to talk with other bereaved survivors, to identify their resilience, including past successful coping, support and spirituality, or help with understanding that bereavement from traumatic loss might be a different process than nontraumatic bereavement. Workers can expect to experience their own helplessness and must recognize that their presence alone can be valuable. Table 8.3 lists conversational guidelines for working with the bereaved (Weaver, 2000).

Exposure to Traumatic Stimuli. Extreme acute distress can come from witnessing grotesque death, dead bodies, strong smells, and frightening sounds, including those from dying, injured, or upset survivors. Protecting survivors from such exposure can reduce distress. For example, one may suggest to emergency medical staff at a triage site to keep the ambulatory minor injured apart from the seriously injured, or advise a shelter or family assistance center manager to limit television event coverage and keep young children away from viewing areas. Educating survivors about coping with external (e.g., disturbing media coverage) and internal (i.e., thoughts, emotions) traumatic memory triggers may help.

Resource Loss. The loss of critical resources can cause severe distress (see postdisaster risk factors, Table 8.2); interventions to prevent psychosocial resource loss may reduce long-term effects (Smith & Freedy, 2000). Interventions for resource loss may address pragmatic needs, the stress caused by such losses, or the connection to restorative resources.

Reexperiencing. A third possible cause of acute stress reactions is distressing intrusive thoughts. Survivors may directly complain about being unable to stop thinking about or visualizing some terrible aspect of the event, or a DMH worker may discover a frequent form of “reexperiencing.” One way to disrupt the flow of intrusive thoughts is to guide a survivor’s attention to the present (see Table 8.4; Young, 2002).

Cognitive Appraisal. Acute distress may relate to the survivors’ cognitive appraisal of the event and their capacities to cope (Benight, Ironson, et al., 1999; Benight, Swift, et al., 1999). Workers may encounter survivors who have quickly developed cognitive distortions related to fear, helplessness, guilt, anger, and rage. Such beliefs can “unnecessarily” maintain a sense of threat and increase distress. DMH workers may have a chance to use brief cognitive restructuring or reframing to counter such distortions (see Table 8.5; Young, 2002).

TABLE 8.4. Example of Helping a Survivor Cope with Intrusive Thoughts

“[Person’s name], I hear how you keep thinking about _____ [aspect of event] over and over again . . . and I can understand why this happens and how hard it is to not think about it. I also see how distressing it is for you to keep repeating _____ in your mind. If it is okay with you, I would like to help you get a break from _____. Is it okay with you?”

Gently suggest an activity that helps to orient the survivor to the present moment while asking him or her to describe the activity (e.g., walking, washing face and hands, deep breathing, and eating); alternatively, give the person something to hold or to touch, (e.g., a pen, a purse, a book, clothing, a chair) and ask him or her to describe what each feels like. Redirect attention to the experience of the activity to disrupt the flow of intrusive thoughts or distressing anxiety.

If the intrusive imagery is experienced as a “flashback,” that is, a reliving of the traumatic experience, become even more directive, adding: “We are sitting in _____ [name of site], it is _____ [date, day of week, and time]. Please tell me where we are, today’s date, and day . . . and what time it is.”

If appropriate to the culture, consider asking the person to exchange reasonable eye contact.

TABLE 8.5. Example of a 2-Minute Version of Reframing

Theme: Guilt and shame

Negative thought or distortions

1. "I was a coward. Because of me, other people died."
2. "I should this have gotten over this by now."

Reframes

1. "I can only imagine how frightening that was and can hear that you are now doubting yourself. It's clear that your actions saved you from further injury. Many factors beyond your control resulted in the deaths that occurred and it's unfair to you to take any blame in this."
2. "I hear that you feel impatient with yourself. It takes time get through something like this. I know for a fact, that many other survivors are at the same place that you are right now."

Theme: Helplessness and fear

Negative thought or distortion

1. "I was helpless then; I won't be able to cope with future events either."
2. "I just can't believe I felt so afraid. It's unacceptable to experience that degree of fear."

Reframes

1. "I hear you say that you believe you felt helpless and how distressful that was. Even when you believed you were helpless, it was your actions that saved your life . . . you helped yourself . . . and it appears that you continue to help yourself . . . this is coping with events as they unfold."
2. "A lot of people I've listened to said they were more afraid than anytime before in their life. Fear is natural and it helped you to survive. Gradually you can ease out of it."

Theme: Anger and trust

Negative thoughts or distortion

1. "Those jerks, or for that matter, most people just can't be trusted to help. I'm not interested in filing the relief forms. They tell me one thing one day and another the next. Everything's breaking down."

Reframe

1. "I can hear how angry you are—who wouldn't be? . . . and I hear how hard it is to bear so much loss . . . and that you feel let down by those who you thought would help you and your family. I would like to ask you to consider for a moment, even though you are very angry, that most likely there are people who can and will help you and there are people who neither can or won't. And that you and your family would probably benefit more if you were to reconsider filing the forms necessary to replace the furniture you lost. You can still be angry *and* fill out the forms that will help you."
-

As with other cognitive reframing techniques, care must be given to validation of the affective component (*feelings* of helplessness, fear, grief, rage, etc.); addressing cognitions without reference to their potential exaggerated effect; recognizing that such cognitions are not unrealistic; and timing (e.g., such intervention is less likely than the other components of PFA in the first 72 hours postevent).

Arousal Reduction Interventions

A “toolkit” of interventions can reduce stress-related reactions.

Relaxation Procedures. If stress reactions involve extreme anxiety; marked cognitive impairment; or uncontrollable, prolonged, or intense, distress, instructing survivors on relaxation procedures (conscious/slow breathing; progressive muscle relaxation; visualization; meditation, etc.) may reduce these reactions. In rare cases, all forms of relaxation procedures may exacerbate anxiety, intrusive images, or dissociative states (Everly & Lating, 2002); clinical judgment and preparation of the individual for possible increase in anxiety are recommended.

Young and colleagues (1998) advise that while suggesting relaxation procedures to survivors, it is important to address any related concerns—for example, beliefs that one cannot relax amid continuing stress; fears that relaxing will compromise their coping; fears of being overwhelmed by intense memories or emotions; or negative past experiences with such procedures. DMH workers must know different relaxation techniques to allow for offering survivors various options and how to instruct survivors quickly. A 30-second version of conscious/slow breathing might involve gently saying: “Everyone feels overwhelmed now, how about we take a few slow breaths”—followed by a demonstration and practice of slow diaphragmatic breathing. If time allows, longer versions can be utilized (see Young, Ruzek, & Ford, 1999, pp. 171–172).

Education Techniques. Education can help to “normalize” experiences; provide information about stress reactions, stress management strategies, and resources; and create a sense of control and efficacy. Most postdisaster education is informal, occurring during brief conversations with survivors. Table 8.6 lists educational talking points (Young, 2002). Talking points are meant to be specific to each survivor; one need not cover all details. It is important to summarize key points, provide written materials, and offer a follow-up contact (if warranted and feasible).

DMH workers should use judgment regarding whether and when to present information. Care must be given to avoid introducing a “modeling”

TABLE 8.6. Educational Talking PointsWell-known traumatic stressors

Life-threatening exposure, (duration, intensity, frequency), loss of loved ones, resource loss (property, financial, social support, etc.).

Common stress reactions and their course

Emotional: Anger, anhedonia, emotional numbing, fear, grief, guilt, shame, feelings of rejection, feelings of distrust.

Cognitive: Confusion, difficult concentration, disorientation, indecisiveness, intrusive thoughts, memory loss, self-blame and negative appraisal, shattered beliefs and assumptions, shortened attention span.

Physical: Body aches, change in appetite, change in libido, diarrhea, difficult sleep, fatigue, hyperventilation, nausea, racing heartbeat, startle, tension, tremor.

Behavioral: Increased conflict with others, increase use of controlling behaviors, withdrawal from social support and social activity, substance abuse (if predisposed).

Risk factors associated with adverse mental health outcomes

See predisaster, within-disaster, and postdisaster variables associated with adaptation to trauma (Table 8.2).

Self-care and stress management strategies

Positive coping: Exercise, eating well, receiving and giving social support, relaxation techniques, etc.

Negative coping: Substance abuse, workaholism, social withdrawal, phobic avoidance of reminders of event.

Benefits of self-awareness: Emotional experience, mindfulness, and selected self-disclosure.

Parenting/support guidelines: How to monitor children other family members' reactions; how to support children and other family members.

Characteristics of recovery: Guidance about general course of individual and community recovery.

Information about available resources.

When and where to seek additional help.

effect by suggesting symptoms (Shalev et al., 2003); some survivors in acute stages of recovery may not be receptive to education efforts.

The effectiveness of postdisaster education has not been evaluated, and recent evidence suggests that self-help instructions (fact sheets) alone may delay recovery in some survivors (Ehlers et al., 2003). Single-session education is not the best behavioral change procedure, and probably will not prevent PTSD in those at highest risk (Ehlers et al., 2003).

Cognitive Reframing Techniques. As mentioned, the subtle, supportive, and judicious use of cognitive reframing techniques may serve as a pre-

liminary effort to help counter the potential negative affects of cognitive distortions. Though cognitive-behavioral treatment has demonstrated efficacy when used with trauma survivors (see, Foa, Keane, & Friedman, 2000), there is no study of the use of brief cognitive reframing techniques with disaster survivors.

Psychopharmacology. Use of psychopharmacological interventions may mitigate psychological stresses that are extremely distressful to survivors. Most individuals affected by disasters and mass trauma are resilient; long-term negative psychological sequelae are often minimal and long-term use of psychiatric medications is unnecessary.

Assessing for the indication of medication usage necessarily involves inquiring about past and current medical history: prior psychotropic use, drug allergies, contraindications to psychotropic use, as well as the survivor's ability to comply with medication regimen, and the potential for substance abuse. Effort should be made to ensure documented follow-up so that survivors can be monitored for the efficacy of the medication, potential side effects, or referrals to higher level of care if necessary.

Imipramine in low-doses shows significant reduction in acute stress disorder symptoms (Robert, Blakeney, Villarreal, Rosenberg, & Meyer, 1999). Propranolol administered in the first 6–12 hours shows a later reduction in conditioned response to trauma stimuli (Pitman et al., 2002). Risperidone administered 5 days posttrauma can decrease sleep disturbance, nightmares, flashbacks, and hyperarousal (Stanovic, James, & Van Devere, 2001). There is no evidence of a PTSD protective benefit, and some possibility of a negative affect with benzodiazepines (Friedman, 2000).

Connecting Survivors to Restorative Resources

The third goal of PFA is to direct survivors to additional resources. Survivors already in safe areas may still need being told where to receive information or services (e.g., medical care, shelter, relief and family assistance services, and information centers). In nonemergencies, therapeutic intervention generally seeks to develop empowerment and support independence while avoiding reinforcement of helplessness and self-defeating dependence. When survivors are so overwhelmed by losses, confusion, anxiety, grief, helplessness, guilt, and so on, that normal functioning is impaired, taking a more active role to ensure linkage or connection to resources may be appropriate. Caveat: Survivors' sense of control and self-efficacy are important and clinical judgment must be used to avoid acting on something that survivors themselves can act on, or creating situations where they survivors are left thinking they had no say about the matters. Workers can

always begin to identify and remind survivors of their existing coping skills and resources in their current social network.

Active Help with Problem Solving

Active help with problem-solving includes helping survivors to obtain food, liquid, and clothing and to replace or obtain new medications; arranging transportation to a shelter, emergency mental health services clinic, or relief and information centers; helping connect to social support (family, significant others, friends); making phone calls on survivors' behalf when appropriate; linking survivors to information providers; advocating on their behalf; and referring them to more intensive financial, practical, or mental health services.

When and How to Refer to Mental Health Services

In the first 14 days, the decision to make a referral to more in-depth mental health services is complicated. During the immediate aftermath, workers often have only limited contact with survivors and may lack sufficient information to determine whether acute stress reactions will resolve without intensive services. Second, in the first 2 weeks to 1 month, community mental health resources may be overwhelmed or extremely limited (i.e., only emergency rooms available).

Because it can be expected that these resources will be limited, those needing referral can be sorted into two groups: (1) survivors needing immediate crisis intervention and (2) survivors at risk for long-term adverse mental health problems. Survivors needing crisis intervention are those experiencing suicidal ideation, symptoms of psychosis, and seemingly unremitting panic reactions, or those who no longer have the capacity for basic self-care (e.g., nourishment, hygiene, and rest). Crisis intervention would most likely resemble routine procedures under ordinary conditions. In catastrophes involving severe widespread damage where community resources become unknown, intervention involving hospital or police authorities may best ensure a survivor's safety.

In the second group, the unavailability of resources often requires that individuals be informed about "warning signs" (e.g., what to monitor and when to self-refer once more extensive disaster-related mental health resources are in operation) (Table 8.7).

Several procedural steps should be considered to increase compliance with seeking additional help. First, the option of receiving more in-depth services and what might be expected of such services is explained. If necessary, negative reactions (e.g., perceived stigma and perceptions of counseling) are explored: the stigma of disaster-related counseling might be

TABLE 8.7. Advising Survivors When to Seek Treatment: Persistent Stress Reactions and “Warning Signs”

Persistent stress reactions

- Phobic avoidance of reminders.
- Inordinate grief (dissonant with cultural values).
- Frequent episodes of intense inappropriate anger.
- Severe sleep disruption or frequent nightmares.
- Severe unremitting anxiety.
- Symptoms of clinical depression.
- Significant impaired problem-solving ability.
- Severely distressing intrusive thoughts.

Warning signs

- Abuse of alcohol/drugs.
 - Significant social isolation.
 - Spiritual/existential despair.
 - Significant social isolation.
 - Inability to work.
 - Suicidal ideation.
-

reduced if it is described as an opportunity to receive practical support, information, and help with problem solving. Compliance may increase with written referral information and help with scheduling an appointment.

SUMMARY

The components of PFA described previously are endorsed by expert consensus as empirically defensible interventions unlikely to cause harm. When incorporated into a systematic disaster response system, they are expected to offer a critical mental health response in the first month following mass violence. Interventions included in PFA have not been tested empirically and research is needed to determine if they are sufficient to prevent adverse mental health outcomes. Research is further needed to clarify the timeline for offering different elements of PFA, whether other components should be added, and which circumstances call for the use of specific components.

The field is currently progressing along several lines which should assist with more effective delivery: encouraging collaboration between mental health public health agencies, strategies, and interventions (Institute of Medicine, 2003); innovative delivery strategies (i.e., Internet and email); development of intervention manuals and videotaped vignettes (National Center for PTSD, Center for Mental Health Services [CMHS]; National

Child Traumatic Stress Network); development of more efficient assessment procedures and algorithms to identify individuals at high risk for progressing to chronic posttraumatic problems (Brewin, Rose, & Andrews, 2003); and adapting early interventions for ethnocultural populations (CMHS). Advances in psychobiology and genetics also may promise keys to identify and improve acute response to trauma (Charney, 2004). It is anticipated that these developments will contribute to a more comprehensive strategy for preventive mental and behavioral health following disasters, reducing recovery time and morbidity in survivors.

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REFERENCES

- American Red Cross. (1991). *Disaster services regulations and procedures: Disaster mental health services* (ARC3050M). Washington, DC: Author.
- American Red Cross. (1995). *Disaster mental health services I*. Washington, DC: Author.
- Arata, C. M., Picou, J. S., Johnson, G. D., & McNally, T. S. (2000). Coping with technological disaster: An application of the conservation of resources model to Exxon Valdez oil spill. *Journal of Traumatic Stress, 11*, 23–39.
- Baum, A., Gatchel, R., & Schaeffer, M. (1983). Emotional, behavioral and physiological effects at Three Mile Island. *Journal of Consulting and Clinical Psychology, 51*, 565–572.
- Benight, C. C., Ironson, G., Klebe, K., Carver, C. S., Wynings, C. G., Burnett, K., et al. (1999). Conservation of resources and coping self-efficacy predicting distress following a natural disaster: A causal model analysis where the environment meets the mind. *Anxiety, Stress, and Coping, 12*, 107–126.
- Benight, C. C., Swift, E., Sanger, J., Smith, A., & Zeppelin, D. (1999). Coping self-efficacy as a mediator of distress following a natural disaster. *Journal of Applied Social Psychology, 29*, 2443–2464.
- Bisson, J. I. (2003). Single-session early psychological interventions following traumatic events. *Clinical Psychology Review, 23*, 481–499.
- Bisson, J. I., & Deahl, M. P. (1994). Psychological debriefing and prevention of post-traumatic stress: More research is needed. *British Journal of Psychiatry, 165*, 717–720.
- Bland, S. H., O'Leary, E. S., Farinero, E., Jossa, F., Krogh, V., Violanti, J. M., et al. (1997). Social network disturbances and psychological distress following Earthquake evacuation. *Journal of Nervous and Mental Disease, 185*, 188–194.

- Bland, S. H., O'Leary, E. S., Farinaro, E., & Trevisan, M. (1996). Long-term psychological effects of natural disasters. *Psychosomatic Medicine*, 58, 18–24.
- Bravo, M., Rubio-Stipec, M., Canino, G. J., Woodbury, M. A., & Ribera, J. C. (1990). The psychological sequelae of disaster stress prospectively and retrospectively evaluated. *American Journal of Community Psychology*, 18, 661–680.
- Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and posttraumatic stress disorder in the community: The 1996 Detroit Area Survey of Trauma. *Archives of General Psychiatry*, 55, 626–631.
- Brewin, C., Rose, S., & Andrews, B. (2003). Screening for posttraumatic stress disorder in civilian populations. In R. Orner & U. Schnyder (Eds.), *Reconstructing early intervention after trauma: Innovations in the care of survivors*. Oxford: Oxford University Press.
- Briere, J., & Elliot, D. (2000). Prevalence, characteristics, and long-term sequelae of natural disaster exposure in the general population. *Journal of Traumatic Stress*, 13, 661–679.
- Bromet, E. J., Goldgaber, D., Carlson, G., Panina, N., Golovakha, E., Gluzman, S. F., et al. (2000). Children's well-being 11 years after the Chernobyl catastrophe. *Archives of General Psychiatry*, 57, 563–571.
- Caldera, T., Palma, L., Penayo, U., & Kulgren, G. (2001). Psychological impact of the Hurricane Mitch in Nicaragua in a one year perspective. *Social Psychiatry and Psychiatric Epidemiology*, 36, 108–114.
- Charlton, P. F., & Thompson, J. A. (1996). Ways of coping with psychological distress after trauma. *British Journal of Clinical Psychology*, 35, 517–530.
- Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability: Implications for successful adaptation to extreme stress, *American Journal of Psychiatry*, 162, 195–216.
- Chung, M.C., Werrett, J., Farmer, S., Easthope, Y., & Chung, C. (2000). Responses to traumatic stress among community residents exposed to a train collision. *Stress Medicine*, 16, 17–25.
- Clearly, P. D., & Houts, P. S. (1984). The psychological impact of the Three Mile Island incident. *Journal of Human Stress*, 10, 28–34.
- Dew, M. A., & Bromet, E. J. (1993). Predictors of temporal patterns of psychiatric distress during 10 years following the nuclear accident at Three Mile Island. *Social Psychiatry and Psychiatric Epidemiology*, 28, 49–55.
- DeWolfe, D. J. (2000). *Training manual for mental health and human service workers in major disasters* (2nd ed.). (DHHS Publication No. ADM 90-538). Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., & Mayou, R. A. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Archives of General Psychiatry*, 60, 1024–1032.
- Everly, G. S., & Lating, J. M. (2002). Neuromuscular relaxation. In G. S. Everly & J. M. Lating (Eds.), *A clinical guide to the treatment of the human stress response* (2nd ed., pp. 225–239). New York: Kluwer/Plenum Press.
- Farberow, N. L. (1978). *Field manual for human service workers in major disasters*

- (DHHS Publication No. ADM 78-537). Rockville, MD: National Institute of Mental Health.
- Foa, E. B., & Meadows, E. A. (1997). Psychosocial treatments for posttraumatic stress disorder: A critical review. *Annual Review of Psychology*, 48, 935–938.
- Foa, E. B., Keane, T. M., & Friedman, M. J. (2000). *Effective treatments for PTSD: Practice guidelines from the International Society of Traumatic Stress Studies*. New York: Guilford Press.
- Freedly, J. R., Shaw, D., Jarrell, M., & Masters, C. (1992). Towards an understanding of the psychological impact of natural disasters: An application of the conservation resources stress model. *Journal of Traumatic Stress*, 5, 441–454.
- Friedman, M. J. (2000). A guide to the literature on pharmacotherapy for PTSD. *PTSD Research Quarterly*, 11, 1–7.
- Fullerton, C. S., Ursano, R. J., Tzu-Cheg, K., & Bharitya, V. R. (1999). Disaster-related bereavement: Acute symptoms and subsequent depression. *Aviation, Space, and Environmental Medicine*, 70, 902–909.
- Galea, S., Resnick, H. S., Ahern, J., Gold, J., Bucuvalas, M. J., Kilpatrick, D. G., et al. (2002). Posttraumatic stress disorder in Manhattan, New York City, after the September 11th terrorist attacks. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 79, 340–353.
- Gilbert, D. T., & Silvera, D. H. (1996). Overhelping. *Journal of Personality and Social Psychology*, 70, 678–690.
- Gist, R. (1996). Is CISD built on a foundation of sand? *Fire Chief*, 40, 38–42.
- Gleser, G. C., Green, B. L., & Winget, C. N. (1981). *Prolonged psychological effects of disaster: A study of Buffalo Creek*. New York: Academic Press.
- Goenjian, A., Pynoos, R., Steinberg, A., Najarian, L., Asarnow, J., Karayan, I., et al. (1995). Psychiatric comorbidity in children after the 1988 earthquake in Armenia. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 1174–1184.
- Green, B. L., Grace, M. C., & Gleser, G. (1985). Identifying survivors at risk: Long-term impairment following the Beverly Hills Supper Club fire. *Journal of Consulting and Clinical Psychology*, 53, 672–678.
- Green, B. L., Grace, M. C., Vary, M. G., Kramer, T. L., Gleser, G. C., & Leonard, A. C. (1994). Children of disaster in the second decade: A 17 year follow-up of Buffalo Creek survivors. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 71–79.
- Green, B. L., & Solomon, S. D. (1995). The mental health impact of natural and technological disasters. In J. R. Freedly & S. E. Hobfoll (Eds.), *Traumatic stress: From theory to practice* (pp. 163–180). New York: Plenum Press.
- Hanson, R. F., Kilpatrick, D. G., Freedly, J. R., & Saunders, B. E. (1995). Los Angeles County after the 1992 civil disturbances: Degree of exposure and impact on mental health. *Journal of Consulting and Clinical Psychology*, 63, 987–996.
- Hartsough, D. M. (1985). Stress and mental health interventions in three major disasters. In D. M. Hartsough & D. G. Myers (Eds.), *Disaster work and mental health: Prevention and control of stress among workers* (pp. 1–44) (DHHS Publication No. ADM 85-1422). Rockville, MD: National Institute of Mental Health.

- Havenaar, J. M., Rummyantzeva, G. M., van den Brink, W., Poelijoe, N., van den Bout, J., van Englelend, H., & Koeter, M. (1997). Long-term mental health effects of the Chernobyl disaster: An epidemiologic survey in two former Soviet regions. *American Journal of Psychiatry*, *154*, 1605–1607.
- Holloway, H. C., & Fullerton, C. S. (1994). The psychology of terror and its aftermath. In R. J. Ursano, B. G. McCaughey, & C. S. Fullerton (Eds.), *Individual and community responses to trauma and disaster: The structure of human chaos* (pp. 31–45). Cambridge, UK: Cambridge University Press.
- Institute of Medicine Committee on Responding to the Psychological Consequences of Terrorism Board of Neuroscience and Behavioral Health. (2003). In A. S. Butler, A. M. Panzer, & L. M. Goldfrank (Eds.), *Preparing for the psychological consequences of terrorism: A public health strategy*. Washington, DC: National Academies Press.
- Kaniasty, K., & Norris, F. H. (1993). A test of the support deterioration model in the context of natural disaster. *Journal of Personality and Social Psychology*, *64*, 395–408.
- Kaniasty, K., Norris, F. H., & Murrell, S. A. (1990). Perceived and received social support following natural disaster. *Journal of Applied Social Psychology*, *20*, 85–114.
- Kenardy, J. A., & Carr, V. (1996). Imbalance in the debriefing debate: what we don't know far outweighs what we do. *Bulletin of the Australian Psychological Society*, *18*, 4–6.
- Koopman, C., Classen, C., & Spiegel, D. (1996). Dissociative responses in the immediate aftermath of the Oakland/Berkeley firestorm. *Journal of Traumatic Stress*, *9*, 521–540.
- Lindemann, E. (1944). Symptomatology and management of acute grief. *American Journal of Psychiatry*, *101*, 141–148.
- Lonigan, C., Shannon, M., Taylor, C., Finch, A., & Sallee, F. (1994). Children exposed to disaster: II. Risk factors for the development of post-traumatic symptomatology. *Journal of the American Academy of Child and Adolescent Psychiatry*, *33*, 94–105.
- Lystad, M. (Ed.). (1985). *Innovations in mental health services to disaster victims* (DHHS Publication No. ADM 85-1390). Rockville, MD: National Institute of Mental Health.
- Maes, M., Delmeire, L., Schotte, C., Janca, A., Creten, T., Mylle, J., et al. (1998). Epidemiological and phenomenological aspects of post-traumatic stress disorder: DSM-II-R diagnosis and diagnostic criteria not validated. *Psychiatry Research*, *81*, 179–193.
- McFarlane, A. C. (1989). The aetiology of post-traumatic morbidity: predisposing, precipitating and perpetuating factors. *British Journal of Psychiatry*, *154*, 221–228.
- McFarlane, A. C. (1995). Stress and disaster. In S. E. Hobfoll & M. W. de Vries (Eds.), *Extreme stress and communities: Impact and intervention* (pp. 247–266). Dordrecht, The Netherlands: Kluwer.
- McNally, R. J., Bryant, R. A., & Ehlers, A. (2003). Does early psychological intervention promote recovery from posttraumatic stress? *Psychological Science in the Public Interest*, *4*, 45–79.

- Mitchell, J. T. (1983, January). When disaster strikes: The critical incident stress debriefing process. *Journal of Emergency Services*, 8, 36–39.
- Murphy, S. A. (1984). Stress levels and health status of victims of a natural disaster. *Research in Nursing and Health*, 7, 205–215.
- Myers, D. G. (1994). *Disaster response and recovery: A handbook for mental health professionals* (DHHS Publication No. SMA 94-3010). Rockville, MD: National Institute of Mental Health.
- Najarian, B., Goenjian, A., Pelcovitz, D., Mandel, F., & Najarian, B. (2001). The effect of relocation after a natural disaster. *Journal of Traumatic Stress*, 14, 511–526.
- National Institute of Mental Health. (2002). *Mental health and mass violence—Evidence based early psychological intervention for victims/survivors of mass violence: A workshop to reach consensus on best practices* (NIH Publication No. 02-5138). Washington, DC: U.S. Government Printing Office.
- Norris, F. H. (1992). Epidemiology of trauma: Frequency and impact of different potentially traumatic events on different demographic groups. *Journal of Consulting and Clinical Psychology*, 60, 409–418.
- Norris, F. H., Kaniasty, D. Z., Conrad, M. L., Inman, G. L., & Murphy, A. D. (2002). Placing age differences in cultural context: A comparison of the effects of age on PTSD after disasters in the United States, Mexico, and Poland. *Journal of Clinical Geropsychology*, 8, 153–173.
- Norris, F. H., & Uhl, G. A. (1993). Chronic stress as a mediator of acute stress: The case of Hurricane Hugo. *Journal of Applied Social Psychology*, 23, 1263–1284.
- North, C. S., Nixon, S. J., Shariat, S., Mallonee, S., McMillen, J. C., Spitznagel, E. L., et al. (1999). Psychiatric disorders among survivors of the Oklahoma City bombing. *Journal of the American Medical Association*, 282, 755–762.
- Palinkas, L. A., Petterson, J. S., Russell, J., & Downs, M. A. (1993). Community patterns of psychiatric disorders after the Exxon Valdez oil spill. *American Journal of Psychiatry*, 150, 1517–1523.
- Perilla, J. L., Norris, F. H., & Lavisso, E. (2002). Ethnicity, culture, and disaster response: Identifying and explaining ethnic differences in PTSD six months after Hurricane Andrew. *Journal of Social and Clinical Psychology*, 21, 20–45.
- Phifer, J. F. (1990). Psychological distress and somatic symptoms after natural disaster: Differential vulnerability among older adults. *Psychology and Aging*, 5, 412–420.
- Pitman, R. K., Sanders, K. M., Zusman, R. M., Healy, A. R., Cheema, F., Lasko, N. B., et al. (2002). Pilot study of secondary prevention of post-traumatic stress disorder with Propranolol. *Biological Psychiatry*, 51, 89–92.
- Pynoos, R., Goenjian, A., Tashjian, M., Karakashian, M., Manjikian, R., Manoukian, G., et al. (1993). Post-traumatic stress reactions in children after the 1988 Armenian earthquake. *British Journal of Psychiatry*, 163, 239–247.
- Pynoos, R. S., & Nader, K. (1988). PFA and treatment approach to children exposed to community violence: Research implications. *Journal of Traumatic Stress*, 1, 445–473.
- Raphael, B. (1977). The Granville train disaster: psychological needs and their management. *Medical Journal of Australia*, 1, 303–305.

- Raphael, B. (1986). *When disaster strikes: How individuals and communities cope with catastrophe*. New York: Basic Books.
- Raphael, B., & Newman, L. (2000). *Disaster mental health response handbook*. North Sydney, New South Wales: NSW Health.
- Riad, J., & Norris, F. H. (1996). The influence of relocation on the environmental, social, and psychological stress experienced by disaster victims. *Environment and Behavior*, 28, 163–182.
- Robert, R., Blakeney, P., Villarreal, C., Rosenberg, L., & Meyer, W. (1999). Imipramine treatment in pediatric burn patients with symptoms of acute stress disorder: A pilot study. *Journal American Academy Child and Adolescent Psychiatry*, 38, 873–882.
- Rose, S., Bisson, J., & Wessely, S. (2001). *Psychological debriefing for preventing posttraumatic stress disorder* (The Cochrane Library, Issue 3). Oxford, UK: Update Software.
- Rubonis, A. V., & Bickman, L. (1991, May). Psychological impairment in the wake of disaster: The disaster–psychopathology relationship. *Psychological Bulletin*, 109, 384–399.
- Shalev, A. Y. (2000). Stress management and debriefing: Historical concepts and present patterns. In B. Raphael & J. P. Wilson (Eds.), *Psychological debriefing* (pp. 17–31). Cambridge, UK: Cambridge University Press.
- Shalev, A. Y., Adessky, R., Boker, R., Bargai, N., Cooper, R., Freedman, S., et al. (2003). Clinical intervention for survivors of prolonged adversities. In R. J. Ursano, C. S. Fullerton, & A. E. Norwood (Eds.), *Terrorism and disaster: Individual and community mental health interventions* (pp. 162–188). Cambridge, UK: Cambridge Press.
- Shariat, S., Mallonee, S., Kruger, E., Farmer, K., & North, E. (1999). A prospective study of long-term health outcomes among Oklahoma City bombing survivors. *Journal of the Oklahoma State Medical Association*, 92, 178–186.
- Shneidman, E. S., Farberow, N. L., & Litman, R. E. (Eds.). (1970). *The psychology of suicide*. New York: Science House.
- Smith, B., & Freedy, J. R. (2000). Psychosocial resource loss as a mediator of the effects of flood exposure on psychological distress and physical symptoms. *Journal of Traumatic Stress*, 13, 349–357.
- Solomon, S., Bravo, M., Rubio-Stipec, M., & Canino, G. (1993). Effect of family role on response to disaster. *Journal of Traumatic Stress*, 6, 255–269.
- Stanovic, J. K., James, K. A., & Van Devere, C. A. (2001). The effectiveness of Risperidone on acute stress symptoms in adult burn patients: A preliminary retrospective pilot study. *Journal of Burn Care and Rehabilitation*, 22, 210–213.
- Udwin, O., Boyle, S., Yule, W., Bolkton, D., & O’Ryan, D. (2000). Risk factors for long-term psychological effects of a disaster experienced in adolescence: Predictors of PTSD. *Journal of Child Psychology and Psychiatry*, 41, 969–979.
- Watson, P. J. (2004). Behavioral health interventions following mass violence. *Traumatic Stresspoints*, 18(1).
- Weaver, J. D. (1995). *Disasters: Mental health interventions*. Sarasota, FL: Professional Resource Press.
- Weaver, J. D. (2000). Working with those who have experienced sudden loss of

- loved ones. *Internet Journal of Rescue and Disaster Medicine*, 2, 1–10. Retrieved June 9, 2004, from www.ispub.com/ostia/index.php?xmlFilePath=journals/ijrdm/vol2n1/loss1.xml
- Weisaeth, L. (1989). The stressors and the post-traumatic stress syndrome after an industrial disaster. *Acta Psychiatrica Scandinavica*, 80(Suppl.), 25–37.
- Young, B. H. (2002). Emergency outreach: Navigational and brief screening guidelines for working in large group settings following catastrophic events. *NCPTSD Clinical Quarterly*, 11, 1–6.
- Young, B. H., Ford, J. D., Ruzek, J. I., Friedman, M. F., & Gusman, F. D. (1998). *Disaster mental health services: A guidebook for clinicians and administrators*. St. Louis, MO: Department of Veterans Affairs Employee Education System, National Media Center.
- Young, B. H., Ruzek, J. I., & Ford, J. D. (1999). Cognitive-behavioral group treatment for disaster-related PTSD. In B. H. Young & D. D. Blake (Eds.), *Group treatments for post-traumatic stress disorder* (pp. 149–200). Philadelphia: Taylor & Francis.