

Hidden Wounds, Hidden Healing of Disaster

Lennis G. Echterling, Ph.D.
James Madison University

Summary

This article presents two fundamental lessons learned from longitudinal studies of disaster survivors. The first lesson is that disasters may be time-limited events, but they leave psychological wounds that are often hidden, long-term, and wide-spread. Traditional counseling approaches have been not only inefficient, but counterproductive, in dealing with the deep and long-standing wounds of disaster. The second lesson is that hidden healing often takes place after a disaster. Individuals who were once victims develop into survivors and communities form natural helping networks to promote the recovery process. These lessons present important implications, such as providing outreach, consultation, support, and follow-up interventions, for interveners who work in disasters.

Introduction

The United States has the highest rate of hazardous weather conditions in the world (Williams, 1992). It is a rare news day when there is not a story about a tornado, hurricane, blizzard, thunderstorm, or flood somewhere in our country. We can add to that list other natural disasters, such as earthquakes, forest fires, and volcano eruptions. The violent force of these natural disasters is obvious to anyone who has seen on television the dramatic scenes of destroyed homes, obscenely mangled objects, and ravaged landscapes. Plundering areas so completely that they look like combat zones, natural disasters leave in their wake billions of dollars in damages. People lose their possessions, their homes, their communities, and even their lives.

It is easy to see the physical impact of a disaster, but what about the psychological impact – the hidden wounds? There is now a substantial body of literature documenting the immediate psychological effects of disaster (Baum, 1987). However, these wounds often remain concealed even from counselors, who could easily recognize the signs of distress, because few survivors seek formal counseling. Since mental health services still carry a stigma, disaster survivors avoid them, even though they may be in great psychological pain (Freedy, Kilpatrick, & Resnick, 1993). Unfortunately, many interpret the reluctance of survivors to pursue counseling as evidence that the psychological impact of disasters is minimal.

However, about two decades ago, a few mental health professionals began to offer psychological help to disaster victims (Lystad, 1985). Naively, they came to disaster stricken communities not sure what to expect, but nevertheless confident that they could help. Professional helpers learned from these early awkward attempts. For example, contrary to the portrayal of disasters in the popular cinema, they did not encounter hordes of people running amuck. Instead, they found people traumatized, shaken, and desperate to talk. And

although victims did not turn to traditional forms of therapy, professional helpers who made themselves accessible quickly learned that survivors had a profound need to talk about their experiences.

Since the mid-1970's, mental health professionals have continued to learn more about the immediate and short-term reactions to a disaster, but only recently have begun to address the long-term effects. Another recent development is that disaster interveners and researchers have started to recognize the impact of the disaster on the relief workers and other natural helpers, in addition to the direct victims. This chapter presents two fundamental lessons learned from longitudinal studies of not only direct victims of disaster (Echterling, 1993), but also one group of natural helpers – the clergy (Echterling, Bradfield, & Wylie, 1992). These studies involved interviews during the year following a flood and follow-up interviews six and seven years later. Both post-disaster and follow-up interviews with the 65 victims and 40 members of the clergy included questions regarding their disaster experiences, current circumstances, stress symptoms, and coping strategies.

The Hidden Wounds of Survivors

The first lesson learned from the survivors is that many people have emotional wounds that are long-standing but hidden. Shortly after the flood, nearly all of the direct victims reported some posttraumatic stress symptoms. Although these symptoms decreased over time, some were deep and enduring. For example, 74% of the direct victims experienced intrusive memories just after the flood, but 37% of the survivors still reported this symptom seven years later. The percentage of those experiencing emotional distress due to the flood decreased the most sharply over the seven years--from 93% to 8%. In general, while the memories of the flood continued to intrude, these memories lost their emotional impact for many survivors. Nevertheless, a significant minority of the survivors reported enduring posttraumatic symptoms, such as reexperiencing the trauma (12%), avoidance (10%), and anxiety (8%).

Many appeared to be coping well seven years after the flood, but revealed their hidden wounds during the follow-up interviews. For example, a survivor shared some of his feelings about the flood:

People think that time heals, but I don't think I'll ever get over it. I would like to put it behind me, but I can't....We are still finding mud lodged in the cracks in the walls and in the joints of the furniture. We still have mud stains in the pots, pans, and in the Tupperware. We've scrubbed and cleaned but the stains will not come out....A couple of years ago, we found that some of the air ducts still had mud caked in them....Even our birth certificates and the family documents have mud stains on them.

The vivid image of the dried mud, packed so hard and so deep into the cracks and crevices that it virtually became part of the house, is a striking metaphor for the disaster survivor. To the casual observer, the repaired house may look as good as new. But the flood has left its mark, and the mark is a permanent one. One only needs to look long enough and hard enough to see it.

Disaster counseling can be seen as looking for the psychological mark of the disaster. Like the dried mud, the psychological mark is often packed hard and deep inside someone. The mark may be a painful memory embedded in some distant part of the mind, it may be a secret fear in the pit of the stomach, or a sense of vulnerability back in a corner of the heart. When the survivors begin rebuilding their homes and their personal lives, they also carry within them these hidden wounds.

While the disaster itself is terrifying and traumatic for many victims, it is just the beginning of a long series of problems. The survivors of a disaster have to cope with constant reminders, economic hardships, and losses that continue even years later. One man's account after a flood is typical of the long-term problems that survivors face:

We couldn't sell our house, so we had to remain here. We want to move....I don't enjoy the river the way I used to. We weren't able to afford vacations until 1990. Thanksgiving time has never meant the same since the flood. We don't decorate like we used to. Holidays are painful times now. All of our Christmas decorations were destroyed.

Being a victim of a natural disaster is not a single point in time, it is an ongoing condition that goes on months and even years after the disaster. As a result, disasters involve both posttraumatic and chronic stress.

A particular example of long-term consequences of a disaster is the anniversary effect. The anniversary of a disaster often evokes vivid memories of the incident and spurs reflections on its meaning and place in one's life (Echterling & Hoschar, 1987). The anniversary prods survivors to assess again the disaster's impact, and prompts them to review the changes that have taken place during the past year. The original feelings and reactions to the event often reemerge at this time. For some survivors, the anniversary is accompanied by feelings of frustration, hopelessness and disappointment, because they now must acknowledge that many of their problems may be long-lasting, or even permanent. Survivors have a strong need to take some action on the anniversary. Some take practical steps, such as disaster preparedness, and many commemorate their disaster experience in some way.

While the direct victims of a disaster suffer many painful consequences, they are not the only ones who are wounded. Friends, relatives and other members of the community also experience survivor guilt, anxiety, fatigue, and other symptoms of posttraumatic and chronic stress. In particular, disaster workers and other members of the helping network, such as the clergy, are high risks for psychological wounds. When we interviewed clergy after several months of flood relief work (Bradfield, Echterling, & Wylie, 1989), we found that 69% complained of fatigue, 53% felt burnt out, and, paradoxically, 66% reported feeling guilty about not doing enough for the survivors. Some of the clergy even reported posttraumatic stress systems, such as anxiety (34%), dreams about the flood (34%), and intrusive memories (31%).

When interviewed again over six years after the disaster (Echterling, Bradfield, & Wylie, 1992), some of the clergy acknowledged that the long-term impact continued to include

distress and pain. One minister shared, "Around the anniversaries of the flood, I go into withdrawal. I pretend that it doesn't exist. To this day, I have less interest in Halloween because the rains started on Halloween." Another shared, "I left my congregation one and a half years after the flood because I felt burnt out. I'm invited back there often, but...I feel uncomfortable going back. I avoid the memories of those times." In their struggle to face and meet the needs of their traumatized community, the clergy themselves were wounded. As a result, the distinction between disaster helper and disaster victim becomes blurred because everyone in a community, in a very real sense, is a survivor of the disaster.

Although the posttraumatic and chronic stress symptoms of survivors decrease over time, these longitudinal studies reveal that some of these hidden wounds are deep and long-lasting. As Yogi Berra says, "It ain't over 'til it's over," and, even years later, it is not over for many survivors of disaster.

The Hidden Healing of Survivors

The longitudinal research has revealed more than hidden wounds, however. Many victims of disasters develop into survivors without the assistance of formal counseling. Moreover, when survivors do seek out the emotional help they need, they usually turn to their relatives, neighbors, friends, or clergy, who form a community's natural helping network that promotes the recovery process. In other words, just as there have been wounds hidden to mental health professionals, there also has been hidden healing.

For example, in the longitudinal study of direct victims of a flood, 64% of the survivors stated seven years later that the disaster experience had affected their thinking about the goodness of life. Since the flood was the single most destructive event in their lives, it seems only reasonable to assume that the disaster would affect survivors' opinions about the benevolence of life. However, surprisingly, a large majority--75%--of the subjects whose beliefs changed reported that these changes actually were for the better. As one woman said, "It made me stop and think of how fortunate I was." Another explained, "I'm thankful we are still here and it's good to be alive." "I don't take anything for granted," declared one man. "I realized how lucky we are for what we have and we almost lost it all...It put things into perspective."

Fewer & 27% & of the survivors believed that the flood experience had affected their opinions about themselves. But when the subjects did report a change in opinion, it was nearly always for the better. Fully 94% described these changes in positive terms. "I'm more compassionate and understanding of others," said one survivor. "I'm older and wiser now," said another. "I wonder how I did what I did. I found out I could do some amazing things that I never imagined I could do."

Finally, 58% of the survivors reported that the flood had changed their beliefs about the meaning of life, and nearly all of them described the changes positively. One man expressed it this way, "It made me think why did this thing have to happen. I value life much more. I take it one day at a time and value each day."

The accounts that disaster survivors gave in follow-up interviews suggest that as they struggle with the problems of rebuilding their homes and their lives, they also grapple with deeper and more profound issues. They take on the questions that have plagued theologians, philosophers, artists, and writers throughout the centuries. But disaster survivors are not involved in ivory tower ruminations. They become theologians by asking how God could have allowed such tragedies to occur to them and their loved ones. They become philosophers by asking about the meaning of life, when they know now how frail and ephemeral life can be. Some survivors, usually the children, become artists, struggling to capture their experience in a picture. Many survivors become story tellers to give voice to their ordeal and to give coherence to what had been chaos, using words so simple and pure that they have the sharp clarity of poetry. One man shared this story as one that had helped him through the years:

We had an empty canning jar with a lid on it way back behind our basement stairs. When we were cleaning up after the flood, we found that jar unbroken and it still had its lid on it. But what was so amazing was that canning jar was now half full of flood water. We've left it there way back in the basement all these years. We decided we'd leave it for the next owners.

The story describes a ritual that expressed the survivor's acceptance of the flood experience. The storyteller cleaned up and rebuilt his home and his life, but he also kept a souvenir, a reminder that, deep down inside, the flood is still a part of his life. The healing power of this story seems to lie in its ultimate acceptance of the flood experience. Many survivors have used stories, rituals, philosophical reflections, and theological contemplations to find meaning in the trauma and long-term consequences of a natural disaster. Thompson (1985) found that survivors who found some positive meaning in the traumatic event were able to cope better.

The clergy is one group of natural helpers that is vitally involved in the hidden healing following a disaster. When a flood, tornado or other "act of God" strikes a community, many people turn to their ministers, priests, and rabbis for practical assistance, emotional support, rituals, and meaning (Bradfield, Echterling, & Wylie, 1989; Echterling, Bradfield, & Wylie, 1988). Many of the clergy continue to perform disaster relief work with their congregations and communities for several years (Echterling, Bradfield, & Wylie, 1992).

Yogi Berra has some other words of wisdom, "When you come to a fork in the road, you gotta take it." It appears that many disaster survivors have followed Yogi's seemingly impossible advice. The disaster was a major fork in their lives and many took both paths--they carry to this day their hidden wounds and they also carry that transcending power of a hidden healing. Yes, they have been victims, but they are also survivors. They have integrated the disaster experience into their identities and have rebuilt their lives. In a real

sense, they never truly reach a point where the disaster is "behind" them. Instead, it is within them. In the follow-up interviews, the flood experience emerged as an indelible mark on both the clergy and direct victims. Observed one minister, "The flood is etched in our memories." As a result of the disaster, survivors have learned important lessons about life and about themselves. They are different persons because of the disaster, and they carry those memories, discoveries and lessons within them as they continue on with their lives.

Implications for Disaster Intervention

The findings of longitudinal studies have important implications for interveners who wish to work in disasters. First, disaster interveners do not constantly have their handkerchiefs ready, expecting to hear only the tragic stories of wretchedly pitiful victims who are in desperate need of rescue. Although they have experienced traumas and are dealing with painful losses, nearly all these people come to consider themselves survivors & not hopeless victims & would be offended by any displays of pity. Instead, interveners should be ready to get their hands dirty as they make themselves useful in a variety of practical ways. On the other hand, disaster interveners should not to expect always to hear uplifting, inspirational, and heroic stories of people overcoming the incredible power of a natural disaster. Recovery from disaster is more complicated than either a simple tragedy or inspirational story. Disaster counseling is facilitating that recovery process of a victim struggling to become a survivor. However, traditional counseling approaches have been not only inefficient, but counterproductive, in dealing with the wide-spread and long-standing wounds of disaster.

A joke demonstrates the fundamental distinction between disaster intervention and traditional therapy. What's the difference between the responses of a disaster intervener and a therapist to a flood survivor covered in mud? The disaster intervener says, "Let's get that mud off you." The therapist asks, "How does that feel to have mud all over you?"

Using a variety of strategies, such as offering outreach services to direct victims and others, developing follow-up programs, organizing support group activities, and providing consultation and education, is essential in disaster counseling. Whatever the strategy employed, disaster interveners emphasize three important themes:

¥ survivors are experiencing normal reactions to an abnormal situation;

¥ survivors are not alone & there are people and services available to help; and

¥ survivors can deal with posttraumatic and chronic stress in healthy, positive ways.

Outreach Services

First, since the victims do not come to interveners, the interveners have to go to them. An aggressive program offering immediate outreach services to the survivors is an essential beginning of disaster intervention. Instead of passively waiting in their offices, disaster interveners make their services easily available and accessible by going to the disaster sites, emergency shelters, and disaster assistance centers.

In addition to going to where the survivors are, disaster interveners must frame their services in acceptable terms. Instead of offering "mental health services" or "counseling," disaster interveners are there "to hear the survivor's story" and to offer information, support, and help in handling the stress. Every survivor has a story to tell, and the immediate task of a disaster intervener is to help the survivor to give voice to the experience. Telling one's survival story is more than merely recounting the events of one's personal encounter with disaster. It is a complex, multi-faceted, healing experience that should not be discounted as unnecessary or minor in the often chaotic wake of a disaster. Telling one's story offers the survivor an opportunity to face, acknowledge, accept, and ventilate powerful emotions. The process aids a survivor in beginning to recognize the enormity of what has happened and its consequences. The act itself of telling the story helps the survivor to organize the information needed to assess the disaster's impact, and to think more clearly and completely about the current circumstances. Perhaps more importantly, the process of telling one's story helps a survivor in the search to find some meaning in the event that has taken place. Finally, since sharing one's story necessarily involves another person who hears it, the process helps to reconnect the survivor, who often feels alone and alienated, to others who can offer support. Telling one's story is an essential part of coping with disaster.

The sheer numbers of survivors of a disaster would easily overwhelm the community's professional therapists whose traditional individual and group therapy approaches would be woefully inadequate. Consequently, disaster interveners can select sensitive indigenous nonprofessionals and train them to become outreach workers. In the wake of a disaster, outreach workers can make contact with all those affected to assess their needs, to offer support and information, and to do any necessary disaster intervention. By providing these outreach services, workers can also identify individuals and families who are experiencing a great deal of distress and who are in need of referral for formal counseling. Outreach services are not limited to making face-to-face contact with survivors. Instead, because

many survivors are physically isolated, outreach also includes telephoning and corresponding with survivors.

The refrain of disaster interveners is that posttraumatic stress reactions are normal. As they listen to their stories with compassion, interveners communicate to survivors the reassurance that there is nothing wrong with them for having these symptoms. The messages that disaster interveners communicate is that there is help available. The goal of outreach services is to facilitate the process of recovery by helping survivors handle the posttraumatic and chronic stress in healthy, positive ways.

Consultation Services

In addition to reaching out to help the direct victims, it is essential to work with the formal and informal helping resources in the community. Consequently, another important strategy of disaster interveners is consulting with the area's emergency services, volunteer disaster workers, schools, churches, and community agencies. The consultation takes two forms: supportive services and training. Providing supportive services focuses on the consultees' personal needs. For example, since rescue and relief workers commonly experience stress reactions (Gibbs, Drummond, & Lachenmeyer, 1993), disaster interveners now routinely offer them Critical Incident Stress Debriefing (CISD) (Mitchell & Bray, 1990). CISD gives workers an opportunity to ventilate, support one another, and learn stress management skills. The longitudinal study of clergy shows that they also needed debriefing as well as ongoing support. It is likely that many other formal and informal helpers would benefit from such supportive consultation services.

The second form of consultation is training, equipping helpers with the knowledge they need to help survivors handle the stresses of a disaster. The training involves describing the typical reactions to disasters and providing opportunities to practice disaster intervention techniques. Since the distinction between helpers and victims becomes blurred after a disaster, any training should also address how helpers can monitor and manage their own stress.

Recognizing the importance of meaning for long-term coping, interveners should collaborate more closely with the clergy and others who help survivors to give coherence to these experiences. Through such collaboration, interveners could encourage community networks to offer not only emotional and material support, but also opportunities to create meaning.

One example of disaster consultation is a program addressing the needs of children, a demographic group particularly vulnerable to disaster-induced psychological problems. Consultation with school officials can address how not only to meet the students' immediate emotional needs on their return to school, but also to prevent the high absenteeism and poor academic performance that can occur after a disaster (Echterling, 1989). Disaster interveners can help schools develop programs that offer immediate support at school and at home, provide opportunities for ventilation of feelings, give students appropriate reassurances, help students gain a sense of cognitive mastery, and identify high-risk students.

Follow-up Services

Unfortunately, disaster counseling programs often have been limited to providing intensive, short-term, and immediate help. Although such an approach is vital, it is only the first step. The natural disaster may be a time-limited event, but its physical, economic, ecological, social, and psychological consequences are long-term. While interveners have come to recognize the posttraumatic stress of disasters, they may fail to appreciate the impact of chronic stresses. Survivors facing the chronic stresses of a disaster also require ongoing information, support and counseling.

While immediate short-term intervention is not enough, it nevertheless is essential for effective follow-up services. A follow-up program must be built on a foundation of early intervention. Survivors are not as responsive to follow-up efforts if there is not already a relationship based on trust and acceptance. Following a disaster, many systems form a "trauma membrane" (Lindy & Grace, 1985), or boundary that is at first easily permeable to potential helpers but is later sealed against outsiders. The early work immediately after a disaster allows interveners passage later through the "trauma membrane."

During the recovery period after the disaster, outreach workers contact survivors periodically to reassess their needs and respond accordingly. Again, follow-up services should take a variety of forms, including face-to-face contact, telephone calls, letters, brochures, and newsletters with all survivors. The brochures and newsletters can offer helpful information and suggestions on dealing with the consequences of the disaster.

Interveners also can design programs to meet the delayed reactions of disaster victims. For example, they can advertise the telephone numbers of hotlines during times of higher stress, such as the anniversary of the disaster or during hazardous weather conditions. They can design low-cost, long-range volunteer outreach services to find out who is still struggling and to offer them help.

One important follow-up intervention is to help survivors cope with the "anniversary effect." Outreach interveners can encourage survivors not to fight against the tendency to recall events from a year ago. Instead, survivors can channel this natural inclination in a positive direction by focusing on the inspiring memories they have, the positive experiences and changes that have occurred, and the realistic challenges they continue to face. Interveners can remind survivors that they do not have to carry their burdens alone. They can talk with others about their thoughts and feelings--whether painful or positive. Interveners can urge friends and relatives of survivors to be especially supportive during this time. Finally, interveners can recommend that survivors take some constructive and positive action, such as participating in a memorial or learning about disaster preparedness.

Community Education

Immediately following the disaster, interveners can initiate a comprehensive community education program. The campaign should involve all of the public media, including local newspapers, television and radio stations. Also, disaster interveners have found success in offering presentations to neighborhood organizations, church groups, work groups, parent-teacher associations, and other community groups. They can design brochures that provide practical, helpful information on such topics as managing stress, handling the reactions of children, and preparing for possible disasters in the future.

Throughout the campaign, disaster interveners should provide practical, helpful information that emphasizes the three important themes of accepting the normality of posttraumatic stress reactions, taking advantage of available help, and managing stress positively.

Support Groups

Since survivors are more open to turning to their fellow members of the community for

support, another important strategy of interveners in disaster is to organize support groups for survivors (McCammon & Long, 1993). The goals of the groups are to give disaster survivors opportunities to share their stories with one another, to exchange information and ideas, and to offer encouragement and support to one another. Support groups can not only be more efficient than individual disaster intervention, they can also be more effective. The group format, for example, gives individuals a chance to actually see the normality of their own reactions. While it is helpful to hear a disaster intervener explain that reexperiencing a trauma is common, it can be powerfully reassuring and enlightening to hear another survivor describe such an incident. As they share their stories, survivors realize that they are not alone in having these common posttraumatic and chronic stress reactions. In support groups, survivors also can learn by observing more effective coping strategies and can practice interpersonal skills, such as self-disclosure and assertion.

The site of the support group meetings should not be a counseling agency or mental health center. Rather, it should be a church, neighborhood center, or even private home. Not only are survivors more likely to attend the group, but also the location reinforces the normality of their concerns. The meetings are usually weekly and may last for several months to over a year.

Conclusion

Disasters leave psychological wounds that are often hidden, long-term and wide-spread. However, many disaster victims develop into survivors without formal counseling. A natural helping network evolves to promote the recovery process by offering practical assistance, sharing stories, giving emotional support, and performing rituals. Disaster interveners help all survivors — both the victims and the helpers — to carry on the recovery process by providing outreach, consultation, support, and follow-up interventions.

References

Baum, A. (1987). Toxins, technology, and natural disasters. In G. R. VandenBos & B. K. Bryant (Eds.), *Cataclysms, crises, and catastrophes: Psychology in action* (pp 9-53). Washington: American Psychological Association.

Bradfield, C., Echterling, L. G., & Wylie, M. L. (1989). After the flood: The response of ministers to a natural disaster. *Sociological Analysis*, 49 (4), 397-407.

Echterling, L. G. (1989). An ark of prevention: Preventing school absenteeism following a

flood. *Journal of Primary Prevention*, 9 (3), 177-184.

Echterling, L. G. (1993, August). Making do and making sense: Long term coping of disaster survivors. Poster presented at the American Psychological Association Annual Meeting, Toronto.

Echterling, L. G., Bradfield, C., & Wylie, M. L. (1988). Responses of urban and rural ministers to a natural disaster. *Journal of Rural Community Psychology*, 9, 36-46.

Echterling, L. G., Bradfield, C., & Wylie, M. L. (1992, August). Six years after the flood: Clergy's long-term response to disaster. Poster presented at the American Psychological Association Annual Meeting, Washington.

Echterling, L. G., & Hoschar, K. (1987, April) A year ago today: The psychology of a disaster's anniversary. Paper presented at the Virginia Psychological Association Spring Meeting, Charlottesville, Virginia.

Freedly, J. R., Kilpatrick, D. G., & Resnick, H. S. (1993). Natural disasters and mental health: Theory, assessment, and intervention. In Allen, R. (Ed.) *Handbook of post-disaster interventions*. [Special Issue]. *Journal of Social Behavior and Personality*, 8 (5), 49-103.

Gibbs, M.S., Drummond, J., & Lachenmeyer, J.R. (1993). Effects of disasters on emergency workers: A review, with implications for training and postdisaster interventions. [Special Issue]. *Journal of Social Behavior and Personality*, 8 (5), 189-212.

Green, B. L., Lindy, J. D., Grace, M. C., Gleser, G. C., Leonard, A. C., Korol, M., & Winget, C. (1990). Buffalo Creek survivors in the second decade: Stability of stress symptoms. *American Journal of Orthopsychiatry*, 60, 43-54.

Hartsough, D. M., & Myers, D. G. (1985). *Disaster work and mental health: Prevention and control of stress among workers*. (DHHS Publication No. ADM 85-1422). Washington, DC: U.S. Government Printing Office.

Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: The Free Press.

Lindy, J. D., & Grace, M. (1985). The recovery environment: Continuing stressor versus a healing psychosocial space. In B. J. Sowder (Ed.) *Disasters and mental health: Selected contemporary perspectives*. (pp. 137-149) (DHHS Publication No. ADM 85-1421). Washington, DC: U. S. Government Printing Office.

Lyons, J. A. (1991). Strategies for assessing the potential for positive adjustment following trauma. *Journal of Traumatic Stress*, 4, 93-111.

Lystad, M. (1985). Mental health programs in disasters: 1974-84. In M. Lystad (Ed.) *Innovations in mental health services to disaster victims*. (pp. 1-7) (DHHS Publication No.

ADM 85-1390). Washington, DC: U. S. Government Printing Office.

McCammon, S. L., & Long, T. E. (1993). A post-tornado support group: Survivors and professionals in concert. [Special Issue]. *Journal of Social Behavior and Personality*, 8 (5), 131-148.

Mitchell, J., & Bray, G. (1990). *Emergency services stress: Guidelines for preserving the health and careers of emergency services personnel*. Englewood Cliffs, NJ: Prentice-Hall.

Raphael, B. (1986). *When disaster strikes*. New York: Basic Books.

Thompson, S. C. (1985). Finding positive meaning in a stressful event and coping. *Basic and Applied Social Psychology*, 6, 279-295.

Williams, J. (1992). *The weather book*. New York: Vintage Books.

[Return to the VDSI Home Page](#)

Information Publisher:
The Virginia Disaster Stress Intervention Site
Last update: May 28, 1997

[***Click here to contact VDSI***](#)