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Planning for Health/Mental Health Integration in Emergencies

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Disasters, defined as "crisis occasions in which demands exceed capabilities" (Quarantelli, 1985), are common occurrences, but their impact on the psychiatric and psychosocial state of adults and children is still controversial. Various studies have either suggested little or no negative effects (Bromet, Schulbert, & Dunn, 1982; Dohrenwend et al., 1981; Mellick, 1978; Quarantelli & Dynes, 1977), whereas others have suggested significant consequences (Dunal et al., 1985; Glass, 1959; Hoiberg & McCaughey, 1984; Kinston & Rosser, 1974; Parker, 1975; Patrick & Patrick, 1981; Perry & Lindell, 1978; Popovic & Petrovic, 1964; Shore, Tatum, & Vollmer, 1986; Titchener & Kapp, 1976; Wilkinson, 1983). These consequences include long-term effects (Gleser, Green, & Winget, 1981; Leopold & Dillon, 1963) and effects on children (Burke et al., 1982; Newman, 1976). The controversy relates both to the assessment of certain characteristics of the disaster, such as the scope of the impact, the speed of onset, the duration of the impact and the social preparedness of the

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community (Barton, 1969), and to the research methodology utilized, which includes sampling processes, criteria for case identification, and timing of the study (Green, 1982). For disasters in developing countries, clinical observations (Lima, 1986a), empirical evidence (Ahearn, 1984; Cohen, 1985), and preliminary research data (Lima et al., 1987) indicate that psychosocial consequences are usually significant and need to be handled promptly and effectively.

The primary case worker has been effective in providing mental health care in routine clinical situations both in developed (Strain et al., 1983) and in developing countries (Busnello, Lima, & Bertolote, 1985), but his/her mental health interventions in disasters, particularly in the medium- and long-term care of victims, have remained largely unexplored. This chapter is partially based on our experience in planning, implementing, and evaluating the delivery of primary mental health care in routine clinical settings, and partially based on our experience in managing and evaluating the psychiatric and psychosocial problems of victims of the volcanic eruption in Colombia in 1985, which destroyed the town of Armero. To be initially reviewed are selected issues on primary mental health care in general as a background for understanding their relationship to a disaster situation. A description of the Armero project will follow, outlining its origins and development. The implications of this project are discussed as they relate to research design and implementation, to the education and training of primary care workers in mental health, and to health planning. It is expected that the Colombian experience of delivering mental health care to disaster victims through the primary care sector, immediately relevant to disasters in other developing nations, will also be applicable to disasters occurring in developed countries, where for logistic, clinical, or cultural reasons, the delivery of mental health care through the specialized mental health sector may be inadequate, ineffective, or unacceptable.

PRIMARY MENTAL HEALTH CARE

The importance of primary care as the main strategy for attaining the goal of "health for all by the year 2000" (Pan American Health Organization, 1980) has been widely accepted. Primary health care has been defined by the World Health Organization (WHO) as:

> essential health care made universally accessible to individuals and families in the community by means acceptable to them, through

> their full participation and at a cost that the community and country can afford. It forms an integral part both of the country's health system of which it is the nucleus and of the overall social and economic development of the community. (World Health Organization, 1978)

The main steps used to ensure primary care include:

- extension of health care coverage and improvement of environmental conditions;
- community organization for active participation of the community in its own well-being;
- development of intersectorial collaboration;
- development of appropriate research and technology;
- availability of human, financial, and physical resources; and
- international cooperation.

Primary health care services must be organized to ensure that they will be delivered longitudinally, locally, comprehensively, in a personalized manner, and with the full participation of the community. Primary health care involves a variety of priority areas, such as maternal and child health, immunizations, acute respiratory diseases, malaria, food and nutrition, cardiovascular and degenerative diseases, cancer, occupational diseases, and mental health (Pan American Health Organization, 1980).

Mental health is one of the essential elements of primary care both in developed countries (Shepherd, 1980), where it has been called the "keystone of community psychiatry" (World Health Organization, 1973), and in developing nations (World Health Organization, 1975), where the success of mental health programs largely depends on how successfully mental health care is integrated with primary health care (Lin, 1983). Mental health is part of the various activities developed for health promotion and disease prevention and it aims at achieving the following goals (Gulbinat, 1983):

- prevention and treatment of psychiatric disorders, which is the classic model;
- increased application of mental health knowledge to general health programs; and
- prevention of the harmful consequences of accelerated social changes.

The need to provide primary mental health services is widely supported by clinical epidemiological studies. Fifteen to twenty-five percent of patients

attending primary care clinics in both the developed (Shepherd, 1967) and developing countries (Climent et al., 1980; Harding et al., 1980) have diagnosable mental health problems. Furthermore, even in the United States, where extensive specialized mental health resources are available, 60% of the patients with emotional and psychiatric problems are managed through the general/primary care sector (Regier, Goldberg, & Taube, 1978), and almost one half of all office visits to a physician resulting in a mental disorder diagnosis are to nonpsychiatrists, mostly in primary care (Schurman, Kramer, & Mitchell, 1985). It can be assumed that a similar pattern of service utilization exists in developing countries where specialized mental health resources are blatantly inadequate (Harding, 1976).

Hence, various efforts have been made to develop the capability of the primary care sector for the identification and management of patients with emotional problems. The WHO study on "Strategies for Extending Mental Health Care" has identified crucial programmatic aspects for the successful design and implementation of a primary mental health care program (World Health Organization, 1984):

- formulation of a national policy on mental health and the establishment of a mental health department or unit within each country's national or regional administration;
- adequate financial provision for
  - —the recruitment, training, and employment of personnel,
  - —the adequate provision of drugs,
  - —a network of facilities, including transportation,
  - —data collection and research;
- the decentralization of mental health services, integration of mental health services with the general health services, and the development of collaboration with nonmedical community agencies;
- the utilization of nonspecialized health workers at all levels, from primary health worker to nurse or doctor, for certain tasks of basic mental health care;
- the utilization of specialized mental health workers for most of their working hours in training and supervising the nonspecialized health workers who will provide basic mental health care in the community;
- the training of mental health professionals in this new task of training and supporting nonspecialized health workers.

In developing countries, the primary care worker may be the general doctor or the nurse, but more frequently he or she is a person with limited

education and training, selected by the local community, or with the community's agreement, to perform basic health actions (World Health Organization, 1980). His mental health training has included the conditions seen in routine clinical practice, such as (Harding et al., 1980):

- first aid in neuropsychiatric emergencies;
- maintenance treatment of the chronically mentally ill;
- advice and support to high-risk families;
- referral of mentally ill people in a nonacute or unclear state to the nearest health facilities;
- family education about psychosocial development and the needs of the elderly and the handicapped;
- support and education of the mentally ill about self-care; and
- collaboration with community leaders in activities aimed at protecting and promoting mental health.

In developed countries, the primary care worker has been variously defined (Spiegel et al., 1983), but may include the family doctor, the internist, the gynecologist or the pediatrician (Draper & Smits, 1975), as well as the specialist (Aiken et al., 1979), or the intermediate-level health professional, such as the physician assistant or the nurse practitioner (Lamb & Napodano, 1984; Rosenaur et al., 1984). Mental health training of these workers may vary considerably (Burns & Scott, 1982; Cohen-Cole & Bird, 1984).

To increase the effectiveness of mental health interventions by the primary care worker, priority mental health problems for the primary level of care have been identified by the WHO (1984) and include:

- psychiatric emergencies;
- chronic psychiatric disorders;
- mental health problems of patients attending health units, general clinics, and other curative services; and
- psychiatric and emotional problems of high-risk groups.

These broad categories have to be adjusted to local needs following the criteria developed for pediatric priorities in developing countries (Morley, 1973) and adapted for psychiatric problems in primary care (Giel & Harding, 1976). These criteria include the point-prevalence and seriousness of the problem, the existence of simple techniques for its management, and the concern of the community. When these criteria are applied to

disasters, victims can be considered a priority population for primary mental health care for various reasons:

- disaster victims are known to be a group at high risk for developing emotional problems;
- it has been shown that significant psychological problems are indeed present among disaster victims;
- the community is usually concerned about the disaster and its health and mental health consequences for the victims; and
- it has been shown that the primary care worker can be trained to carry out relatively simple and well-defined mental health interventions for the identification and management of problems seen in primary care settings (Harding et al., 1983), and it can be expected that he/she can be equally trained to intervene with similar effectiveness with disaster victims.

Primary mental health care for disaster victims, however, has been an area of surprising neglect in disaster relief planning (Lechat, 1979). Attention has been paid to mental health interventions in the more immediate postimpact phase (Cohen, 1982), but the primary care worker has not been involved in the management of the medium- and long-term psychological consequences of a disaster (Pan American Health Organization, 1981). Disasters are more likely to affect socioeconomically disadvantaged populations, in both developed and developing countries, as the fast rise in the population of some cities, the pressure on the land, and the steadily deteriorating economic conditions have forced the underprivileged population into more hazardous areas, hence rendering them more prone to disasters (Seaman, 1984). Socioeconomically disadvantaged populations have little access to specialized mental health care, and are the prime group for whom primary care has been recognized as the most appropriate strategy for mental health service delivery. Excluding disasters in the United States (Table 1), in this century there have been 2,392 disasters in the world, but 86.4% occurred in developing nations, producing a total of 42 million deaths and 1.4 billion affected individuals. Seventy eight percent of all deaths occurred in developing countries, where 97.5% of all affected individuals are located. The observed ratio between affected and killed, of only 2.9 for the developed nations, is ten times greater for developing countries (United States Agency for International Development, 1986). Hence, not only are disasters disproportionately more frequent events in the Third World, but they are also responsible for a much higher

TABLE 1
Worldwide Disasters (Excluding United States)
Killed and Affected Individuals and Number of Disasters
1900–1986

Individuals	*Total*	*Developed Countries*		*Developing Countries*	
	N	*N*	*%*	*N*	*%*
Killed	53,245,836	12,056,683	22	42,040,168	78.0
Affected	1,419,351,000	35,822,000	2.5	1,383,529,000	97.5
Total	1,472,596,836	47,878,683		1,425,569,168	
Ratio	26.7	2.97		32.9	
Number of Disasters	2,392	327	13.6	2,036	86.4

Source United States Agency for International Development, 1986.

proportion of victims who, having survived the impact, need long-term management of their biopsychosocial needs.

Even if disaster victims have access to specialized mental health services, however, they may still be reluctant to utilize them (Heffron, 1977). Disaster victims see themselves as normal individuals who have been subjected to an extreme situation (Cohen, 1985). It is reasonable to expect then that they will utilize the primary care worker, rather than the specialized mental health professional, for the management of their emotional and social difficulties alongside their physical problems. The disaster literature is very sparse on this particular subject, but some information is available from the studies done by McFarlane (1984, 1986) with bush-fire victims in Australia. The data show that victims presented various complaints to their general practitioners, including nonspecific emotional distress, sleep disorders, psychological symptoms and, for the significant majority, decline in their physical rather then psychological health. The latter included mostly patients suffering from post-traumatic stress disorders and major depression. It was further noted that victims preferred to utilize existing general health services in their districts, rather than consulting outside specialists. It is proposed that one of the first priorities in the postimpact situation should be to increase the level of detection and management of victims with emotional problems by general practitioners.

In summary, the review of the literature on primary care, mental health, and disaster reveals the need for exploring alternative strategies for mental health service delivery to disaster victims through the effective utilization of the primary care worker. The Armero disaster represented an opportunity for probing into this issue in a developing country.

ORIGINS OF THE ARMERO PROJECT

The Division of Mental Hygiene of the Colombian Ministry of Health had the task of designing, implementing, and evaluating a primary mental health care plan, for which it requested consultation to the Pan American Health Organization. The Division invited one of this chapter's authors, Bruno R. Lima, to consult in August 1985 (Lima, 1985). A subsequent national meeting was scheduled for November 27–29 in the town of Ibague, capital of the State of Tolima, when the state mental health directors would discuss the proposed plan. The State of Tolima was selected as the site for the meeting due to the excellence of its community-based mental health services, where the Plan would be pilot-tested. However, neither the meeting nor the visit to the important regional psychiatric hospital in the neighboring town of Armero was to take place. A volcanic eruption on November 13 produced a mudslide that completely destroyed Armero, leaving in its wake a total of 22,000 dead, 5,000 injured, and scores of homeless survivors in dire economic conditions (Sigurdsson & Carey, 1986).

Immediately following the tragedy, it was agreed that Dr. Lima would pursue his work on primary mental health care, adjusting it to the disaster situation, with the objective of developing mental health services for the disaster victims within the broader scope of the primary mental health care plan (Lima, 1986b).

The initial evaluation of the disaster characteristics underscored its likely psychological consequences for the survivors and neighboring communities. Eighty percent of the 30,000 inhabitants of Armero had died in the tragedy, and the small towns of Lerida and Guayabal, with an original population of about 3,000 people each, had to assimilate approximately 6,000 homeless victims. Survivors were mostly drawn from peripheral segments of society, being mostly unskilled workers with limited possibility for alternative gainful employment. The population had been unprepared for this unanticipated disaster, in which it was rapidly and deeply involved; the events were totally unfamiliar to the community. These features have been identified by Quarantelli (1985) as being highly predictable of subsequent emotional difficulties among victims.

Subsequent discussion with health care providers in the disaster area confirmed the high frequency of emotional difficulties among the victims of Armero. Two weeks after the eruption, various psychosocial problems were noted, particularly depressive states and acute anxiety, with recurrent nightmares and intrusive fantasies that recapitulated the disaster experience of the victims. In the following months, psychophysiological

disorders and complaints increased in frequency and/or severity, and included backache and headaches, hypertension, cardiovascular problems, and gastrointestinal complaints. Chronic disorders that required careful management (such as diabetes and epilepsy) were being poorly controlled. Six to twelve months later, additional problems had become more conspicuous. As temporary shelters were still being used for housing and jobs had not become available to most, growing dissatisfaction with living conditions was seen. A higher frequency of alcohol and drug abuse was observed, as well as episodes of conduct problems, such as violence and thefts. Thus, in the course of one year a wide variety of problems, which encompassed biological, psychological, and social areas, was noted. An integrated biopsychosocial approach was therefore thought to be the most appropriate for detection and management of victims' health problems.

In addition to these special characteristics, this particular disaster also produced a decrease in the specialized mental health resources. The psychiatric hospital of Armero had 5,000 yearly outpatient visits and a 90-bed inpatient service that represented 87% of the state's psychiatric beds, in addition to various community-oriented programs and consultation services to neighboring schools and health centers. The hospital was totally destroyed by the mudslide, and many of its professional staff were killed.

This combination of events—an increase in the level of emotional problems among victims and a decrease in the already limited psychiatric resources—created an opportunity for studying the role of the primary care worker in delivering mental health care to disaster victims in a developing country.

THE ARMERO PROJECT

On the basis of the previous observations and assumptions, a research project was designed to evaluate the psychiatric morbidity of victims of the volcanic eruption and mudslide. This project is a collaborative effort of the Departments of Psychiatry of the Johns Hopkins University and the University of Javeriana, in Bogota, and the Division of Mental Hygiene of the Tolima Health Secretariat and the Colombian Ministry of Health. The project has the following goals:

1. to ascertain the frequency and kinds of psychiatric morbidity seem among victims in camps and among patients in primary care clinics;

2. to assess the primary care worker's capability for adequately identifying patients with mental health problems.

The project design involved a two-phase examination of adult victims living in shelters and camps of the disaster area: an initial screening of all adult residents of two shelters and one camp, as well as a convenience sample of a second camp. The screening was done by mental health professionals of the disaster area: two psychologists, a psychiatric nurse, and a social worker. A subsample of these subjects were subsequently interviewed by a psychiatrist. The data collection was carried out seven to 10 months after the disaster, and it is now complete. The analysis, however, is still in progress.

The screening instrument used was the Self-Reporting Questionnaire (see Appendix, pp. 392–393), an instrument that has been validated (Mari & Williams, 1985) and used extensively in primary care settings in developing countries (Harding et al., 1983). It detects cases with neurotic and psychotic symptoms, with a sensitivity of 83% and a specificity of 80%. For this particular project, specific questions on alcoholism and epilepsy were added. Victims were identified by the Self-Reporting Questionnaire as suffering from emotional distress if they had a positive score of eight or more on the 20-item neurotic subscale, or a score of one or more on the 4-item psychotic subscale, or a score of one on either the question on epilepsy or alcoholism.

In order to assess the relationship between cognitive capacity of victims and their postdisaster coping and adaptation, an evaluation of their cognitive status was also done. The Mini-Mental State Examination was used to screen for cognitive problems. The Mini-Mental is a simple and reliable method for the detection of cognitive disorders (Folstein, Folstein, & McHugh, 1975), which has been used in inpatient settings (Knights & Folstein, 1977) and outpatient settings (Cavanaugh, 1983) as well as in community surveys (Regier et al., 1984).

Additional information was also obtained on the demographic characteristics of the study subjects, the disaster experience, perceived physical and emotional health, utilization of health and mental health services, level of current social support, current living conditions, and plans for the future.

All subjects scoring positively on the Self-Reporting Questionnaire and a subsample of the subjects with negative scores were given a semistructured psychiatric interview, in which the clinicians followed their routine outline for a clinical exam. Even though the utilization of a fully structured psychiatric interview could have yielded more reliable and valid data, the clinicians were confronted with the realities of a postdisaster situation: the

pressing demands on the clinicians' time for meeting other responsibilities, and the need to collect the data without much delay. Hence, it was felt that clinicians should follow their usual clinical practice, but in addition they were asked to complete selected sections of a simple symptom checklist to generate DSM-III diagnoses.

Data were also collected on a systematic sample of 100 patients attending two primary care clinics of the neighboring towns of Lerida and Guayabal, where the same research design was used. In addition, the primary care workers were also asked to complete the "Health Staff Review" to assess their ability to detect emotional problems among their patients. This simple questionnaire had been used in primary care settings elsewhere (Sartorius & Harding, 1983) and asks whether the patient suffers from: (a) a physical disorder only; (b) an emotional disorder only; (c) both a physical and emotional disorder; or (d) neither. Its brevity makes it appropriate to a primary care setting and it was readily accepted by the primary care workers.

IMPLICATIONS OF THIS EXPERIENCE

The experience thus far gathered in the Armero project has significant practical and theoretical implications for disaster mental health in the areas of research design and implementation, education/training of primary care workers, and health planning.

Research Design and Implementation

Even though the origins of this project are partially the result of serendipity, two of its essential strategies should be highlighted as guidelines for replication elsewhere.

1. Predisaster relationship between health authorities and researchers. It seems to be both difficult and easy to develop a disaster project. If no previous relationship existed with the health authorities of the disaster area, it may be extremely difficult to develop a successful collaborative research. If a relationship preexisted the disaster, however, it can evolve very rapidly into an effective research effort. Communications with the health sector and other sectors of the disaster relief system are facilitated by the special disaster-related context, promoting intra- and intersectorial collaboration. To increase the likelihood of having a successful entry into the disaster system, an ongoing relationship between a disaster research center and health officials of a disaster-prone areas could be proactively

established as an avenue for subsequent collaborative work. Furthermore, it seems more appropriate and more effective for the research team to participate directly or indirectly in the service delivery activities as well. This collaboration will not only assist the disaster relief operations, but will permit a better understanding of the health and mental health issues of the affected individuals and communities. Once the collaborative relationship is established and some of the basic service delivery issues are settled, research questions can be jointly formulated on the basis of the shared experience, and a project can be jointly designed. Particularly for developing countries, the research should be service-oriented, or at least have well-defined practical and immediate consequences, which will make it more clearly applicable to the pressing realities of service provision.

2. *Relevance of research to service delivery.* The data collection in this project was carried out by a team of mental health professionals who had worked very closely with the affected community in delivering routine mental health care. Thus, they were accepted members of the community, rather than outsiders with no perceived commitment to the welfare of the community. This special strategy circumvented a variety of problems related to victims' uncooperativeness with research projects.

The service-research intertwining was present as an essential theme throughout the project: in its antecedents, as the project had its origin in the development of a primary mental health plan for Colombia; in its design, as the information obtained aims at the identification of individual and environmental characteristics that render victims at a high risk for the development of emotional distress, with clear implications for health care delivery and social interventions; and in its implementation, as the data collection was carried out by professionals who shared research and service-delivery roles. For a disaster situation, the establishment of a clear relationship between the proposed research and the services that need to be provided to victims seems to be a very important ingredient for the successful completion of the project, particularly for developing countries and, most likely, for underserved areas of developed nations

Education and Training of Primary Care Workers in Disaster Mental Health

In the Armero disaster, participation in a project on primary mental health care has increased the interest of the primary care workers in the psychosocial problems of their patients. At the completion of the data collection, they requested of the state mental health officers a formal training program in mental health (Lima et al., in press).

The high levels of psychiatric morbidity identified among the victims in the temporary camps and shelters indicate that primary care workers should be trained to meet the victims' mental health needs adequately. The contents and methodologies developed for routine primary mental health care can be adapted to a disaster situation. Important content areas include (Cohen & Ahearn, Jr, 1980):

- interviewing skills and mental status exam;
- knowledge of disaster behavior (e.g., coping and adaptation);
- identification of psychiatric problems commonly seen in a postimpact situation (e.g., post-traumatic stress disorder, alcohol and drug abuse, marital and family conflicts, anxiety, depression and sleep disorders);
- skills in managing various therapeutic modalities (e.g., crisis counseling, supportive psychotherapy, group therapy, basic pharmacology);
- identification of thresholds for referral to the specialized mental health sector (e.g., psychotic symptoms, suicidal risk, violent behavior);
- knowledge of the disaster-relief system (e.g., housing, financial aid, employment, social services, medical care); and
- utilization of family and community resources.

Various methodologies have been designed for the training of the primary care worker in mental health care. Manuals have been developed in various settings, and successfully implemented (Lima, 1981; Murthy, 1985). Flow charts have been developed for the identification and management of problems seen in routine clinical settings which bypass more complex diagnostic formulations and focus on abnormal behaviors, such as violence against other people and self, delusions, abnormal and withdrawn behavior, abnormal speech, anxiety and depression (Essex & Gosling, 1983). These instruments must now be adjusted to a disaster situation. Other methods should be considered as well, such as videocassettes that have already been used successfully (Brownstone et al., 1977). According to the technological resources of the affected communities, videocassettes could represent a significant educational strategy. Experience gathered in the WHO collaborative study on "Strategies for Extending Mental Care" has shown that two or three hours for each of the identified priority conditions sufficed for the primary care worker to master the necessary contents (Murthy & Wig, 1983). Drawing from our experience, we estimate that training the primary care worker on basic disaster, mental health interventions could be implemented in 15–20 hours, a time frame that seems compatible with the time constraints and pressure for service.

It may be virtually impossible to include, in the limited mental health training for the primary care worker, content related to a future disaster that may never occur. After a disaster strikes, however, the primary care workers local to the disaster area will of necessity become involved with its health consequences, and are likely to be motivated to develop additional skills to meet the varied health needs of their patients. As we have observed in Armero, the heightened tension and anxiety seen in the postimpact period facilitated the learning process and created a climate that was conducive to the optimal development of new skills, knowledge, and attitudes. Furthermore, there seems to be ample time for the mental health training of the primary care worker, as it has been observed that very few cases come to the clinics in the first days after a disaster (Chamberlin, 1980), the majority of victims dating the beginning of their symptoms two months after the disaster, with new cases still occurring 24 months after it (McFarlane, 1986).

Health Planning

A program for developing the primary care worker's capability for actively participating in the delivery of mental health care to disaster victims needs to be designed, implemented, and evaluated. This involves a series of strategies that include the formulation of a clear national policy on disaster mental health, the establishment of a specialized unit within the department of mental health, and minimal financial provisions for operating the program (World Health Organization, 1984).

The role of the specialized mental health sector in the comprehensive care of disaster victims needs to be reexamined as well. Certainly the role should not be of routine and direct service delivery, not only because the demands are likely to be far greater than the resources available, but also because mental health care delivered though the primary level of care may be more appropriate to the victims' health needs (Bromet & Schulberg, 1987). The role of the specialized mental health sector, therefore, should relate to program design, implementation, and evaluation; to the training and education of the primary care worker; and to providing him or her continuing support through consultation and supervision. Particularly in disaster-prone countries, a small national disaster mental health team should develop and master a simple and well-structured educational and training package adjusted to the particular country (Figure 1). Once a disaster strikes, this team becomes responsible for training the mental health team local to the affected community. The local mental health team will then provide training and continuing support to the general health

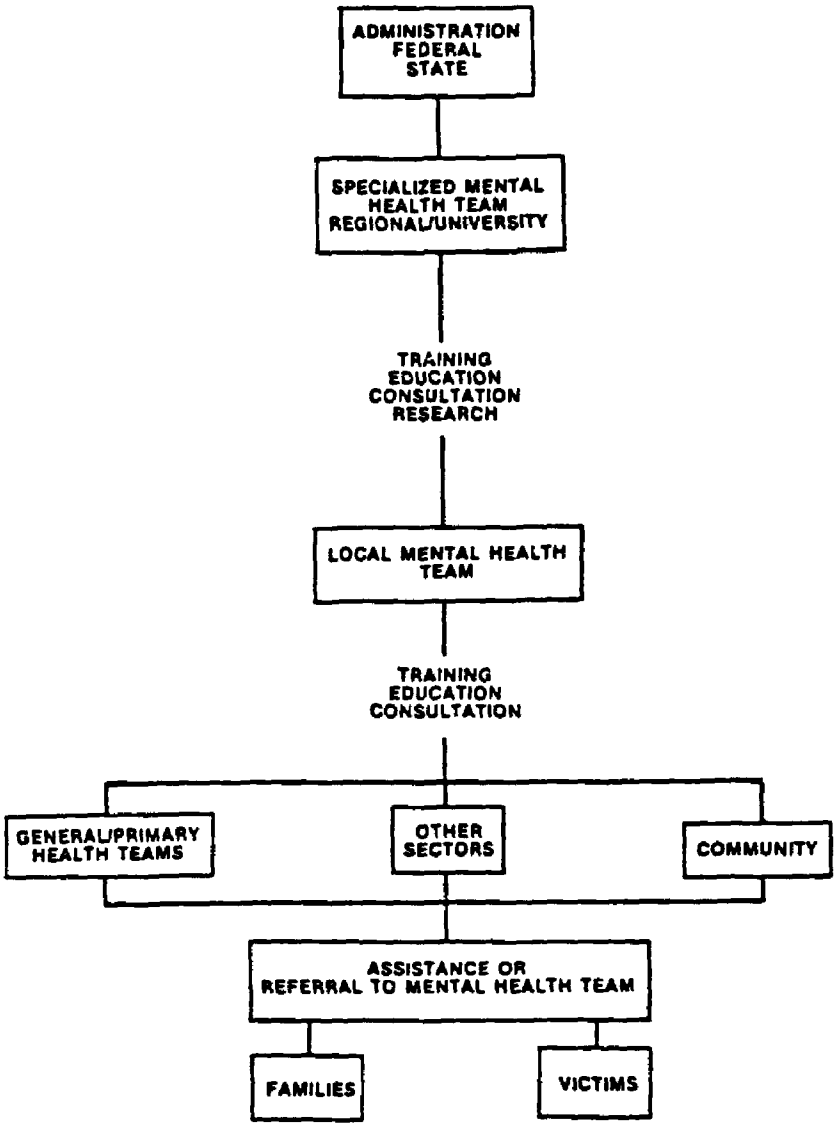

Figure 1. Mental health care integrated into the disaster relief aid.

sector and to the front-line primary care workers, other sectors of the disaster-relief operation, and the community. The trained primary care worker will in turn provide routine mental health care to victims, families, and affected communities. The specialized mental health worker will remain available for evaluation and/or treatment of referred patients whose psychiatric problems are too complex to be handled at the primary care level.

The Colombian Primary Mental Health Care Plan (Colombia, 1986) reflects the experience gained in the Armero disaster and includes a section on disasters as one of its priority areas, formulating policies and procedures for the development of this specific component. It represents an important attempt at developing a framework for structuring primary mental health care activities in disaster situations within the scope of national health policies.

In the Plan, the primary health care workers who carry out the primary mental health care activities integrated with their general health care activities were divided into two categories: the Professional Primary Health Care Workers, who include the general doctor, the professional nurse, the social worker, and the occupational therapist; and the Auxiliary Primary Health Care Workers, who include the nurse auxiliary, the social worker auxiliary, and the health promoter.

The stated objectives for the primary mental health care for disaster victims are:

- identification of individuals in the community and primary health care centers with emotional problems in response to the disaster, and development of appropriate treatment and rehabilitation approaches;
- development of mental health activities integrated with the disaster relief operation.

The proposed activities are specified for health promotion and disease prevention, treatment, and rehabilitation:

Health Promotion and Primary Prevention

- to develop educational activities with the community under threat of an impending disaster to address frequent emotional problems, such as denial or anxiety;
- to collaborate with programs being developed by the health sector or other sectors, integrating mental health in all the proposed activities;

- to coordinate the mental health activities with other sectors in the community which will become active in the forthcoming disaster;
- to be familiar with the disaster relief system being developed, the health and community resources available, and the mechanism for accessing these services;
- to develop community activities to foster solidarity and support to obtain a collective response to the disaster situation.

Secondary Prevention

- to train the Auxiliary and Professional Primary Care Worker to identify and manage victims who present emotional problems;
- to train the Auxiliary Primary Health Care Worker to utilize various approaches to manage the emotional problems of victims which include:
  - —providing ventilation and emotional support;
  - —facilitating access to other health services or community resources as needed;
  - —providing accurate information to victims; and
  - —involving the family and other support persons to manage the emotional problems.
- to support the Auxiliary Primary Health Care Worker through scheduled supervision, consultation, or referral by the Professional Primary Health Care Worker.
- to train the Professional Primary Health Care Worker to utilize various approaches for managing the emotional problems of victims who are referred to him or her by the Auxiliary Primary Health Care Worker, which include:
  - —prescription and administration of required medications;
  - —evaluation and treatment of physical problems, and
  - —evaluation of psychosocial problems;
- to support the Professional Health Worker through scheduled supervision, consultation, or referral with the Specialized Mental Health Worker (e.g., psychiatrist, psychiatric nurse).

Tertiary Prevention

- to ensure that the Primary Health Care Worker maintains close collaboration with victims and affected families to promote their community adjustment, facilitating the utilization of available resources;
- to ensure that the Primary Health Care Worker works with the community to facilitate the assimilation of displaced victims who have been relocated to this community.

CONCLUSION

The integration of mental health and general health services, particularly at the primary level of care, has been a significant policy objective in developed (Burns et al., 1979; Coleman & Patrick, 1976; Pincus, 1980) and developing countries (Baasher et al., 1975, World Health Organization, 1975), although its realization has been fraught with difficulties (Broskowski, 1982; Brown & Zinberg, 1982; Goldman, 1982). Disasters may represent an opportunity for developing a decentralized primary health care system (Soberon et al., 1986) and for integrating mental health care into general health services (Pucheu, 1985) as victims are at risk for suffering significant emotional distress, and the primary care worker is likely to be more motivated to develop his or her mental health capability.

Given the scarcity of health resources and the increasing frequency and magnitude of disasters, both developed and developing countries are forced to engage in creative strategies to meet the victims' mental health needs, which include the active participation of the primary care worker. The conceptual service delivery model proposed in this chapter is partially derived from our experience in Colombia, but it may be applicable to those areas of the United States or other developed countries where, for various reasons—such as scarcity of specialized mental health resources (Burns et al., 1983) or cultural stigmatization of psychiatric treatment (Lindy, Grace, & Green, 1981)—the primary level of care may be the most appropriate one for the delivery of mental health care to disaster victims. This integrated approach, however, may be desirable irrespective of the availability or acceptability of specialized mental health treatment, as it has been shown to be more responsive to patients' biopsychosocial needs (Engel, 1977; Kessler, Tessler, & Nycz, 1983). It is hoped that our efforts, in addition to meeting the pressing health needs of developing countries, may in the long run prove to be an adequate model for integrating mental health and general health services in the care of disaster victims in developed nations as well.

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APPENDIX: ITEMS OF THE SELF-REPORTING QUESTIONNAIRE

Nonpsychotic

1. Do you often have headaches?
2. Is your appetite poor?

3. Do you sleep badly?
4. Are you easily frightened?
5. Do your hands shake?
6. Do you feel nervous, tense, or worried?
7. Is your digestion poor?
8. Do you have trouble thinking clearly?
9. Do you feel unhappy?
10. Do you cry more than usual?
11. Do you find it difficult to enjoy your daily activities?
12. Do you find it difficult to make decisions?
13. Is your daily work suffering?
14. Are you unable to play a useful part in life?
15. Have you lost interest in things?
16. Do you feel that you are a worthless person?
17. Has the thought of ending your life been in your mind?
18. Do you feel tired all the time?
19. Do you have uncomfortable feelings in your stomach?
20. Are you easily tired?

Psychotic

1. Do you feel that somebody has been trying to harm you in some way?
2. Are you a much more important person than most people think?
3. Have you noticed any interference or anything else unusual with your thinking?
4. Do you ever hear voices without knowing where they come from or which other people cannot hear?

Epilepsy

1. Do you ever have attacks where you fall down, your arms and legs shake, you bite your tongue and lose consciousness?

Alcohol

1. Do you often get drunk?