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SOCIAL SUPPORT SYSTEMS: SOME BEHAVIORAL PATTERNS IN THE CONTEXT OF MASS EVACUATION ACTIVITIES

E. L. Quarantelli, Ph.D.

Introduction

How are social support systems affected by disaster evacuation, shelter and housing activities? What implications can be derived from the literature in terms of links between disaster evacuation, sheltering and housing, social support systems, and mental health effects?

Important as these questions are for planning post-disaster mental health and other services, there are, as yet, no conclusive answers to them. In part, the problem arises because the complexities of the related phenomena have not been addressed systematically. As will be indicated throughout this paper, crucial conceptual distinctions are seldom made. Even what is empirically known is often not well understood because it is not placed under an appropriate label or category. Frequently, these criticisms can be applied to the way the term "mass evacuation" is used by researchers and operational personnel in dealing with disasters.

In this author's judgment, one must clarify what is meant by phenomena that often are subsumed under the term "mass evacuation" before one begins to inquire about linkages between these phenomena and impacts on social support systems and mental health. Thus, the opening discussion focuses on the larger context of mass evacuation behavior, since such behavior sets the stage for reviewing research findings on the related phenomena of disaster shelter and housing and the behaviors of social support systems in response to these activities.

Most of the observations and findings reported here come from detailed studies and reviews undertaken at the Disaster Research Center (DRC) in the last few years. The core of this work consisted of a systematic examination of all English-language sources that treated evacuation as a major topic. This examination (of about 150 publications) was supplemented by a reanalysis of data obtained in field studies that looked at major evacuations in a variety of different disasters (see Quarantelli 1984a). Other ideas in the discussion are taken from a 1982 summary of the research literature on sheltering and housing and from a reanalysis of data from case studies of American disasters

that necessitated victim sheltering and housing on a large scale (see Quarantelli 1982).

Evacuation Behavior

The term mass evacuation is used in the literature to refer to a variety of phenomena. At one extreme, there is the short-in-space and brief-in-time exit from a building, as in the "evacuation" of a high-rise hotel during a fire. At the other extreme, the term is used to refer to very long-term, if not permanent, relocation of segments of a population to a distant location, as in the "evacuation" of residents from the South Atlantic island of Tristan de Cunha to England because of a volcanic eruption (Munch 1971).

For most research purposes, a useful conceptualization of evacuation is the mass movement of people which, by planning and/or spontaneous interactions, results in a temporary physical distancing from threats, damages, or disruptions to the community (Quarantelli 1984a). This formulation emphasizes three features: (1) a sizable number of people participate; (2) the movement is "roundtrip" (Aguirre 1983) from an area to another location and back to the original area; and (3) the behavior is complex rather than simple, collectivistic rather than individualistic, and develops along multiple lines rather than a single path. All three features have the potential to affect mental health and disrupt social support systems. Excluded as evacuation in this conception are permanent or semipermanent relocations, as well as very localized flights. In each instance, this approach leaves open, as an empirical question, whether evacuation behavior is functional or dysfunctional at any level; thus it is contrary to the implicit assumption in most of the literature that such behavior is basically functional (Perry et al. 1981).

This last issue is related to another tendency widespread in the evacuation literature, that is, to think of withdrawal behavior in terms of a stimulus-response (S-R) model. The imagery is a stimulus, such as a disaster impact or a warning, with the possible response being the flight behavior. In the S-R model, evacuation is thought of as a reactive phenomenon, a response to something else. With this imagery it is easy to think of evacuation as following a linear path. That is, a disaster occasion is seen as leading to a warning or an impact, which, in turn, results in evacuation flight.

Such a simple S-R imagery of evacuation can be questioned. In many ways, evacuation is a proactive rather than reactive phenomenon; there are often multiple and disjunctive paths in the unfolding of the behavior. For example, some evacuees may leave as soon as there is a sign of danger or right after impact; other evacuees may delay as they assess the situation and seek additional information; others will wait and hunt for household

members; some go directly to one place of refuge while others make multiple stops; those who left early might be returning when others are just starting out; some potential evacuees never leave; et cetera. These differential activities are illustrated in some of the data from the Three Mile Island nuclear plant incident (see Brunn et al. 1979; Flynn 1979; Smith 1979). A study of hurricane warnings that attempted to quantify the differential actions concluded, ". . .the process of response to warnings is not a simple stimulus-response process. Rather the process involves a rather complex information-processing and decision-making system that is influenced by a number of factors that have little to do with the threatening event" (Carter 1980, p. 10).

Research indicates that proactive behavior is even more likely in evacuation than in warning, and that warning is only one element—not necessarily always the most important—in evacuation behavior. In turn, evacuation behavior is the context for sheltering and housing of disaster victims. As such, there has to be some conception of evacuation behavior before disaster sheltering and housing can be discussed. Insofar as the evacuation process is concerned, there are four behavior sets: warning, withdrawal movement, shelter, and return (Quarantelli 1984a). Put another way, the model suggests that the process involves interrelated activities: first a warning stage, which may lead to withdrawal movement, which may lead to shelter, which usually involves a return by evacuees to the place of departure. Because they are interrelated, one behavioral pattern cannot be understood apart from the others. For example, the withdrawal movement can be rather heterogeneous. The bulk of those who leave at the height of the emergency in the typical American disaster go to the homes of friends and relatives; however, some seek private commercial accommodations, such as hotels and motels, while a small minority end up in public shelters (usually organized by the Red Cross). There is some evidence of strong social class factors associated with this differentiated shelter pattern. Middle-class families, if possible, move in with kin and friends. The more affluent households find lodgings in second homes, hotels, and motels. Those who primarily come from the bottom of the socioeconomic ladder usually make the greatest use of mass shelters. However, social class differences influence from the start what exposure there is to warnings, how they will be interpreted, et cetera. Thus, to look only at the shelter stage without taking into account what it has emerged from is to miss some important factors for understanding the phenomena.

If there is one proposition in the evacuation literature which is empirically well grounded, it is that the household family acts as a unit in times of mass crises. Most of the literature indicates that family members act as a unit during evacuation (Perry 1983). To the extent that the family household unit is a social support unit, the typical behavior by evacuees maintains a supportive social environment.

On the other hand, there can be atypical disasters, when significant numbers of households will not evacuate as units. Three Mile Island, where roughly a third of the evacuating families were incomplete (e.g., Brunn et al. 1979; Flynn and Chalmers 1980) and Anchorage, Alaska, where a similar pattern prevailed following the earthquake (Kunreuther and Fiore 1966), are two examples. Conspicuous by its relative absence in the evacuation literature is any attention to the behavior of solo households, nonrelated household groupings, transients such as tourists or business travelers, and nonmainstream social groupings such as migrant laborers. The literature stresses the family unit; one of its major contributions may be its insistence that the collective family unit, rather than individuals, should be studied and understood. However, this stress has left outside the research focus the ever-increasing proportion of Americans who are not members of family household units; in some metropolitan communities, they may be a substantial proportion of the total population (Baisden and Quarantelli 1981). This category of possible victims, together with social couplings that are not formally recognized (e.g., cohabitating couples) may have lesser supportive social environments to start with, which might be weakened even further during evacuation. As far as disasters are concerned, the empirical understanding of these matters is rather poor. If social support is important, more attention should be paid to real social groupings rather than artificial classifications (e.g., by arbitrary age distinctions, such as children or the elderly). For example, there is some evidence that ethnic groups integrate and link their aged members in an extended family network that is tremendously socially supportive in disasters; this is hinted at in the DRC data from the Wilkes-Barre flood. In that disaster, sometimes members of four generations of families of Polish ethnic background all evacuated and/or sought shelter together.

Finally, it should be noted that a number of researchers think withdrawal behavior should not be visualized as totally homogeneous phenomena. Perry (1978), one of the more prominent analysts of evacuation behavior, suggests there are at least four different types of evacuation—preventive, protective, rescue, and reconstructive. Cross-classifying duration of withdrawal with time of disaster impact, Perry (p. 169) arrives at the following table:

		Withdrawal Relative to Impact	
		Pre-Impact	Post-Impact
Duration of Withdrawal	Short Term	Preventive	Rescue
	Long Term	Protective	Reconstructive

A preventive evacuation is employed to minimize loss of life in response to hazards that can be anticipated and that afford adequate warning time, such as river floods. Protective evacuation is pre-impact withdrawal for a long period, such as might be undertaken in the case of earthquake prediction. Rescue evacuation occurs post-impact and is focused on the removal of injured and trapped victims; it is frequently treated as search and rescue in the literature. Reconstructive evacuation is withdrawal for an extended time to facilitate the renovation of an area largely uninhabitable because of physical damage, as in the recent Italian earthquakes, or because of toxic hazards, as at Love Canal or Times Beach. This formulation, too, while easy enough to illustrate from field research observations, has not yet been used systematically in a variety of comparative studies to see whether it truly captures the full range of withdrawal behaviors.

Researchers have implied or suggested other possible typologies. For example, it might be feasible to distinguish between early leavers, later leavers, deliberate stayers, and those never involved in the emergency--a model drawn from diffusion of innovation studies. Still another formulation suggests a typology of evacuation derived from the collective behavior area. It argues that evacuating collectivities can be differentiated on the basis of new and old social relationships. As Aguirre (1983) has noted, one implication of thinking about evacuations in this manner is that it underscores the heterogeneity of collectivities potentially present in evacuation. In all the formulations, the assumption is that different behavioral patterns are involved for the different types of evacuation. Whatever the merits of any particular typology proposed, the notion that evacuation should be seen as heterogeneous behavior has some clear implications for both theoretical and practical purposes. For example--to use Perry's terms--protective evacuation, as compared to rescue evacuation, appears to create different kinds of stressful situations, which might result in different kinds of negative mental health effects. This situation might require thinking about whether different kinds of social support systems would be affected and needed.

Shelter Behavior

As in the case of evacuation behavior, it is not very useful to treat disaster sheltering and housing as if it were a homogeneous phenomenon. There are heterogeneous phenomena that might be best captured under such labels as (1) emergency sheltering; (2) temporary sheltering; (3) temporary housing; and (4) permanent housing (Quarantelli 1982). These conceptual distinctions, to be elaborated upon shortly, were developed to make sense of the variety of sheltering and housing activities in the research literature and what had been observed in the field by

DRC teams in over 200 disaster occasions. What are often given the same label both by operational personnel and researchers can be reconceptualized as quite dissimilar phenomena.

Some organizational aspects of sheltering and housing should be noted because they have implications for what evacuees are subject to and whether support systems will be disrupted or reinforced in various disaster occasions. Differential attention is paid in American communities to preparing for the different kinds of sheltering and housing problems. Overall, there is little planning of any kind, but to the extent there is any local community-level planning, it appears aimed at temporary sheltering. What temporary shelter planning is undertaken is often fragmented among various emergency organizations and is almost always incomplete. There seems to be little consensus on which community organizations should be involved and which should be the lead agency in preparing for temporary sheltering. Congressional mandate and tradition may give the local Red Cross chapter a major responsibility for the task; however, this is not always known or accepted, especially outside larger metropolitan areas. Local disaster service agencies exhibit the range from "no interest or involvement with the problem" to accepting as a major responsibility "the coordination of all disaster sheltering and housing activities in the local community." But even in communities where some attention has been given to preparing for disaster sheltering and housing needs, it is not a high priority; thus, pre-disaster planning is often incomplete.

The DRC studies found it difficult to arrive at overall evaluations of the sheltering and housing provided in disaster occasions in American society. There appears to be little overt public reaction to sheltering activities, per se, even though temporary sheltering activities are often inefficient. In contrast, housing--whether temporary or permanent--is the source of widespread and often intense complaints. Some public expression of discontent over the housing provided appears to be a nearly universal feature of major disasters. There often seem to be lengthy delays (especially in providing permanent housing), unexpected changes of policies, inconsistencies in application of standards and requirements and, in some cases, poor administration of the programs. The extent to which such matters are necessary consequences of the occasions rather than signs of inefficiency and ineffectiveness in sheltering and housing operations can be established only by the development of evaluative criteria and comparative empirical data, both of which presently are lacking. In short, it currently seems impossible to judge how well sheltering and housing are provided to disaster victims. However, there is considerable public complaint; and, as often said, if people define a situation as real, it has real consequences.

It could be argued that many complaints about sheltering and housing are rooted less in the individual evacuees than in the organizations trying to help them. Agency personnel tend to

perceive evacuees as "the problem" and the source of difficulties. Yet, a strong case can be made for placing "the problem" within agencies. That is, difficulties in preparing for and providing sheltering and housing are related to erratic organizational mobilization, poor use of community resources, lack of inter-organizational coordination, failure to recognize pre-impact conflicts and differences in community power, absence of inter-group communication, and other organizational and community-level factors. This is mentioned for two reasons. First, if it is true, some possible psychological effects on evacuees stem not from the direct impact of the disaster agent, but from having to adjust to actions (or inactions) of organized helpers. The disaster may be the stage on which the reaction occurs, but the disaster agent itself is not the prime factor in the situation. Thus, a case could be made that the seeming widespread psychological reactions to the Buffalo Creek disaster resulted more from the stress of the very inappropriate and poor sheltering and housing facilities provided to survivors than from the direct impact of the flood waters (Quarantelli 1984b). Second, considerable caution should be exercised in viewing complaints only as indicators of psychological stress; they may be instead signs of social structural problems, and perhaps should be encouraged rather than "treated," so organizational problems can be identified and solved. Some of the victims of the Wilkes-Barre flood and the Teton Dam collapse complained vociferously about the recovery aid provided by government agencies; many of the complaints and blame assignments were well-grounded and justified (Golec 1983). Realistic political reactions should not be confused with inappropriate psychological responses.

The four different types of disaster sheltering and housing can be summarized as follows.

Emergency Sheltering

Emergency sheltering probably permits the least planning; however, it possibly also requires the least planning. Essentially it is simply moving "to get out of the rain." Situational factors and contingencies greatly influence whether and where disaster victims have to seek emergency sheltering. Thus, some locations become shelters simply because individuals congregate there. But because such shelter-seeking is very temporary, disaster victims will readily accept otherwise-unacceptable conditions. For examples, victims will stay in public or quasi-public quarters for a few hours, even though they might not want to sleep there overnight. Thus, schools, churches, armories, or any building that can temporarily house large numbers of people can be used for emergency sheltering. Again, because of the brief stay, there is not a great need for supervisory personnel or a staff to run such quarters, although emergency medical care may be needed. Disaster researchers with much field experience have noted that victims seldom comment unfavorably on emergency sheltering, often

excusing as unavoidable whatever negative aspects they experience. Such situations may be stressful, but seem not to have great potential for serious mental health effects.

Temporary Sheltering

Temporary sheltering involves moving into quarters other than one's own far beyond the peak of the emergency period. It usually involves feeding as well as sheltering outside pre-disaster homes. It thus requires some community planning; this, in fact, is the best-prepared pre-impact aspect of local sheltering and housing. However, most preparations are usually for public or mass shelter arrangements; unfortunately--as disaster researchers have consistently found--this is the least preferred of all sheltering arrangements. Overwhelmingly, disaster victims prefer to stay with friends and relatives, although they will use mass shelters to obtain food if necessary. Even those who go to mass shelters stay for as brief a period as possible.

While mass shelters do provide places for distributing information and may be useful in providing quarters for relief workers who come into a stricken community, there are problems in operating the shelters. One is providing adequate emergency medical services. Also, when multiple mass shelters are in operation, there are often difficulties from uneven distribution of supplies and/or volunteers. Many volunteers are not only inexperienced but also are generally unaware of established agency policies or appropriate procedures. Too often the location of mass shelters is dictated by the availability of physical resources rather than by need. Shelter management is a definite problem in most cases; security is a perceived, although not necessarily a real, problem. Sheltering evacuees in mass shelters requires far more of an integrated organizational response than is typically recognized in most communities.

Less is known about other kinds of temporary sheltering. While it is well established that most evacuees go to homes of relatives and friends, little is known of this sheltering, even on a descriptive level. That the most systematic American field study on this topic--a massive survey almost ideal in its conception--was conducted more than 30 years ago is a telling commentary on our lack of knowledge about the subject (see Marks et al. 1954). The most recent, best study is one done by Canadian researchers on the Mississauga toxic chemical threat, in which 220,000 residents in a Toronto suburb were evacuated (see Whyte 1980). There is some evidence that unaffected households in an impacted locality will make aid available to evacuees in the community, but we have little idea of the nature, magnitude, and duration of such help. Some hints in the literature and empirical data suggest that a certain proportion of the housing in the community has to escape damage or destruction if such help is to be offered. Almost nothing is known about how the pre-impact composition of the population affects post-disaster temporary sheltering; however, it

is suspected that such factors as age, sex, race, occupation, social class, and the distribution of the evacuees and potential shelter-givers would make a difference. There are some indications that households with children are more likely to seek temporary shelter than those without children, but this possibility is supported more by anecdotal accounts than anything else. Similar accounts suggest that the welcome extended to evacuees may not last too long, but there is no hard evidence on the point. It is clear that emergency and relief organizations usually have little knowledge of non-mass temporary sheltering arrangements, and have no ready mechanisms for obtaining information. Such organizations spend their time, efforts, and resources on mass shelter, even though the great bulk of temporary sheltering takes other forms. Without knowledge of temporary sheltering, relief agencies are handicapped in quickly estimating what temporary housing they might need; this may account for the typical overestimation of the need.

Temporary Housing

Temporary housing involves the reestablishment of household routines but with the understanding that more permanent quarters will be obtained eventually. Far more is unknown than known about temporary housing. It appears there is usually an organizational overestimation of the need for such housing; however, there are also some indications that not everyone who qualifies applies officially for temporary housing. Renters seem to apply for such assistance more than homeowners; it is unclear whether this is related to income levels, the amount of house damage from the disaster, social class differences in the acceptability of applying for help, or other factors. What accounts for and what happens to those who apply but then withdraw their applications for temporary housing is mostly a mystery. The time it takes to find temporary housing for victims seems partly related to the capacity of organizations which seek housing for victims to maintain flexibility and not become imprisoned by bureaucratic procedures.

There is some evidence of social class differences in the acceptability of using mobile homes for temporary housing. Middle-class families do not appear to like them. More often, households from higher socioeconomic levels want rental assistance. In most cases, despite great effort to secure them, mobile homes are seldom the primary form of temporary housing. It seems clear that displaced persons much prefer to locate a mobile home on their own property rather than in a trailer camp. Neighboring residents often object to such camps. (The basis of the objection is frequently unclear and may not reflect the real concerns.) One the whole, trailer camps show little collective unity or morale and may become the source of certain kinds of social pathologies, especially when children and adolescents are part of the camp population. There seems to be little information

and understanding of what might make for a well-run trailer park. Organizations responsible for supervising such parks often compound problems by applying inconsistent rules and changing policies. There seems to be little prior knowledge about how trailers may malfunction or be inappropriate for certain localities. If officials neglect the deactivation of mobile homes and restoration of their sites, this can become a source of community complaint.

Little is known or understood about the phenomena associated with rental assistance for displaced disaster victims. There is some evidence that higher income evacuees take over the surplus housing available in a community; however, the relationship of that behavior to the pre-impact housing stock is unclear. There usually seems to be a problem in finding rental housing for lower income groups. Placing the elderly also frequently poses a problem; this may or may not be related to income, if some followup work DRC did on persons displaced by the Grand Island, Nebraska tornado can be generalized. There is almost no evidence about the problems of temporary housing for minority groups, though it seems unlikely their situation would improve in comparison to their pre-disaster status.

Just as there is little understanding of the relationship of temporary sheltering to temporary housing, there is a similar lack of knowledge about the connection of temporary to permanent housing. In fact, about many matters--especially those unrelated to mobile homes--we do not have even simple descriptions of the organizational and individual activities and problems associated with temporary housing.

Permanent Housing

Permanent housing is almost totally ignored in disaster planning at the local level, and perhaps understandably so. An inevitable consequence is that when permanent housing has to be provided in a disaster, local officials are unprepared for the problem and have to improvise most of their activities. The problem is complicated by the fact that the local officials may be dealing with personnel of Federal agencies and/or some private welfare groups which may have given considerable thought and/or had considerable prior experience in obtaining permanent housing for disaster victims. This situation may additionally stress the uneasy relationship of local "amateurs" with "professional" outsiders, a phenomenon typical of the post-disaster recovery period in most major disasters. Also involved is the fact that evacuation almost inevitably involves a round trip--returning to as well as leaving an impacted locale.

Data do suggest that most evacuees go back to their old location; often they rebuild on the same spot they occupied in pre-impact times. This seems more true of homeowners than renters. Renters not only take longer to obtain permanent housing, but may never return to the same location. There often is

actual resistance or objection to the development of multifamily housing units that could be used as rental property. This seems to create a particular problem for the elderly, who are usually renters. However, as a whole, there are few data on the rate of obtaining permanent housing, on which segments of the population have the most problems in obtaining such housing, and on what happens to those who are long delayed in getting permanent quarters.

Overall, the kind of permanent housing that will be developed in a community after a major disaster appears to be related to the pre-disaster housing situation and the influence of various local interest and power groups. The latter groups seem to ensure that the post-disaster community housing configuration will not differ significantly from the pre-disaster situation. However, the importance of business and financial interests in the rebuilding process, how various power groups interact with one another, and how extra-community agencies affect the end result, are barely hinted at in what has been studied so far. But at the very least, there is the suggestion that the whole process of permanent housing in the aftermath of a major disaster cannot be understood independent of the larger community context. Whatever the government policies and programs for rebuilding, they only develop--in ways not yet understood--in the context of the past history and social factors operative in any given community. They are not dependent only upon what happened to the housing stock in the disaster. This has been observed in disasters ranging from the Xenia tornado to the Wilkes-Barre flood, from the Teton Dam collapse to several hurricanes (e.g., Golec 1983).

Finally, sheltering and housing phases usually do not develop in a neat linear fashion. In a given situation, some disaster victims may be entering the permanent housing phase while others are still in the emergency sheltering phase. Furthermore, in any given phase there may be several moves as a family goes from one temporary housing situation to another. As a consequence, government organizations and relief groups may be dealing concurrently with segments of the population at different points in the sheltering and housing activities after a major disaster. Sheltering activities may overlap with housing activities, and some permanent housing may occur before some emergency sheltering is finished. Site preparation for mobile homes may have to be undertaken while other used trailers are being prepared for storage. For particular households, sheltering generally precedes housing, and emergency sheltering precedes temporary housing, which, in turn, precedes permanent housing.

Some General Implications

Can anything be generalized from all that has been said here so far? Apart from specific points already made or easily

inferred, three general points can be noted. They have to do with the heterogeneity of the phenomena discussed, the absence of a direct link to disruption of social support systems, and the need to assume that the worst possible scenarios for creating substantial negative mental health effects are more likely to be potential than actual.

First, it is not valid from our perspective to talk of evacuation, or sheltering and housing behavior, relocation and temporary housing, as if their referent were some obvious homogeneous phenomena, or worse, as if the terms could be used somewhat interchangeably. Different clusters of behavior have different paths. What we have called temporary sheltering and temporary housing, for example, involve rather different phenomena. The basic implication, of course, is that if we are to understand how the range of phenomena may affect social support systems and/or mental health, we need to distinguish the various phenomena.

Second, there does not seem to be any direct or automatic link between what was discussed under the general rubric of evacuation and shelter behavior and disruptions of social support systems. For example, if the family acts as a collective unit in any of these behaviors, the supportive social environment is maintained. On the other hand, in another example, we speculated that certain kinds of social couplings may have their supportive social environments weakened if they engaged in the same kinds of behaviors. Put another way, it is possible that none of the evacuation and shelter behaviors discussed are directly responsible for maintaining or disrupting supportive social systems. Other aspects of the social situation having to do with pre-impact social structural aspects, such as social class, may be more important. Phrased yet another way, "relocation or temporary housing" or any of the different forms of behavior discussed may not be crucial. The famous studies of the victims of Cyclone Tracy in Darwin, Australia (Parker 1975; Milne 1977), suggest that evacuation was not the critical factor in generating negative mental health effects, but rather the availability of a supportive social environment. Similarly, our reading of the aftermaths of several American disasters is that the temporary housing of victims in trailers or mobile home parks was not a problem in itself. Rather, stressful psychological situations and negative mental health effects resulted because "strangers" were assembled together; thus, evacuees were unable to maintain supportive pre-impact social ties and relationships. If local neighborhoods had been reproduced socially in the parks the outcomes might have been rather different. This may not be the orthodox way of thinking in the disaster area, but note that it took criminologists decades to get away from the idea that bad housing produced delinquents, or that slum neighborhoods were areas of personal or social disorganization.

Third, it seems clear that there is considerable potential for problems in evacuating, sheltering, and housing disaster victims. All sorts of things can go "wrong," create stress, and disrupt

supportive social systems or prevent them from operating. Of course, worst-case scenarios are not usually the best for planning, and it should not be assumed that everything will go "wrong" even in a major disaster (an assumption sometimes made by inexperienced mental health practitioners). A potential is seldom fully realized in actuality, and disaster preparedness must be realistic in this respect. This being said, good planning and response in disasters must take into account not only what is most likely to happen but also what is most important to what actually does occur (Quarantelli 1983). One observation drawn from DRC's disaster studies is that good planning should slow down the early management efforts in a disaster (Quarantelli 1977). The key objective of planning and management is not quickness of response but the appropriateness of response. An appropriate response requires valid knowledge about what is happening in the emergency and a good understanding about the overall picture of what is occurring. Similarly, if suggestions are to be made on how to respond to the mental health needs of disaster victims, it is more important that what is done be appropriate, than that it just be done.

While this paper indicates there is much we do not know about mass evacuation activities, it also is clear that we do know something. By applying what is known, planners and emergency management personnel could bring about more efficient and effective evacuation, sheltering, and housing operations. Some probable consequences of different kinds of operations on social support systems are relatively clear also. Thus, it is possible to visualize at least tentatively some of the possible links between social support systems and mental health effects in disaster occasions.

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THE RECOVERY ENVIRONMENT: CONTINUING STRESSOR VERSUS A HEALING PSYCHOSOCIAL SPACE

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Disaster indelibly marks the life of a community and, likewise, the lives of individual survivors and their families. The task in this paper is to place issues of sociologic dimensions (the life and survival of community under conditions of catastrophe) alongside issues of a psychological dimension (the individual's long-term mental health response to catastrophic stress) to understand better the mental health correlates of the post-disaster recovery environment. This task calls for bridging concepts that address issues on the community, interpersonal, and intrapsychic levels--a vocabulary different disciplines can understand and value. Thus, we consider the recovery environment at three levels: the macroscopic or community level, the family-friendship-workplace or interpersonal level, and the intrapsychic or microscopic level.

In this discussion, recovery environment falls within an overall theoretical model that includes personal factors, stressor factors, and environmental factors in predicting long-term psychological outcome following disaster. Characteristics of the traumatic event and characteristics of the recovery environment are considered as independent constructs that contribute, along with characteristics of the individual, to the effectiveness of cognitive processing of intrusive images and their potential integration into the personality (Horowitz 1974). The model integrates opportunities for mental health recovery and growth as well as short- and long-term psychopathology (including post-traumatic stress disorder).

Two schemata for this model have been presented in earlier publications. The first schema (Lindy et al. 1984) is organized from the perspective of the clinician. Here information regarding the individual patient's personal factors (early history, childhood trauma, psychosexual development, character pathology, and resilience) is readily available to the clinician. These personal factors are the familiar "starting points" for treatment. To them one adds the impact of the catastrophic event with its specific stressors and the task of processing these stressors. The schema incorporates the mediating influences of particular sets of environmental factors.

The second schema (Green et al. 1985) begins with the stressor variables and, thus, is closer to the perspective of the disaster researcher who is interested in psychosocial issues.