Disaster Response

17

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Understand the history and development of disaster mental health relief in the United States.
2. Understand the status of disaster mental health in the world.
3. Know the part ecosystems play in crisis intervention.
4. Know what national crisis response teams are and what they do.
5. Know what a disaster mental health plan entails.
6. Know what crisis workers do in a disaster.
7. Know how multiculturally competent crisis workers operate in a disaster.
8. Understand how the crisis worker handles spiritualism and religion in disasters.
9. Know the principles and techniques of debriefing.

A Brief History of Disaster Mental Health Provision

LO1

When the first edition of this book was published in 1988, it didn't have a chapter on disaster response. The simple reason was that we would have been hard pressed to fill up three pages of print on theory, research, or practice with regard to the provision of mental health services after a large-scale disaster. Although the federal government has been involved in disaster relief since the 19th century, until recently it has paid very little attention to the psychological aftershocks of a disaster. It wasn't until 1974, as part of a major overhaul of disaster policy, that the Disaster Relief Act was passed. In that bill was section 413, which authorized the National Institute of Mental Health (NIMH) to supply counseling services to victims of disasters and also provided funds to train professionals in the provision of mental health services to disaster victims. Since 1985 there has been close to a 400% increase in global natural disasters and on average over 1,000,000 people are killed a year by disaster and 216 million become victims (Center for Research on the Epidemiology of Disasters, 2014).

We believe that the notion that people would need mental health assistance after a disaster has roots similar to those of the crisis movement itself. It appears that at least four distinct variables fell into place prior to 2000 to make this happen. First was the birth of community mental health, authorized by the Community Mental Health Act of 1963, which put mental health workers in places like Rapid City, South Dakota, Wilkes-Barre, Pennsylvania, and Logan County, West Virginia. These were "hometown" folks, not bureaucrats in some far away capital city, and they would give voice to the mental misery survivors were suffering after a large-scale natural disaster.

Second was the classification of PTSD as a personality disorder in the DSM-III in 1980. That medical classification acknowledged and legitimized the concept of people suffering enduring mental problems after direct exposure to a life-threatening event. That diagnosis can admirably fit survivors of disasters.

Third was the American Red Cross's decision in the early 1990s to establish a mental health certification program after hurricane Hugo and the Loma Prieta earthquake in 1989. Indeed, the American Red Cross separated out disaster mental health from its disaster nursing mainly because of its workers' breaking down from prolonged field placements in

the back-to-back disasters of hurricane Hugo and the Loma Prieta earthquake (Morris, 2011).

Fourth was the women's movement during the 1960s and 1970s, which brought increased awareness of how often trauma strikes families and what its aftershocks do to a family whose entire belongings have been swept, blown, or burned away. When combined, these variables would play a major role in moving the concept of disaster mental health from an idle backwater into a tsunami of disaster mental health assistance in 2011. Given that movement, you are now going to read a whole lot more in this eighth edition than the few pages we might have scraped together in the first edition back in 1987.

If you harken back to Chapter 1, where we talked about the coalescing of grassroots movements into a large voice that attracts attention from the media, and soon after that legislatures, you will begin to understand why specific places like Rapid City, South Dakota, Wilkes-Barre, Pennsylvania, and Logan County, West Virginia, became important players in the birthing of disaster mental health. All three of these places suffered terrible flooding in 1972, and Logan County became particularly notorious because of a mining company's failure to maintain the Buffalo Creek dam, which ruptured. The resulting flood waters at Buffalo Creek killed 125 people and wrecked or badly damaged 1,500 homes. To make matters worse, God or Mother Nature didn't cause the disaster but the coal company did, so there was someone to focus attention on that could have prevented the disaster.

Local mental health providers were overwhelmed by survivors needing psychological assistance in all three places, and both state and federal officials were slow to react in providing help. This issue caught the eyes and ears of reporters, and a great deal of publicity was garnered in support of providing mental health assistance to disaster survivors. So legislators who were already attuned to the notion that victims would need psychological help thought it made good common sense (and particularly good reelection sense) to include mental health funding in the 1974 bill.

There was little research to back up the notion that a lot of people would need psychotherapy after a disaster, but that made little difference given the publicity these three floods received. The few mental health workers that were on scene and their cries for help made good subjects for interviews. One of the best examples of how well disaster mental health assistance could be played in the media was the San Fernando Child Guidance clinic that decided to get into the trauma game after an earthquake struck the San Fernando Valley in California in 1971. The clinic announced that they were offering counseling services for children who had been in the quake area. Over the next few weeks they counseled more than 500 children in the quake area and got the attention of the national media, which generated headlines like "Quake proofing kids." Dr. Stephen Howard, director of clinical services, got nationwide attention when he declared in an interview with the *New York Times* that the American Red Cross's attitude of "keeping a stiff upper lip" wouldn't work and that survivors needed to "talk about their issues" (Morris, 2011).

Return now to Rapid City, South Dakota. The local government's small number of overwhelmed mental health professionals and the federal government's lack of interest in the survivors' plight prompted a call for help from a steering committee the local mayor organized that reached all the way to the Denver, Colorado, office of the National Institute of Mental Health. The NIMH finally responded by sending psychiatric help to the beleaguered city. The problems of adequate mental health provision that were uncovered at Rapid City motivated U.S. senators from the state to become very active in funding these provisions for the Disaster Recovery Act.

In Wilkes-Barre a model program developed by local community mental health providers and the National Institute of Mental Health served as a blueprint for the creation of disaster mental health programs. Called Operation Outreach, one component of this program was the training of outreach workers to go out and meet survivors as they tried to reassemble their lives and provide basic mental health services. Their initial attempts to provide those services were not accepted kindly by the survivors until the workers started giving them assistance in getting the basic necessities of living back in their lives. Then the survivors started to take them into their confidence. Please note that this is a hard lesson to learn for zealous mental health practitioners who volunteer to go to a disaster. Like the workers at Wilkes-Barre, and Dr. Holly Branthoover whom you will get to meet later in the chapter, it is about moving boxes, procuring lice kits, and having your underarm deodorant fail before you ever get to the counseling stage.

Finally, rescue workers in the Buffalo Creek dam failure in Logan County noticed many of the symptoms in survivors that would later be formalized into PTSD criteria. The resulting lawsuit against the mining company whose failed dam had caused the

Buffalo Creek disaster brought a number of famous mental health experts into the courtroom. One of them was Robert Lofton, a psychiatrist from Yale, who had done extensive study on Vietnam veterans and would later lay the foundation blocks for what would become PTSD from his work with them. He recognized some of the same pathology in the flood survivors and testified that everybody in Buffalo Creek was affected (Morris, 2011).

A group of people from all three of these disasters were gathered by the medical advisor to the Office of Emergency Preparedness (then the leader in disaster mitigation). There was general agreement that there was not a large outbreak of mental illness, but it was acknowledged that the emotional security of a large number of individuals had been compromised (Morris, 2011). Thus was born the Disaster Relief Act of 1974. This act then evolved into the Stafford Disaster Relief and Emergency Assistance Act of 1986, whose section 416 provided for enhanced mental health services to disaster survivors.

To really understand why mental health generally did not get front row status for a long time, you need to understand that the U.S. government's historical approach to disasters was piecemeal and spread over a variety of agencies. It wasn't until 1978 that the Federal Emergency Management Agency (FEMA) was authorized. It absorbed a variety of agencies that ranged from insurance to weather prediction to civil defense to dam and building safety to counterterrorism. It essentially became a catchall for everything that might create some kind of disaster in the United States. After 9/11, FEMA itself was absorbed into the Department of Homeland Security, becoming the Department of Emergency Preparedness and Response Directorate, which pretty much put FEMA in the back seat politically, financially, and prioritywise. After the debacle of hurricane Katrina, FEMA once again regained stand-alone status as a department. So it is not just mental health that has been given short shrift, but the overall coordination of natural and human-made disasters in the United States. So why has all this now changed?

Since 1974 there has been a huge change in that now psychological services and the people who provide them are seen as an integral part of disaster intervention by the federal government (Dodgen & Meed, 2010). The trauma business meandered along in the 1990s, but school shootings such as the Columbine and Sandy Hook public schools, the Virginia Tech massacre, and the Colorado movie shooting focused attention on disaster in suburbia, the carnage of 9/11 put trauma back up in lights on the national marquee, and the horrific foul-ups by FEMA during hurricane Katrina sealed the notion that mental health would be an important part of any disaster in the 20th century in the United States.

In the aftermath of Katrina, the government poured $52 million for mental health support into Project Recovery in Mississippi, Project Rebound in Alabama, and Louisiana Spirit in Louisiana. That sum of money was second only to the $132 million that went in to mental health services after 9/11 (Morris, 2011).

The emerging concern is how very large intervention systems interact with one another to deal with large-scale crises and megacrises that may arise at the national, state, or community level and directly or indirectly affect neighborhoods, families, and ultimately the individual. Part of the problem is that crisis response systems have not been upgraded along with the times. Remember from Chapter 1 that large disaster relief systems in the United States that are designed to physically aid communities after catastrophes are about 100 years old (Echterling & Wylie, 1999). The field of individual crisis intervention as it is applied in a scientific and systematic manner is about 60 years old (Lindemann, 1944). Systematic and comprehensive intervention by the U.S. government is about 30 years old (Federal Emergency Management Agency, n.d.). The addition of psychological crisis intervention systems and their incorporation into those large macrosystems are about 35 years old—if we are very generous in our time estimation.

While there has been a great deal of research since 9/11 on what kinds of mental health intervention and techniques work on individuals (Watson, Brymer, & Bonanno, 2011), there has been very little research in large-scale **ergonomics**. Cognitive and organizational ergonomics is the rather exotic scientific discipline concerned with understanding the interactions among humans and other elements of a system. It is the profession that applies theory, principles, data, and methods to product design in order to optimize human well-being and overall system performance—which also applies to coordinating, collaborating, and allocating resources after a disaster.

While system interfaces with individuals and ergonomics are pretty cerebral and exotic and not likely to be the topic of discussion over coffee at Starbucks or beer at a sports bar, understanding how those systems work, what effects they have in the fight against terrorism and in large-scale natural disasters,

and the mental health issues that go with them is critically important. In a compelling article on this subject, Nickerson (2011) points out that his literature search turned up very little on how ergonomics could help deal with the effects of terrorism when they occur. That research is compelling because, over and over, communication between human beings operating in different systems becomes problematic. Former members of the 9/11 Commission, meeting on the 10th anniversary of that act of terrorism, stated that there were still problems of communication among first responders (Callahan, 2011).

Further, there is little research on how these large systems work—or, in fact, whether they do work—in a palliative psychological manner with various subsystems or individuals (Dziegielewski & Powers, 2005; Litz & Gibson, 2006). Finally, even less is known about what effects vicarious traumatization has on large systems, or indeed what we should do about the effects that instantaneous real-time electronic media can have on various subsystems and the individual (Ursano & Friedman, 2006). How well systems communicate with one another and understanding the effects of rapid changes in technological, geophysical, and societal forces on prevention, intervention, and postvention are key issues in the mitigation of a disaster (Aten et al., 2011; Stokols et al., 2009).

To the contrary, research into evidence-based posttrauma practices for individuals has exploded since 9/11 in the quest to find the best way to help people with mental health issues postdisaster (Watson, Brymer, & Bonanno, 2011). The acronym PTSD was known to few people in the first edition of this book in 1988—even our students! Now PTSD has become a household abbreviation for somebody who is traumatized. Professional organizations have ramped up their focus on trauma. Division 56, Trauma Psychology, has been formed by the American Psychological Association and is one of its fastest growing divisions. The Council on Accreditation of Counseling and Related Educational Programs (CACREP), the accrediting body for counselors, has mandated crisis intervention as part of a required curriculum, as has the National Association of School Psychologists. Government, government-subsidized agencies, and professional organizations have published psychoeducational materials that range from mental health reactions after a disaster (National Center for PTSD, 2014) and providing schools with memorial guides to 9/11 (American School Counselor Association, 2011). Two centers for dissemination of information and research, the National Center for PTSD and the National Child Traumatic Stress Network have come into existence in the last 10 years as a direct or indirect consequence of 9/11, Katrina, and Columbine High School.

Where the World Is

LO2

The United States is not alone in its changed attitudes toward mental health provision after a natural disaster. Australia has been one of the leaders in the area because of the many natural disasters it has faced. Beverly Raphael, a professor of psychiatry in Australia, has been in the forefront of disaster research and practice with her landmark books *The Anatomy of Bereavement* (1984), *When Disaster Strikes* (1986), and *Disaster Mental Health Response Handbook* (2000), and dozens of research articles, chapters, and edited books on trauma and disaster.

Europe has established the European Network for Traumatic Stress (TENTS, 2011) in response to a need for consensus on what evidence-based outcomes work. TENTS has been funded by the European Union and has built Europe-wide networks of expertise in the psychosocial management of victims of natural and other disasters. It provides services, expertise, and support to areas of the Union that lack resources and availability of trained personnel (TENTS, n.d.).

Internationally, the United Nations' Inter-Agency Standing Committee (IASC, 2007) has published *IASC Guidelines on Mental Health and Psychosocial Input Support in Emergency Situations.* Those guidelines are being used by countries as small and remote as Nepal to put into operation their disaster responses (Jordans et al., 2010).

International Terrorism and Human-Made Disasters

The ecological, contextual model of crisis intervention, based on ecosystem theory that has emerged on the international scene, is characterized by continuously accelerating events in dynamically changing cultures and environments (Conyne et al., 2003; James, Cogdal, & Gilliland, 2003; James & Gilliland, 2003, pp. 341–342; Myer & Moore, 2006; Norris et al., 2006). Foremost among these events in the United States has been the September 11, 2001, hijackings and terrorist attacks and destruction of the World Trade Center towers in New York City, the attack on the Pentagon, and the crashed airliner in Pennsylvania. These tragedies caused untold grief, loss of property, loss of life, economic damage, and a

change in the attitudes of most Americans regarding safety and security (Bass & Yep, 2002; Pyszczynski, Solomon, & Greenberg, 2002). The actions following 9/11 also set in motion other unprecedented events, such as the passage of the Homeland Security Act by the U.S. Congress and the invasions of Afghanistan and Iraq, and placed security in the United States at wartime levels. Practically every American had the feeling of having been individually attacked (Brainerd, 2002) and that we were, indeed, at war.

Add to 9/11 other terrifying events—the bombing of the Murrah Federal Building in Oklahoma City, the attacks on students in high schools from Littleton, Colorado, to Springfield, Oregon, to college students at Virginia Tech University and Northern Illinois University—and there is good reason for most Americans to think the United States is no longer a sanctuary but a battleground. Across the world, events such as the taking of hostages by Chechens and their resulting deaths in a rescue attempt in a Moscow theater and a southern Russian school, Palestinian suicide bombings in the streets of Israel, Muslim radicals' bombing of a nightclub and hotel in Bali and Jakarta and trains in Madrid, the Charlie Hebdo magazine attack in Paris, the assassination of armed services recruiters in Chattoonga, Tennessee, drug gang wars in Mexico that approach total war, embassies and nightclubs blown up in Africa and Asia by al Qaida, and the postwar chaos in Iraq and Afghanistan all send clear messages that the world is an unsafe place and that terror may strike unannounced anywhere and at any time. As a result, the hypervigilance of being constantly on guard, the economic loss because of these attacks, and the social and financial expenses of guarding against them cause a variety of previously unknown stressors to appear that impact and crosscut entire nations, cultures, and ecosystems.

Disaster in the form of terrorism has its own special brand of traumatic wake for survivors and has the potential to have metastasizing effects across large systems (Huddy & Feldman, 2011; Morgan, Wisneski, & Skitka, 2011; Ursano & Friedman, 2006). This is true because of the unpredictability of the when, where, and to whom it will happen. Further, the seeming randomness creates fear and anxiety because there is no assurance it will not happen again, and where is anybody's guess. The use of insidious means such as poison gas, germ warfare, or nuclear arms causes horror and incredulity at their seemingly immoral use in the business of mass murder. Information is often inaccurate or highly controlled by the government, which creates uncertainty and anxiety. Increased, constant hypervigilance creates constant and heightened anxiety, which causes both immediate and long-term physical health problems.

Media coverage enhances the horror of gruesome death and injuries. Constant viewing of scenes of death and destruction increases trauma risk. Further compounding the trauma is the aftermath of the terrorist attack with ruinous financial loss and frustration and anxiety at the government's inability to act or bring the perpetrators to justice—particularly when they are outside the country's borders. Finally, there is the added difficulty of finding victim services and mental health professionals who have the know-how to deal with the unique issues that terrorist victims bring with them (Dziegielewski & Sumner, 2005; Myers & Wee, 2005, pp. 247–248). Pastel and Ritchie (2006) aptly call these weapons of mass *disruption* because of the profound psychological ripple effects they cause.

The Israelis are no strangers to terror. Practically all Israeli children carry cell phones so that they can immediately contact their parents and let them know they are safe after bombing or rocket attacks. It is somewhat chilling that one of the favorite children's costumes during the Israeli Purim holiday (somewhat equivalent to Halloween in the United States) among ultraorthodox Jews was a replica of the "Zaka" uniform. Zaka is an ultraorthodox volunteer organization dedicated to ensuring proper burial according to Jewish rituals. In the immediate aftermath of a terrorist attack, they search for body parts to bring as much of the body as possible to burial (Galai-Gat, 2004). After Galai-Gat delivered the paper just cited at the Annual Convening of Crisis Intervention Personnel, she related how amazed she was that people could come and go so freely from the downtown Chicago hotel where the convention was being held. Thus in a changing world, the question arises, "As go the Israelis, shall the rest of the world go also, and does our mental health system go with it?"

Terrorism brings unique challenges to mental health professionals when weapons of mass destruction are used. The ratio of physical dead and wounded to psychologically afflicted is astounding. Obhu and associates (1997) found that in the Tokyo subway gas attack 11 people died but up to 9,000 people sought medical care because they *thought* they had been gassed. There is also the potential for organic mental disorders along with standard stress reactions given the type of weapon used. Medical isolation and

quarantine can create additional stress in individuals who may not be able to receive support from their social systems and in fact may be seen as lepers to be avoided (Flynn, 1998).

The worldview of individuals subjected to terrorist-generated disasters may be very different from others'. There is a good deal of evidence to indicate that these individuals experience PTSD, panic and anxiety disorders, and depression at a far greater and more intense rate than others who are subject to "natural" disasters (U.S. Department of Justice, 2000). While there has been progress, with the counseling field becoming more trauma aware (Shallcross, 2011) and the Red Cross making concerted efforts to provide crisis intervention training to wider segments of first responders, there is as yet little unified training for the sheer number of mental health providers needed in *any* large-scale disaster or megadisaster. This issue is even more pressing with the lack of expertise to deal specifically with terrorist acts (Myers & Wee, 2005, p. 251; Roberts, 2005).

Lastly, the mental health infrastructure itself may be destroyed or disabled by human-made or natural disasters or simply be overwhelmed by the staggering volume of people it will be expected to service. In her pictorial representation of early interventions with survivors of terrorist attacks, Galai-Gat (2004) showed a Gary Larson cartoon of a crisis center going over a waterfall while on fire—a good analogy for the worldwide state of crisis intervention and what kinds of chaos ecosystemic crises can bring to local agencies, as witnessed by New Orleans mental health facilities attempting to get back into operation after being completely shut down by hurricane Katrina (Shraberg, 2006).

New Directions and New Visions

LO3

Crisis intervention is no longer just a one-on-one proposition. We would like to introduce you to what we and some others (Cook, 2012; Collins & Collins, 2005; Gist & Lubin, 1999; Kilmer et al., 2010; Myer & Moore, 2006; Stokols et al., 2009) believe will characterize more and more of what crisis intervention will become in the 21st century—ecosystemic crisis intervention in the wake of a large-scale crisis or megadisaster (James, Cogdal, & Gilliland, 2003). An ecosystemic crisis is one that reaches out and pervades at a minimum the community and perhaps whole regions or nations. It may be immediate and horrific, like 9/11, with a relatively small loss of life, but have immense ramifications and spread shockwaves around the world. It may slowly and surely spread out across whole continents and have the potential for a tremendous loss of life, such as the African Ebola epidemic or bird flu. It may be human-made, occur dramatically, and then have long-lasting environmental effects that span thousands of years and destroy the social and governing infrastructure of an entire region, such as the Chernobyl nuclear power plant explosion and contamination (Bromet, 1995). It may be malevolent terrorism, creating widespread fear and anger, such as 9/11. It may be a smorgasbord of natural disasters such as the tsunami that struck Japan or hurricane Katrina that drastically altered the landscape and the lives of those in the surrounding area.

In varying degrees, an ecosystemic crisis does all of the foregoing. An ecosystemic crisis not only creates victims who directly experience the traumatic event in widespread numbers, but also creates potential victims because of their vicarious experiencing of the event—even though they may be some geographical or psychological distance from the event itself (Chung et al., 2003; North, 2004; Shallcross, 2011).

This is particularly problematic because often insurance or other mental health care providers do not recognize these groups of survivors as being in need of assistance (Galai-Gat, 2004). Therefore, the definition of an ecosystemic crisis used in this chapter is somewhat different from the definition of crisis as it applies to individuals that is used in the rest of the book. An **ecosystemic crisis** is any disruptive or destructive event that occurs at a rate and magnitude beyond the ability of the normal social process to control it. Unless dedicated resources are brought to ease the crisis, the integrity of the social fabric is generally degraded in the course of the event such that it becomes very difficult if not impossible to sustain the way of life as it was before the crisis occurred (Ren, 2000).

Although a number of theorists and researchers have examined wide-scale disasters and the collective experiences of the populations who experience them (Freedy & Hobfoll, 1995; Gist & Lubin, 1989; Hobfoll, 1988; Hobfoll & deVries, 1995; Kaplan, 1996), most of the literature focuses on a dissection of the individual's psychological responses (Kaniasty & Norris, 1999). Kaniasty and Norris (1999) propose that the individual's psychological response to disaster cannot be understood without considering the collective response that interacts with the political, cultural, environmental, and social realities of the ecosystem as it operated prior to and after the disaster.

Alternatively, on a very pragmatic and mundane level, the Federal Emergency Management Agency (FEMA) and its various departments spend a great deal of time and energy on providing education, information, and direct service in regard to operational responses to disasters of all kinds (Federal Emergency Management Agency, n.d.). However, what FEMA—or anyone, for that matter—doesn't do is determine how this all goes together, and as you will see in a short while, that had ominous implications when hurricane Katrina came ashore. What one also does not find is a way of making sense out of how crisis intervention strategies interface with the community-wide stressors people experience after a disaster and the various agencies that respond to help them.

Although the impact of community-wide and national traumatic events go back historically at least as far as Pompeii being buried by volcanic explosion nearly 2,000 years ago or the Black Plague killing millions of Europeans in the Middle Ages, the knowledge of those catastrophes and their resulting impact were slow to be felt because news of the disaster traveled only by word of mouth. Likewise, help could come only as fast as responders could spread the word and bring together resources that might arrive in horse-drawn carts or be carried on one's back. Often help was simply unavailable, as there was no known way to mitigate the spread of disease.

Communities were isolated, and when a natural or human-made disaster struck, it was typically felt only at the local level. Further, at the local level, the constituents were essentially of the same race, tribe, or clan, or other social identity and commonly held the same cultural, moral, and religious values. In short, until the 20th century, if Haiti suffered an earthquake, it was known and dealt with by the local community and perhaps the regional ruler. The prevailing philosophy was that people took care of themselves because they were the only ones affected by the traumatic event. In fact, if "strangers" had come to offer help, they probably would have been viewed with distrust and suspicion, given the insular cultural values of the time. The best that could be done proactively was to build cities that wouldn't be washed away by flood or blown away by winds, or to quarantine cities infected with disease. Historically, then, most crisis responses were by passive, preventive means that were meant to minimize the damage before it occurred. Little could be done after the fact to minimize the deaths, economic loss, or societal disintegration.

It should also be understood that there is a rather spirited debate today in world health circles as to whether there is in the Third World any need for a Western world mental health disaster mitigation plan as opposed to the need to obtain basic necessities for survival. PTSD is seen as a Western cultural artifact contrived to justify and propagate the medical mental health model (Summerfield, 2005). To the contrary, others do not see PTSD as a cultural artifact, but indeed a phenomenon that is cross-cultural in nature, and that to deny it would be a terrible professional error and subvert the prevention of suffering (deVries, 1998; Dyregrov et al., 2002).

With the advent of the industrial and information ages, active crisis intervention came to mean that a whole society could be rapidly mobilized and coordinated to reshape the total dynamics of a crisis by using the machines and the command/control/communications/intelligence systems that have evolved in the last two centuries (Ren, 2000). With the condensing of geographic and communication distances, a fundamental but essential trend is that a crisis can no longer be contained within an enclave. The interventionist must necessarily function within and become an integral part of an ecological system that is continually and often richly interwoven with environmental components in the immediate neighborhood, town, district, borough, city, county, parish, canton, state, province, country, continent, hemisphere, and ultimately the world.

This fundamental trend is a melding of systemic crisis intervention strategies that interact in the total environmental and multicultural context of a pluralistic and dynamically changing world. Yet this view is clearly not shared by everyone and may be seen by some as a pretext to impose Western medical practices on the rest of the world. Thus, in the early edition of the Sphere Project world health working paper on disaster response ("Humanitarian Charter," 1998), mental health was not even covered. Indeed the term **psychosocial** (having mental distress as a result of social upheaval) has been coined to take away the stigma that a person is mentally ill (Van Ommeren, Saxena, & Saraceno, 2005). Note what the International Inter-Agency Standing Committee Mental Health and *Psychosocial* Support calls itself to make it more palatable to some parts of the international community (IASC, 2007). Indeed, most survivors of a catastrophe may only need social support, and "psychosocial support" is a lot more psychologically palatable than the designator of being "mentally ill."

You should thus understand that what is being proposed in this chapter is not universally loved and admired, or even thought to be necessary or right by a number of people.

To that end, this chapter deals with an emerging *ecosystemic* view of what crisis intervention is becoming as it operates in large systems and deals with metastasizing crises, large-scale crises, and megacrises. **Metastasizing crises** are those that start small but, if not contained both physically and psychologically, can quickly turn into large-scale crises (James, 2006). **Large-scale crises** are those that at a minimum affect whole communities or regions either directly or vicariously. **Megacrises** are defined as those that affect entire countries or the world, either directly or vicariously.

System Overview

The ecological, contextual crisis intervention approach that is described in this chapter reaches far beyond the relational interactions between and among the various members of the crisis client's family, or individuals in the client's workplace and immediate surroundings. Essentially, it is a dynamic, sociocultural, and multicultural view of all ecological influences that impinge upon the individual. It consists of five environmental systems, ranging from the fine-grained inputs of direct communications with social agents (individuals capable of interacting directly with crisis clients) to the broad-based inputs of local community agencies as well as the widespread influences of national imperatives and attitudes and ideologies of the cultures within which these systems operate (Santrock, 1999, pp. 42–44). Cook (2012, p. 5) defines the term **ecosystem** as "The total sum of the interactive influences operating within an individual's life in varying degrees of proximity ranging from his or her biologically determined characteristics to the broader socio cultural context which structures human interactions." The approach is continually changing, emerging, evolving, and developing to accommodate the ecological and multicultural contexts within which it exists. It represents a paradigmatic shift: a newly emerging ecosystem that encompasses an interdependency among and within people at all different levels of the total environment. This is not some static amorphous entity. It is very much alive, and as one part is impacted, other parts react.

This ecosystemic view of crisis intervention is adapted from Uri Bronfenbrenner's (1986, 1995; Bronfenbrenner & Morris, 1998; Santrock, 1999, pp. 41–46) ecosystemic theory of human development, and our own (James, Cogdal, & Gilliland, 2003; James & Gilliland, 2003, pp. 336–337, 341–342) and other psychotheorists' views (Cook, 2012; Conyne & Cook, 2003; Conyne et al., 2003; Klotz, 2003) of ecosystems as they apply to psychotherapy in general and crisis in particular (Collins & Collins, 2005; Norris et al., 2006; Vernberg, 1999). In crisis intervention terms, not only is the individual in crisis affected but also the client's total environment becomes the context that must be considered by crisis workers (Myer & Moore, 2006). Bronfenbrenner (1986, 1995) identified the five environmental components as the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. (See Figure 17.1.)

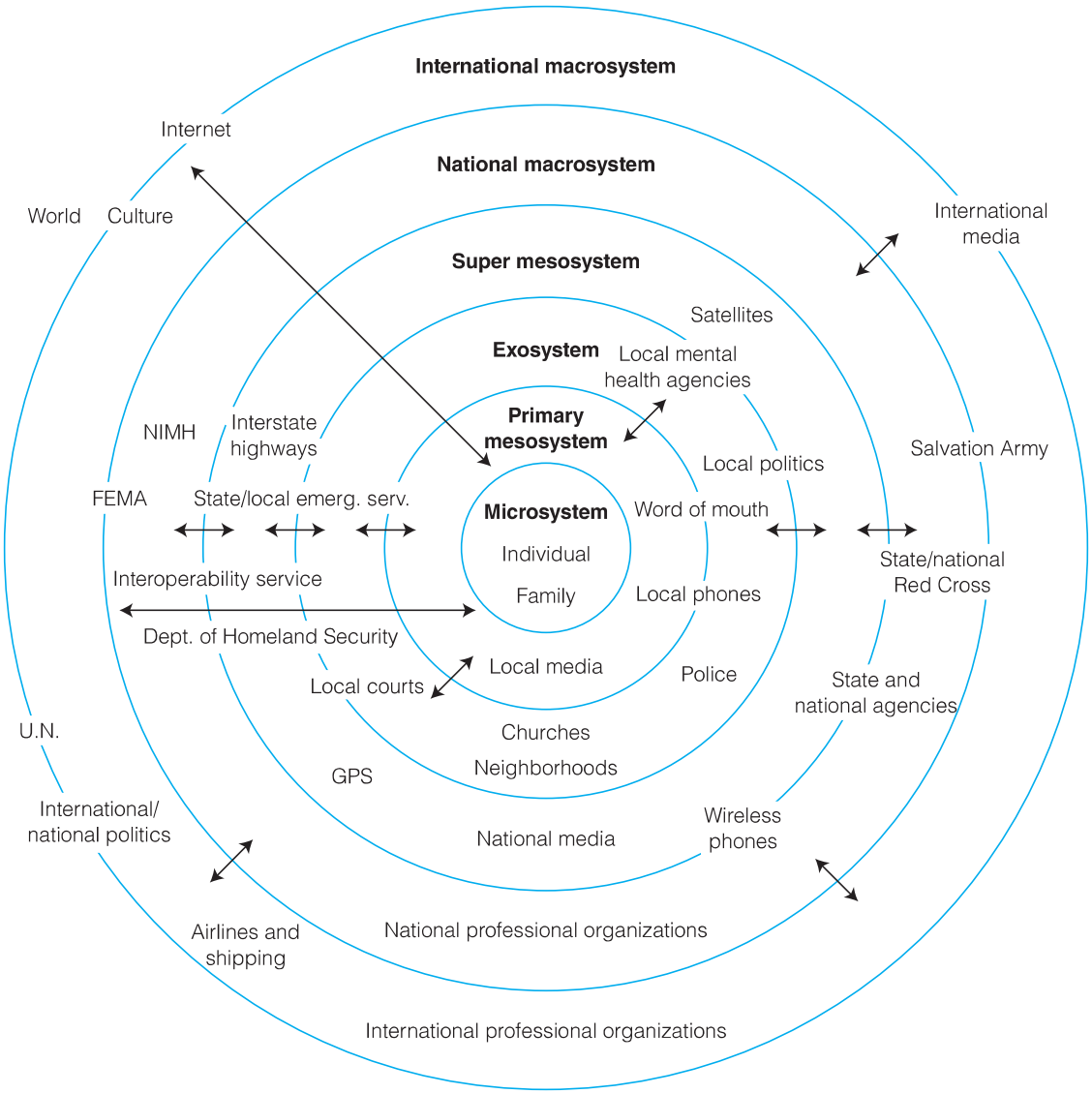
Microsystem

The **microsystem** is the setting in which the person in crisis lives. The microsystem setting's contexts may include the individual's family, friends, coworkers, peers, school, neighborhood, and usual haunts. It is within the microsystem that the individual in crisis experiences the most direct social interactions and communications with others. In the microsystem setting, whatever difficulties individuals experience tend to spill over into the family constellation and compound the difficulties caused by the disaster (Green & Solomon, 1995). In the traumatic wake of a disaster, many previous relationships, alliances, partnerships, bonds, and compacts in the microsystem, which were held together in the immediate aftermath as a means of mutual survival, crumble under the weight of compound stresses (Smith & Belgrave, 1995).

The crisis worker adhering to the ecological, contextual, multicultural approach views the person in crisis not as a passive recipient of experiences in those microsystemic settings but as an individual who actively participates in the construction of the settings (Santrock, 1999, p. 42). Reciprocally, the settings have a positive or negative effect on the individual and family and may ameliorate or exacerbate the crisis depending on the person's proximity, relationship to, and perception and meaning of the event (Myer & Moore, 2006).

Mesosystem

In Bronfenbrenner's (1995) developmental system, the mesosystem serves as the communications channel, pathway, or interactive mechanism between components in the microsystem and the exosystem.



Microsystem: The setting in which the individual lives.
Mesosystem: The relationships, connections, and communication links between individuals and systems.
Exosystem: The experiences in another social setting in which the individual does not have an active role; the exosystem does influence the individual's experiences in the immediate context.
Macrosystem: The national and regional systems, attitudes, and ideologies, behavior patterns, beliefs, and other products that are passed on from generation to generation and make up the fabric of the larger culture.

FIGURE 17.1 Adaptation of Bronfenbrenner's Ecosystemic Model for Crisis

The mesosystem is essentially the total communications network that allows all individuals and groups within each ecological system to exchange information. It includes every form of communication—from word of mouth to the most sophisticated electronic technology—and is far more than cell phones and television news announcements. In terms of crisis and crisis intervention, the mesosystem and its function as the command-and-control structure of the total system are critical.

The crisis mesosystem is interspersed not only between the microsystem and exosystem (primary mesosystem) but between the exosystem and the macrosystem as well (super mesosystem). Both the primary and super mesosystems play critical roles in resolving ecosytemic crises. These two systems are extremely fluid and may expand very rapidly during a crisis. Think of a lava lamp where, as the oil heats up there are rapid and nonsymmetrical movements of the colored oil. This analogy carries over to a rapidly heating and expanding crisis. (Whether this expansion alleviates or exacerbates the crisis depends a great deal on how and what is communicated by whom and under what circumstances.) One of the major failures in the aftermath of hurricane Katrina was the breakdown of this system at both the primary and super levels. It should be understood that disaster mental health systems are complex mesosystems (networks of other systems) in and of themselves, and what makes them even more complex is that they will be imposed on to host micro- and exo-mental health systems that have their own agendas, vary in preparedness for a disaster, and may well suffer severe disruption themselves due to the disaster (Norris et al., 2006).

Local emergency management agencies (LEMAs) expend a great deal of time and effort conducting tabletop and on-scene exercises to determine the most effective way of handling a crisis, dealing with logistics, and field-testing communication links (Freeman, 2003; Lane, 2003). These systems directly link crisis interventionists with emergency management agencies. Human services workers trained by NOVA, FEMA, the American Red Cross, and state and local mental health agencies are on call for emergencies, and when a disaster of a magnitude greater than what the local authorities can handle is encountered, these crisis teams are called up and go into action. In the United States, calling up the National Guard is a fair analogy to what happens when a call goes out for crisis workers. Hurricane Katrina is an excellent example of the need for both.

Primary Mesosystem. Communication in the primary crisis mesosystem means having translators to speak to victims whose native tongue is not the national language. It means having ham radio operators and trained weather spotters with two-way radios and crisis response teams and search-and-rescue teams with walkie-talkies to communicate with one another in wrecked buildings or in a blown-down forest. It means establishing clear links from emergency management agencies to media outlets. It means creating integrated communication networks between emergency management agencies and a wide variety of supportive agencies that range from law enforcement and fire departments to heavy equipment operators and mental health professionals.

A primary **mesosystem** is everything from sign language for a deaf person to the most sophisticated wireless computer satellite uplinks to state and federal emergency management agencies (EMAs) (Freeman, 2003; Lane, 2003). It maintains connections and communications within and among workplaces, schools, churches, families, peer groups, and local social, medical, and governmental services (Bronfenbrenner, 1995; Freeman, 2003; James & Gilliland, 2003, pp. 341–342; Lane, 2003; Santrock, 1999; Stewart-Sickening & Mutai, 2012).

For crisis intervention agencies, fast, effective, clear communication is at the center of everything they do. Communication redundancy is critical because if one system fails, another can be substituted. For example, during an electrical storm, the emergency management director of Nassau County, Florida (Jacksonville area), was in her car and attempting to communicate with a member of her staff about storm damage. But she quickly found that communication was impossible because of electrical interference. Despite all of the sophisticated equipment that the county EMA had, the only thing that worked was leaving messages on each other's voice mail (Freeman, 2003). It is not accidental that Jerry Lane, the former emergency manager of the city of Sycamore, Illinois, is a licensed advanced-class amateur radio operator (Lane, 2003). One of the more aggravating problems of hurricane Katrina was that various local agencies used different radio frequencies and could not communicate with one another, nor could they communicate with the super mesosystem. Thus a recurring theme throughout disaster intervention is that communication is vital to the ability to respond in a disaster (Rebman, Carrico, & English, 2008).

Super Mesosystem. Interlinking the macrosystem with all interior systems is the **super mesosystem.** The super mesosystem that connects the exosystem and the macrosystem serves many of the same coordinating functions, but on a national level. The super mesosystem is composed of information systems that range from the postal service, to national commercial radio and television corporations, to the Internet and its websites, e-mail, instant messaging, and chat rooms, to satellite communication and global positioning systems. Federal agencies such as FEMA, and its parent,

the Bureau of Homeland Security, are linked with other governmental agencies such as the Bureau of Justice and private agencies such as the Red Cross and National Organization of Victims Assistance, National Oceanic and Atmospheric Administration weather satellites, the U.S. Weather Service storm prediction centers, supercomputers at national agencies that model and predict disaster scenarios and relief efforts, and the National Emergency Broadcast systems for the public.

National agency and federal department interlinks and downlinks to state EMAs and agencies are all part of the super mesosystem for crisis intervention that operates in the United States. It has major command-and-control centers that can be linked to state communication and control centers, which in turn are linked to local emergency operations centers. These national organizations and agencies have complete mobile command, control, and communications centers that can be rapidly moved on tractor trailers by highway, rail, or ship, or flown into any disaster site. This system was so devastated during hurricane Katrina that the base of operations for repairing the levees and pumping systems in New Orleans was situated in the U.S. Army Corps of Engineers office in Memphis, Tennessee, more than 400 miles up the Mississippi River!

Therefore, the mesosystem is of primary concern to crisis interventionists and the crisis intervention process because it coordinates and drives the dynamic linkages among all components (people, groups, contextual connections, ecological resources). The crisis interventionist—in the role of consultant, collaborator, coordinator, and communicator—is a key resource person operating within the mesosystem.

The advent of smartphones with multiple applications has enhanced the potential of both the primary and super mesosystems in a variety of ways that were unimaginable as little as 5 years ago. Aten and associates (2011) have detailed a number of applications made possible by this new technology:

1. Texting takes far less bandwidth than talking. When other phone systems are plugged up, text messages are likely to get through. Many universities now have text warning systems that can get to any student who has a cell phone on.
2. Smartphone users with weather and news apps can access outside information when they might not otherwise have access to current conditions that affect the crisis.
3. Social networking sites such as MySpace, Facebook, Twitter, Flickr, and LinkedIn allow people to stay in synchronous contact with other net users. Clearly these sites can be used for organizing activities of large groups of people, as witnessed by the recent revolutions in Egypt and Libya which used these devices to organize large demonstrations and avoid police dragnets. These sites would seem to have the same applicability in organizing people during disasters.
4. Global positioning systems (GPS) have proliferated both as hardwired applications in automobiles and trucks and in portable systems such as smartphones. These have tremendous applicability in a disaster for directing traffic, giving directions, providing alternate routes, and locating people who don't know where they are. Onstar is a satellite communication, GPS, and emergency notification communications system hardwired into new General Motors (GM) vehicles. GM has teamed with the American Red Cross to provide information on shelters, medical services, safe routes, food sources, and other services. Aten and associates (2011) reported that Onstar's usage rate went up 30% during hurricane Gustave, which is a pretty good indication of how much its subscribers relied on it during what they considered to be an emergency ("GM's Onstar," 2008).
5. When super mesosystems use systems like Onstar, a great many people can access these systems in a hurry, and they don't need an electrical transmission line to do it. The Centers for Disease Control have picked up on this technology and made podcasts that provide "what to do and what to know" information about disease epidemics, safety tips, and other health-related information that can be used by people in disaster areas with no electricity who might otherwise be cut off from critical health information (CDC, n.d.).

The point of all this new technology is that for many people in the primary mesosystem, using it daily is standard practice. Thus super mesosystems like those operated by the federal government or international charitable organizations can use it not only with their own workers when standard communication links are down, but also with a large number of primary system users who are not mystified by the technology and can then spread the information by word of mouth. If these new devices and systems are put to use wisely, they may do much to push the communication problems that have plagued relief efforts into the dustbin of history.

Exosystem

The **exosystem** exposes the crisis client or clients to experiences in a wider social setting than those encountered

in the microsystem context (Bronfenbrenner, 1986, 1995). The exosystem reaches much farther out into the community and may even include state or regional entities. Legal and social welfare services, local mass media, and all governmental agencies and programs that are in a position to impact the individual and to assist persons, families, or groups who are in crisis are part of the exosystem. Crisis workers who live in other parts of the state or province may be called in to help. Typically, in the United States, each local EMA has backup personnel who are in place or on standby support if a crisis arises that temporarily exceeds local capacity to handle the situation.

How effective the exosystem and macrosystem are in providing services depends in large part on how well information passes back and forth through the primary and super mesosystems and how well resources are allocated, delivered, and used based on that information. The FEMA on-site, one-stop-shopping for all related disaster assistance to individuals is an excellent super mesosystem example of direct communication between victims in the microsystem and national providers in the macrosystem.

Macrosystem

The **macrosystem** includes the national government and all its agencies, and national charitable, religious, service, professional, and benevolent organizations. It encompasses the national rail, air, marine, and highway transportation modalities, and food, fuel, and energy transmission systems. The macrosystem encompasses the total culture in which people live (Bronfenbrenner, 1995). Total culture refers to the behavior patterns, traditions, beliefs, mores, historical artifacts, legal constructs, and all other traits and pursuits that are endemic to a group of people and that are passed on from generation to generation (Santrock, 1999, p. 44). The macrosystem has importance in crisis intervention for two reasons. First and foremost, when a disaster exceeds the normal coping capacity of the disaster impact area, the macrosystem is most likely the place from which help and resources will flow. Second, if the crisis is of a national magnitude such as 9/11, it will be important to do a triage assessment of the national psyche to determine what if any intervention needs to occur with the entire ecosystem.

Disasters do not have to be large in geographic scope or have large numbers of fatalities to be considered macrosystemic. The killing rampage of Seung-hui Cho at Virginia Tech in April 2007 was an isolated incident. Although 32 people were killed, that number pales in comparison to the number of dead on 9/11 in 2001 or the almost daily casualty rate in the Afghan War or the weekly death tolls on U.S. highways. By all objective measures, the Virginia Tech killings were a small disaster. Yet the fact that the tragedy occurred on a quiet college campus, in a place where one's children are supposed to be safe, upset the nation's sense of control much as the Columbine High School and Sandy Hook shootings did. The Virginia Tech tragedy quickly turned into a metastasizing crisis that carried far beyond Blacksburg, Virginia. While landline telephone connections jammed up, text messaging, which takes far less bandwidth, did not. Facebook and other social networks were relaying news of the tragedy as it took place and identified danger zones the students needed to stay out of and get away from (Aten et al., 2011).

Most particularly, parents who had sent their children off to college became very concerned about their children's health and well-being, no matter what university or college they attended and no matter what part of the country it was in. Those parents immediately began sending a deluge of phones calls, letters, and e-mails to universities across the country (a national macrosystem), demanding to know what safety measures were in place to protect their children from psychotic gunmen and other potential predators.

Perhaps even more important, the constituency of the universities, students and professors, are highly capable of communicating across the super mesosystem via e-mail, blogs, cell phones, and text messages. That rapidly expanding super mesosystem put the information, conjecture, hypotheses, and rumors about the massacre at Virginia Tech out into the international macrosystem within hours of the shootings. As an example, the dark, violent, and macabre plays that Seung-hui Cho is alleged to have written as a student at Virginia Tech were published in the blogosphere 24 hours after the shootings occurred.

Chronosystem

The Individual. The **chronosystem** is identified by Bronfenbrenner (1995) as the patterning of environmental events and transactions over the life span as well as the social and historical circumstances that influence the individual, family, peers, coworkers, and others. The essence of the chronosystem is the dynamic influence that time has on events, and time, with its movement, is an absolutely critical variable in regard to disasters. The crisis chronosystem starts with the birth of the traumatic event and not the birth of the person. Although the crisis chronosystem starts with the event, if possible the crisis

interventionist needs to backtrack over the personal developmental chronosystem of the individual to determine what, if any, precursors may have contributed to the incident's impact and what antecedent events may cause it to be exacerbated.

In crisis intervention, understanding the part the chronosystem plays in exacerbating or ameliorating the crisis is particularly important. There are two types of disaster trauma—individual and collective (Erikson, 1976). **Individual trauma** hammers the individual psyche and breaks through the person's defense so forcefully and suddenly that reaction is impossible. **Collective trauma** does the same thing, only it does it across the microsystem (the community) to the extent that the social bonds that connect people are torn apart and the community is rent asunder. The chronosystem is important for both individual and collective traumatic responses and can be marked in phases that are generally linear and progressive in nature (see Figure 17.2). Following are brief descriptions of those phases.

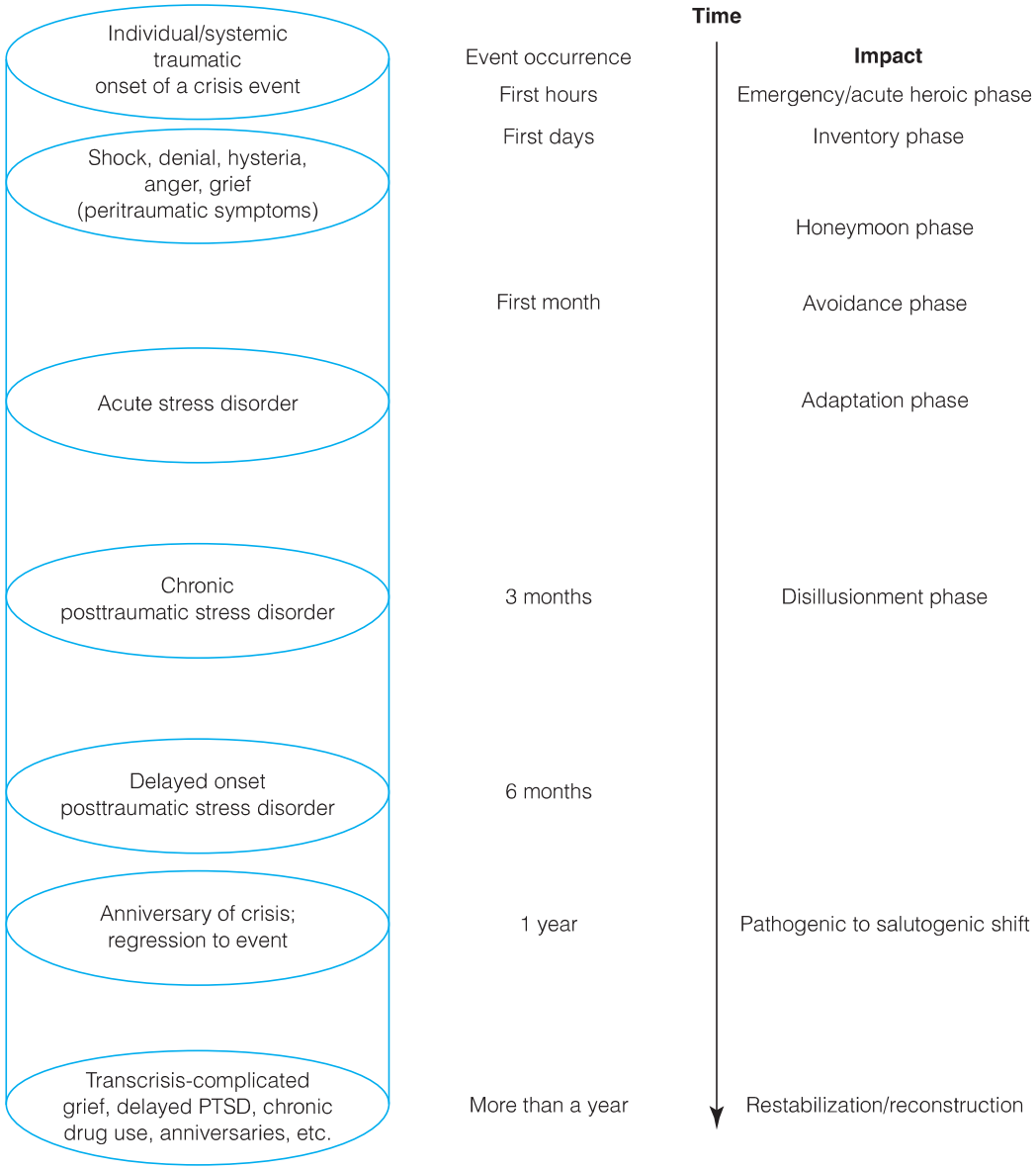


FIGURE 17.2 Pathological Chronosystem of a Crisis Event

Impact phase. The first few minutes and hours during and immediately after the crisis are critically important. While fear and shock are common, most people behave adaptively and take action to protect themselves and their loved ones. Time may become disoriented and slowed down, with disbelief and denial at what has happened. However, while a good deal of collective chaos may ensue, people react mainly in proactive ways (Myers & Wee, 2005, p. 20). Maslow's hierarchy of needs comes into operation, particularly when the crisis is a disaster that leaves people without food, shelter, or clothing. As the crisis plays out in the traumatic wake of the next few days, the resolution of problems ranging from having a roof over one's head to communicating or being physically reunited with one's family becomes critical.

Emergency/acute heroic/rescue phase. Immediately after impact, people spring into action to save others and to save property and regain control of the situation and environment. During this heroic or rescue stage (Myers & Wee, 2005, pp. 20–21; NIMH, 2002; Pennebaker & Harber, 1993) individuals are generally highly energized physically and emotionally, have great morale, cognitively perseverate on the event, and gain relief by talking about their anxieties surrounding the crisis and their responses to it. While individuals are highly energized, problem solving and priority setting are often compromised by the sheer magnitude of the disaster, which many times translates into lots of activity and low efficiency. Seeking or finding out that family members are safe and can be reunited is critical.

Inventory/recovery phase. At some point between the impact and the heroic stage an inventory and initial attempts at recovery phase occur. People conduct an appraisal of the situation and start to plan what they are going to do (NIMH, 2002). They engage in information seeking in regard to finding loved ones, determining whether they are safe or injured, and finding out how well their homes and places of employment have fared (Myers & Wee, 2005, p. 21). Typically there is frustration with the inability to find loved ones or anger at authorities for not letting the survivors back into their neighborhoods to find out about their homes.

Honeymoon phase. There is a collective "we are in this together" attitude. This may last anywhere from 1 week to up to 3 months postimpact. The community pulls together. There is optimism about recovery, and the belief that there will be full restitution of financial loss is high. There is a great deal of media coverage and high-level political attention. Public outpouring in the form of physical and financial donations give the community a sense of hope for rebuilding, and there is a strong sense of having shared a horrific experience but having prevailed over the worst of it (Farberow & Frederick, 1978).

At any time from 2 weeks to 2 years, depending on the severity and scope of the event, individuals will experience reintegration and return to a pre-event level of functioning or better, or they may not.

Avoidance phase. As individuals work their way through the next few weeks, the kinds of physical and psychological support systems that are provided affect whether acute stress disorder will arise and whether it will eventually turn into posttraumatic stress disorder. As time passes, an avoidance phase generally emerges (Pennebaker & Harber, 1993). People stop talking about the event, but the images and thoughts about it continue to dominate cognitive functioning.

Adaptation phase. Whether the pathology of the event continues and the individual enters the adaptation phase (Pennebaker & Harber, 1993) depends a great deal on the resiliency of the individual and the crisis worker's ability to institute a **salutogenic model** (Antonovsky, 1980, 1991) that emphasizes health and wellness over sickness and pathology. The salutogenic concept affirms what we historically know about people and crisis. Stress is ever present, and severe stress is going to occur, but people are resilient, recover, and can thrive and grow from it. If people can come to grips with the financial, emotional, and environmental problems they will invariably face, and come to see that no matter what they do things will never quite be the same as they were before but they can move forward, they will have adapted and move on. However, for many adaptation will be difficult because of the disillusionment that sets in.

Disillusionment phase. Disillusionment may begin several days or weeks after impact and may last for years, depending on how individuals adjust to their new environment. Disillusionment occurs because the media and politicians go home, bureaucratic red tape slows recovery, insurance money doesn't pay out as much as expected, and multiple other problems arise that say that recovery will be slow if at all. Fatigue finally sets in, and the individual is emotionally and

physically exhausted from extended psychological and physical stress. A variety of public health problems may arise from poor living and sanitary conditions, environmental pathogens, and communicable diseases. Stress-related health symptoms, ranging from high blood pressure to exacerbation of preexisting health problems, may occur. Disaster relief workers ironically refer to this period as the **second disaster**. Psychological problems may range from PTSD to panic and anxiety disorders to depression and suicidal ideation (Myers & Wee, 2005, pp. 23).

Anniversary phase. As time moves forward into the next year, the anniversary of the occurrence may become significant (Cohen et al., 2006). After a year or more has passed since the incident, a transcrisis state may be reached, depending on whether the individual has resolved the trauma or not. For some victims, the need to talk about and seek help validating their experience will go on and on, much to the dismay of others. This continuing need for catharsis and rumination about the crisis may be met with disapproval and outright anger by others in the victim's support system who seek to distance themselves from it (Smith & Belgrave, 1995). The result is often a perception by the victim of secondary victimization.

Pathogenic to salutogenic shift. Around the time of the first anniversary of the traumatic event, a benchmark is usually reached. If individuals have put the traumatic event into past context, mourned their losses, and started to rebuild their lives, then they have made a **salutogenic shift** in their lives (a shift that is healthful, wholesome, promoting psychological growth) (Antonovsky, 1980). They have met the challenge the traumatic event posed for them and are able to move on with their lives. In contrast, if individuals have remained mired in the traumatic event long past the acute stage, then they may be said to have made a **pathogenic** (diseased, unwholesome, psychologically debilitating) **shift** that may become residual and chronic, bringing on a host of physical and psychological maladies. A continuing and contentious issue in the field of trauma therapy is how individuals attain and retain a salutogenic state and if they do or do not need assistance in doing so (Stuhmiller & Dunning, 2000). Antonovsky (1991) has demonstrated that the stronger a person's sense of coherence (the extent to which the stress is deemed manageable, coherent, and meaningful), the more likely he or she is able to cope with life's stressors. If that model is adopted, then much of the role and function of the crisis worker ceases to exist, because in a salutogenic model stress is universal, humans have adapted to it, and they do not necessarily crumble under traumatic stress (Stuhmiller & Dunning, 2000).

Restabilization/reconstruction phase. As time passes, decisions have to be made as to whether to rebuild one's life in the same environment or move on to a different place. Rebuilding is not just putting a new house up after an earthquake. It is also about rebuilding and restabilizing one's emotional and social self. Even though there are setbacks, with denied loans, divorce papers, homes that are a total loss, friendships that have been lost, or friends who have died in the disaster, somehow over the months and perhaps years, stabilization and new constructs replace the old.

Therefore, as time moves forward, the survivor needs to engage in a process that is much like Schneider's (1984) transformational model of grief. Monitoring and following up on this transformational process to the client's final acceptance and putting the disaster in perspective may require tracking the client for a year or more. Richard Tedeschi and Lawrence Calhoun have been hard at work on the concept of posttraumatic growth (Calhoun & Tedeschi, 2008; Taku et al., 2015; Tedeschi & Calhoun, 2009, 2010, 2012; Triplett et al., 2012). These two researchers have developed different inventories—Post Traumatic Growth Inventory (Taku et al., 2008), Post Traumatic Growth Inventory for Children (Kilmer et al., 2009), Short Form of the Traumatic Growth Inventory (Cann et al., 2010), and The Event Related Rumination Inventory (Cann et al., 2011)—to assess people's ability to discover new possibilities such as better ways of relating to others, new personal strengths, positive spiritual changes, and stronger appreciation of life in the wake of a crisis (DeAngelis, 2011). One might say they are putting the empirical test to the Chinese Kanja characters indicating both crisis and opportunity.

The Society. When we move from the individual to the society at large (the micro-, exo-, or macrosystem), the chronosystem also plays an important part in what is going to happen systemically. In the immediate hours and days of the aftermath of the crisis, all of the resources, agencies, and personnel needed to bring control and equilibrium back to the community are brought to bear, and time becomes acutely important. During this heroic stage

(Raphael, 2000), the system responds with unselfishness, self-sacrifice, and heroism in its attempts to rescue people and provide shelter and emergency assistance. Indeed, if there is forewarning, such as the landfall of a hurricane, timelines will extend backward to precede the occurrence.

As an example, the Nassau County Florida Emergency Management Department has a nine-stage sequence that extends from an awareness stage, which starts 72 hours before the hurricane's projected landfall, to a reconstruction stage, which may be continuous and ongoing for weeks or months after the hurricane is over (Nassau County Emergency Management Department, n.d.). During the immediate aftermath, a psychological honeymoon stage (Raphael, 2000) occurs in which there is a great deal of attention by the media, massive intervention by disaster relief agencies, and the notion that things will be set right and services quickly restored. There is an overall "We're all in the same boat, and everybody is equal" attitude.

After all of the emergency crews have finished getting power and phone lines back on, the wonderful outside assistance and resource support have gone home, and the media have moved on to the next disaster, the long-term degrading effects of the disaster are still there and consuming additional resources. When physical facilities—such as churches, schools, parks, and community centers—are gone, activities and interpersonal contacts that were taken for granted may be lost. State and federal bureaucracies and insurance companies seem to have miles and miles of red tape and may deny requests for compensation and support for reconstruction of basic infrastructure. Both for individuals and communities, this phase has often been called the "second disaster" (Myers & Wee, 2005, p. 29).

Losing access to community gathering places has symbolic, social, spiritual, and psychological meaning and may have long-term toxic effects on the community. Rebuilding these structures and reestablishing social links that were severely fractured take a great deal of time and effort (Kaniasty & Norris, 1999). At this point, a disillusionment stage may emerge (Raphael, 2000). There is a sense of frustration, hopelessness, and abandonment that things will never be the same. Widespread posttraumatic stress and depressive symptoms are likely to appear if continuous and long-term mental health assistance is not available. Thus, a very real question arises as to the "when" of provision of services. It is not nearly as glamorous 6 months after a disaster strikes to appear on the scene "ready to help," but it may be as critically important to provide mental health services in the long term as it is in the short term.

Community resilience has become a key component in federal emergency plans. Whether a community rebirths or dies after a disaster has a lot to do with how well it plans for disaster by building community resilience through both individual preparedness and establishing a supportive context within that community (Plough et al., 2013). That supportive context particularly speaks to providing social justice for vulnerable populations that typically experience short shrift in the provision of goods and services in the aftermath of a disaster (Baker & Cormier, 2015; DeAngelis, 2014; Royiscar, 2013; Roysicar et al., 2013).

The chronosystem, then, represents the development of events in individuals' lives and larger social systems over time, and crisis interventionists need to be aware of how important time and timing are in responding to crises. The phrases "Time changes everything" and "Time is of the essence" appear to capture the flavor of the chronosystem (James & Gilliland, 2003, p. 342).

Defining Principles of a Crisis Intervention Ecosystem

Coming to grips with complex ecosystem service delivery issues is daunting, to say the least. However, Conyne and Cook (2003) and Norris and her associates (2006) have generated the following principles for doing so.

1. *Systems must be interdisciplinary.* No single discipline or "ology" has a corner on this market. Emergency management agencies and crisis intervention systems must rely on a broad spectrum of people, ranging from sanitation workers and electrical linemen to civil and logistical engineers to medical emergency staff and communication workers to law enforcement and fire and rescue personnel to sociologists and psychologists to bankers and economists to ministers and social workers. Further, all of the people in these skills, crafts, trades, and professions must work in an integrated manner. The competent crisis worker integrates seamlessly into this smorgasbord of "ologies"; the pretentiousness sometimes associated with a college degree and the egotism of a particular profession have no place in an ecosystemic

crisis. Ecosytemic crisis intervention is the most egalitarian of all mental health endeavors, and layperson volunteers may be just as effective as psychiatrists. Anyone with an inflated ego will soon be humbled in a large crisis.

2. *The system must be multitheoretical.* If we look at only the psychological component of wide-scale crises, no single psychological theory is presently adequate to deal with the complex swirl of human dynamics that comes out of a crisis. It should be stated absolutely and unequivocally that nobody has a theoretical corner on this market. That includes proselytizers for any of the "alphabet" techniques such as CISD, EMDR, TFT or, alternatively, those who would rail against them. It especially includes the authors of this book! When dealing with large-scale crises or megacrises, psychological theory must at the very least harmonize with logistics, medical, communications, economic, and political theory. To further complicate matters, it is not just which psychological theories and techniques are used, but also when and how those services are delivered.
3. *Individuals are part of the ecosystem.* Like it or not, unless we can somehow find a place in the desert or mountains to become hermits, we are part of the total ecosystem of the world. Our biological makeup, interpersonal relationships, physical environment, and sociological context are all becoming more tightly interwoven into the total ecosystem of the world.
4. *Multiple contexts must be considered.* Micro-, meso-, exo-, and macrosystems are all components of the total ecological system that impact the individual when a megacrisis occurs. To deny that these systems are vectors and forces that impinge on the individual is to have a very parochial view of what this business is about and is to be doomed to fail.
5. *Time is of the essence.* If we believe any of the PTSD research about the deleterious effects the passage of time has on the individual if nothing is done to alleviate the possible effects of the trauma, we need to understand that what occurs in the chronosystem is critical. The availability of adequate physical and psychological resources to deal with a crisis in a timely manner is paramount.
6. *Meaning is important.* What sense we make of the crisis from a broad systemic view is as important as what sense we make of it individually and has much to do with how quickly and effectively it is resolved for both individuals and society.
7. *Parsimonious interventions are needed.* Concordance and coordination within various systems are needed if large amounts of precious time and energy are not to be wasted. At the federal level, sufficient funding and information resources must be generated and disseminated. At the state level, preparedness plans should address multiple levels of the response across relevant jurisdictions, which includes clear plans on how the state agencies will communicate with the public and providers. Optimal utilization of resources is critical, and collaborative relationships and understanding between agencies need to be formed in advance. Intervention in large-scale crises is extremely expensive in terms of person power and material resources. One of the major balancing acts of local EMAs is to have just enough resources available to bring maximum effort to bear at just the right time to experience maximum effect.
8. *The process is cooperative, collaborative, and consultative.* Just as no single discipline holds sway in a large-scale crisis or megacrisis, cooperation, collaboration, and consultation within, among, and between systems and individuals are paramount. The provision of mental health services is important, but so are getting communication and power systems back on and determining where there is available shelter and whether buildings are safe.
9. *There is a full range of targeted interventions aimed at individuals, institutions, communities, on up to the national level, depending on how widespread the crisis is, and they are ongoing in response to longer-term needs.* Each involved system component, from the individual to the nation, needs to be triaged. Based on that assessment, target-specific interventions need to be made. How things will wind up after a disaster is not just determined in the days after it, but in the months after it. The infrastructure and community as client is as important long range as are individuals.
10. *The service characteristics of credibility, acceptability, accessibility, proactivity, continuance, and confidentiality should be adopted as "cast in stone" goals for service delivery in disaster-stricken areas.* Norris and her associates (2006) found adherence to these characteristics to be one of the most impressive of her findings of the 9/11 response in New York City. Meeting this gold standard of service delivery most likely means that the whole disaster mesosystem is integrated with host systems and running well. To do that effectively requires a

variety of organizations and individuals who operate with a high level of cooperation to make that system work.

Overarching all of the foregoing points are planning, more planning, practicing, critiquing, evaluating, and yet more planning. The necessity for vertical and horizontal links in the ecosystem of disaster planning cannot be overemphasized. The result of not having such links became clearly evident after hurricane Katrina. One of the critical components to planning is making sure that disaster mental health planning and activities do not take a backseat to security and safety concerns; people who can make clear decisions must be in place and have the authority to make those decisions (Flynn, 2003). That issue became abundantly clear in the aftermath of Katrina, with local and state leaders bickering about plans that should have been carved in stone long before the hurricane made landfall (Flynn, 2003; Gheytanchi et al., 2007).

National Crisis Response Teams

LO4

Perhaps the most important outreach approach has been taken by national agencies in on-site delivery of mental health services at major disasters and the coordination of these services with other relief efforts. Because of past criticism of how both charitable and federal agencies have handled major disasters, those agencies have done a great deal of work to better coordinate their efforts in providing comprehensive disaster relief that cuts across the survivors' total environment (Bass & Yep, 2002; Pyszczynski, Solomon, & Greenberg, 2002; Smith, 2002). Mental health support does little good when people don't have a roof over their heads because it has been blown away in a hurricane. However, it also does little good for survivors to obtain housing but be so traumatized and depressed from the disaster that they cannot begin to regain control over their lives. From plane crashes to university campus shootings, to floods, to post office shootings, to forest fires, to train wrecks, to building bombings, to earthquakes, to school shootings, and to 9/11, some of the most potent and appropriate examples of the ecological nature of crisis intervention have occurred in the United States in the last 10 years, as has a large mobilization, training, and response effort to provide emergency mental health services to victims and survivors of any type of imaginable disaster.

An enormous number of mental health workers from throughout the country, working under the auspices of the American Red Cross, NOVA, FEMA, and state and local EMAs, and supported by the major professional mental health organizations in the United States, have contributed monumental services to the thousands of clients affected by those disasters (Bass & Yep, 2002; Gladding, 2002; Hayes, 2002; Juhnke, 2002; McCarthy, 2002; Modrak, 1992; Morrissey, 1995; Pyszczynski, Solomon, & Greenberg, 2002; Riethmayer, 2002a, 2002b; Smith, 2002; Sullivan, 2002; Underwood & Clark, 2002). Among the comments of hundreds, perhaps thousands, of mental health workers over dozens of major crises, the following is perhaps both descriptive and representative:

> In that capacity, I was an escort who walked with families from the front of the building to the back and talked with them about what they were feeling, what they had felt, or what they anticipated doing in regard to the emotions that would be coming. I also accompanied families to Ground Zero so they could see for themselves the horror and finality of the event. The view from the site helped many individuals begin the process of grieving in depth, as they realized in a stark and striking way that those they had loved and cherished in so many ways were indeed dead and would not be coming back to be with them. (Gladding, 2002, p. 7)

Development of Crisis Response Teams (CRTs). The Oklahoma City federal building bombing, the shootings at Columbine High School and Sandy Hook Elementary School, and the 9/11 attacks struck a nerve in the United States. The massive amounts of media coverage of those traumatic experiences and the disaster relief that followed in their wake brought graphic attention to how disasters are handled, including the work of immediate follow-up rapid response teams. These teams did not just spring up full grown at the time of those disasters. Rather, throughout the late 1980s and 1990s, rapid response teams were developed to handle numerous tragedies and disasters, including hurricanes (Shelby & Tredinnick, 1995), serial murders (Wakelee-Lynch, 1990), plane crashes (Modrak, 1992; Shafer, 1989a), bank robberies and hijackings (Brom & Kleber, 1989), campus shootings (Guerra, 1999; Guerra & Schmitt, 1999; Sleek, 1998), and train explosions and post office shootings (National Organization for Victim Assistance, n.d.).

National Organization for Victim Assistance (NOVA) CRTs. The rapid crisis response team movement received impetus and support on a national level with

the establishment of the National Crisis Response Project by the National Organization for Victim Assistance (NOVA) in the late 1980s (Young, 1991). Originally established to help victims of crime, NOVA, a private, not-for-profit organization, has branched out to offer help to victims of all kinds of disasters through the National Crisis Response Project. It has state and local affiliates throughout the United States. The project set up national crisis response teams (NCRTs) to assist communities following community-wide crises or disasters. One of the first major organized national responses of an NCRT for the specific purpose of providing mental health assistance was on August 20, 1986, when an Edmond, Oklahoma, postal worker shot and killed 14 coworkers and himself.

The main objective of an NCRT in dealing with a local community disaster is to form local crisis response teams that are in a position to deal with the community's grief reactions, stress effects, and posttraumatic stress disorder resulting from the disaster. According to Young (1991), the "project is based on the premise that disasters can cause individual and community-wide crisis reactions and that immediate intervention can provide communities with tools that are useful in mitigating long-term distress" (pp. 83–84).

NCRTs are dispatched at the request of leaders in the affected community. "When a disaster occurs, NOVA is placed in contact with the community in one of two ways: either the community calls NOVA, or NOVA, on hearing of the tragedy, calls the community and offers assistance" (Young, 1991, p. 95). Three types of disaster service are available: (1) providing written material giving details on how to deal with the aftermath of disaster; (2) providing telephone consultation to leading caregivers in the area affected; and (3) sending in a trained team of volunteer crisis workers to assist the community.

The Red Cross. The American Red Cross, like its Red Cross and Red Crescent counterparts around the world, is tasked with dealing with all kinds of disasters. Founded by Clara Barton, the American Red Cross has been in business for about 120 years. It is a private organization that has close ties with local, state, and federal governments. It helped the federal government start the Federal Emergency Management Agency. It is a major contributor to crisis intervention in the wake of large-scale disasters and megadisasters through its training of mental health professionals as members of rapid response teams (Red Cross, 2015). Professional organizations in counseling, psychology, and social work are closely linked with and provide candidates for its mental health training program.

Federal Emergency Management Agency (FEMA) and the National Institute of Mental Health (NIMH). FEMA was born in 1979 as the result of complaints about federal agencies' slowness, bureaucratic red tape, inefficiency, ineptitude, and duplication of effort in responding to a disaster. Several different agencies were merged into FEMA, and it is now housed in the Department of Homeland Security. FEMA has numerous responsibilities. Among them are education about all kinds of disaster preparedness and coordination between federal, state, and local emergency management agencies in regard to preparedness, training, and disaster mitigation. It provides disaster assistance that ranges from debris removal and rescue efforts to disaster loans for rebuilding and on-site mental health crisis response teams. Its Emergency Management Institute at Emmitsburg, Maryland, is a virtual university of emergency preparedness courses. Courses range from training community emergency response teams (CERTS), made up of ordinary local citizen volunteers who provide support to first responders to aid in rescue efforts, to colloquiums with state mental health service providers on the latest techniques for providing mental health services after a large-scale disaster (Federal Emergency Management Agency, 2015).

Sometimes more than one agency of the federal government coordinates the work of crisis response teams. Several instances of events during modern times that triggered such a coordinated effort were the earthquakes in both the Los Angeles and San Francisco areas; hurricanes Hugo, Andrew, Floyd, and Katrina that brought devastation and flooding to large parts of the southeastern United States; the nuclear accident at Three Mile Island; and the Love Canal contamination. The response teams were sent in by the National Institute of Mental Health (NIMH) and sponsored and funded by FEMA. In all such national disasters, FEMA and NIMH provide the widely affected areas with instruction, consultation, and expertise in developing local and regional support systems to cope with the enormous aftermath of these disasters (Shafer, 1989b).

Professional Organizations. Professional organizations, such as the American Psychiatric Association, the American Psychological Association, the American

Counseling Association, and the National Association of Social Workers, provide volunteers for the Red Cross and NOVA CRTs. These organizations also provide a variety of publications for both professionals and laypersons that can be obtained on their websites or ordered from them. Their conferences and conventions provide formats for discussion and dissemination of the theory and practice of crisis intervention.

The American School Counseling Association and the National Association of School Psychologists are involved in providing crisis intervention services to schoolchildren and adolescents in the face of a large-scale disaster. As an example, on April 19, 1995, immediately after the Oklahoma City federal building bombing, an American Counseling Association team of Oklahoma school counselors and an art teacher wrote and illustrated *The Terrible, Scary Explosion.* This book, modeled after one written for children after hurricane Hugo in South Carolina, was in the hands of Oklahoma City schoolchildren by April 25, with local school counselors serving as facilitators. The purpose of the book was to help children of all ages process the whole incident and provide a tool to help adults help children (Morrissey, 1995).

The National Association of School Psychologists has national emergency assistance teams (NEATs), which are tied in with NOVA. The mission of NEAT is to develop policies and procedures, disseminate information, provide consultation, and facilitate the training of school-based crisis teams in response to significant emergencies affecting children and adolescents. These NEAT teams go to the scene of school disasters and provide support for local agencies. They are composed of nationally certified school psychologists who have expertise in crisis prevention, intervention, and postvention. The intention of the NEAT team is to help save lives, reduce trauma and injury, facilitate the psychological well-being of students and staff, and allow schools to return to regular activities as soon as possible (Zenere, 1998).

Constructing an Outreach Team. Depending on the nature of the crisis and the ecological setting, outreach teams generally have a diverse occupational range: from psychiatric nurses, paramedics, emergency workers, and psychiatrists to social workers, volunteers, rehabilitation counselors, police officers, and psychologists. These outreach teams are characterized by their multidisciplinary team approach, strong social and community networks, user participation in policy and service delivery, and egalitarianism in the workplace (Gulati & Guest, 1990). Alise Bartley, a private practice licensed professional counselor, describes her experience as a volunteer worker following hurricane Katrina. Based in Gulfport, Mississippi, she slept in a large Navy Seabee storage facility with 600 other volunteers. She slept two feet from a retired nurse on one side and a Vietnam veteran on the other, both of whom she had just met for the first time in her life (Kennedy, 2007).

Integrative-collaborative teams have a distinctive operational setup and are characteristic of many geographical areas where financial and human resources are not sufficient to form freestanding, specialized crisis units. They are not an ad hoc group collected after a crisis, but rather are trained prior to the crisis. Each member has different skills that, combined, allow the team to respond to a variety of crisis situations. They operate much as a volunteer fire department does. Members typically have primary jobs in other settings, but when a crisis call comes in on a hotline, they immediately leave their regular job, form a crisis team, and go to the crisis site. They are identifiable within the community as the crisis response team and are a cost-efficient and effective way to provide generic crisis intervention (Silver & Goldstein, 1992).

Vertically and Horizontally Integrated Local Emergency Management Systems

Overarching all local agencies involved in crisis after a disaster are the local emergency management agencies. They are the offspring of the old Civil Defense system of the cold war. The examples that follow refer to Florida, where each local agency is directly linked to one of seven regional areas, and Illinois, where there are eight regions linked to the state emergency management agency. In turn, the state agency is linked to FEMA (Freeman, 2003; Lane, 2003).

Role of Local EMA Directors. Jerry Lane and Nancy Freeman are two public servants whose lives have been anything but simple. They both have run local emergency management agencies.

Jerry was executive director for the Dekalb County, Illinois, Community Mental Health Board and director of the Sycamore, Illinois, Emergency Management Agency. Sycamore is a small town in northern Illinois, located in rolling farmland about 60 miles west of Chicago. It is not famous or notorious for much of anything. However, it does have grain elevator and agricultural chemical warehouse fires, tornadoes, straight-line windstorms, blizzards, and flooding.

But does it really need an emergency management system and a local manager? Listen to Greg Brown, former director of EMT services in White County, Illinois, and chemical mixing and applications supervisor for Brown Feed and Chemical in Carmi, Illinois. "If you want to talk about the potential for terrorism or accidental disaster, talk about what we have in this warehouse. We easily have enough agricultural chemicals, if used with malice or handled incorrectly, to kill everybody in this town twice over and have some left to spare. You'd better have somebody around who knows what to do with them, and that would apply to about every town in the country that has an agricultural base" (G. Brown, personal communication, December 15, 2004).

For Jerry Lane, living in a small town that may need his skills is the greatest reward of the job. His agency's problems were those of most beginning crisis agencies: inadequate funding, little respect, and a whole lot of politics. Many emergency management jobs were filled by patronage seekers, which may satisfy the needs of a political party but will probably leave a lot to be desired when the crisis starts—as evidenced at the national level with hurricane Katrina. Listen to the comment of a county commissioner in White County, Illinois, about the volunteer EMT program that was asking for an increase in funds from the county board: "Why, they could train a monkey to do that job! Why do they need to be paid any more?" We certainly hope that commissioner doesn't have a heart attack "way out there on Possum Road" because we doubt whether a chimpanzee could make the drive in an ambulance and keep him alive long enough until a life flight arrived, piloted by—we would guess—a baboon.

Although you may consider the commissioner's comment outrageous and patently stupid, this is not an atypical response to any new upstart agency that deals in crisis. Until it becomes politically necessary, little government funding is forthcoming to support crisis intervention programs. Certainly 9/11 and hurricane Katrina put a new perspective on the need for local emergency management agencies and competent people to run them.

Nancy Freeman is a retired deputy director of the Nassau County, Florida, Emergency Management Agency. Nassau County is next to Jacksonville, Florida. Nancy got into the emergency management business doing research analysis for hazard mitigation while she was a graduate assistant at the University of North Florida. While doing research for various counties in north Florida, she learned enough about the business of emergency management that she applied for a job with one of the counties and got it! Besides being adjacent to a large urban population—with all of its potential hazards for disaster—Nassau County is situated on the shore of the Atlantic Ocean, with all of the hurricane risks attendant to that locale. To add a little more to the hazardous, potential-for-disaster mix, the county also has military facilities with nuclear capabilities. Suffice it to say that the Nassau County EMA is very, very interested in hurricanes and their potential effects under a variety of conditions.

Nancy's world is defined by the term *networking* and, as is true for most emergency managers, it is a double-edged sword. On the one hand, Nancy sees networking with a variety of very committed professionals as one of the most rewarding parts of her job. On the other hand, when egos, turf guarding, and politics get involved, it can be one of her major headaches.

These managers are a new breed of technocrat that is being placed in charge of coordinating a welter of activities, agencies, and logistical problems in regard to managing every conceivable emergency you might imagine and then some. If you'd like a job like this, you had better be good with acronyms and know what they stand for. Want to be able to do a HHVA (hospital hazard vulnerability analysis) or get a RACES (radio amateur civil emergency system) up and running? Curious to know what the difference between cold, warm, and hot zones are, or whether you need a Level A protection suit when you venture into one of them? Does that sound like an interesting job? Think you'd like to do that?

Background and Training. What are the qualifications? you may ask. What university do I need to attend to major in that "stuff"? The answer to that question now is, "About any place in the world!" Specifically in regard to mental health crisis intervention, the University of South Dakota had established the first doctoral program with a specialty track in clinical/disaster psychology. Now, if you go to www.chds.us/?partners/institutions, which is the website for the Center for Homeland Defense and Security (2015), you will find 477 programs that range across associate, bachelor's, master's, doctorate, and certification programs in just about any type of emergency management program with any type of focus you can imagine. You should understand that the content of these degrees varies quite a bit because as of yet there is no clear consensus on what all that "stuff" should be.

If you sought to earn an interdisciplinary bachelor's degree with a major in emergency management from Western Carolina University, for example, your courses could range from International Terrorism to Crisis Communications to the Politics of Budgeting (Western Carolina University Emergency Management Institute, 2015).

However, as Nancy Freeman (2003) says, "My bachelor's degree and graduate work is in the humanities, with an emphasis in interior design, history, and historical preservation, and you wouldn't think that would be anything like what you'd need for this job, but I learned about architecture in that program, and I can read a building plan and know what 'load bearings under initial impact' means, and that is critically important when we are designing evacuation and safety plans. I also know how to do research and that is critically important in this job."

Jerry Lane holds a master's degree in community mental health. Jerry sort of wandered into this business by being an amateur radio operator and weather spotter. As Jerry says, "I'm kind of a rare breed. Most emergency managers don't have a mental health background. They tend to be retired military and have a pretty good handle on how to handle logistics problems, which is indeed important in this job" (Lane, 2003).

Both of these directors have taken many courses through the Federal Emergency Management Association's Emergency Management Institute, which has a campus in Emmitsburg, Maryland, and various correspondence and Internet courses. Besides critical incident stress debriefing and PTSD training, you might also be required to take Preparedness Planning in a Nuclear Crisis, Mortuary Services in Emergency Management, Hazardous Materials Basic Awareness, and Executive Analysis of Fire Service Organization and Emergency Management. If you are getting the idea that you had better be a Jack or Jill of all trades and a master of many, you are right!

There is a national certification process and an international association of emergency managers. In Florida, emergency managers must be certified through a combination of course work, training, and work experience. They must also take 150 hours of education courses every 4 years to retain their certification. There is continuous ongoing training in management tools resources, new technology, and communications. There are two annual conferences managers are expected to attend, one of which covers general emergency preparedness. Lots of training exercises are developed at the national and state levels and then are brought down to the local level to be used in training exercises (Freeman, 2003). Still interested in this job?

What Do Emergency Managers Do? Certainly, disasters don't happen every day. Does that mean that emergency managers sit around playing pinochle, drinking coffee, eating doughnuts, pitching horseshoes, and polishing the fire engine, waiting for something to happen? Local EMAs are in the business of preparing for, preventing, intervening in, and mitigating the effects of any and all kinds of disasters. To do that takes a great deal of planning and coordinating. Direct your attention to the matrix of city and county agencies and the support functions they engage in as primary or secondary supports in a disaster (see Figure 17.3). While you might think of roads, bridges, potable water, and sewage disposal as being critical, the last thing you might think of would be animal issues. But if you had severe flooding after a hurricane, animals—both alive and dead—would be a very real problem.

Planning for Disasters. There are two types of disasters, those that have prior warning time and those that do not. As a result, local EMAs have various disaster plans that are implemented in stages. Although there might be very little warning in the case of a tornado or a chemical spill from a derailed train, hurricanes and forest fires generally do have lead time for preparation. Nassau County has a very complex and lengthy hurricane plan that is divided into 10 stages. A brief description of those stages follows to give you an idea of just how involved this business is (Nassau County Emergency Management Department, 2003). For each stage, a particular action is noted and the responsible section is designated to implement it. Those sections are emergency operation center (EOC) command, planning, logistics, operations, administration, recovery task force, and elected policy makers.

Awareness stage. 72–60 hours Estimated Land Fall (ELF) of hurricane. Activate emergency command center. Establish liaison with the National Weather Service, state department of emergency management, surrounding counties, media, utility services, law enforcement, and fire agencies. Conduct vulnerability analysis. Activate alert phone system. Prepare primary evacuation routes. Notify all gas and diesel wholesalers

P = Primary S = Support Agencies	ESF 1 Transportation	ESF 2 Communication	ESF 3 Public Works	ESF 4 Fire Fighting/Emerg. Medic	ESF 5 Information & Planning	ESF 6 Mass Care	ESF 7 Resource Support	ESF 8 Health and Medical	ESF 9 Search & Rescue	ESF 10 Hazardous Materials	ESF 11 Food & Water	ESF 12 Energy	ESF 13 Military Support	ESF 14 Public Information	ESF 15 Volunteers & Donations	ESF 16 Law Enforcement	ESF 17 Animal Issues
All local media														S			
Amateur Radio Emerg. Serv.		S			S									S			
Acme County Medical Center				S	S			S						S			
Goodwill Industries Center														S	S		
Midville City Public Works Dept.	S		S		S		S					S		S			
Midville City Fire Department		S		S	S				S	S				S			
Midville City Police Department		S			S									S		S	
Midville City Planning Department					S									S			
Civil Air Patrol		S			S									S			
Contracted Medical Examiner								S						S			
State Dept. of Law Enforcement													P	S			
State Highway Patrol													S			P	
State National Guard Forces													S	S			
State Power and Light Dept.												S		S			
State Public Utilities Dept.												P		S			
Animal emergency care centers														S			S
Home Health Care Agencies								P						S			
Regional Electrical Authority			S				S					S		S			
Medical Supply Companies								S						S			
Acme County Building Dept.			S		S		S							S			
Acme County Cattleman's Assoc.														S			S
Acme County Clerk of Court							S							S			
Acme County Coordinator														S			
Acme County Council on Aging	S				S		S	S						S			
Acme County Emergency Mgmt.				S	P	S	S	S		S	S	S		P	S		S
Acme County Engineering Services				S	S		S							S			
Acme County Extension Agency						S	S				S			S	P		S
Acme County Facilities Maintenance			S		S		S							S			
Acme County Fire/Rescue		S		P	S		S		P	P				S			
Acme County Geog. Info. Systems					S		S							S			
Acme County Health Dept.						S	S	P						S			
Acme County Humane Society														S			P
Acme County Jail							S							S			
Acme County Library System														S			
Acme County Planning Dept.					S		S							S			
Acme County Risk Management							P				P			S			
Acme County Road & Bridge Dept.	S		P		S		S					S		S			
Acme County School Board	P				S	P	S	S						S			
Acme County Sheriff's Office	S	P		S	S		S	S	S	S	S			S		P	S
Acme County Solid Waste Dept.			S		S		S							S			
Acme County Veterinary Society														S			S
Acme County Volunteer Center							S							S	S		
Regional American Red Cross						P		S			S			S	S		
State Parks & Recreational Services												S		S			
Private businesses											S			S			
Salvation Army						S					S			S	S		
Mental health centers								S						S			
Volunteer organizations											S			S			

FIGURE 17.3 Midville City/Acme County Emergency Support Function Matrix

SOURCE: Adapted from Nassau County, Florida, Emergency Management Department (Freeman, 2003).

to restock retail outlets within 12–24 hours. Test EOC communications equipment.

Standby stage. 60–48 hours ELF. Activate emergency broadcast system. Notify amateur radio group to go on standby. Use local media and National Weather Service bulletins to advise boat owners, home owners, drawbridge operators, and motel and hotel managers, and detail causeway and bridge closings and evacuation routes. Coordinate establishment of emergency worker shelters. Secure EMS ambulances, transport vehicles, oil spill trailers, and heavy equipment.

Decision stage. 48–45 ELF. Activate traffic control plan and emergency transport plan. Declare state of emergency and activate county emergency plan. Recommend/ order evacuation. Designate nonessential businesses to close. Coordinate decision-making actions and link all municipalities, law enforcement agencies, fire districts, utility companies, hospitals, and medical care facilities with State Division of Emergency Management and the National Hurricane Center.

Preparation stage. 45–36 ELF. Begin implementing evacuation plan for "at risk" populations such as mobile homes, people with special needs, tourists, campers, people without transportation, and low-lying areas. Activate all EOC communication systems. Announce public closings. Implement 24-hour operation of fleet management garage and fueling resources. Activate emergency transportation plan. Prepare shelters for opening.

Evacuation stage. 36–4 ELF. Issue evacuation orders. Identify areas at risk. Announce shelter openings and transportation pickup points. Request National Weather Service to broadcast information on road closures. Activate/coordinate shutdown of electric power services. Maintain communications with public shelters, emergency worker family shelters, special care centers, emergency transportation, area hospitals, animal emergency care facilities, power, water, sewage, utilities, fire districts, law enforcement, and public works. Begin preplanning poststorm activities.

Storm/emergency stage. Monitor storm/emergency characteristics. Continue preplanning poststorm activities. Continue communications with other agencies.

Immediate emergency stage. Commence local emergency response activities. Determine long-term human service needs, including mental health care counseling. Determine information and referral services. Assess temporary housing needs. Distribute resources: food, water, clothing, and cleanup kits. Activate recovery task force and review damage reports. Recommend implementation of appropriate moratoriums and adoption of emergency resolutions and ordinances. Determine if curfew is needed. Activate Damage Assessment Teams. Monitor public health conditions.

Evaluation stage. Determine if primary threat still exists. Conduct/coordinate initial impact assessment effort. Reaffirm and/or reestablish communications with all shelters, hospitals, towns, state emergency operations, law enforcement, public works, fire districts, and surrounding counties. Enact emergency resolutions. Determine initial mutual aid requirements and request assistance from state EOC. Discuss emergency ordinances to be enacted. Issue news media releases. Establish times for briefings/planning meetings. Report accidents to date and update status. Assess damage to areas with existing or potential hazardous materials. Summarize current operational activities underway. Discuss current strategy. Review human resource needs. Determine additional resources needed. Implement rest and rotation policies for emergency workers. Assess logistics of transportation routes opened, distribution sites, feeding procedures, and available sleeping facilities.

Reconstruction stage. Perform long-term activities or projects focused on improving or strengthening community's economy. Complete restoration of services. Dispose of debris and allocate resources to cleanup chores. Focus on community recovery planning, building and construction issues, and environmental/ecological issues. Continue/complete human services delivery assistance of information and referral, resource distribution, health care delivery, mental health care counseling, and transportation assistance. Complete activities for presidential disaster declaration. Perform hazard mitigation projects to reduce community's susceptibility and vulnerability to hurricanes. Repair, replace, modify, or relocate public facilities in hazard-prone areas.

Restoration stage. Perform assessment of community needs and economic damage. Address the following restoration issues: economic and job base assessment, community recovery planning, building and construction issues, public information and citizen

outreach, and environmental issues and ecological concerns. Provide health care delivery for both pre- and postdisaster needs, including home health-care management and case referral. Put mental health care counseling into operation. Determine victims' counseling needs by triage assessment. Determine training needs for mental health professions on disaster-related issues. Place mental health professions/CISD team members on community assessment teams. Determine where counseling services will operate. Determine transportation needs to public feeding sites, shelters, and disaster service sites. Reestablish and implement public transportation service. Chore service needs assessment for cleanup. Determine needs and coordinate with volunteer groups for debris cleanup, interior home cleanup, window repair, etc. Coordinate with FEMA to set up Disaster Field Office and Disaster Application Centers. Assist in establishing temporary housing sites. Establish a federal public assistance office to coordinate all disaster relief efforts to clients. Participate in interagency hazard mitigation team and hazard mitigation survey activities. Complete after-evacuation report and county incident report. Critique the management of the storm emergency.

Throughout the unfolding stages of the disaster, constant needs assessment should occur. A community mental health needs assessment formula (Flynn, 2003, p. 23) that constantly updates the dead, hospitalized, nonhospitalized injured, homes destroyed, homes with major and minor damage, unemployed due to job loss, and other losses will give a good indication of the potential numbers of people in need of crisis counseling services. The same community-wide assessment should continuously occur in regard to mental health (Katz, 2011). Nancy Freeman was asked when she would know that the crisis is over. She stated, tongue in cheek, that she'd know because no one had called and everyone had found his or her dog and Aunt Nellie. In reality, the immediate crisis is considered passed when everyone's safety is assured from any effects of the disaster, public works are back in operation, and services are returning to normal. That's when the EOC can get a doughnut and some sleep!

The foregoing plan for hurricanes can be adapted to any kind of disaster, whether natural or human-made. While timelines may be very compressed or in some instances operations may start at the emergency stage, the format is replicable with just about any kind of community-wide crisis. Although local EMAs have very little preparation time for other types of disasters, they do not stand idly by waiting for something to happen. Continuous interagency tabletop exercises give them practice in responding to a variety of potential disasters. Assessment of particularly vital and vulnerable public sites, ranging from water treatment plants to nursing homes, is made to determine what needs and weak points there may be. Jerry Lane spends a fair amount of time working with individual agencies to develop their own internal disaster plans to fit with the overall one that the local EMA has.

Mental Health Components of Local EMAs

LO5

Any local mental health clinic should have a prototype disaster response plan (Lane, 2003). While each community will have variations due to its own particular regional and state systems of mental health delivery, geographic locale, and population differences, they should generally follow along with what Hartsough (1982) has outlined for mental health agencies' typical response to a disaster.

The following points are abstracted from Hartsough (1982) and Lane (2003). First of all, the centers must have a plan that assumes that they may be victims themselves and have breakdowns in communications; loss of or inability to find staff; loss of equipment, supplies, and records; inability of staff to cope with loss; and problems recognizing their functional limits. The mental health center must be prepared to provide services in two situations—a localized but traumatic event and a large-scale disaster. A localized event can be responded to without affecting operations to any great degree. A disaster will most likely disrupt operations to some degree, while drastically increasing the demand for services. A clear chain of command with redundancy features is mandatory. There should be an assessment of population groups in the area with regard to high-risk groups such as children, non-English-speaking, elderly, and low socioeconomic groups. Interagency cooperative agreements should be made. A specific mental health liaison person should be named to the local EOC.

Predisaster training encompasses development of outreach programs that target "normal people acting normally in an abnormal situation." Training specifically targets practitioners who have not had formal training in outreach or who historically perform poorly when they have to rely on their formal training. Consideration should be given to sending local clinicians to Red Cross training. Drills and tabletop exercises should be developed and conducted in coordination with the local EOC.

Personnel. Volunteers who would function as reserve crisis counselors should be recruited and trained in crisis intervention skills. Specified workers should be selected for multidisciplinary crisis response teams. A chief of operations should be nominated and will be the individual actually running the disaster response. There should also be an emergency preparedness coordinator who will be responsible for planning and preparation prior to a disaster and will function as a consultant to the chief of operations during an actual emergency. This person will be the liaison to the local EOC.

An outside clinical consultant should be retained to assess the physical and mental condition of the staff. A command-and-control and communications center should be established and staffed by a team leader and other staff necessary for it to function effectively. A historian should keep an ongoing journal of activities that occur as a result of the disaster. The decisions, events, problems, and information should include details, names and addresses, times, and issues that can later be used for debriefings, psychological autopsies, system improvements, grant requests, or reimbursement.

A personnel liaison will assist the chief of operations in assessing, making, and tracking staff and volunteer assignments. A media/information liaison will provide information to the media and local government, develop press releases, and distribute general information regarding service delivery. Staff may be made available to the local EOC to provide psychological support.

Transdisaster (0–14 Days). The mental health unit needs to initiate immediate mental health services when the disaster occurs; restore services to clients served during normal times; act as the disaster mental health advisor to the local government; provide outreach programs and coordinate resources for the delivery of disaster mental health services from the Red Cross, NOVA, FEMA, and other religious and philanthropic organizations; coordinate the responses of any contractors for services with particular emphasis on evacuation of residential facilities; target specific areas, such as evacuation centers, emergency relief centers, and FEMA "one-stop" service centers; provide support services for disaster workers; and assist with mental health emergencies in hospitals with victims requiring medical or psychiatric care.

Postdisaster (15–365 Days). Evaluate and assess the need for postdisaster services; implement prepared immediate services grant and prepare regular services grant if a presidential disaster is declared; establish linkages with American Red Cross mental health workers to hand off clients requiring longer-term care; monitor for long-term psychological effects; educate the public regarding disaster-related psychological phenomena; evaluate program response, both short and long term; perform psychological autopsy on total crisis response and debrief workers.

In the foregoing sections of this chapter you have read about the overall composition of disaster planning and infrastructure. In an ideal world, even in a world of disasters, all of this runs smoothly. While 9/11 certainly had its share of chaos and confusion (Halpern & Tramontin, 2007, pp. 171–197; Kaul & Welzant, 2005; Norris et al., 2006), order came out of that maelstrom fairly quickly, and everybody thought they had learned a lot of lessons. Then along came hurricane Katrina and everything got turned upside down.

What Happened with Katrina?

In any disaster there is invariably an attempt to fix blame. If blame can be fixed, then people may start to believe that the impossible, out-of-control, insane, unbelievable, chaotic, and unfathomable event can be contained, made sense of as to the reasons it occurred, and a sense of control regained as to what went wrong and how it can be made right the next time. In that sense hurricane Katrina is no different from multitudes of other natural disasters that have hit other countries. Indeed, in comparison to typhoons and earthquakes that have plagued Asia and the Middle East, it is a relatively small event, and certainly so in regard to loss of life. Yet the recriminations from hurricane Katrina are unending and rub raw nerves from the standpoints of socioeconomic, racial, political, and even interstate rivalries. While it is expected, rightly or wrongly, that there will be disasters in countries like Bangladesh, it "cannot happen" in the United States. We pride ourselves on controlling our destiny through science and industry, up to and including controlling nature. After Katrina, apparently not!

This is not an exposition about who's to blame or what's to blame. The emerging facts suggest that there is plenty of blame to pass around and share. However, what Anahita Gheytanchi and her associates (2007) have compiled is worth reporting as a way of looking at how the various systems within a disaster ecosystem operate, or in the case of hurricane Katrina . . . don't! Gheytanchi and her associates report 12 key failures of response.

1. *Lack of efficient communication.* The sine qua non of disaster mitigation is communication. Both within and between the primary and super mesosystems, communication failed. At least four separate command structures were operating in Katrina's aftermath: two command structures in FEMA and two military command structures. That's at least two too many and resulted in crossed communications, duplicated or incomplete efforts, and generally clouded decision making.
2. *Poor coordination plans.* Coordination is about moving assets to where they are most needed. The inability to coordinate relief efforts ranged from not utilizing one of the finest hospital ships in the world, the U.S.S. *Bataan,* which sat idly offshore, to an inability of FEMA to find buses and drivers and move people out of the Superdome, to hundreds of trucks filled with ice sitting idly in Memphis freight yards with no place to go, to thousands of house trailers sitting in Arkansas when they were desperately needed in Mississippi and Louisiana.
3. *Ambiguous authority relationships.* The Department of Homeland Security remained on a "pull" basis, which means that the state had to request federal assets, rather than a "push" basis, which means that assets would be immediately made available to the state. The National Response Plan Catastrophic Incident Annex (NPR-CIA) should have been invoked prior to landfall, but in fact was never invoked. The prevarication and waffling by Louisiana state and local governments on instituting mandatory evacuation because of the cost, even though they were getting intense pressure from federal authorities to do so, caused severe problems that culminated in the Superdome fiasco.
4. *Who's in charge?* Factious political fights plagued relief efforts. The shifting of blame from the mayor of New Orleans to the governor of Louisiana to the president of the United States settled nothing. Lessons from previous hurricanes about coordination among federal, state, and local governments have not been learned or at least not been put into practice. Laws that govern the use of the armed forces in the continental United States also severely hamstring efforts to quickly deploy military personnel and need to be changed.
5. *Counterterrorism versus all-hazards response.* Money, staff, and other assets have been drained out of FEMA and moved to Homeland Security efforts to combat terrorism. A natural disaster the size of hurricane Katrina dwarfs any terrorist attack up to a nuclear detonation or release of the plague. Yet Homeland Security funded disaster preparedness for terrorism as opposed to natural disaster at a 7-to-1 ratio pre-Katrina.
6. *Ambiguous training standards and lack of preparation.* Across the board, training and experience with disasters were lacking. While the aforementioned FEMA training to become a certified LEMA manager sounds good, the reality is that the training requirements to become an emergency manager and become certified were cumbersome and difficult to complete. Standards for accreditation of response agencies were also vague and not tied to any performance-based evidence.
7. *Where is the "learning" in lessons learned?* A multiagency hurricane exercise that very closely resembled Katrina was completed prior to the storm. Outcomes closely paralleled what actually happened. Yet failure of local and state governments to follow up and take advantage of the exercise doomed it to collect dust on the shelf. This is not the first instance of failure to heed learning from the past. Putting into practice all of the procedures necessary to stave off a disaster like Katrina is difficult, costly, and time consuming; it demands expertise and interagency cooperation at the local level and vertical integration with state and federal agencies. Tackling the logistical and tactical problems involved in implementing those procedures takes a backseat when the danger is not imminent.
8. *Performance assessment was not integrated into the process.* In an evidence-based world, continuous performance assessment should be built into disaster relief efforts, but that is not the case. Performance evaluation is especially lacking in mental health provision. An assessment device that provides benchmarks and rubrics to gauge how relief is proceeding and how well it is going is sorely needed so that best practices models may be generated. There was discussion about that after 9/11, but it still hadn't happened 7 years later. To this day there still is no clear way of systematically evaluating the services rendered (Watson, Brymer, & Bonanno, 2011).
9. *The geography of poverty.* Are race and socioeconomic status response factors? While race became a factor because the majority of the poor in New Orleans were black, the fact is that disaster plans as they are currently formulated put the poor, the elderly, the sick, and other disenfranchised

individuals who are not financially or physically able to evacuate, relocate, or rebuild at extreme risk without regard to race, creed, color, national origin, religion, sexual preference, or any other distinctive human quality.

10. *Rumor and chaos.* Urban legend and rumor, the bane of any disaster, ran rampant in New Orleans. No clearly designated official spokesperson appeared, giving clear, unconflicted, factual messages that could be believed. Exaggeration by elected officials of armed violence was given airtime by the media, and these rumors then turned into "facts" and took on a life of their own. At its best rumor served to warn people and put them on their guard. At its worst it turned into a self-fulfilling prophecy that slowed rescue efforts. Concrete, factual, up-to-the-minute information by an official spokesperson with both face and content validity was essentially absent. Above all else, an ironclad rule in any disaster is that one highly valid, knowledgeable spokesperson gives facts out in a timely manner and dispels rumors as they arise.
11. *Personal and community preparedness.* There was clearly a sharp divide between what happened in Louisiana and Mississippi in regard to recovery efforts. Both states suffered an equal amount of catastrophic devastation along their coast. However, for whatever reasons, and there are many variables to be examined, Mississippi was more resilient. Whether the majority of its people had better resources and support systems is a different question from whether they were prepared. However, that question needs to be examined carefully, for both physical and psychological differences and perhaps even cultural differences that were demonstrated and heavily influenced long-term outcomes in the two states.
12. *Disaster mental health and the role of mental health professionals.* What actually works for reducing mental health problems in people afflicted with a disaster like Katrina is still not clear, and a great deal of research needs to be done to find out what evidence-based practices do work. Critical incident stress debriefing (CISD), which has been used and most certainly abused as a panacea, appears not to be the ultimate answer. Further, attributions that label survivors as suffering from a mental illness don't work very well either. The preferred operating mode now is the use of psychological first aid and social support (Watson, Brymer, & Bonanno, 2011). Self-efficacy models that foster self-reliance, coping, and problem-solving skills, focus on individual needs, seek to extinguish PTSD at early onset, and concentrate on functional recovery rather than looking for pathology seem to hold promise (Ruzek, 2006).

Psychological First Aid and Psychosocial Support as Applied to Disaster Survivors

As detailed in Chapter 1, the National Institute of Mental Health (2002) defines psychological first aid (PFA) as establishing safety of the client, reducing stress-related symptoms, providing rest and physical recuperation, and linking clients to critical resources and social support systems. Psychological first aid has now been adapted and modified from its initial use by Raphael (1977) into a first-order, evidence-based approach to working with survivors of mass disasters (Brymer et al., 2006; Hobfoll et al., 2007). It may be taught to paraprofessionals and nonprofessionals. For example, it is one of the training modules (CERT, 2011) that volunteer CERT workers get as part of their search and rescue work training.

Psychological first aid as it is applied in a disaster is designed to reduce distress, generate short- and long-term adaptive functioning, and link survivors with additional services (Watson, Brymer, & Bonanno, 2011). *The Field Operations Guide for Psychological First Aid* developed by the National Child Traumatic Stress Network and the National Center for PTSD (NCTSN/NCPTSD, 2006) is considered state-of-the art in that regard (Webber, Mascari, & Runte, 2010). Delivery of PFA includes a number of core actions (NCTSN/NCPTSD, 2006): make initial respectful contact by a warm engaging presence; gather and provide information in regard to supports needed to deal with immediate physical and safety concerns; provide and direct people in regard to practical assistance needed; provide for their safety and comfort both from a physical and psychological standpoint by linking them with social services; teach them basic coping skills if requested; and get information and help that will connect them to social supports, such as reuniting them with family and other social groups with which they are involved.

The job of CFA workers is not to attempt to engage in therapy or elicit details of the tragedy; rather, it is to reduce acute psychological distress by their supportive and compassionate presence through basic active listening and responding skills (Everly & Flynn, 2005). Initiating contact involves the notion of "just

being there" or "compassionate loitering" (Webber, Mascari, & Runte, 2010), which emphasizes careful observation, a nonintrusive presence, and caring, respectful contact. One example is the crisis workers who were available in the dining halls of Virginia Tech residence facilities and classrooms immediately after the shootings there. Volunteers had handouts on normal reactions to tragedies, self-care tips about trauma, and resource lists. Workers were instructed to engage and support students who seemed to be struggling by a respectful, nonintrusive introduction as a way to offer their support. They wore purple armbands to identify their presence. They reported that students initially would not speak to them, but as time went by and students started coming to terms with their grief, they would stop by and thank them for being there (Lawson, Bodenhorn, & Welfare, 2010).

Even doing the foregoing may not be necessary as most people are pretty resilient after a disaster (Hobfoll et al., 2007). As indicated in Chapter 2, Culturally Effective Helping in Crisis, insistence on participating in "psychotherapy" may be met with anger and extreme resistance. In support of the concept of voluntary participation, Bonanno, Westphal, and Mancini (2011) found that a one-size-fits-all intervention might hold no advantage over, and could even undermine, the self-efficacy and resiliency of survivors. For many others, PFA may be both necessary and sufficient. Finally, for some few others, PFA may be necessary but not sufficient.

When More Than PFA Is Needed

It was first thought that severity of exposure to the event and severity of postevent stress and adversity would be the greatest factors indicating the need for more in-depth intervention for serious and chronic psychological problems (Norris, 2006). However, since 9/11 it is clear that degree of exposure or proximity to the attacks does not explain all of the persons presenting with severe psychological problems after a disaster. An individual waving an American flag for hours and hours over an interstate highway 1,000 miles from the impact sites, and refusing to come down for safety, is one example among literally thousands of individuals across the country who "lost it" after 9/11 and needed something more than PFA. In other words, vicarious traumatization through exposure to merely seeing or hearing about disaster events could instigate maladaptive psychological responding. As a consequence, Watson, Brymer, and Bonanno (2011) have compiled a laundry list from their own and a number of other researchers that total 22 risk factors for adults and 13 for children. We believe it doesn't make a lot of sense to try to go through that list and winnow out significant variables. What we do believe in is knowing how to use the Triage Assessment Form in this book. People scoring 20 or more are going to need something more than PFA for sure; they are going to need someone to monitor them closely until they regain some precrisis equilibrium and most likely should not be turned loose on their own. People in the high 20s, who are potentially lethal to themselves or others either by intended commission of unsafe acts or unintended omissions of activities needed to keep them safe, should not be turned loose. People in the high teens will most likely profit from PFA *and* a good deal of on-site psychosocial support so that they don't escalate into the 20s. People in the low teens are probably ideal candidates for PFA. Anybody in the single digits on the TAF probably needs to counsel us!

The Current State of Affairs

The problem with this latter approach, however, is twofold. First, it assumes that a large enough number of practitioners have the necessary crisis intervention skills to do this. If mental health practitioners are not available, then paraprofessionals or laypersons like those who operate in Community Emergency Response Teams (CERTs) and are taught psychological first aid as part of their training may be initial providers of psychological support. That may be stretching it a bit. With all due respect to CERT volunteers, we spend a lot of time teaching these "first aid" techniques to graduate students. They are not easy to implement, particularly when faced with a person in crisis, and we wonder if the estimated learning time of 1 hour and 15 minutes (including video) will be sufficient (CERT, 2011).

You will soon hear from a licensed professional counselor who was deployed in Louisiana post-Katrina. This counselor has extensive training and practice in crisis intervention. She is still the exception rather than the rule. Given her background and training, she struggled and reevaluated her therapeutic worldview as she went through her tour of duty. Her story is not much different from that of many others who were there with her. While the American Red Cross crisis counseling training program has trained thousands of practitioners, that resource was clearly not enough for hurricane Katrina. The Red Cross and government agencies were forced to suspend their

standards and bring in any licensed counselor, psychologist, social worker, psychiatric nurse, or psychiatrist they could get their hands on.

FEMA's crisis counseling assistance and training program (CCA-TP) is available to state mental health authorities once an area has been declared a disaster area by the president. That is a lot like closing the barn door after the horse has escaped. Way too many things are happening to stop and say, "OK, we now have a large, metastasizing disaster on our hands; let's do some training!" This training occurred in Memphis approximately a month after Katrina. To say it was mostly useless is being kind. We believe that training should come prior to any catastrophic event and follow-up refresher courses should go with it. After a congressional inquiry into this program's problems in south Florida, a critical review of it was instigated and a number of worthwhile recommendations were made to tighten it and beef it up—particularly in regard to coordination activities (Department of Homeland Security, 2008). None of those recommendations, however, made clear whether a municipality can actually get training prior to a disaster.

Young and his associates (Young, 2006; Young et al., 2006) have developed a comprehensive predisaster training program that holds much promise. It has a conceptual framework that differentiates natural and human-caused disaster and examines effects on both individuals and communities. It has both practitioner and administrative training components and specific modules on high-risk client populations and interfaces with other organizations. This fine program is time consuming, most likely expensive, and requires trainers who have expertise in both disaster mental health practice and administration. Those are difficult commodities to find.

Consistent and comprehensive training for mental health providers in crisis intervention as they matriculate through professional training programs has been piecemeal at best (Coke-Weatherly, 2005), as clearly described by Roberts (2005). That appears to be changing to some extent. The Council for Accreditation of Counseling and Related Educational Programs and the National Association of School Psychologists both require the teaching of crisis intervention in their accrediting criteria. While that may now be seen as necessary, it remains to be seen whether what is taught will be sufficient. Other professional accreditation agencies appear to make the provision of crisis intervention training voluntary.

Most certainly, Katrina was a megacrisis that had metastasizing effects far beyond its geographic landfall and a physical scope that had never before been experienced, with disenfranchised people shipped all over the United States. The terrorist attack on 9/11 probably had the widest range of vicarious psychological effects ever experienced in the United States, with the possible exception of the Japanese attack on Pearl Harbor. A number of national committees issuing from both 9/11 and Katrina have made numerous recommendations in regard to the provision of crisis services to individuals following these human-made and natural disasters. These recommendations have been summarized by Watson, Brymer, and Bonanno (2011) in their article on postdisaster psychological intervention since 9/11.

1. Be proactive ahead of time with pragmatic, flexible plans that match appropriate services to each phase of the recovery period.
2. Promote a sense of safety, connectedness, calm, hope, and efficacy.
3. Participate in groups with stakeholders to coordinate and learn from others, minimize duplication, and mend gaps in service.
4. Be culturally sensitive and consider human rights.
5. Be willing to undergo evaluation and open to scrutiny of practices.
6. Stay up to date on evidence-based practices.
7. Maximize participation by local populations and find and use local resources and capabilities.
8. Integrate activities and programs into larger systems to reduce stand-alone services, reach more people, and be more sustainable over time and space.
9. Use a stepped approach that focuses early efforts on practical help and pragmatic support, with psychological first aid for a generally resilient population.
10. Use triage assessment and focused care for those with specialized needs who require increased levels of intervention.
11. Provide technological assistance, consultation, and training to local providers.
12. Conduct needs assessment of the community with ongoing monitoring of services and program evaluation.
13. Support community-based cultural rituals, memorial services, and spiritual healing practices.

Priscilla Dass-Brailsford's book *Crisis and Disaster Counseling: Lessons Learned From Hurricane Katrina and Other Disasters* (2010) examines many of these