Developmental 3 stages of survivor behavior

OVERVIEW OF CHAPTER

Description: Sets the stage for recognizing the crisis response and

adaptive behavior of survivors across post-disaster

time phases

Purpose: To systematically categorize behavior processes

through time phases

Content: Developmental phases of individual reactions

following natural disasters

Learning • To become aware of behavior, thinking, and feelings
Objectives: of survivors with the passage of time post-disaster.

 To conceptualize the sequences of changes as the survivor adapts to different stages of the disaster.

DEVELOPMENTAL PHASES OF REACTIONS TO DISASTERS

Trying to understand survivors—their suffering, what they have gone through, and the problems they face in the near future—is a unique, sobering, and challenging human experience.

Human reactions across the time frame after a catastrophic disaster can be said to fall into the following transitional phases:

- · Threat Phase
- Impact Phase
- · Recoil Phase
- · Early Aftermath Phase
- Late Aftermath Phase

In the following section, reported human reactions during these phases are organized and described from the biological, psychological/emotional, interpersonal, and sociocultural perspectives. These reports are not inclusive, as the effects of the disaster interplay with all the adapting efforts human beings bring to bear in order to cope with unfamiliar and uncontrollable circumstances. Documented accounts of survivor responses and adaptation behavior in the late aftermath phase are especially sparse, both in the literature and anecdotal experience.

55 THREAT PHASE

Modern technology has developed the capability of forecasting many natural disasters with the use of weather satellites, radar, and radio signals that are able to track storms, hurricanes, tidal waves, and numerous other devastating disasters. The use of print and electronic media to send emergency signals and messages prepares and alerts the threatened population to the possibility of potential danger. This initiates the stage known as the threat phase. This phase is absent in cases of sudden impact such as earthquakes, which cannot be predicted.

Unfortunately, no reports or studies exist on the biological response to disaster "alerts" signaled through auditory or visual stimuli. Nevertheless, it can be inferred that an increase occurs in a variety of levels of anxiety and other physiologic responses to the fears aroused by the "alert" stimuli. These reactions vary according to the experiences of the individuals in the affected region, cultural traditions, and the level of expectation based on previous disasters in the area.

Psycho-Social Perspectives

It has been observed that following a media forecast of an impending natural disaster, people are so concerned about hearing the latest reports that they organize their daily routines to be close to a radio or television. Rumors are constant sources of distorted information that flow through informal communication networks.

Reactions to the many "bits of knowledge" passed along vary from individual to individual and are influenced by cultural and social customs. Some people respond rapidly with planned, appropriate, and responsible actions. Other individuals, who deny the possibility of the disaster occurring, postpone plans to take care of their property or themselves. Some of the behavioral responses appear to convey the individual's sense of invulnerability and belief that "it can't happen to me" or "it won't strike here." Some individuals manifest an attitude of relinquishing responsibility to the "powerful" governmental system which "should take care of us." In this case, individuals choose to react with a passive-aggressive stance. In many cases, humor prevails, and many jokes circulate among the group.

All these types of expressions among adults are influenced by cultural and social norms. There are no documented reports of how children react.

In this phase, the adaptive defenses that are predominantly used are psychological:

Denial	Affects the perception of external reality and is closely associated with sensory experiences.
Repression	Consists of excluding from conscious awareness ideas and feelings that are painful/frightening.
Reaction- Formation	Expression of feelings such as fear, manifested in paradoxical forms, such as planning and attendance at "hurricane parties."

Interpersonal Perspective

As the knowledge of imminent danger pervades the community and the intensity of emotions results in increased nervous tension, interpersonal relationships take on different patterns. This increased family agitation can be equated with "worry work," which, in moderation, is a good coping mechanism. For example, family members may contact each other and plan helpful and supportive actions. There may be increased shopping activity for essential articles. Meetings may be convened for a variety of preparatory family activities that range from anticipatory to prearranged task assignments.

Sociocultural Perspective

The sociocultural community activities that parallel the initial individual preparatory phase also begin to influence personal reactions. For example, planning of religious meetings may be influenced by the religious customs, rituals, and other characteristics of the traditional social systems in the affected community. All cultural and social environmental influences have an impact on how individuals behave and react under the threat of imminent disaster.

MPACT PHASE

Biological Perspective

Little research is available on the biological reactions that occur a few hours or days after the impact of the disaster and the consequences of traumatic aftereffects. Descriptions of self-observed reactions by some individual survivors, supported by animal studies, indicate that there are changes in the neurochemical levels of the central nervous system associated with stress reactions that may affect immune responses. Complaints of constant or intermittent fatigue, exhaustion, and differing levels of restlessness have been noted, accompanied by changes in appetite and sleep patterns.

Psychological/Emotional Perspective

Disaster survivors show psychological and emotional reactions ranging through all levels of anxiety. As people's perceptions of themselves change, they experience fear, worry, shame, and guilt. Their difficulties in adapting and coping with their new situation are compounded by changes in their usual ways of reacting and behaving.

During this phase, feelings of fear, anxiety, apprehension, and demoralization "wash over" survivors like waves, sometimes stronger, sometimes weaker, but constant for a period of time. Other key psychological and emotional reactions observed during this phase include the following:

Sense of centrality: Belief that the affected person received "the brunt of the impact" and will have the worst outcome compared to others.

Cognitive clouding: Different levels of disorientation, disorganization, slowness of thinking, confusion, difficulty making decisions, inability to understand what others are saying, and time confusion; may last from a few hours to several days.

Psychic numbing: Feelings of flatness, disinterest, distance, and unresponsiveness that make it difficult to relate to individuals who previously were significant.

Shattering of the "death mantle": Inability to continue denying one's own mortality; when a person has come so near to death or has had to endure the death of a loved one, it is difficult to reinstate the denial-protection.

A group of adaptive defenses has been observed during this phase. Mechanisms such as "denial" help the individual adapt and cope with the painful and unbelievable change in his/her life.

The following dialogue between a mental health worker and a survivor shows how denial is useful to sustain control of emotions:

Mental Health Worker:

"It must have been a very frightening experience for you to see the water rising and no one available to rescue you."

Survivor:

"Well, it was quite an experience, like an adventure, like going to the movies and seeing a scary picture. I knew someone would come, though, so I waited. It wasn't too bad."

Another manifestation of the need to control emotions is the degree of docile and passive obedience exhibited by some survivors to the commands, orders, or regulations from rescue authorities. In contrast, other survivors become rebellious or antagonistic toward any rules, and demonstrate a wish to be in charge of their own routines in the disaster shelters. This behavior exemplifies the need to control situations in order to avoid being overwhelmed by feelings that are painful and intense.

Interpersonal Perspective

Observers have found that in interpersonal relations with the first group of helpers that appears on the scene, some disaster survivors behave in a helpless, docile, dependent, or indecisive way. Others make demands, complain, or express a sense of entitlement, or they use the authorities as scapegoats for the consequences of the disaster. A small percentage of survivors isolate themselves and are uncommunicative.

Some survivors express guilt feelings over the fact that others were less fortunate. For example, if their house was less damaged or they suffered fewer losses of loved ones, they appear to need to perform actions symbolizing atonement, while expressing defensive explanations for the fact that they were spared a fate as bad as that of their neighbors.

Adaptive defenses—which appear to help individuals initiate the coping activities they need to continue through the difficult days ahead—range from rigid, obsessive behavior in their interaction with other individuals to vacillation, changing their minds, and going along with any suggestions.

Some survivors form groups easily and extend individual support toward helpers or survivors. At times, the support behavior is inappropriate and is resented. All these individual efforts, either to relate to each other or to isolate themselves, seem to help people deal with the sense of crisis, emergency, and threat and with the unfamiliar world into which they have been plunged.

Sociocultural Perspective

The community is changed after the impact of a disaster. The pre-impact sociocultural characteristics of the community will continue to have an impact on individual behavior, especially in regard to support and relief operations.

Two examples illustrate this fact:

Following the Managua earthquake (1972), people fell on their knees to pray and remained like that for hours without any recovery efforts available due to the disaster's massive impact on all social resources.

Citizens in the Revere, Massachusetts, disaster (1978) used flashlights to signal to boats that survivors were on rooftops.

RECOIL PHASE

Biological Perspective

As time passes, disaster survivors manifest somatic reactions. Medical professionals who work with survivors report increases in psychosomatic complaints, a rise in interference with usual biologic functions, and the occurrence of acute flare-ups of chronic somatic conditions. Cardiovascular problems have been reported, and conditions that had been previously controlled, such as blood pressure and diabetes, need readjustment in medication.

Psychological/Emotional Perspective

Psychological/emotional reactions vary when survivors return to their neighborhoods for the first time and realize the consequences of the impact of the disaster. As they begin to ascertain what it will take to begin reconstructing their lives, reported reactions range through all the known manifestations of grieving, mourning, despair, and "working through" of loss that are familiar to mental health professionals.

For many survivors, life becomes a series of painful days, as they work through the task of achieving resolution and resignation. They deal with personal emotions and interpersonal relations, while at the same time taking care of daily living tasks. At times, survivors experience moments of intense feelings of helplessness.

Levels of vulnerability are manifested, which tends to strip individuals of their usual coping and adaptive defenses. At times, their usual psychological mechanisms fail, making it difficult for them to deal with the multiple demands of decision-making needed to reconstruct their lives.

Sometimes these behaviors seriously interfere with the task of dealing with disaster assistance staff. These workers, who have to clean up after the devastation has destroyed the structure of streets and houses, need to interact with citizens. They must use equipment to clean roads, haul uprooted trees, repair water pipes, and reconnect electric wires. To do this, relief workers will intrude into "living spaces" of the survivors. Emotional and violent reactions resulting from misunderstandings between survivors and workers have been reported.

In addition, decisions have to be made and negotiations have to be initiated with plumbers, architects, banks, and others whose assistance is needed to return the household to normal. These tasks require from the survivor the ability to solve problems through clear thinking and emotional stability. Both of these characteristics, however, may be impaired at these crucial moments.

In this period, feelings are easily hurt and conflict arises from survivors' need to ask for help, which means that they must suppress their sense of humiliation and pride. Their awareness of having lost a known sense of security and independence, without knowing if they will ever regain it, adds to the bitter pain of these moments.

Interpersonal Perspective

During the recoil phase, a mixture of behavioral patterns appears in interpersonal relationships, some of which are paradoxical. For example, some survivors who tended to be within groups in the early phase following the disaster will shift their behavior and isolate themselves, showing reactions of rigid independence. These individuals will have difficulty interchanging efforts and resources and sharing the materials supplied by the rescue workers.

Also in this phase, it appears to be difficult for individuals to maintain steady, predictable relationships between themselves. People get angry easily, feel hurt and discriminated against for not receiving their fair share of the "relief" resources, blame others for their fate, or feel guilty and greedy. In areas of especially scarce resources, a percentage of the population develops a "victim" response when frustration begins to accumulate, with its accompanying expression of entitlement, learned helplessness, expectations of assistance, and reactions of depression.

The increasing intrusion of the events that follow the disaster, combined with the accompanying loss suffered, makes the individual feel like a failure as he/she negotiates with others. An individual may feel that there is now "proof" that he/she is dependent on others, rather than strong, able, and in control. These reactions begin to alter and distort relationships between individuals and their support systems, and some survivors avoid getting involved with other individuals as a method of regaining control. Paradoxically, this behavior compounds their difficulties in dealing with the crisis situation, because to resolve their problems they must interact with many people. For most individuals, over time, these feelings of self-disparagement slowly disappear and characteristic personality traits and social skills reemerge.

Sociocultural Perspective

During the recoil phase, active efforts by groups or individuals emerge within the community. This aids in revitalizing the community social structure and slowly helps the affected social agencies to function more effectively. Survivors, who have regained some sense of normality, begin to take on the functions ascribed to governmental, religious, and social and human service agencies. A sense of competence is regained and continuation of functions to assist survivors takes over as the outside relief workers begin to leave the community.

Organized religious activity continues in many of the community groups, at times with increased celebration of reactivated and reestablished rituals, such as thanksgiving for the living or prayers for the dead.

■ EARLY AND LATE AFTERMATH PHASE

In the early aftermath phase, a reduction in the outpouring of community support is observed. This support reaches its height just after the impact phase, with heroic,

altruistic, and loving acts of generosity shown by the community itself and the outside world. Occasionally, this outpouring of objects and gifts adds another aspect of trouble, as officials attempt to choose the recipients of these gifts in a fair and appropriate manner.

Documentation of the events and reactions that appear in this period is spotty in the literature, and few observations have been reported. Staff of assistance and relief operations agencies leave the affected area, so few observers remain to document human reactions. Little research is available on the adaptation processes occurring in the later months or years following the disaster.

However, anecdotal evidence and newspaper articles reveal that a majority of survivors reconstruct their lives and that new buildings go up in the community. Levels of individual adjustment vary according to the resources that survivors have at their disposal. Some groups, especially the elderly, continue to manifest chronic anxiety and depression. Most seem to achieve resolution of the crisis situation through individual patterns of adaptation and resignation to the experiences and loss.

It is not known to what extent many survivors continue to carry the "scars" of the disaster experience. Some accounts have documented psychophysiological reactions to traumatic "signal" stimuli, such as the sound of rain on the roof, media announcement of tornadoes, or the rumble of a train that sounds similar to an earthquake.

Survivors appear to make increased and continuous use of their support systems for a long time. Many months after the event, there is an ongoing need to "vent," to have others acknowledge the traumatic nature of the event, and to receive acceptance of behavior that still feels alien to the individual.

As the community begins to put the trauma produced by the disaster into perspective, explanatory stories emerge. The disaster becomes a milestone that bonds individuals and allows them to share a sense of history that is unique to the survivors.

Documented accounts of survivor responses and adaptation behavior in the late aftermath phase are also limited, both in the literature and anecdotal experience. In most of the documented disasters, a large percentage of the population has returned to their normal activities, even though their neighborhoods are still in the process of reconstruction and reorganization. The first year anniversary date generally evokes traumatic memories in the survivors, who may notice a reemergence of anxiety and depression.

READING LIST

Cohen RE. Developmental phases of children's reactions following natural disaster. Journal of the World Association of Emergency and Disaster Medicine 1986(1-4):89-95.

Cohen RE. Reacciones individuals ante desastres naturales. Boletin de la Organizacion Panamericana de la Salud. April 1985.171-180.

Gavalya AS. Reactions to the Mexican earthquake: case vignettes. *Hospital Community Psychiatry* 1987;38:1327-1330.

Green BL. Traumatic stress and disaster: mental health effects and factors influencing adaptation. In: Lie Mac E, Nadelson C (eds) and Davidson JRT, McFarlane A (section editors). *International Review of Psychiatry* (Vol II). Washington, D.C.: APA Press, Inc. and American Psychiatric Association; 1993.

Laube J, Murphy S. Perspectives on disaster recovery. Norwalk, Connecticut: Appleton- Century-Crofts; 1985.

Madakasira S, O'Brien KF. Acute post-traumatic stress disorder in victims of a natural disaster. *Journal of Nervous and Mental Disorders* 1987;175:286-290.

Murphy SA. An explanatory model of recovery from disaster loss. Research in Nursing and Health 1989;12:67-76.

Myers D. Disaster response and recovery: a handbook for mental health professionals. Rockville, Maryland: Center for Mental Health Services; 1994.

Rundell RJ, Ursano JR. Psychiatric responses to trauma. Hospital and Community Psychiatry 1989; 40(1).

Sharan P et al. Preliminary report of psychiatric disorders in survivors of a severe earthquake. *American Journal of Psychiatry* 1996;153:4.

Tyhurst JS. Psychological and social aspects of civilian disaster. Canadian Medical Association Journal 1957;76:383-393.