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Ethnocultural considerations in disasters: an overview of research, issues, and directions

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> A monkey and a fish were caught in a terrible flood and were being swept downstream amidst torrents of water and debris. The monkey spied a branch from an overhanging tree and pulled himself to safety from the swirling water. Then, wanting to help his friend the fish, he reached into the water and pulled the fish from the water onto branch. The moral of the story is clear: Good intentions are not enough. If you wish to help the fish, you must understand its nature.
>
> Ancient Chinese Fable

And so it is with disasters! Good intentions, though essential, are not enough. To help the victims of disasters, one must understand who they are and what they need from their own perspective. To do so, it is essential one must understand and respect their culture. In calling attention to the complexities involved in cross-cultural encounters in disasters, Doherty [1] stated, "well-intentioned attempts to help can easily be at risk for being misunderstood as meddling, interference, or even political attempts to influence or control." Unlike the past, when disasters in distant lands appeared to have little consequence or implication for those not immediately affected, the forces of globalization now have linked societies and nations throughout the globe in a complex economic, political, social, environmental, and moral web of consequences that cannot be ignored. Today, disasters—whether they natural or human-made—can alter international

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political, economic, legal, and military relations. An international meeting on the global nature of disasters [2] in 1998 concluded:

> Because of both increased transnationalization and increased media coverage, natural disasters are no longer issues for one single country. Indeed, the media now seem to have the power to "create" disasters for a world audience. Given their high visibility and transnational effects, the disasters of the future will be highly politicized.

The global implications disasters may have for individuals, societies, and nations are compounded further by the problematic cultural encounters that occur when victims and service providers from contrasting cultural traditions must work with one another [3,4]. Wessells [5], one of the most active and knowledgeable disaster professionals in psychology, identified the problems that can emerge when Western disaster professionals intervene in developing countries. He writes:

> In emergency situations, psychologists hired by NGOs (nongovernmental organizations) or UN (United Nations) agencies often play a lead role in defining the situation, identifying the psychological dimensions of the problems, and suggesting interventions.... Viewed as experts, they tacitly carry the imprimatur of Western science and Western psychology, regarded globally as embodying the highest standards of research, education, training, and practice.... Unfortunately, the dynamics of the situation invite a tyranny of Western expertise. The multitude of problems involved usually stems not from any conspiracy or conscious intent but rather from hidden power dynamics and the tacit assumption that Western knowledge trumps local knowledge.... Local communities have specific methods and tools for healing such as rituals, ceremonies, and practices of remembrance. Since they are grounded in the beliefs, values, and traditions of the local culture, they are both culturally appropriate and more sustainable than methods brought in from the outside [5].

Bracken and Petty [3] argue that Western relief workers often assume universality in the application of their humanitarian efforts because of the ethnocentricity that is fostered by the obvious power of science and technology. Bracken [6] writes:

> The challenge to Western NGOs and other agencies dealing with refugees and other victims of violence around the world is to establish ways of supporting people through times of suffering by listening and hearing their different voices in a way that does not impose an alien order. It is a challenge which demands that we work with a spirit of humility about what we can offer and an acceptance that there is no quick fix or magic bullet that will rid people everywhere of the suffering brought by violence [6].

Disasters

Disasters and collective and individual trauma: normal versus pathological responses

If disaster workers we are going to understand how attempts to respond to disasters can go wrong, they first need some understanding of the normal collective and individual response to traumatic events. Even pioneer sociologists such as Emile Durkheim knew that the normal collective response to threat, large-scale trauma, or disaster is not social collapse. In fact, the normal response is often a collective coming together, rebuilding, and reaffirmation of collective identity. The community comes together guided by temporary emergent norms that legitimate and reward increased sacrifice for the larger community. Durkheim studied this phenomenon as a manifestation of ''collective effervescence,'' which he hypothesized was the core of all identity-based social grouping. This response entails public rituals that pronounce that the people of the threatened community are in some sense special.

Modern psychology recently discovered a parallel phenomenon at the level of the individual. Research demonstrates that the normal response to trauma is not just pathology, but rather can be learning, growth, and resilience [6]. The evidence clearly demonstrates that trauma almost, if not always, has some positive effects [6,7]. Tedeschi et al [8] have termed this phenomenon post-traumatic growth (PTG). This fact has interesting cultural implications, as caregivers may not understand the manifestations of PTG. The factors that determine whether the outcome of trauma exposure will be increased adaptiveness, in the form of PTG or learning, or pathology, such as PTSD or depression, are biological, psychological, and sociocultural, but the relationship between the individual and his or her culture is among the most important [9].

For a successful disaster recovery to occur, relief recovery workers and victims must be able to work together and to understand the complex nature of the technical task, but they also must be able to participate in, and reinforce, the collective psychosocial recovery process. This task may involve some imposition of new behaviors, but it is not generally a good time for the imposition of new meaning, a process that is often in itself anxiety provoking. International recovery efforts that seek to institutionalize western cultural beliefs and practices during a severe crisis, at the expense of indigenous culture, run the risk of destroying rather than transforming the community. This can lead to a second level of disaster that can add to the disaster burden for the victims and the rescuers, because of the increased uncertainty and unfamiliarity that occurs [3,10,11].

Disasters as complex cultural encounters

Disasters represent a complex cultural encounter of victims, the external responders, and the emergent and temporary disaster culture. As is the case

whenever cultures encounter one another, especially if they represent contrasting worldviews and life styles, the situation has the potential for stressful and destructive consequences. It is the crucible in which the dynamics of cultural differences are confronted. The emergent disaster culture can become a resource for cultural preservation and support, or it can become a source of stress that undermines the very humanitarian efforts that are being exerted by service providers. The disaster, whether it is natural or human-made, confronts victims and responders with a new ecology of forces that must be negotiated under conditions of duress. Awareness of cultural variations can help reduce this duress, but it cannot eliminate them. The very dynamics of complexity can transform a well-planned assistance plan into a disaster.

Disaster assistance efforts may bring together people from radically different cultural worldviews, and the negotiation of these differences may prove to be a source of new long lasting relationships or conflict and confusion. Often, local leadership and external leadership from helping resources may have different views regarding what is needed and how the needs should be met. Disaster workers with strong, preconstructed service delivery agendas may find themselves in conflict with victims and with still other resources called to the scene. Increasingly, disaster researchers and professionals are recognizing that an effective and successful disaster response must acknowledge that interventions must extend beyond the treatment of individuals to the treatment of the entire community and that the best interventions involve the community and external resources [12–14]. Hutton [15] provides an excellent summary review of community factors that should be considered in disasters. Thus, disasters represent a complex cultural encounter in which the cultures of the victims, the helpers, and the emergent crisis can come into conflict. It is a situation in which acculturation pressures are being imposed and negotiated by all parties. The disaster is the crucible into which are cast the various players with their distinct cultures. The dynamics and outcomes of this complex chemistry will involve an understanding of power differentials, concepts of health and illness, personal characteristics of the players (eg, resiliency and life styles), and world views. The situation involves cultural encounters between opposites such as East–West, North–South, rural–urban, poor–rich, male–female, young–old, and the powerful–powerless. The result can be social and cultural disintegration even as the crisis phase is survived.

Culture and disasters: an overview of the research literature

Although the study of disasters is not new, systematic concern for cultural aspects of disasters is a relatively recent interest having emerged only in the past 20 years. To a large extent, interest in the topic was stimulated and promoted by Anthony Oliver-Smith's book on cultural variations in response to disasters, *Natural Disasters and Cultural Responses*,

published in 1986 [16]. In 1996, Oliver-Smith [17] also published a literature review of anthropological research on hazards and disasters. His publication remains a good historical starting point for understanding cultural considerations in disasters. Numerous others subsequently published literature overviews [1,15,18] as the field began to benefit from contact with other specialty areas such as transcultural psychiatry, international sociology, and cross-cultural counseling. The Research Committee on Disasters of the International Sociological Association has been a particularly active group studying ethnocultural aspects of disasters through their sponsored *International Journal of Mass Emergencies and Disasters*. Others have called attention to the special requirements of dealing with disasters in developing countries [19] and the risks that are inherent in providing aid as cultures encounter one another [4,20]. An edited volume by Havenaar et al [21] offers substantive summaries of major disasters in India, Japan, the Netherlands, Russia, and others. Although these accounts do not tease out ethnocultural considerations, they are nevertheless rich in detailed discussions of the immediate and long-term consequences in national contexts.

In the authors' opinion, one of the most important publications on cultural aspects of disasters was prepared by Norris et al [22] for the National Center for Post-Traumatic Stress Disorder (www.ncptsd.org) and the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration (SAMHSA). Norris et al conducted a meta-analysis of the quantitative literature on disasters for publications that occurred between 1981 and 2001. They reviewed 200 articles for 160 distinct samples composed of over 60,000 individuals who experienced 102 different disasters. They then coded the disasters for six outcomes: specific psychological problems (77% of samples), nonspecific distress (39%), health problems and concerns (23%), chronic problems in living (10%), psychosocial resource loss (9%), and problems specific to youth (nonreported). Norris et al concluded ethnic minority youth were at greater risk in 66% of the youth samples, and ethnic minority adults were at greater risk in 100% of the samples. The reasons for the increased risk relate to severe exposure to the disaster and culturally specific attitudes that impede help seeking. A prior paper by Norris et al [23] provides a detailed analysis of gender and ethnic psychosocial responses to Hurricane Andrew. They concluded that major services are needed far beyond the immediate crises care and that these services need to consider ethnic and gender variables issues. Table 1 displays a summary of publications on international and cultural aspects of natural and human-made disasters. Some of this research literature is oriented toward the responses of specific ethnocultural groups, while other publications represent cultural comparisons or literature overviews and commentaries. PTSD has received the greatest attention in the study of disasters. Cultural variations in the rates and expression aspects of PTSD have been reviewed in numerous publications [24–26]. DeGirolamo and MacFarlane [24] reviewed hundreds of publications on international variations in the

Table 1
Summary of mental health responses to disasters among selected international, cultural, and ethnicity studies (created from multiple sources)

Author	Date	Disaster	Location	Topics/findings
Bolin et al	1986 [54]	Earthquakes	United States	Psychopathology
Canino et al	1990 [55]	Floods/slides	Puerto Rico	PTSD, depression, anxiety
Escobar et al	1992 [56]	Floods/slides	Puerto Rico	Somatic symptoms psuedoneurological
Fothergill et al	1999 [57]	All	United States	Mental health
DeGirolamo et al	1996 [24]	All	International	PTSD universal
Green	1996 [41]	All	International	Mental Health
Guarnaccia et al	1993 [58]	Floods	Puerto Rico	*Ataques de Nervios*
Harken et al	1999 [59]	All	United States	General, mental health
Joh	1997 [60]	Earthquake	Japan	Stress/housing
Kalicanin et al	1993 [61]	War	Balkans	Trauma, stress, health
Lima et al	1992–93 [63]	Volcano/quakes	Columbia/ Equador	PTSD, depression, anxiety
Lima et al	1987 [64]	Volcano	Colombia	Mental disorders
Marincioni	1994 [65]	Floods	Italy, United States	Mental Health
Marsella et al	1993 [62]	Trauma	International	PTSD, stress
McFarlane	1990 [66]	Fire	Australia	Mental health
Norris et al	1999 [23]	Hurricane	Florida	PTSD parameters
Norris et al	2002 [22]	All	International	Mental health
Oliver-Smith	1996 [17]	All	International	General behavior
Peacock et al	1997 [67]	Hurricane	US	General/ethnicity/race
Perillo et al	Unpublished data (1998)	Hurricane	Ethnicity	General
Phillips	1999 [68]	All	Cultural	General
Sattler et al	2002 [69]	Hurricane	Caribbean	Psychological distress
Walker et al	2003 [70]	Terrorism	US minority	Coping, emotions

epidemiology of PTSD. The essential conclusion of these publications is that while the human response to stress may be universal in its biological and psychological experiences ands processes, there is evidence that the specific PTSD response may vary across cultures, especially with regard to the re-experiencing and avoidance dimensions.

Culture and post-traumatic stress disorder

Some authors have argued that PTSD is itself a culture-specific disorder created by Western professionals [6,27]. This point of view has elicited considerable controversy. Clearly, like any mental disorder, PTSD needs to be considered within a cultural context, and decontextualizing it can lead to misunderstandings. For example, DeVries [28] pointed out how traditional societies often respond to massive trauma. This cultural variation in response can impact all aspects of the PTSD response. He stated:

> Traditional, nonindustrial societies have often sought to collectivize the social injuries of massive trauma. They have created healing rituals,

religious ceremonies, communal dances, and revitalization movements, and have restored symbolic places, such as religious centers, community centers, and special places for women and children, as cultural responses to massive traumas [28].

All of this indicates that there are numerous cultural considerations that must be responded to in understanding and treating PTSD across cultures including: idioms of distress, meaning of dreams or nightmares, meaning of trauma, role of destiny, presence of collective trauma experiences, role of avoidant symptoms, occurrence of dissociation, independence of symptomatology and disability, the history of trauma for the culture (cultural marginalization, racism, "sick society," the presence of cultural disintegration, prominent violence, substance abuse, few social supports, and alienation/anomie [25]. These variations do not mean that PTSD is not a universal response, but rather that it cannot be decontextualized from the culture milieu in which it occurs, because this isolates it from its etiological roots, experiential referents, and its methods of mediation. This premise is actually true for all mental disorders [29].

An overview of the publications in Table 1 yields the following conclusions:

- Disasters pose special burdens in mental health for ethnic minority and developing country populations, especially for women and children; these added burdens occur because of social, economic, and political marginalization, deprivation, and powerlessness.
- The most common mental health problems to emerge are depression, anxiety, hysterical reactions, stress reactions, and PTSD; however, rises in substance abuse, child abuse, and violence also can occur. Although these disorders share some common features with other populations, it is essential that disaster workers recognize and respond to cultural variations in the onset, expression, and treatment responsivity of these disorders.
- Stereotypes and ethnocentric biases need to be attenuated; this is especially true for PTSD dimensions.
- It is also essential that disaster workers recognize and respond to local perceptions of the causes and nature of disasters and not assume universality in these matters; failure to respond to cultural variations can reduce worker effectiveness and usefulness, and increase noncompliance, dependency, and antagonisms.
- The use of culture brokers, indigenous healers, and cultural sensitivities can facilitate short-term and long-term success; training of disaster workers must include cultural competencies.

Cultural competency guidelines in disasters

Several national and international agencies concerned with disasters have published guidelines for incorporating cultural considerations in disasters.

For example, Solis et al [30] prepared a detailed series of guidelines regarding cultural diversity and disaster management in Canada. Although not specific to any particular ethnocultural group, they recommend that cultural variables be incorporated in training and prevention programs for disaster planners and responders. They note that ethnic minorities often may be at greater risk during disasters because of existing stress, poverty, and isolation and that communication barriers may interfere with interventions. They also point out the importance of ongoing outreach efforts to ethnocultural minority groups. Their guidelines are stated clearly and could be applied in other nations. Mitchell and McArdle [31] offer guidelines for working with linguistically and culturally diverse populations in Australia. What is especially admirable about their paper is their discussion of specific disasters in Australia and the consequences for different cultural groups that were at risk in these disasters. Like others, they note that ethnocultural cultural minority groups are at risk during disasters because of the social, political, economic, and communication barriers.

The Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration of the Department of Health and Human Services (DHHS) offers a useful set of tips for teachers on the role of cultural factors in helping children recover from disasters. This Internet site, www.mentalhealth.samhsa.gov/cmhs/emergencyservices/culture.asp), points out how cultures differ in social structures, values, communication, and social processes. They advocate that teachers and other providers learn cultural competencies to assist them in their efforts.

The State of New York's Project Liberty [32] published an explicit set of cultural competencies that are necessary for disaster agencies and workers growing out of recent disaster experiences in New York. What is particularly useful is the emphasis placed on prevention through the development of training materials and disaster response strategies that consider ethnocultural variables including identification of culture brokers, foreign language materials for different communities, and ongoing assessment and evaluation of the organizational cultural competence. At an international level, the World Health Organization [33] recently published guidelines for mental health during emergencies. Their guidelines place considerable emphasis on preventive efforts in developing countries. Of special importance in their recommendations is the integration of mental health efforts within primary health care services, because in developing countries, mental health needs often are marginalized in emergencies.

The disaster worker

No matter how well-intentioned the disaster worker may be, the stresses of disaster responses can exact a harsh toll on his or her own health and well being. Much of this toll comes from the difficulties of negotiating a stressful event in a strange setting in which accepted assumptions, practices, and

communications may be challenged. Disaster workers are often unprepared for their assignments, with resulting mental health problems [34,35]. Too little is done in training to prepare them for the profound cultural encounters that may occur in the victims' culture and the emerging disaster culture [36].

Understanding variations in help-seeking behaviors among victims, especially the issue of humiliation and loss of face are essential and can become sources of stress for the disaster worker who becomes concerned with required bureaucratic procedures that are at odds with victim needs and interpersonal styles. These variations ultimately become sources of frustration for the aid worker and the victim. It is not unusual for even the best disaster workers to become disillusioned, demoralized, and angry with victims. To address and prevent these problems, disaster training in cultural competency is essential. It also is essential, however, that disaster workers be debriefed following their service rotation so that lessons learned can be identified and used in future training. In addition, it is necessary to screen disaster workers for mental health problems. Culture shock (ie, valorizing one's own culture and while demeaning others, stress complaints, depression, and paranoia) is real problem for the entry and return phases. Entering a disaster site, replete with its extensive suffering, deprivation, and horrendous destruction, can leave disaster workers with permanent psychic scars. To this end, disaster service agencies need to service their own staff as well as disaster victims [36,37].

The concept of culture: definition, meaning, and significance

Defining culture: the first step in cultural competence training

Culture is a word that often used but frequently misunderstood. This is especially true among health professionals working in cross-cultural situations. Too often, popular notions of culture as food, dress, arts, and so forth hide the true nature of culture differences as alternative and differing realities. For present purposes, we will define culture as : shared, learned behaviors and meanings that are transmitted socially, often across generations, for purposes of sustaining or promoting adaptation, adjustment, and development. Culture has external representations such as artifacts (eg, food, clothing, art forms), roles (eg, social structures), and institutions (eg, family, religion, legal,). Culture also has internal representations such as values, attitudes, beliefs systems, epistemologies, cosmologies, and consciousness variations.

By noting that culture has internal and external representations, this definition emphasizes that culture involves the psychological construction of reality. That is to say, because culture involves values, beliefs, consciousness patterns, and content and way people know what they know (ie, epistemology), culture becomes a template for reality among different groups of

people. It defines the way they experience the nature, meaning, and content of reality. Culture orders their perception of what, why, and how something exists. It orders the possibilities and limitations for behavior and meaning. It should be noted that while culture often is associated with ethnicity and various national groups, cultures also are created and sustained in various settings such as hospitals, schools, classrooms, businesses, and neighborhood. Cultures also can be temporal or enduring in their existence. A group of people can come together for a specific and time limited occasion or event (eg, a disaster or festival) and in the course of their interactions create a culture that may pass on once they disband. Culture thus becomes a set of expectations, practices, and priorities in behavior and meanings, and in this respect it constructs reality.

Culture and meaning: understanding the role of culture in disasters

The word ''meanings'' has emerged as an important element in the definition of culture. ''Meanings'' refers to the complex set of subjective perceptions and experiences—cognitive (verbal, lexical, imagistic), visceral, and affective experience of an event or thing—that are derived from the unique codification and interpretation of a perception. It now is understood hat people do not respond solely to stimuli, as older behavioristic views contended, rather, people respond to the complex meanings the stimuli elicit and imply, and that these meanings are coded in numerous domains (cognitive verbal, images, affect, proprioceptive, visceral).

Culture, disasters, and mental health

Diagnosis

After years of being marginalized, cultural determinants of psychopathology and service delivery have become a basic part of training and practice for mental health professionals. This is evidenced by the recent attention given to cultural variables in *Diagnostic and Statistical Manual of Mental Disorders, Revised Fourth Edition* (DSM-IVR) [38]. As all professionals now know, the DSM-IV provides guidelines for the cultural formulation of a case. These guidelines are designed to increase sensitivity to cultural variations n psychopathology. The inclusion of these guidelines in DSM-IV represents a significant achievement for cultural psychiatry, because they legitimize the understanding and application of cultural variables for psychiatric care. Clearly, after years of marginalization in psychiatry, cultural factors now have been assigned a central role in understanding the assessment, diagnosis, treatment, and prevention of mental illness [38]. Numerous publications now support the role of cultural variables in mental health and disorder in general [29,39], and with regard to the specifics of diagnosis [40], various disorders such as PTSD [25,26,41], depression [42], schizophrenia [43], and substance abuse [44,45].

In considering cultural factors in response to disaster, it is also essential to consider a person's ethnic identity. Although a person's ancestral heritage or ethnicity is an important factor in human behavior, it is critical that the person's ethnic identity or the extent to which a person identifies with a particular culture be considered. Thus, it is not whether the person is Japanese, French, or any other ethnicity, but rather the extent to which the person is embedded in the culture and structures their reality according to the cultural traditions. The measurement of ethnic identity and acculturation has become a popular topic of inquiry, and there are numerous quick and valid scales and procedures that can be used [46].

Responding to disasters

According to Hutton [15], the most popular approach to treating disaster victims in the crisis phase has been Mitchell's Critical Incident Stress Debriefing (CISD) [47,48]. This approach involves sharing the victim's experiences in a structured and supportive setting. The assumption is that the sharing and normalizing of the experience can prove helpful in mitigating stress levels and in encouraging cognitive mastery over the event. Hutton [15] points out, however, that research indicates the CISD approach may not be any more effective than the natural approach of talking with friends and families. Indeed, from a cultural competence approach, there are reasons to believe efforts to mediate the stress using rational cognitive approaches may not be useful outside of Westernized groups, since many cultural groups do not use cognitive mediation using words and concept approaches but rather rely on intuitive, emotional, and religious mediation.

For example, Lin [49] notes that talk therapy approaches were not effective among some Taiwanese natural disaster victims, but the victims did find satisfaction in traditional religious practices (Shou-Jing). She writes:

> "I do not know how to communicate with the experts. He told me that I have some kind of disease in my mind, but I think I am okay. He kept asking me to express my feelings toward the earthquake, but I feel embarrassed if I tell people my own feelings.... I went to a Master in the temporary temple, and she taught me how to deal with the situation. How to calm my anxieties through worship and helping others. How to accept grief as an arrangement of the gods. You know that our people have done so many wrong things" [49].

Culture, therapy, and healing

Efforts to deliver mental health services in the course of a disaster cycle can assume several different approaches. For example, a Western-oriented service system that provides Western medications and therapy/counseling options can be established. It is also possible, however, to establish a service system that incorporates services that culturally accommodate to the victims being served. This can involve the use of indigenous healers as partners,

consultants, or independent providers. It also can involve the applications of indigenous services. It should be noted that virtually all cultures have therapeutic systems that reflect their particular world view and values. Examples of non-Western therapy approaches include [50–52]: acupuncture/moxibustion (Chinese), ayurvedic (Indian), naikan therapy (Japanese), morita therapy (Japanese), I-Ching (Chinese), curanderos/santeria (Latino), voodou (Caribbean), sweat lodge/vision quest (American Indian), trance states (eg, Mudang-Korean, Shamans), meditation (Numerous), herbolarios (Herbal Care) (Numerous), ho'oponopono (Kahuna and Kapuna Hawaiian), yoga (Hindu).

In addition to recognizing the numerous healing and treatment approaches and methods that can be used in providing services to indigenous populations, Marsella [51] identified numerous different therapeutic principles that exist and that have proven successful across therapies, including insight, catharsis, increased information, reduction or absolution of guilt, labeling of emotional states, instilling faith and hope, reinforced practice, interpretation, mobilization of social resources, approval and sanctioning, increased trust, and empathy. There is no single healing principle and no single best therapy or counseling system. One must be alert to the fallacy that there is a best therapy. Lastly, it is essential that disaster workers recognize the ethnocultural variations in response to different psychopharmacological agents. Research by Lin et al [52] has pointed to significant variations in adverse effects, dosage potency, uptake and excretion variables, and circulating plasma level concentrations of various medications across different ethnocultural populations.

Summary

A review of the literature on cultural aspects of mental health during national and international disaster responses reveals some commonality in mental health problems including the expected problems of anxiety, depression, acute stress reactions, and PTSD, but it also reveals some variations in the definitions and meanings of disasters and variations in symptomatology and PTSD diagnostic parameters. The psychiatric literature needs to give increased attention to the social deviancies that often accompany disasters including crime, gambling, abuse, violence, divorce, cultural collapse, and substance abuse, as these are often present. In addition, relatively little attention has been given to the study of positive responses to disaster aspects such as individual and societal resiliency and post-traumatic growth. Unfortunately, although the need for cultural sensitivities among those providing mental health services following disasters has been recognized and encouraged, it remains largely an ideal rather than a reality. Little attention has been given to the possibilities of false negatives and false positives in diagnosis and to the myriad of expressive patterns (eg, culture-bound disorders) and clinical parameters

(eg, onset, course, and outcome) of disorders across cultures. Culture is more than ethnicity and ancestry. It is the manner and content in which human beings construct their realities, meanings, and identities. It is the template that is placed over reality to give it order and define what is morality, health, illness, and an acceptable way-of-life. It is essential that cultural competency become a part of disasters policy, training, evaluation, and clinical activities.

Based upon the current overview of the research and clinical literature, Box 1 shows 12 training, research, and clinical recommendations offered to increase future cultural competency in disasters.

Box 1. Recommendations to increase cultural competency

Clinical needs

Integrate services

There is a need to blend and integrate social services and mental health services in disasters. Too often, attention to symptomatology control by means of medication occurs in the absence of mediating sources of stress such as housing, food, employment, child support, and access to government resources. These problems are an integral part of needed mental health services rather than the responsibilities of different sectors. Too often, disaster victims from minority groups and developing countries find themselves confused about services because of competing service agencies and providers.

Cultural certification of disaster workers

Certify disaster workers for their level of cultural competence. This can occur through systematic training programs much as cross-cultural clinicians are certified. National criteria can be developed so that there are well-defined performance indices.

Use languages and communication patterns of victims

Although communication modes are independent (eg, words, tone, rate, nonverbal), it is clear that language skills are essential during crises. Because of this, efforts should be made to assign skilled foreign language speakers during disasters and to use local interpreters. No matter how well-intentioned, the presence of significant communication barriers during disasters leads to increased frustration and difficulties for service providers and victims. A corps of communication resource personnel for various nations and cultural subgroups should be developed and should be on call when disasters occur.

Training needs

Develop cultural competencies

There have been numerous calls for disaster training protocols that incorporate the development of cultural competencies. Given the growing recognition and endorsement of cultural competencies for all mental health professional activities, it should not be surprising that more must be done to achieve cultural competency among disaster workers. Minimally, cultural competency training should focus on understanding the nature and meaning of culture and on cultural variations in various aspects of mental disorders and services. Eventually, a core of knowledge can be developed for specific cultural groups and for the understanding of general cultural variations in disaster responses.

Use culture brokers and local resources

Well-informed members of local cultures are an invaluable educational resource for training disaster workers. Their insights and personal experiences can provide a rich understanding of local behavior. There are many culture learning materials that are available to enhance learning. Disaster workers need to learn about their own culture, the culture of others, and the ways in which mental health concepts, disorders, and treatment vary. Local healers can help as consultants or referral sources.

Develop a culture training resources center for disasters (CTRCD)

Develop a CTRCD that can archive and distribute field materials, and experiences, cases, and related book and journal resources. This central location, funded by the federal government, could make these materials easily available to various training programs around the world. The CTRCD also could list resource personnel who are available for training purposes, including lectures, workshops, and consultation. Certification could be made available for students completing courses.

Research needs

Cultural disaster research archives

There is a need for systematic cultural studies of disasters to identify sources of stress and sources of resilience and coping among different cultural groups exposed to disasters. Existing research indicates that high levels of predisaster stress (eg, marginalized groups, stress from racism, poverty, unemployment, language and communication problems, or poor health status) will result in greater mental health

problems throughout the disaster cycle. This is especially true for certain high-risk groups such as refugees, children, women, and elderly. Studies can be collected and archived for teaching purposes. This research should enlist culturally informed disaster victims when possible and should maximize the use of existing culture and mental health literature.

Implement and study prevention programs across cultures

There is a need to implement systematic disaster prevention programs among high-risk populations, especially those in disaster-prone locations. These programs should use local leadership, resources, and cultural sensitivities. For many indigenous populations and minority groups (eg, immigrant communities), the causes of disasters often are seen as retribution or punishment for failed cultural practices and beliefs. These variations in cultural constructions of disasters need to be incorporated into developing and evaluating prevention programs.

Expand indices of mental health

There is a need to broaden mental health aspects of disasters to include child abuse, spouse abuse, crime, murder, divorce, school absenteeism, substance abuse, gambling, and other social deviancies. These topics are as important as psychiatric symptomatology in understanding mental health adjustment and adaptation and may often be the modes of expression for distress in cultures under collapse and destruction. Indeed, more needs to be done to understand how disasters may encourage cultural collapse and cultural resiliency, especially positive responses to disasters and trauma.

Study cultural variations in loss, grief, and bereavement

There is a need for cross-cultural studies of loss following disasters, because different groups may respond to loss in different ways, through grieving and bereavement rituals and the use of various religious and social resources. It is possible that much can be learned that could be applied across cultures. Although cultures may differ in response to disasters, the loss that accompanies disasters seems to be common responses, with variations in patterns of coping through rituals and other ceremonies.

Develop culturally sensitive measures of trauma and mental health

There is a need to develop culturally sensitive and appropriate assessment instruments. The reflexive use of Western instruments in disasters can lead to many false positives and

false negatives. It would be useful to have sensitive screening instruments that can channel victims toward more detailed assessments of problems and needs. Too often, Western instruments are used that fail to grasp cultural variations in question content, scale formats, and norms (eg, true–false, Likert scales) [53]. Translation of scales is insucient; other factors must be included to make a scale valid and equivalent across cultures.

References

[1] Doherty G. Cross-cultural counseling in disaster settings. Australian J Disaster Trauma Stud 1999;2:1–20.
[2] Hazard Center. Global Disasters: an International Conference. Boulder, Colorado, 2003.
[3] Bracken P, Petty C. Rethinking the trauma of war. London: Free Association Books; 1998.
[4] Carr S, McAuliffe E, MacLachan M. Psychology of aid. London: Routledge; 1998.
[5] Wessells M. Culture, power, and community: intercultural approaches to psychosocial assistance and healing. In: Nader K, Dubrow N, Stamm B, editors. Honoring differences: cultural issues in the treatment of trauma and loss. New York: Brunner-Mazel; 1999. p. 267–82.
[6] Bracken P. Hidden agendas: deconstructing PTSD. In: Bracken P, Petty C, editors. Rethinking the trauma of war. London: Free Association Books; 1998. p. 38–59.
[7] Bonanno G. Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? Am Psychol 2004;59:20–8.
[8] Tedeschi R, Park C, Calhoun L. Post-traumatic growth: positive changes in the aftermath of crisis. Mahway (NJ): Lawrence Erlbaum Associates; 1998.
[9] Christopher M. An exploration of the ''reflex'' in reflexive modernity: the rational and prerational social causes of the affinity for ecological consciousness. Organization and Environment 1999;12:357–400.
[10] Higginbotham H, Marsella AJ. International consultation and the homogenization of psychiatry in South East Asia. Soc Sci Med 1988;27:553–61.
[11] Maynard K. Healing communities in conflict: international assistance in complex emergencies. New York: Columbia University Press; 1999.
[12] Gist R, Lubin B, editors. Response to disaster: psychosocial, community, and ecological approaches. Ann Arbor (MI): Braun-Brumfield; 1999.
[13] Green B. Traumatic stress and its consequences. In: Green B, Friedman M, deJong J, Solomon S, Keane T, Fairbank J, Donelan B, Frey-Woulters E, editors. Trauma interventions in war and peace. New York: Kluwer Academic/Plenum Publishers; 2003. p. 17–32.
[14] Hobfall S, DeVries M, editors. Extreme stress and communities: impact and intervention. Dordrecht (Netherlands): Kluwer Publications; 1995.
[15] Hutton D. Psychosocial aspects of disaster recovery: integrating communities into disaster planning and policy making. Occasional paper. Toronto (Ontario, Canada): Institute for Catastrophic Loss Reduction, University of Western Ontario; 2001.
[16] Oliver-Smith A, editor. Natural disasters and cultural responses. Studies in third world societies, #36. Washington (DC): American Anthropological Association; 1986.
[17] Oliver-Smith A. Anthropological research on hazards and disasters. Ann Rev Anthr 1996; 25:303–28. Institute for Catastrophic Loss Reduction, University of Western Ontario.
[18] Lechat M. The public health dimensions of disasters. Int J Ment Health 1999;19:70–9.
[19] Pelling M. The vulnerability of cities: natural disasters and social resilience. Stirling (VA): Earthscan Publications; 2003.

[20] Carr S, Schumaker J. Psychology and the developing world. New York: Praeger; 1996.
[21] Havenaar J, Cwikel J, Bromet E. Toxic turmoil: psychological and societal consequences of ecological disasters. New York: Kluwer Academic/Plenum Publishers; 2002.
[22] Norris F, Byrne C, Diaz E, Kaniasty K. 50,000 Disaster victims speak: an empirical review of the empirical literature, 1981–2001. Unpublished Technical Report, National Center for PTSD, Dartmouth Medical School, Hanover (NH): 2002.
[23] Norris F, Perilla J, Riad J, Kaniasty K, Lavizzo E. Stability and change in stress resources, and psychological distress following natural disaster: Findings form Hurricane Andrew. Anxiety, Stress Coping 1999;12:363–96.
[24] DeGirolamo G, McFarlane A. The epidemiology of PTSD: a comprehensive review of the international literature. In: Marsella A, Friedman M, Gerrity E, Scurfield R, editors. Ethnocultural aspects of PTSD: issues, research, and clinical applications. Washington (DC): American Psychological Association; 1996. p. 33–85.
[25] Marsella AJ, Friedman M, Gerrity E, Scurfield R. Ethnocultural aspects of PTSD: issues research and clinical applications. Washington (DC): American Psychological Association; 1996.
[26] Nader K, Dubrow N, Stamm B. Honoring differences: cultural issues in the treatment of trauma and loss. New York: Brunner-Mazel; 1999.
[27] Young A. Is PTSD a culture-bound syndrome? A cultural critique on a diagnostic concept and its export. In: Bot H, Braakman M, Preijide L, Wassink W, editors. Culturen op de vlucht (Cultures in transition – Dutch). Amsterdam (the Netherlands): Phoenix Center; 2002. p. 77–84.
[28] DeVries M. Trauma in cultural perpspective. In: Van der kolk B, McFarlane A, Weisaeth L, editors. Traumatic stress: the effects of overwhelming experience on mind, body, and society. New York: Guilford Press; 1996. p. 398–413.
[29] Marsella AJ, Yamada A. Culture and mental health: an introduction and overview of foundations, concepts, and issues. In: Cuellar I, Paniagua F, editors. Handbook of multicultural mental health. New York: Academic Press; 2001. p. 3–26.
[30] Solis G, Hightower H, Kawaguchi J. Guidelines on cultural diversity and disaster management. Vancouver (British Columbia, Canada): Disaster Preparedness Resources Center, University of British Columbia; 1995.
[31] Mitchell L, McArdle D. Working with culturally and linguistically diverse communities. Available at: www.ausfire.com/afac_conference/documents/mcardle.doc. Accessed October 16, 2003.
[32] Project Liberty. Providing culturally competent crisis counseling services. Project Liberty. Albany (NY): New York State Office of Mental Health; 2002.
[33] World Health Organization. Mental health in emergencies. Geneva (Switzerland): Division of Mental Health, WHO; 2003.
[34] Erikson C, Van de Kemp H, Gorsuch R, Hoke S, Foy D. Trauma exposure and PTSD symptoms in international relief and development personnel. J Trauma Stress 2001;14: 205–12.
[35] Holtz T, Salama P, Cardozo B, Gotway C. Mental health status of human rights workers, Kosovo in June 2000. J Trauma Stress 2002;15:389–95.
[36] McCall M, Salama P. Selection, training, and support of relief workers: an occupational health issue. BMJ 1999;318:113–6.
[37] Danieli Y, editor. Sharing the front line and the back hills: international protectors and providers: peacekeepers, humanitarian aid workers, and the media in the midst of crisis. Amityville (NY): Baywood Publishing; 2002.
[38] American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th edition-text revision. Washington (DC): American Psychiatric Association; 2002.
[39] Mezzich J, Fabrega H. Cultural psychiatry: international perspectives. Philadelphia (PA): WB Saunders; 2001.

[40] Paniagua F. Diagnosis in a multicultural context. Thousand Oaks (CA): Sage Publications; 2001.
[41] Green B. Cross- national and ethnocultural issues in disaster research. In: Marsella A, Friedman M, Gerrity E, Scurfield R, editors. Ethnocultural aspects of PTSD: issues, research, and clinical applications. Washington (DC): American Psychological Association; 1996. p. 341–61.
[42] Marsella AJ, Kaplan A, Suarez E. Cultural considerations for understanding, assessing, and treating depressive experience and disorder. In: Reinecke M, Davidson M, editors. Comparative treatments of depression. New York: Springer; 2001. p. 47–78.
[43] Marsella AJ, Suarez E, Leland T, et al. Cultural and international variations in schizophrenia: an overview of research and clinical literature. In: Bot H, Braakman M, Preijide L, Wassink W, editors. Culturen op de vlucht (Cultures in transition–Dutch). Amsterdam (the Netherlands): Phoenix Center; 2003. p. 47–76.
[44] Heath D. Culture and substance abuse. In: Mezzich J, Fabrega H, editors. Cultural psychiatry: international perspectives. Philadelphia: WB Saunders; 2001. p. 479–96.
[45] Straussner S. Ethnocultural factors in substance abuse treatment. New York: Guilford Press; 2001.
[46] Yamada A, Marsella AJ, Atuel H. Development of a cultural identification battery for Asian and Pacific Islanders. Asian Psychol 2002;3:65–76.
[47] Mitchell J. When disaster strikes. The critical incident stress debriefing process. J Emerg Med Serv 1983;8:36–9.
[48] Mitchell J, Everly G. Critical incident stress debriefing: an operational manual for the preventing of traumatic stress among emergency services and disaster workers. Ellicott City (MD): Chevron Publishing; 1996.
[49] Lin A. Shou-Jing versus talk therapy: why counseling and not Shou-Jing? Cross-Cultural Psychology Bulletin 2000;10–5.
[50] Jilek W. Traditional medicine relevant to psychiatry. In: Sartorius N, De Girolami G, Andrews G, German A, Eisenberg L, editors. Treatment of mental disorders: a review of effectiveness. Washington (DC): American Psychiatric Press; 1993. p. 341–90.
[51] Marsella AJ. Culture and mental health: an overview. In: Marsella AJ, White G, editors. Cultural conceptions of mental health and therapy. Boston: G. Reidel Press; 1982. p. 359–88.
[52] Lin KM, Smith M, Ortiz V. Culture and psychopharmacology. In: Mezzich J, Fabrega H, editors. Cultural psychiatry: international perspectives. Philadelphia: WB Saunders; 2001. p. 523–38.
[53] Marsella AJ, et al. The measurement of personality across cultures: historical, conceptual, and methodological issues and considerations. Am Behav Scientist 2000;44:41–62.
[54] Bolin R, Bolton R. Race, religion, and ethnicity in disaster. Boulder (CO): University of Colorado Press; 1986.
[55] Canino G, Bravo M, Rubio-Stipec M, Woodbury M. The impact of disaster on mental health: prospective and retrospective analyses. Int J Ment Health 1990;19:51–69.
[56] Escobar J, Canino G, Rubio-Stipec M, Bravo M. Somatic symptoms after a natural disaster: a prospective study. Am J Psychiatry 1992;149:965–7.
[57] Fothergill A, Maestas E, DeRouen D. Race, ethnicity, and disasters in the United States: a review of the literature. Disasters 1999;23:156–73.
[58] Guarnaccia P, Canino G, Rubio-Stipec M, Bravo M. The prevalence of *ataques de nervios* in the Puerto Rico Disaster Study. The role of culture in psychiatric epidemiology. J Nerv Ment Dis 1993;181:157–65.
[59] Harken D, Natter E. Race, ethnicity, and disasters in the USA: a review of the literature. J Disaster Stud Pol and Manag 1999;23:156–73.
[60] Joh H. Disaster stress of the 1995 Kobe earthquake. Psychologia: Int J Psychol Orient 1997;40:192–200.

[61] Kalicanin P, Bukelic J, Ispanovic V, Lecic-Tosevski D. The stresses of war. Belgrade (Yugoslavia): Institute for Mental Health; 1993.
[62] Marsella AJ, Westermeyer J. Cultural aspects of treatment: conceptual, methodological, and clinical issues and directions. In: Sartorius N, De Girolami G, Andrews G, German A, Eisenberg L, editors. Treatment of mental disorders: a review of effectiveness. Washington (DC): American Psychiatric Press; 1993. p. 391–418.
[63] Lima B, Pai S. Response to the psychological consequences of disasters in Latin America. Int J Ment Health, 19, 3–20, 1992–1993.
[64] Lima B, Pai S, Santa Cruz H, Lozano J, Luna J. Screening for psychological consequences of a major disaster in a developing country: Armero, Colombia. Acta Psychiatr Scand 1987;76:561–7.
[65] Marincioni F. A cross-cultural analysis of natural disaster response: the Northwest Italy floods of 1994 compared to the US Midwest floods of 1993. Int J Mass Emerg Dis 1994; 209–36.
[66] McFarlane A. An Australian disaster: The 1983 bushfires. Int J Ment Health 1990;19: 36–47.
[67] Peacock W, Morrow B, Gladwin H. Hurricane Andrew: ethnicity, gender, and the sociology of disasters. New York: Routledge; 1997.
[68] Phillips B. Cultural diversity in disasters: Sheltering, housing, and long-term recovery. Int J Mass Emerg Disasters 1999;11:99–110.
[69] Sattler D, Preston A, Kaiser C, Olivera V, Valdez J, Schlueter S. Hurricane Georges: a cross-national study examining preparedness, resource loss, and psychological distress in the US Virgin Islands, Puerto Rico, Dominican Republic, and the United States. J Trauma Stress 2002;15:339–50.
[70] Walker K, Chestnut D. The role of ethnocultural variables in response to terrorism. Cult Div Ethnic Min Psychol 2003;9:251–62.