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GENERAL CONCEPTS IN UNDERSTANDING DISASTER BEHAVIOR

This chapter presents a number of key concepts considered fundamental to the understanding of how disaster victims react. Most mental health practitioners already know and use these concepts in their practice, but the authors believe these concepts are also basic to the development of theories that explain behavior after catastrophes. As these concepts and theories are identified and described in this handbook, professionals may gain a better understanding of which range of reactions are common, and they may be able better to diagnose and treat victims suffering from reactive emotional impairment.

This foundation knowledge includes these key interrelated concepts.

- Stress and crisis;
- Loss, mourning, and grieving;
- Social and emotional resources; and
- Coping and adaptation

Earthquakes, floods, or tornados are stressors that affect the psychophysiologic equilibrium of the victim, and the stress they produce may result in personal crisis. This crisis period is frequently a crucial turning point for the victim—one that influences both present and future emotional and behavioral reactions.

A catastrophe always causes varying types and degrees of personal loss resulting from death, injury, unemployment, or destruction of property. A victim who has suddenly lost an intimate, meaningful bond characterized by ambivalence will experience a process of grieving similar to what generally happens when a person sustains the natural death of a family member, meaningful relative, or close friend. In disasters, however, mental health practitioners should remember that this sense of loss and change may come not only from death, but also from the destruction of one's personal property and the devastation of one's environment. Frequently victims mourn the bond loss of the security and the familiarity of their home, their valued mementos, or their

neighborhood. An individual also goes through a grieving process when loss of income is sustained either through destruction of property and/or unemployment.

A person's psychological and behavioral response to a disaster is conditioned by his/her system of social and emotional supports that help resolve stress reactions. The nature of a person's social matrix may also produce powerful influences to protect him or her from the aftermath of a crisis event. An individual's psychophysiologic mechanisms and internal resources, as well as the supportive network of family and friends, are extremely important in this process of readaptation and resolution. An addition to these personal resources might include assistance and services available in the community to help the person in distress

Coping as an interrelated set of psychophysiologic mechanisms stimulated by stress and crisis, loss and mourning, and operant support systems, promotes types of behavior that are designed to achieve a state of equilibrium. These adaptive behaviors protect the individual by avoiding, altering, or managing the stresses of disaster.

These four concepts will be examined in this chapter so that mental health professionals can relate their knowledge about the dynamics of disaster with expected reactions, in order to facilitate their recognition and treatment of these problems.

STRESS AND CRISIS

Stress

Stress and crisis are interrelated psychophysiologic concepts Stress consists of physical and emotional reactive tensions that can emanate from objective events and/or external stimuli, called stressors. A natural disaster unchains a series of stressors that cause varying levels of tensions for its victims. Theorists have associated stress with a variety of factors, which vary by source and by type as well as by the suggested mechanism for discomfort resolution. These factors include the following approaches:

- Antecedent, mediating, and intervening factors,
- Changes in one's biological-physiologic systems;
- Impact and perception variations on a person's cognitive process, and
- Stressors as social and psychological events and their symbolic meaning.

One author defines stress as those internal forces that resist external threats, and links this concept with the body's response to symbolic experiences and social and psychological events. Stress, then, is the interactive force between the body's organism and one's external en-

vironment (Wolff, 1953). Another author defines stress as a state manifested by specific symptoms consisting of changes within the biological system that have been induced by a group of stimuli or agents (stressors). Using the notion of homeostasis as a regulatory system within the body, he states that the stress condition is an outcome for self-preservation when one is attacked by these external agents (Seyle, 1956). Lazarus also employs the theory of equilibrium and sees stress as related to cognitive processes when one faces threat and must appraise what has happened. When an individual anticipates psychological or physical harm, levels of stress increase and may immobilize the individual or cause feelings of hopelessness expressed as anxiety (Lazarus, 1974).

In addition, researchers have described stress as the outcome of disrupting customary activities; the source of that disruption may be antecedent, mediating, or intervening factors. Acting to increase or decrease stress, these factors consist of prior events (stressors) that have not been fully resolved, internal and external constraints, affective cognitive processes, and one's social expectations (Dohrenwend and Dohrenwend, 1978).

New findings of substances called endorphins may help clarify stress reactions. This group of brain chemicals composed of protein molecules may be a key factor in the brain's system to signal and register emotional behavior. These molecules are potent, specific, and selective in their actions on nerve cells and appear to be linked to certain aspects of behavior. The endorphins are believed to act as transmitters of signals between nerve cells. The true functions of the endorphins and the regions of the brain in which they function are still unknown, but their structural relation to pain and to the neural pathways of emotions offers a hypothetical construct that can be linked to stress behavior through physiological modulation of behavior, pain perception, and emotional regulation (Snyder, 1978).

To summarize:

- Stress is envisioned as a state within the total organism of the individual and can be related, at a specific point in time, to a person's psychophysical condition;
- A variety of environmental stimuli can produce stress;
- Individuals respond differently to the same stimuli. Some appear immune to stimuli stressors while others are particularly vulnerable to conditions that produce personal disequilibrium;
- Stress states produce psychobiological responses of varying lengths. These responses will be determined by the number, frequency, intensity, duration, and priority of the demands made on the coping system of the individual; and
- Reactions vary depending upon the context, the force of the stressor, the state of the individual's health, the types of support

systems in the community, the family network, and the individual's habitual patterns of human interaction. In general, the stress system may be viewed as fluctuating, open-ended, dynamic, and fluid.

The situation of Mr. M., a 38-year-old salesman who lost his wife and only child in a major midwestern flood, exemplifies a stress reaction to loss of loved ones, home, and job:

> Mr M. was interviewed on the fourth day after the disaster He had objected to some routine questioning to itemize the objects he had lost, with the objective of replacing them When faced with focusing on the concrete task of describing the objects, he broke down and started to cry. He composed himself in a few minutes, excused himself, and tried to explain how "strange" it was for him to feel tense and frightened all the time. He related this condition directly to the time he became aware of the flooding waters and to the consequences that followed. He described difficulty in swallowing and feelings of dread whenever anyone approached him. He could not concentrate enough to understand what people asked him. Instead, he became aware of his heart "racing" and his stomach contracting, and he experienced heightened feelings of irritability He felt he could not stand another demand or intrusion into his life and wanted to be left alone Everything was too much of an effort for him. He believed the "bureaucrats" were efficient but cold and insensitive and that they added to his stress

Crisis

A crisis is a crucial period in a person's life, a turning point that has both physical and emotional consequences. Specifically, a crisis is a time-limited period of psychological disequilibrium, precipitated by a sudden and significant change in an individual's life situation. This change results in demands for internal adjustments and the use of external adaptation mechanisms that are temporarily beyond the individual's capacity.

The individual in crisis may be seen as a holistic system, affected by an interplay of dynamic changes. These changes occur when forces of different levels of strength collide. These forces in turn are continuously influenced by natural, occurring, regulatory bio-psychic mechanisms designed to bring about a state of balance and personal equilibrium. There are both inputs and outputs of energy and information into the system The essential point of crisis is that the intensity of a system's energy exceeds the capacity of the organism to adjust and adapt. The individual is overwhelmed and the system goes into a state of disequilibrium or imbalance.

The severe fluctuation of individual homeostasis in the face of a crisis event is produced by the disorganization of psychological and somatic systems The consequences of this fluctuation include severe personal tension and stress. This imbalance may be induced by the death of a

loved one, loss of income or property, illness, divorce, birth, relocation, or other important personal factors As an outcome, changes in role patterns and in usual or expected behaviors often produce, as a secondary consequence, problems of interpersonal relationships. As these changes present themselves, the individual tends to develop new patterns and behaviors in order to manage stress and therefore diminish discomfort and pain.

An example of a precipitous change in life situation is highlighted by the following story told during a recovery effort after a hurricane:

> A 48-year-old mother of two adolescents, recently divorced, was trapped in her car by fallen electric wires. She had to remain under that danger for over seven hours until the rescuing team extricated her. She was brought to a shelter, where she found out that her neighborhood had been severely damaged No one, however, could inform her as to whether her two children were safe, nor to which shelter they had been taken For three days she tried to find out, but due to road conditions, disrupted phone lines, and the other priorities of the few disaster workers, she was unable to get information When interviewed, she expressed anxiety and shocked feelings at how she was being "pushed around" Her speech was rambling, repeating over and over how she should never have left her children alone She already felt that the divorce had been traumatic enough to them and now, again, she felt that she was a bad mother. Her sense of helplessness, anguish, disorientation, self-accusations, and continuous and frantic attempts to find out where her children were, coupled with her refusal to listen to or accept any explanations, reflect the first cycle of crisis behavior

The crisis model has considerable significance for mental health workers helping disaster victims. First, it conveys an understanding that certain life events produce a loss of habitual modes of behavior due to the personal turmoil, tension, and emotional upset that accompany stress. Second, the theory of crisis situations signals crucial periods when an individual is faced with ongoing decisions that have long-term implications for subsequent life styles and levels of adjustment.

One example of a crucial period is the bereavement following an important loss. To understand the role of bereavement, the quality of the personal relations that have been severed should be examined. A high percentage of mourners cannot move beyond the hopeless, giving-up stage. This in turn precipitates different levels of depression, including interference with all the decision-making functions necessary for victims to reorganize their lives. Because of this inability to deal with all the human and bureaucratic interactions necessary to obtain relief resources, the crisis feelings intensify. The continuation and intensification of the individual's apprehension of the crisis situation stimulates a circular down-spiral leading to and including a lack of energy, depression, passivity, loss of self-esteem, and helpless behavior The way an indi-

vidual deals with a problem during a period of emotional stress influences whether one emerges from crisis with increased susceptibility to mental disorder or an increased likelihood of improved coping capacity.

Third, crisis theory shows that the individual in a state of disequilibrium expresses two parallel characteristics, one of hope and reaching out for help, the other increased susceptibility to influence by outside forces Given these two characteristics, it is a propitious time for mental health intervention.

Crisis, then, is a life situation that involves change, threat, or challenge resulting in personal imbalance or disequilibrium. It may emanate from developmental factors such as puberty, pregnancy, or middle age, or from accidental factors such as a car crash, fire, or natural disaster.

Other points in crisis theory:

- The objective reality of a crisis is the expression of societal norms, values, and culture and therefore will differ depending upon the people or society involved. Some groups will define a certain event as producing crisis while others will not;
- The process of subjective interpretation of a hazardous event modifies what society has objectively defined. Individuals will give different meaning to the event, depending on their perception of what has occurred, their past experience with hazardous events, and their success or lack of success in managing its impact; and
- The process of reconstitution involves marshaling personal and social resources in the search for equilibrium and effective functioning During this final phase emerges individual activation of the skills necessary to cope By coping, one may attempt to change, reduce, or modify a problem; one may devalue an event by seeking satisfaction elsewhere; or one may become resigned to what has happened and then attempt to manage the resulting stress This final phase of crisis involves finding appropriate defenses and ways to master negative feelings during this state of turmoil.

Finally, it should be added that stress and crisis are concepts associated with loss and mourning, social and emotional supports. and coping and adaptation It is evident that a calamity such as a fire. hurricane, or earthquake is a hazardous event that produces stress and crisis. The phases of crisis and its psychological dimensions are of extreme importance to mental health workers attempting to understand disaster victims and to intervene in offering them psychological help.

LOSS, MOURNING, AND GRIEVING

Another set of concepts that is of particular use in disaster work

consists of loss, mourning, and grieving. The last two terms almost always refer to the reaction produced by loss, especially the death of an important individual in a person's emotional life. Although the discussion of loss usually focuses upon death, it may include property destruction or sudden unemployment; impaired physical, social, or psychological function; or separation. Mourning and grieving, then, are emotional processes that emanate from an experience of loss, and it follows that disaster victims may experience a process of mourning and grieving.

Among many other professionals, Kübler-Ross has been calling attention to the processes of death and dying. Individuals faced with the imminence of their own death or of persons close to them go through a five-stage process: denial, rage and anger, bargaining, depression, and acceptance (Kübler-Ross, 1976). It has been said that these five stages do not always occur or do not always appear in a specific order, but the stages and their order are strongly influenced by the person's total personality and philosophy of life (Shneidman, 1976).

The processes of mourning and grieving, sometimes called bereavement, involve cognitive elements and are frequently expressed by physical and psychological symptoms The process begins with recognition and acceptance of the loss. The individual needs to come to grips with reality in not only intellectual but also emotional terms. When only an intellectual acceptance of loss occurs, the chance of emotional maladaptation increases. The process of grieving takes a person from shock through acute distress to resignation. Along the way the individual may suffer physical discomfort or increased susceptibility to illness, may withdraw into apathy, may express increased hostility toward others, or may become totally isolated (Lindemann, 1944).

The description of the bereavement behavior of victims after the Coconut Grove nightclub fire in Boston in 1942 shows many aspects of behavior found in shelters and temporary housing after a disaster involving severe loss. For instance, a predominant reaction is a strong defense of denial—that is, victims appear to be preoccupied with activities or conversations that do not include mentioning the loss. This delayed reaction appears to facilitate coping with uncontrollable emotions. Another example is as follows.

> The behavior of Mrs S., a 29-year-old woman who lost her fiancé one month before their marriage exemplifies the delayed reaction defense An earthquake had toppled a roof and killed her future husband The victim became the assistant to the head nurse at the disaster shelter and busily kept the pharmacy in order She moved bottles and pill containers from one shelf to another, sorted all first-aid materials, and made long lists of items on hand or needing replacement Any reference to her fiancé would make her turn her face away and change the conversation, no emotional sign of her stress or sadness was expressed However three weeks later she was seen at a crisis

center, depressed and agitated She had lost weight, was unable to sleep, and showed signs of mild paranoid ideation. With counseling help she was able to begin to acknowledge her loss, her ambivalent feelings for her fiancé, and her anger about the experience.

Another author, Peter Marris, has described these processes in a slightly different way. He sees mourning as the societal expression of bereavement that is usually articulated in religious practice or ritual. Grief is described as the feeling of profound conflict between contradictory impulses: to conserve all that is valuable and important from the past and at the same time to commence life anew, accepting the loss that has been sustained. If the grieving process is cut short in the search for immediate readjustment and reintegration, or if it is continued endlessly in preoccupation for what has been lost, the bereaved may never recover emotionally. Grief is mastered by abstracting what has been fundamentally important in the lost person or object and then facing life and accepting the new reality (Marris, 1975).

It is generally agreed that grieving is a process that begins with sadness, fear, anxiety, and anger, proceeds through pain and despair, and usually ends with renewed confidence and hope. These phases express the urge to recover the lost bond-person or object, they involve personal disorganization and emotional upsets, and they conclude with reorganization and adaptation (Bowlby, 1961). When an intimate bonded person is lost, the nature, severity, and outcome of the grieving process will depend upon many factors. These include the past relationship with the person lost; the mourner's personality, state of health, and age; and one's social and economic situation at the moment of grieving (Gut, 1974)

As indicated earlier, mourning and grieving can be associated with losses other than those due to death. A sense of loss may also derive from an inability to achieve goals or to attain valued freedom or independence. The resulting feelings of disappointment, deprivation, or failure generate dynamic forces with powerful consequences. These may contibute to pathological states and affect one's achievements. In this sense, loss also involves some form of mourning or grief. For example, an elderly person may experience a profound sense of loss from a slowing of physical functioning associated with age (Rochlin, 1965)

Sudden loss due to dislocation or relocation of families may also produce a process of grieving and increased anxiety. One author noted that a slum clearance project in Nigeria caused families to feel that they had lost the familiar surroundings of their neighborhoods and the social relationships developed over the years. Grief was a common reaction for these people (Marris, 1975). Fried had made a similar finding in Boston, where a dislocated Italian population grieved over the loss of

their homes, neighborhoods, and social attachments. As the familiarity and structure of attachments are seldom reestablished in a new and alien setting, relocated persons demonstrate a variety of symptoms including anger, a sense of helplessness, somatic distress, and a tendency to idealize one's former home (Fried, 1963).

It is logical to assume that all disaster victims experience varying degrees of loss. The most serious, of course, is the loss of a loved one. The mourning and grieving over this loss is complicated by the chaotic aftermath, which may include additional loss due to property destruction, relocation, and unemployment. Many disasters do not cause large numbers of deaths, but they may rob victims of home, mementos, neighborhood, and income. In these cases, it can be expected that disaster victims may experience a profound sense of loss, producing a mourning and grieving process. This is aggravated by the looting and vandalism that may follow a disaster.

SOCIAL AND EMOTIONAL RESOURCES

The social and emotional resources of the disaster victim are related to the victim's experience of stress and crisis, of loss and mourning, of coping and adaptation. What is usually referred to as a person's emotional and social support network will greatly influence an effective outcome to a disaster experience. For this reason, the mental health practitioner must be keenly aware of the types of social and emotional resources refugees have at their disposal, in order to assist them by linking and reinforcing this social matrix and therefore increasing their potentiality to cope with disaster stress. Traditional, stable, and structured social groups tend to promote strong bonds and thus help protect their members against postcrisis pathological outcomes.

An individual's resources are found within his emotional capacity, which is integrated within his social network. This is a fluctuating situation, with increased crisis potential as the age of the individual advances. *Emotional resources* are a group of genetic and physiologic endowments that includes the psychological skill and capacities of an individual, usually based upon past experience, which he uses to deal with the stress of a problem in order to resolve it. These emotional resources enable the person to withstand the pressures of stress, anxiety, and depressive feelings and to have the confidence that helps clearly define reality for the purpose of setting goals and taking effective action. When these resources are not enough to withstand the tension, the individual frequently succumbs to stress and expresses nonadaptive behaviors. *Social resources* are the sum total of an individual's relations; they form a network of social linkages or interrelationships with indi-

viduals and groups for the purpose of defining and gaining emotional reassurance (Tolsdorf, 1976; Caplan, 1974).

In dealing with a stressful event, an individual usually first calls upon his reserve of internal emotional mechanisms in order to resolve the problem at hand. When personal mobilization fails, an individual then uses the supports of his social network. This coping strategy, relying first on personal and then on social resources, is the generalized pattern for most individuals. Persons with mental illness, however, will often tend to rely first on social resources. If they fail, they employ their own emotional capacities (Speck and Rueveni, 1969).

It has been found that the quality of one's social network and the sociocultural context of the individual when acting within it are significant determinants of coping behavior. The social network may be a major force in maintaining certain forms of behavior or may be an important factor in determining the degree and direction of change. In either case, the network of relationships may provide the support to change or not to change, and may facilitate efforts to adapt or not to adapt, based upon the social and cultural values of the situation (Hammer, 1963).

The social network or support system has also been defined as that group of individuals who influence each other's lives by fulfilling specific human needs. For the individual, this is the fountain of love, affection, respect, approval, and self-definition. The linkages in a social network of supports depend upon the type and quality of communication among members. Thus, in employing this concept in treatment efforts, the mental health practitioner should seek to:

- Create a climate of openness and trust among network members;
- Facilitate interrelationships between system actors;
- Examine a person's behavior vis á vis the support system by focusing upon ways to modify or change it if necessary; and
- Make required changes in the social network by altering interrelationships between its members (Speck, 1969).

In times of stress, individuals may use both formal and informal support systems to help them manage their problems An example in the use of *formal supports* is the case of workers in a mental health facility who, suffering from severe job pressures, decided to improve formally the channels of communication among themselves. This was done by initiating regular group meetings designed to enhance the expression of feeling, the sharing of support, and the giving of advice and feedback in order to enable workers to cope more effectively with their job tensions (Pines and Maslack, 1978).

An example of *informal supports* is given by Gottlieb (1975) in his research on high school adolescents. Dividing his sample into four groups (elites, isolates, deviants, and outsiders), he analyzed how each

group coped with social, family, and educational problems. He found that when informal helpers (employers, teachers, clergyman, neighbors, or relatives) were available during the early stages of a problem and were accepted during the problem-solving process, adolescents used these helpers as their first line of defense against the loss of social and emotional equilibrium.

Group affiliation as a means of developing one's social support network is necessary when individuals have been displaced or relocated, or have suffered severe isolation In studying survivors of Nazi concentration camps, one author found that an inmate's ability to cope was directly associated with the creation of support systems through group affiliations It was this network that provided the inmate with information, advice, protection, and reinforcement of individuality and worth. For those who failed to affiliate in the first days of internment, chances of survival became increasingly limited (Dimsdale, 1974).

Although there is not an extensive body of literature that specifically addresses the need and use of social support systems during and after a major disaster, a few studies have been conducted in this area. In one analysis of disaster victims, successful coping was directly related to the use of one's support system. Immediately after a calamity, individuals who relied primarily on their linkages to relatives and close friends and less so upon neighbors and formal or voluntary organizations generally were able to deal effectively with the stresses of the catastrophe. Even three years later, these disaster victims had stronger ties to their social support system than before the catastrophe (Drabek and Key, 1976). Family and friends are the most important sources of psychological skepticism about the utility of most formal helping organizations This holds true regardless of socioeconomic status (Erikson, Drabek, Key, and Crowe, 1976)

Disaster victims have frequently been relocated to trailer parks (refugee camps) without regard for the natural support network of individuals and families. Many social and emotional problems that arise in these camps have been associated with the unfamiliarity and suspicion of the new environment, as well as with the loss of the social support network (Hall and Landreth, 1975). According to these authors, individuals and families will first call upon their emotional resources to manage the stress of their situations in the aftermath of a natural disaster and then will most likely need the psychological support of family and friends in order to cope with disaster-related stress.

Mental health professionals, therefore, must be alert to the existence and use of systems for social and emotional supports by disaster victims. Obviously, a person distressed by a major tragedy will turn to internal psychological resources and the support of family and friends and finally to the more structured and formal services provided by the community.

In sum, a variety of support systems aid the victim in coping with disaster stresses and in seeking personal adaptation.

COPING AND ADAPTATION

Another key interrelated concept toward understanding disaster behavior is that of coping and adaptation. This section will review the meaning of coping, the interrelationship of coping to stress and socio-emotional support systems, and the elements of coping behavior directed toward adaptation and health. Although there are many definitions of coping, we shall define it as *the behavior that protects the individual from internal and external stresses*. The behavior implies adaptation, defense, and mastery (White, 1974). Protection behavior usually takes three courses

- Alteration of conditions producing stress;
- Redefining the meaning of the stress-producing experience so as to downgrade its significance; and
- Manipulating the emotional consequences so as to place them within manageable bounds (Pearlin and Schooler, 1978).

Coping is the behavior designed to prevent, alter, avoid, or manage tension and stress and is employed by almost all individuals some of the time. It should not be interpreted as unusual or rare behavior. Most individuals learn ways to deal with stress, and although these vary, they usually follow the pattern of avoidance, alteration, management, prevention, or control of undue emotional stress

Stress is always associated with crisis and is the emotional discomfort felt by individuals experiencing persistent problems or undue demands. It emanates from unusual, uncommon, or unexpected pressures—for example, the fear of undergoing surgery (Janis, 1958), the competition of doctoral study, and the impact of a natural disaster (Ahearn, 1976). Stress is associated with a particular event or situation and differs from anxiety or depression, which is more generalized and diffuse. Stress varies somewhat but is interrelated with strain, the result of everyday problems that may arouse concern. This usually emanates from conflicts in one's role, such as the strain of being a parent, working, being married, or relating socially. Coping is the behavioral response to stress and strain that serves to defend the individual from incapacitating emotional harm.

Coping is intertwined with one's social and emotional resources. It is helped and made easier, or hampered and prevented, by the nature of a person's social matrix, i.e., the network of interpersonal relationships with family, friends, neighbors, co-workers, and small group associations. It is to this social system that individuals turn first when seeking support, understanding, or aid in problem resolution. However, coping also de-

pends upon one's emotional or psychological tools—those personal characteristics of individual strengths and weaknesses. These resources include one's ability to communicate, one's sense of self-esteem, and one's capacity for bearing discomfort without disorganization or despair. Communication skill facilitates expression of the problem and the means to seek help to resolve it. Self-esteem refers to one's positive feelings toward self; its absence would indicate low self-image. Emotional resources generally represent what people are, whereas coping refers to what people do to resolve stress.

Although coping usually incorporates behavioral responses for action, it also employs cognitive and perceptual actions as well. These coping actions may take three different directions. First, coping responses may attempt to change the source of strain or stress. This action presumes knowledge and perception of its causes. Attention is focused upon changing the situation (cause) before strain or stress occurs. In effect, this strategy is designed to avoid threat situations.

Second, coping responses may attempt to redefine the threat situation so as to control the degree of stress. This strategy is usually activated if one cannot control the course of stress or strain in order to lessen or buffer its impact on the individual. Redefinition is the way the meaning and gravity of the problem situation are managed. Again, cognition and perception are important in this process. This action is developed so that the individual may be able to say that the problem situation is not too important an area to be upset about. This may be done by making comparisons and then concluding that things could be worse. Or one may selectively ignore the negative aspects and emphasize the positive.

Third, coping responses may attempt to manage the stress of a problem situation so that the individual can continue to function as normally as possible. This action is essentially an effort to keep stress within controllable boundaries and is a help in bringing about an accommodation to stress without being overwhelmed by it. This third coping strategy involves a variety of responses, including denial, withdrawal, passive acceptance, undue optimism, avoidance, or even magical thinking.

The following case report represents an example of a disaster victim who was able to cope with many stress-inducing events following the loss of her home due to a dam break and the subsequent death of her husband after a heart attack. She seemed to manifest coping strategies that enabled her to manage her problems with minimal psychosomatic distress. Moreover, this victim spontaneously used coping methods that have been noticed in other victims.

Coping and defending are two categories of psychological adaptation processes that can appear simultaneously in the same individual. Whereas the victim described below used an active problem-solving approach

in dealing with all the demands of the rescue and relief agencies, she was also able to defend herself by modulating and confronting reality in a way so that she avoided having to deal all at once with the enormity of her losses. By dealing with the disaster in segments, she was able to assimilate the new stressful events in which she found herself as she tried to obtain funding, find a new house, visit her husband in the hospital, and later attend to the funeral arrangements. She tried to accommodate herself to all the situations, and she used the support assistance offered by a crisis counselor. Her use of defenses were obvious, especially during the mourning process after the death of her husband.

Mrs L., a 64-year-old widow, suffered from the incidents just described. She and her husband had retired five years earlier when both were laid off from work due to a business closure. Despite serious economic problems, they were able to pay the final mortgage on their house. Mrs. L. cared for her ailing husband during the last few years before his death. Several years before, her son had deserted his family, leaving Mrs L. to raise two grandchildren Later the son returned He had lost his job in another city and needed both emotional and financial support. There were seldom enough funds, but Mrs. L. managed well by taking some babysitting jobs. She did not seek public assistance

In the midst of trying to deal with the recovery agency operations following relocation to a temporary house, and during the terminal hospitalization of her husband, Mrs L. developed intense headaches that were diagnosed as psychosomatic She continued to meet regularly with the crisis counselor assigned to her, thus maintaining a support system for herself. Some of the material that she shared with the counselor revealed information and personal data pertaining to past occupation, family, religion, medical history, and so forth During these meetings, Mrs L shared her philosophy and approach to solving problems She appeared to belong to a group of victims that show low emotional distress. Because of the disparity between the seriousness of her losses, her age group, and the manifestation and quality of her emotional distress, she could be singled out as a victim who mobilized her coping abilities within each crisis situation. Some of her characteristics showed that Mrs L was clearly optimistic, not only expecting to solve her problem but hoping eventually to resolve her losses Instead of feeling imposed upon by the paper work and inspections, she reported feeling good about the agency staff and the help from her counselor She voiced some resentment about her plight and the possibility of negligence in the "check-up" of the dam, but was able to find satisfaction in whatever she was called upon to do While fully realizing the serious implication of her losses, she was not fearful of the future, stating that her social problems could be managed, just as they had been in the past

Mrs L Was essentially a private person who did not easily relinquish emotional control, nor did she confide in others However, she was cooperative, cordial, and appreciative in a quiet way Mrs L avoided excessive

emotional expressions of all kinds, preferring to modulate responses and maintain personal control. She grasped all the agency approaches offered to help her with her problems. She showed an above-average memory, good social judgment, conceptual ability, and a good awareness of reality within the chaos of her present life.

Mrs. L. tended to use positive self-reinforcement. She asked appropriate questions and listened to options. She was able to use help to become aware of and assess the solutions available to her This was a customary way in which she had always behaved prior to the disaster She had a practical, common-sense orientation to life. Her cognitive style was also practical, and she tended to be more concrete than conceptual about her daily tasks. She preferred concrete details, viewing the environment as something that need not be actively shaped or modified. Her "take things as they come" attitude added to her flexible ways of looking at problems. This method of thinking appeared to control any emotions based on her fantasy life and to keep anxiety-producing thoughts away from her awareness. Hence, under stressful circumstances she was not prone to exaggerate future fears. Tasks were supposed to be tackled, not worried over She relied on specific and selective attention, forming step-by-step conjectures and using self-instruction. This realistic approach allowed her to tolerate the high degree of frustration following her losses and deep disappointments, including the pain of her husband's death Difficulties of daily living were not perceived as inevitably tragic or insurmountable Distress events or setbacks seemed to be signals that mobilized coping, rather than signaling withdrawal or self-depreciation. Mood varied within a narrow range and distress seemed to cue more surveillance, control, and self-correction She controlled emotions very carefully and chose to participate only in situations where practical action might be productive

Coping, as expressed by perceptions, cognitions, and behavior, is a concept that interrelates with those of stress and crisis, loss and mourning, and individual support systems. Coping actions directed toward adaptation and health and expressed at different levels consist of changing a stressful situation, redefining its significance when a problem exists, and attempting to manage the stress one is experiencing. Mental health professionals will need knowledge of specific coping mechanisms in order to diagnose and help disaster victims achieve adaptation and avoid emotional impairment

The four key concepts presented in this chapter are the essential foundation of basic knowledge that mental health workers need to understand disaster reactions and to help victims suffering from emotional consequences As has been seen, stress and crisis, loss and mourning, systems of social and emotional supports, and coping and adaptation are overlapping notions that may be applied to disaster behavior

An individual who has lived through a flood, hurricane, earthquake, or tornado experiences the stresses of the tragedy itself, as well as the

stresses of the social consequences of the event, i.e., death, property loss, and relocation. These tensions may produce a crisis for the victim that may have either positive or negative behavioral outcomes. Coping with a personal crisis due to a disaster depends, to a great extent, upon the degree of loss sustained by the individual and the presence of one's system of social and emotional support.

In reviewing these key concepts commonly used in mental health practice, the authors suggest their applicability to disaster-related emotional reactions. Although there is a paucity of theories to explain the psychological consequences of a calamity, and since this topic is controversial in some circles, the need to develop a conceptual framework to view these behaviors is essential. This chapter presents four interrelated concepts, viewed as basic knowledge for understanding the issue; the next chapter reviews the findings of disaster research, in order to gain a better insight into the range of applied knowledge on the subject. With these knowledge presentations, basic and applied, the authors will present two models of disaster behavior in the next section. Mental health practitioners, then, can use this information to provide effective mental health services to victims of a catastrophe in their communities