Chapter 14

MILITARY PSYCHIATRY AND DISASTERS

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INTRODUCTION

The authors have experienced combat and see a relation between the mass casualties and other aspects of combat and civilian disasters.[1,2] In addition to the various similarities between disasters and combat, understanding the dynamics of these situations and the modes of treatment are of great importance to the military psychiatrist. The military is generally called in to assist in large-scale disasters, as was seen in the destruction and population disruption occasioned in Florida and along the Gulf Coast by Hurricane Andrew in 1992 and the floods in the Midwest in 1993. An attempt to develop criteria for military medical interventions in the United States and foreign countries sustaining disasters would be helpful.[3] Such a review should include not only criteria for intervention but also arrays of personnel and equipment for such interventions. It is, therefore, the intent of this chapter to acquaint the military mental health worker and physician with these problems and, in doing so, to enable him to give appropriate medical and/or psychiatric aid when called to assist in similar settings.

Since World War II, sporadic articles[4–8] have appeared in the psychiatric literature discussing various aspects of military psychiatry and disasters. Most of these articles were written in the 1950s when the fear of future atomic war was at its highest and the need for preparation was at least being considered. One common conclusion by most of the writers was that there existed a lack of knowledge in psychiatric circles and that there was the need to learn and prepare in time. This is essentially the conclusion of this chapter.

Disaster is a state of massive collective stress caused by an external calamity over which neither the affected individual nor the society has control.

Disasters can be grouped into two categories:

- Natural disasters. Earthquakes, floods, hurricanes, and so forth
- Manmade disasters. War, fires, accidents, (industrial and transportation), and so forth

Disasters may also be grouped according to the onset, as follows:

- With warning. Floods, hurricanes, and so forth
- Acute, without warning. Fires, accidents, and so forth
- Chronic. War, warlike conditions, drought, and so forth

Disasters can also be subgrouped by their effect on property, income, involvement of a whole family or only one member, with massive casualties or with minimal physical casualties, and so on.

There is a lack of scientifically based data on the effects of disasters on human behavior. The reason for this lack stems mainly from lack of experimental studies by simulation methods. Experimentation is sharply limited by the fact that extreme stress, such as in disaster situations, cannot be reproduced in controlled, laboratory studies. Systematic studies of disaster victims by interviews or by questionnaires have the disadvantage of being performed some time after the disaster and thus depend on the recollections of the victim. Highest stress levels are associated with disasters with sudden, unanticipated onsets; disasters in which victims are unfamiliar with and unprepared for impact; disasters where victims are exposed to life-threatening situations and/or witness the death of others; disasters that impact on a large segment of local populations when accompanied by widespread property damage; and disasters that are followed by continued threat of recurrence.[9]

There has long been debate on whether to understand the psychological dysfunction that follows a disaster as arising from the disruption in the community or in the individual. Research in disaster has not helped in clarifying this point because the criteria for studying psychopathology have been inconsistently applied.[10] In fact, it is generally agreed that distress is often a normal reaction to abnormal circumstances, rather than a manifestation of character pathology.[11]

DISASTER PHASES

Few field studies have been reported during the period of the disaster itself. However, the most notable of these was by Tyhurst,[12] from which he was able to define a pattern of three overlapping phases and describe human behavior in the various phases. Glass[7] extended Tyhurst's classification, and

in accord with his model, we base our suggestions for psychiatric intervention.

Glass describes the five phases of disaster as follows:

1. Preimpact or threat period
2. Warning period
3. Impact period
4. Recoil period
5. Postimpact period

Each of these periods has its specific psychological and social phenomena; however, it must be remembered that there is an overlapping of phases and that not all disasters present five distinct periods.

Preimpact or Threat Period

The preimpact or threat period is everyday life, the time when we discuss the possibilities and probabilities of future disaster. At this time, whenever we assume that there is a high probability of disaster, preplanning and training should commence. Preplanning and appropriate training in a period of calm may produce, however, higher levels of tension and worry in society. Individuals tend to overcome anxiety in this situation by the mechanisms of denial: "it cannot happen to me"; and fatalism: if disaster occurs, no preplanning will change the outcome.

These attitudes cause apathy and disinterest toward the problem and, in the majority of cases, prevent defined planning; in addition, in some cases, plans are kept secret and, in the event of disaster, remain secret.

It can be argued that discussion of disasters causes increased anxiety in individuals. This is true but only in the minority of cases, and this anxiety can be overcome by proper explanation and realistic attitudes. In communities that have previous experience with disaster, attitudes toward preplanning differ. Feelings of denial and fatalism can change to overreaction, especially shortly after a disaster.

The tasks of mental health workers in the preimpact stage include becoming part of the planning team. Mental health workers can assist the team by presenting information on the psychological phenomena during disasters and methods to minimize undesirable reactions. In addition, by educating the planners about attitudes of denial, fatalism, and increased anxiety as normal behavior patterns in the preimpact period, they can encourage appropriate preventive measures.

Preplanning and training cannot stop an earthquake or hurricane, but they are definitely the best methods of preventing ineffective behavior in times of disaster and thus in assisting survival of the victims of such disasters.

Warning Period

The warning period is the period when disaster is imminent. The period may be minimal, a question of minutes or usually hours and, in unusual cases, days.

There has been much controversy in scientific literature[10,11] on the need to inform potential victims about impending disaster. This controversy is basically due to a misunderstanding of human behaviors. Some writers[10,11] believed that mispresented information could cause panic-like behavior and so aggravate the already extremely stressful situation.

Panic can be defined as an acute fear reaction marked by loss of self-control—uncontrolled physical flight or nonrational and nonsocial behavior. Panic occurs most commonly when an individual or a group has the feeling that it will quickly become too late to escape the impending threat and a feeling of entrapment occurs. The most common disasters in which panic occurs are in fires or similar situations when the route of escape is threatened. Flight is always directed toward a believed way of escape. When no escape route exists, panic does not occur. Strange as it may seem, panic, which prepares the body for maximal effort, can be in some cases the most effective way of escape for the individual.[13]

There is a tendency toward overemphasis of panic in the literature on disaster.[10,11] This reaction is relatively uncommon compared with other modes of behavior seen in disasters. It must be remembered that panic only occurs when threat to life is real and not before the disaster happens.

The current informed consensus[10,11] is that when disaster is imminent, accurate and clear information should be communicated to the probable participants. Information should be given in simple understandable language and should be repeated at regular intervals. When given an accurate picture, as bad as it may be, the individual can prepare for the oncoming event. Adverse reactions to such warnings are rare, and the common belief that they will occur is unfounded.[10,11]

Behavior patterns during this period are usually overactivity, denial, and fatalism, all of which are noneffective although some persons perform effectively by concentrating on protective action. Some potentially useful actions, such as stockpiling food,

gasoline, and other emergency supplies, can be carried to the extreme of selfish hoarding. This activity is one of the important behavior patterns that effective mental health and stress control intervention can help individuals and leadership modulate to keep in the communally adaptive range.

The effect of preplanning and training in such periods is obvious, with the majority of participants performing effectively. Previous experience of disasters by individuals allows them to participate in taking effective precautionary action.

The duration of this period can last days in extreme cases. There is no disruption of social structure, families tend to stay closely together, and there can be some group forming among individuals involved in the imminent danger.

Psychiatric assistance in this stage may seem impractical. Often, there will be no time for such aid, and the mental health team will have arrived after the onset of the disaster. However, military or civilian psychiatric and mental health personnel who are onsite during the warning period must, of course, be concerned with safeguarding their own survival as well as with preparing for their postdisaster roles. They may also have direct responsibility for safeguarding and/or evacuating psychiatric patients in inpatient and community-based programs. Those mental health personnel who are consultants to the civil or military leadership must continue to monitor and advise regarding crucial stress control measures, such as information dissemination, rumor control, effective staff operation, sleep planning, and individual and group stress management techniques.

Mental health and stress control teams that are peripheral to the anticipated disaster area may be called on to provide disaster relief. These teams should monitor the news, review their contingency plans, advise their highest headquarters of their state of readiness, and place their personnel on a higher state of alert. In the U.S. Army, these mental health teams include medical combat stress control detachments and companies (in the active component and the U.S. Army Reserve) and the neuropsychiatric wards and consultation services of active, U.S. Army Reserve, and National Guard combat support, field, and general hospitals. The U.S. Navy provides special psychiatric rapid intervention teams (SPRINTs) from its major hospitals for deployment to disaster areas. The U.S. Air Force could provide similar teams from its 50-bed air transportable hospitals. The Veterans Administration has provided debriefing teams of mental health personnel. Mental health and combat stress control personnel must *always* think proactively. They must drill at thinking ahead and defining their own contributions and never let themselves lapse into a purely reactive or passive mode.

Impact Period

The impact period occurs when the threat becomes a reality and disaster has struck. Duration of impact varies from seconds to hours depending on the type of disaster. We usually include in this phase the immediate postimpact stage before relief and rescue operations begin. Various models of psychopathology have been developed to understand the response of individuals to disasters. Warheit,[14] in a review of these models, stated that stressful events arise from and interact with the individual's biological constitution, the individual's psychological characteristics, the social structure (including interpersonal relationships), the culture, and the geophysical environment.

Psychological phenomena of this period (for acute, violent disasters such as earthquakes, tornadoes, explosions, and fires) have been grouped into three main categories by Tyhurst[12] as follows:

1. About 12 to 25 percent of those involved present *effective behavior* even though they are somewhat tense and excited. Many in the effective group are people who have training and experience in reacting to emergencies—the police, fire, emergency medical, and combat-trained military personnel. While not completely protected against dysfunctional stress reactions, these groups are able to apply their well-drilled team skills to the work that needs to be done. Sound preparation and training can bring more of the general population into this group.
2. Roughly 60 to 75 percent will be *dazed, stunned, and bewildered*. These individuals show lack of emotion, lack of decision, lack of activity, and automatic behavior in which they continue to apply "normal" habit patterns to the very abnormal situation (such as huddling or straightening up one corner of a completely destroyed room). This psychological state has been called the disaster syndrome, disaster shock, or disaster fatigue.[5] These people (like the mildly battle-fatigued soldier in combat) can often be "refocused" and turned into helpers if the effective per-

sonnel take them in hand, give them strong reassurance and positive expectations, and lead them in simple, group work tasks.
3. The remaining 10 to 25 percent may present highly agitated, uncontrolled behavior characterized by *hysterical reactions*, *severe affective disorders*, and even *psychotic-like states*. These psychological phenomena can be misinterpreted as states of panic. These disruptive cases need to be brought under control and calmed for their own safety and to prevent the agitated behavior from spreading to the larger group of disaster-fatigued people.

Social structure in this period is disrupted depending, of course, on type of disaster. Emergency social systems can be put into effect if such preparation has been made; if not, the immediate response is unorganized. Aid from outside the afflicted community has not yet arrived. Local leadership may begin to emerge in this period. During this phase, the family unit is of great importance with most people acting to keep this unit intact.

In this period of disruption of social structure and fight for survival, military mental health and stress control teams that find themselves fighting for life at the center of the disaster must, of course, be most concerned with their own survival. They should have been prepared by their training to be members of the effective group. They should continue to monitor and advise the effective group on stress control measures while assisting with acute survival and trauma life support activities. They may take primary responsibility for calming and shepherding the acutely agitated survivors while mentoring the effective group in how to mobilize the disaster fatigue group into helpers during the crisis. Mental health and combat stress control teams outside the life-and-death impact area continue to provide consultation, monitor the situation, and prepare for their roles in the recoil phase.

Recoil Period

The recoil period is the time when the primary stress has passed, and rescue teams and volunteers begin pouring into the disaster area. During this period, the afflicted community must rebuild and adjust to a new, although temporary, way of life. Secondary stresses, sometimes severe, may occur in this phase, depending on the type of disaster, for example, severe weather conditions after an earthquake. Earthquakes and hurricanes frequently leave large populations without shelter, food, or potable water and in danger of plagues from inadequate hygiene. They may cause disruption of natural gas lines with risks of fire and explosions. This period lasts until constructive return to the previous lifestyle begins; it can last days, weeks, or months depending on the type of disaster and on the individual himself.

Age-Specific Reactions

Mental health workers should be aware that not all people will react similarly in the aftermath of disaster. In fact, there are age-specific symptoms that occur in different age groups, as follows:[15]

- Preschool reactions: Crying, thumb-sucking, loss of bowel or bladder control, fear of being left alone, fear of strangers, irritability, confusion, and immobility
- Latency age reactions: Headaches, other physical complaints, depression, fears about weather, safety, confusion, inability to concentrate, poor school performance, fighting, and withdrawal from peers
- Preadolescent and adolescent reactions: Headaches, other physical complaints, depression, confusion, poor school performance, aggressive behaviors, withdrawal and isolation, and changes in peer group and friends
- Adult reactions: Psychosomatic problems, such as ulcers and heart trouble; withdrawal; suspicion; irritability; anger; loss of appetite; sleep problems; and loss of interest in everyday activities
- Senior citizen reactions: Depression, withdrawal, apathy, agitation, anger, irritability, suspicion, disorientation, confusion, memory loss, accelerated physical decline, and increased somatic complaints

Behavior patterns noted in adults in this stage are as follows:[5]

- The effective type: This group of people consists of those who remained effective during the impact period and additional individuals who have overcome the disaster syndrome. Out of this group, the constructive leaders will emerge.
- The dependent type: This is the large majority of those afflicted. These are people

who in the previous period showed the typical disaster syndrome and also some who, during the impact, were highly agitated. This behavior is characterized by childlike dependency, talkativeness, emotional release, and search for safety. Some of these individuals also present the staring reaction (unresponsiveness and staring into the distance). This group is highly suggestible.

- The nonfunctional type: These are people who have not overcome the disaster syndrome and remain dazed and bewildered and those who previously were highly agitated and have not yet calmed down. This group consists of the minority of cases although it is these individuals to whom initial psychiatric first aid should be diverted, usually in the form of reassurance, positive expectancy, and task assignment.

Community Reactions

Perhaps the most useful concept of community disaster response was developed by Gist and Stolz[16] in their description of community adjustment following a major building collapse. They noted that community adjustment was enhanced by identifying and augmenting natural helping systems. This is in marked contrast to the "waiting model," which implies that mental health workers provide clinic-based treatment on request from self-referring patients.[17]

Social patterns in this stage are the result of interactions between the afflicted community and the official rescue teams. The normal reaction is for the involved community to reorganize its social structure with outside assistance; although in devastating disasters with massive physical casualties, survivors may be incapable of such tasks. There is a tendency for survivors to rely on their own resources at this stage.

There is a marked tendency of group formation among survivors at this time. These groups are usually unstable and can interfere with rescue operations if not headed by positive and constructive leaders. The family remains in this period the most stable effective unit.

Leadership in this phase is a crucial element. As noted before, the majority of survivors are extremely dependent. Good leadership helps shorten the recoil period and assists individuals to return to constructive activity. The best leaders are local predisaster leaders or leaders emerging from the stricken population. Only when the afflicted community shows no signs of social reorganization and leadership should a leader be appointed from outside the community. Tierney[18] noted that disaster creates a very high demand for a range of activities that exceeds the community's normal response capability. Tierney described four models for adaptation of community structures to meet the needs of disaster:

1. Type 1. Established organizations perform the same tasks for which they are responsible during nondisaster times, with basically the same organizational structure (hospital, electrical or water supply workers, waste management, and so on).
2. Type 2. Expanding organizations are small and comparatively inactive during nondisaster times but increase during the emergency and also become involved in activities different from their everyday, nondisaster tasks. Military mental health organizations, the Red Cross, and the Salvation Army are examples.
3. Type 3. Extending organizations retain their predisaster structure but engage in disaster-related tasks that are new for those organizations. Examples include community service organizations that mobilize to assist disaster victims and business enterprises that provide needed resources and personnel.
4. Type 4. Emergent groups comprise private citizens who work together in pursuit of collective goals relevant to actual or potential disasters, but whose organization has not yet become institutionalized. Emergent groups develop in part out of the shared belief that there are disaster-related needs that are not being met by community responders. Such groups devise new structures that address these needs, engaging in tasks that are nonroutine for their members. An example might be groups pursuing a joint lawsuit.

Highest stress levels are associated with evacuations in which families are separated or in which there is a lack of consensus on the decision to evacuate. Emergency shelter stays that are protracted or the center of interpersonal conflict, evacuations that are poorly managed or expose victims to continuing environmental threats, temporary housing that is

perceived as dangerous or inadequate, failure to establish stable temporary housing, temporary housing or relocation programs that socially isolate victims from their old communities and neighborhoods, and exclusion of victims from, or their failure to qualify for, formal aid programs are all factors that exacerbate stress during the rescue effort.[9]

Application of Principles of Combat Psychiatry

It is in the recoil period that mental health assistance can be of the most importance. The basic principles of combat psychiatry should be applied in this situation, and these principles are as follows:

- Primary emphasis on proactive interventions. Promote positive coping behaviors, and prevent stress-induced dysfunction by consultation-liaison and education.
- Brevity. Keep treatment and interventions as brief as possible.
- Immediacy. Treat those in need as soon as possible.
- Centrality. Maintain only one policy of psychiatric treatment.
- Expectancy. Reassure those in distress that their reaction is normal, they will overcome it, and they will return to their previous selves.
- Proximity. Treat those in distress near the site of disaster. This principle seems to be as important in times of disaster as in combat.
- Simplicity. Keep treatment as simple as possible; avoid any attempts at psychotherapy, and only in extreme cases, use medications.

It must be stressed that the most effective treatment, as in combat, is fulfillment of physiological needs of food, fluid intake, rest, and clothing. These basic needs not only help strengthen the individual physically but also psychologically and can assist in preventing future psychological suffering.

The mental health team, being part of the medical team, assists initially in treating the seriously physically wounded, an important reason for including psychiatrists and nurses in the team. Stress control interventions are provided to the patients, their families, and the care givers in a few words concurrently with the life- and limb-saving support or during brief breaks from the triage activity. Nonmedically trained mental health personnel can triage the stress casualties who have no physical wounds. They can direct other nonmedical helpers to remove the stress casualties from the stimuli of physical trauma and begin the process of reassurance and replenishment in accordance with the principle of immediacy. While all sufficiently trained members of the mental health team should give priority to assisting with salvage of life and limb, it is contrary to doctrine to defer mental health intervention until all the physical casualties can be evaluated. A directive from The Surgeon General, dated 8 September 1918, pointed out the folly of the division surgeon who had set his World War I division psychiatrist to sewing up minor wounds while several hundred psychiatric (mild war neurosis) casualties flowed past to the rear and were lost to combat duties. Furthermore, if the stress casualties are not taken in hand (especially the agitated ones), they can burden, disrupt, and even endanger the rescue operation. Psychological disturbances are quite common among physical casualties of disasters, in contrast to what is seen among wounded combat casualties.

The following guidelines are proposed for mental health workers who are involved in disaster management and planning:[2]

- Provide for ongoing mental health services in times of crisis at locations that can best serve the population effected. Consult with disaster relief coordinators to determine the best location for services. Involve planners in decisions like this to empower leaders during loss of control.
- Practice "aggressively being there."
- Ensure access to all financial and service aid programs. Consult with administrators of these programs to propose locating services as close to the site of the disaster as possible, while assuring absolute safety.
- Provide ongoing consultation to leaders of the disaster relief effort to inform them of mental health needs.
- Keep families and other social units together.
- Allow for ventilation of fears and frustrations. With children, allow for ventilation of fears and frustrations through play.
- Establish regular communication with areas outside the disaster area.
- Ensure that the disaster relief effort concentrates on food, clothing, water, sanitation, and shelter as the basic needs of people in crisis.

The following specific interventions during the various disaster phases are useful in reducing the

amount of stress experienced by both victims and disaster relief workers.[19]

- During the preimpact period (alarm) and impact period phases, provide workers with as much factual information as possible about what they will find at the scene. Provide this information via radio communications or in a quick briefing as new personnel arrive at the scene. This forewarning can help personnel gear up emotionally for what they may find. Try to get information for workers about the location and well-being of their family members.
- During the recoil and immediate postimpact periods, remember that early identification and intervention in stress reactions is the key in preventing worker burnout. Review lists of stress symptoms; remember that multiple symptoms in each category indicate that worker effectiveness is diminishing. Use mental health assistance in field operations if plans have been made to do so. Mental health staff can observe workers functioning, can support workers, and can give advice to command officers about workers, fatigue levels, stress reactions, and need for breaks. Check in with workers by asking, "How are you doing?" Assess whether verbal response and worker's appearance and level of functioning match; that is, workers may say they are doing fine but may be exhibiting multiple stress symptoms. Try to rotate workers among low-stress assignments (such as staging areas), moderate-stress assignments, and high-stress tasks. Limit workers' time in high-stress assignments (such as triage or morgue) to approximately 1 hour at a time, if at all possible. Provide breaks, rotation to less stressful assignments, and personal support. Ask workers to take breaks if effectiveness is diminishing; order them to do so if necessary. Point out that the worker's ability to function is diminishing because of fatigue, and that you need him functioning at his full potential to assist with the operation. Allow workers to return to the scene if they rest and their functioning improves. On breaks, try to provide workers with bathroom facilities, a place to sit or calm down away from the scene, quiet time alone, food and beverages, shelter from weather, dry clothes, and an opportunity to talk about their feelings. Coworkers, chaplains, or mental health staff are to assist.

The main task of the mental health team is in a consultative capacity and not in treating individuals except in cases of extreme psychological impairment. Consultation should be given to the following groups:

- The medical teams in rescue crews, to assist in the diagnosing and treatment of psychological disorders.
- The local professionals, physicians, social workers, and teachers, in explaining the various behavior patterns and how to assist in overcoming them. It is also important to reassure local professionals and, by doing so, reinforce them. To avoid possible misunderstanding, explain that outside psychiatric aid has no intentions of replacing professionals of the afflicted community.
- Casualties among the rescue teams. Members of rescue teams themselves can be under extreme physical and psychological stress. Members of the mental health team should be aware of the appearance of abnormal behavior patterns among these individuals and advise on the changing of crews and rest for the afflicted ones.
- Psychiatric casualties. These casualties are seen in the previously described nonfunctional type of behavior. The highly agitated individuals are in need of appropriate sedation, while the dazed and bewildered need more intensive reassurance and simple occupational therapy. It is only with this relatively small group that individual treatment should be attempted by the mental health team.

Following the disaster, the following steps are important in returning both the victims and the mental health workers to a state of normalcy.[19]

- Arrange debriefings for all workers involved in the disaster.
- If dealing with military personnel, give line personnel an opportunity to participate in a critique of the event. Often, a critique is limited to officers and supervisors, but line staff participation can assure that workers are recognized for their contributions to the operation. In addition, their viewpoints

are valid and provide valuable input toward improving operations the next time around.

- The organization can help workers and their families to set up meetings to provide them with information about the event, as well as education about normal stress reactions in workers and the potential effects of such stress on the family.
- Formal recognition by the organization of a worker's participation in a disaster operation can mean a great deal. A letter in the individual's personnel file or a certificate of appreciation for contributions to an unusual and important job lets the worker know that his participation meant something. Workers who remained at the office or station "minding the store" during the disaster should also receive recognition; their contribution was essential, and leaving them out might precipitate guilt.
- Managers and supervisors should plan for the letdown their staff may experience. Discuss stress reactions in a staff meeting, and emphasize that they do not imply weakness or incompetence; it is similar to being wounded in action.
- If workers' reactions are severe or last longer than 6 weeks, encourage them to use professional assistance. Again, this does not imply weakness; it simply means that the event was so traumatic that it had a profound effect on the individual.

Postimpact Period

The postimpact period is the period of rehabilitation or building a new life. There is no limitation on the duration of this period, and it can last for the rest of the individual's life. During this period, outside assistance has stopped, and the afflicted community relies on its own reconstructed social structure.

In the initial postimpact period, reactions of guilt, grief, and depression are predominant, changing later to anger and resentment. Anger is commonly directed against some authority that can be blamed for the cause or outcome of the disaster. It is quite common at this time to see cases of scapegoating, especially if information is inaccurate.

Later on, as the disaster becomes part of the past, there can be increased physical illness and psychosomatic illness among survivors, together with the appearance of post-traumatic stress disorders. Some writers[9,14] believe that there is no increase in psychiatric morbidity as a result of disaster; this belief is apparently true of psychotic ailments but doubtful in regard to less extreme pathology.

The altered social phenomena in a community that has experienced disaster are usually seen in changed attitudes concerning economic and cultural values. At least in the immediate postimpact period, positive group forming is seen with the common trying experience producing a more tightly knit community although the stable family is the greatest asset in overcoming the stresses of this period.

Psychiatric treatment during this phase should rely on local professionals. It is important that they should be acquainted with the psychological sequelae of disasters on the individual.

SUMMARY AND CONCLUSION

We have briefly described some psychological and social aspects of disaster. Disasters affect communities and individuals as groups; we have mainly addressed the effects of disasters on communities, and this approach can be somewhat misleading because individuals exposed to more severe psychological trauma may sustain long-lasting consequences, such as post-traumatic stress disorder, while their cohorts are less affected. Thus, humans exposed to trauma respond as individuals as well as groups.

We mentioned the importance of preplanning and training in the first two stages of disaster. Even though there are no scientific data on this subject, it is our strong belief that thought and preparation are of major importance in all phases of disaster.

Preplanning and training are not just topics of importance for individuals and communities but are also important for those who are expected to assist in times of disaster. Mental health teams do not form on the spot; their formation takes time, and the time for this is before such disturbances occur.

A mental health team should consist of at least five mental health professionals, with a psychiatrist heading the team. This number of professionals should enable the team to cope with the problems

discussed previously. The team is part of the medical setup with all its members being able to deliver physical first aid in case of need.

In times of mass disruption, rescue systems must be kept as simple as possible. It is much easier to work with one large medical team with one leader than with a number of teams, each in charge of different problems. We have stated the need for psychiatric personnel to be capable of administering physical first aid, but we must also stress the necessity that the medical teams have an understanding of the psychological and social phenomena of disaster.

The mental health team can consist of members from all mental health care professions—psychiatrists, psychologists, psychiatric social workers, and psychiatric nurses. We do not believe that there is any special composition needed to make up the team. But we do believe that the team must be composed before the disaster and that it must operate with one agreed on policy.

Disasters produce psychological suffering among survivors, but with appropriate interventions, some of the later effects of postdisaster disturbances can be avoided. It is essential that mental health circles become interested in and prepared for disaster situations.

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