Postdisaster Psychological Intervention Since 9/11

Patricia J. Watson — *University of California, Los Angeles, and Dartmouth Medical School*

Melissa J. Brymer — *University of California, Los Angeles*

George A. Bonanno — *Columbia University*

A wealth of research and experience after 9/11 has led to the development of evidence-based and evidence-informed guidelines and strategies to support the design and implementation of public mental health programs after terrorism and disaster. This article reviews advances that have been made in a variety of areas, including development of improved metrics and methodologies for conducting needs assessment, screening, surveillance, and program evaluation; clarification of risk and resilience factors as these relate to varying outcome trajectories for survivors and inform interventions; development and implementation of evidence-based and evidence-informed early, midterm, and late interventions for children, adults, and families; adaptation of interventions for cultural, ethnic, and minority groups; improvement in strategies to expand access to postdisaster mental health services; and enhancement of training methods and platforms for workforce development among psychologists, paraprofessionals, and other disaster responders. Continuing improvement of psychologists' national capacity to respond to catastrophic events will require more systematic research to strengthen the evidence base for postdisaster screening and interventions and effective methods and platforms for training. Policy decisions are clearly needed that enhance federal funding to increase availability and access to services, especially for longer term care. Traumatic bereavement represents a critical area for future research, as much needs to be done to clarify issues related to reactions and adaptation to a traumatic death.

Keywords: disaster intervention, disaster mental health, crisis intervention, prevention, terrorism

The September 11th attacks galvanized public attention to how populations react to disaster and how to effectively intervene to reduce the psychological, behavioral, and functional impact on those most affected. Over the past several decades, psychologists and a variety of other professionals have been studying the variability of individual responses following mass casualty events and postevent adversity, including gaining a better appreciation of risk and protective factors that underlie that variation (for reviews, see Bonanno, Brewin, Kaniasty, & La'Greca, 2010; Norris, Friedman, & Watson, 2002; Norris, Friedman, Watson, Byrne, et al., 2002). When considering how to plan effective public health and mental health strategies following disasters and terrorist events, program directors often turn toward methodologically sound studies on reactions to disasters and terrorism, particularly studies using multivariate or prospective designs. Although difficult to conduct and consequently sparse, prospective and longitudinal studies of large affected populations indicate that a significant number of survivors will experience immediate intense reactions that decline over time and that survivors will exhibit a variety of heterogeneous reactions and patterns of change (e.g., Bonanno, 2004; Bonanno et al., 2008; Norris, Tracy, & Galea, 2009). For example, Galea et al. (2003) documented prevalence of probable posttraumatic stress disorder (PTSD) among residents in Manhattan at 7.5% one month after 9/11, with sharp declines at six months (0.6%). These studies have indicated that the proportion of both youth and adult survivors who develop chronic psychopathology rarely exceeds 30%, and in most cases the proportion is considerably lower (Bonanno et al., 2010; DiGrande, Neria, Brackbill, Pulliam, & Galea, 2011). For instance, even among those with high levels of exposure to the World Trade Center attacks, where rates of PTSD were about 25%, resilience (as defined by no more than one symptom of PTSD at any point during the first six months after the attack) continued to exceed 50% (Bonanno, Galea, Bucciarelli, & Vlahov, 2006, 2007). However, future studies will need to adopt a more fine grained approach that accounts for pre-existing individual and community resources and risk factors, considers disaster type, and separates subjects into appropriate exposure groups to further clarify the relation of trauma and loss exposure to psychosocial morbidity.

A number of resilience factors, such as personality traits, attributional style, social support, coping self-efficacy, and a range of biological factors, have been identified in disasters and other types of trauma exposure (Bonanno et al., 2010; Hobfoll et al., 2007; Neria, Galea, & Norris, 2009). Although more research in this domain is clearly

**Patricia J.
Watson**

2002, for reviews). Taking into account these limitations in the field, Norris, Friedman, Watson, Byrne, et al. (2002) concluded in their review that the risk factors that appear strongest are severe exposure to the disaster (especially injury, threat to life, and extreme loss), living in a highly disrupted or traumatized community, female gender, age in the middle years of 40 to 60, little previous experience relevant to coping with the disaster, ethnic minority group membership, poverty or low socioeconomic status, the presence of children in the home, psychiatric history, secondary stress, weak or deteriorating psychosocial resources, avoidance coping, and assignment of blame. Of particular relevance for potential early intervention are postevent risk factors, such as the absence of or negative social support, higher levels of contextual life stress (Brewin, Andrews, & Valentine, 2000), lack or loss of both practical and social resources (Hobfoll et al., 2007; Kaniasty & Norris, 2009; Neria et al., 2010), people's negative coping strategies (e.g., self-blame), and their negative appraisals about the event, their role in it, their reactions, and their potential future risk (Ehlers et al., 2003; Holman & Silver, 2005; Silver et al., 2002). Disaster studies among children and adolescents have documented a variety of risk and protective factors, including child and family predisaster functioning, parental disaster response, religion, sex, age, influences of peers and school, degree of loss, being evacuated or displaced, separation from a primary caregiver, extent of postdisaster stresses and adversities, frequency of exposure to trauma and loss reminders, and ongoing exposure to media coverage (Brymer, Steinberg, Watson, & Pynoos, in press; Goenjian et al., 2005; Pfefferbaum et al., 2001; see also Eisenberg & Silver, 2011, this issue, for a review).

The risk and resilience literature highlights that psychological outcomes are multiply determined and that there are social and psychological factors beyond mere exposure to the event that predict outcomes, all of which could potentially be used to inform the design of effective intervention programs. Longitudinal research also indicates that chronically distressed individuals or those with initial moderate or subthreshold level symptoms that gradually worsen over time are obvious candidates for clinical intervention (e.g., Andrews, Brewin, Philpott, & Stewart, 2007; Bonanno, Rennicke, & Dekel, 2005; Neria et al., 2010; North et al., 2004). This research further suggests that those who tend to exhibit acute symptoms and distress followed by a gradual recovery to baseline symptom levels over the ensuing months (often as many as one quarter of the exposed population) without the benefit of professional help might have their recovery facilitated by targeted intervention (Bonanno et al., 2005, 2008; Norris et al., 2009).

called for, particularly to inform the development of effective interventions, the research generally confirms that the majority of disaster survivors will not typically require the attention of mental health professionals. Additionally, because resilient individuals already appear to cope effectively on their own, it is possible that global interventions hold no advantage or might even undermine natural coping abilities (Bonanno, Westphal, & Mancini, 2011).

For those who may require some type of intervention, understanding risk factors can inform screening and tailoring of programs (e.g., Brewin et al., 2010). Severity of exposure to the event and severity of postevent stresses and adversities have been consistently shown to be the strongest factors influencing the likelihood of serious or lasting psychological problems following disasters and terrorism (e.g., Brymer, Reyes, & Steinberg, in press; Neria et al., 2010; Norris, 2005; Norris, Friedman, Watson, Byrne, et al., 2002; Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002). However, since 9/11, there has also been evidence to suggest that the degree of psychological response to the September 11th attacks was not explained simply by degree of exposure or proximity to the attacks (Silver et al., 2004). The contribution of indirect exposure to adverse mental and behavioral health consequences independent of the confounding influence of other risk factors remains to be determined (Neria et al., 2009).

Numerous other risk factors have been reported in the disaster literature. Assigning weights to each of these factors is difficult, because of methodological challenges in disaster research, lack of reporting about effect sizes or different populations within studies, inability to generalize across disaster types, lack of consistent measures, and lack of longitudinal studies (see Neria, Gross, Marshall, & Susser, 2006; Norris, Friedman, Watson, Byrne, et al.,

Disaster Behavioral Health Intervention

Although there have been earlier conceptualizations of public mental health approaches for delivering disaster mental health services (Mollica et al., 2004; Pynoos, Goenjian, & Steinberg, 1998), over the past 10 years experts in

**Melissa J.
Brymer**

the areas of both research and practice have provided additional multifaceted evidence-based and evidence-informed recommendations to more effectively guide the overall behavioral health response. For example, six federal agencies cosponsored an international expert consensus workshop on early intervention following mass violence that occurred one month after 9/11 (National Institute of Mental Health, 2002). After reviewing the extant literature on postdisaster and posttraumatic interventions, panelists acknowledged that given inconsistencies and gaps in the literature base, a clearer framework for disaster behavioral response was needed. They recommended a set of key components necessary for the promotion of individual and community-wide behavioral health recovery following episodes of mass violence. Three follow-up roundtables sponsored by the Substance Abuse and Mental Health Services Administration resulted in an edited disaster mental health book that included guidelines for immediate, intermediate, and long-term response following disasters and mass violence (Ritchie, Watson, & Friedman, 2006), an edited book on ethnocultural issues following disaster (Marsella, Johnson, Watson, & Gryczynski, 2008), and an article delineating five empirically supported intervention principles to be used in situations of both disaster and ongoing mass violence (Hobfoll et al., 2007). These principles are (a) promoting a sense of safety, (b) promoting calming, (c) promoting a sense of self-efficacy and community efficacy, (d) promoting connectedness, and (e) instilling hope. These principles have been recognized internationally as a valuable framework for disaster response and research initiatives, and the article delineating them was acknowledged as one of the most influential psychiatry articles of the past four years.

A number of national and international consensus documents have since been developed that support and include the findings and recommendations of these expert panels, including the *IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings* (Inter-Agency Standing Committee, 2007), *The European Network for Traumatic Stress Guidelines* (Bisson et al., 2010), *Disaster Mental Health Recommendations: Report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board* (Disaster Mental Health Subcommittee, 2009), and the *National Commission on Children and Disasters: 2010 Report to the President and Congress* (National Commission on Children and Disasters, 2010). Commonalities across these guidelines and recommendations are summarized in Table 1. Although consensus efforts can be problematic for a number of reasons, they have been helpful in moving the field forward, charting a comprehensive course for both individual and public health efforts and making recommendations toward reducing harm and continued empirical study. The following sections provide additional specific details in regard to major components of a modern disaster public mental health approach.

Screening and Assessment

As the disaster mental health field is moving away from providing services to the entire population and toward providing more targeted interventions to those in need, it has become imperative that more refined screening, needs assessment, clinical evaluation, and surveillance metrics and procedures need to be developed to better identify, monitor, and track survivors over time, and plan for needed services and resources. One major problem with the research base to date has been the use of varied exposure measures, assessment instruments, and program evaluation tools that make cross-disaster comparisons difficult. Researchers have emphasized the need to use valid and reliable assessment instruments that have been tested in disaster situations for different age groups and cultures, to develop disaster-specific screening and surveillance tools and procedures, and to conduct program evaluation of disaster behavioral health programs (Balaban et al., 2005; Brewin, 2005; Norris, Galea, Friedman, & Watson, 2006). Project Liberty, the crisis counseling program funded by the Federal Emergency Management Agency/Substance Abuse and Mental Health Services Administration after 9/11, laid the groundwork for advances in data collection, metrics, and methodologies for all subsequent federally funded crisis counseling programs in the United States. A number of groundbreaking articles have described recipients of services, utilization of services over time, and the content and psychometrics of an assessment and referral tool (Brewin et al., 2010; Covell et al., 2006; Donahue, Jackson, Shear, Felton, & Essock, 2006; Hamblen et al., 2009; Norris et al., 2006; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008). Challenges in screening following disasters have also been delineated in recent years, the most common being that the numbers of individuals participating in postdisaster treatments are often quite small relative to the sizes of the populations that have been screened. Given that those who did attend treatment

Table 1
Expert Consensus Efforts on Disaster Behavioral Health Intervention

- Be proactive/prepared ahead of time, pragmatic, flexible, and plan on providing the appropriate services matched for phase across the recovery period.
- Promote a sense of safety, connectedness, calming, hope, and efficacy at every level.
- Do no harm, by:
  Participating in coordination of groups to learn from others and to minimize duplication and gaps in response;
  Designing interventions on the basis of need and available local resources;
  Committing to evaluation, openness to scrutiny, and external review;
  Considering human rights and cultural sensitivity;
  Staying updated on the evidence base regarding effective practices.
- Maximize participation of local affected population, and identify and build on available resources and local capacities (family, community, school, and friends).
- Integrate activities and programming into existing larger systems to reduce stand-alone services, reach more people, be more sustainable, and reduce stigma.
- Use a stepped care approach: Early response includes practical help and pragmatic support, and specialized services are reserved for those who require more care.
- Provide multilayered supports (i.e., work with media or Internet to prepare the community at large; facilitate appropriate communal, cultural, memorial, spiritual, and religious healing practices).
- Provide a spectrum of services, including:
  Provision of basic needs;
  Assessment at the individual level (triage, screening for high risk, monitoring, formal assessment) and the community level (needs assessment and ongoing monitoring, program evaluation);
  Psychological First Aid/resilience-enhancing support;
  Outreach and information;
  Technical assistance, consultation, and training to local providers;
  Treatment for individuals with continuing distress or decrements in functioning (preferably evidence-based treatments like trauma-focused cognitive–behavioral therapy).

show substantial reduction in symptoms (e.g., Brewin et al., 2010; Hamblen et al., 2009), further testing of alternative screening approaches and more systematic methods of identifying those requiring intervention are warranted.

There has also been a burgeoning interest in understanding and measuring factors that contribute to community resilience after trauma and loss. To date, because of a lack of consensus on the critical components of community resilience and related interventions, along with the inherent difficulties in implementing and evaluating community-wide programs, there is a paucity of evidence to support their efficacy. Norris et al. (2008) noted that community resilience can be assessed in terms of community resources that are robust, redundant, or rapidly accessible in four primary areas: (a) economic development (economic growth, stability of livelihoods, and equitable distribution of income and assets within populations); (b) social capital (the way individuals invest, access, and use resources embedded in social networks), including social support, sense of community, sense of place, attachment, and citizen participation and leadership; (c) information and communication; and (d) community competence (collective action, collective self-efficacy, effective and trusted information sources, plans, and decision making).

Stages of Intervention

Disaster mental health guidelines have emphasized the importance of implementing multiple intervention strategies at dif-

ferent postdisaster time points that meet the varying needs of survivors and the community. These guidelines also highlight the need for pragmatic, flexible approaches that best reach affected populations and provide resources and support but do not push formal intervention with those who evidence resilient trajectories. Additionally, when establishing postdisaster psychosocial intervention programs, inclusion of local stakeholders has been widely noted to be critical to ensuring that outreach programs and services are culturally and regionally appropriate. Finally, there has been a call for better delineation and provision of services that are suitable in the early phase after a disaster as contrasted with those that are more appropriate for the intermediate and longer term recovery phases.

Early intervention. Although this is not the place for a systematic review of the early intervention literature, a number of systematic reviews on early intervention for trauma survivors have concluded that there is very limited evidence for any psychological intervention within the first month following any type of traumatic event (Gray & Litz, 2005; McNally, Bryant, & Ehlers, 2003; Roberts, Kitchiner, Kenardy, & Bisson, 2009; Rose, Bisson, & Wesseley, 2003; van Emmerick, Kamphuis, Hulsbosch, & Emmelkamp, 2002) and particularly after disasters (Brymer et al., 2009; La Greca & Silverman, 2009; Ruzek et al., 2008). For instance, although psychological debriefing—a group intervention (originally developed for first responders) organized around exploring facts, thoughts, and reactions to a critical event, as well as intro-

George A.
Bonanno
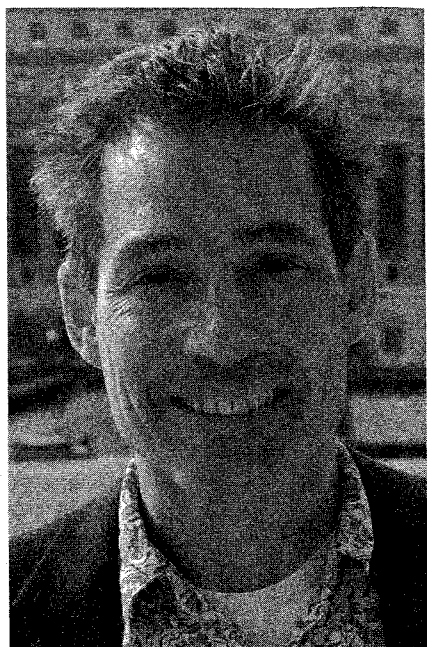
ducing possible coping strategies—was widely accepted for use with primary survivors prior to 9/11, there have now been a number of studies and reviews concluding that psychological debriefing cannot be endorsed for use with this population (Brymer et al., 2009; Gray & Litz, 2005; McNally et al., 2003; Rose et al., 2003; Van Emmerick et al., 2002).

Because of this, many of the reviews conclude that the primary goals of early interventions following disasters should be to promote safety, attend to practical needs, enhance coping, stabilize survivors, and connect survivors with additional resources (e.g., Bryant & Litz, 2009; Brymer, Reyes, & Steinberg, in press). There is a growing current consensus that this type of approach, often coined Psychological First Aid (PFA), is the most appropriate for children, adults, and families exhibiting distress or decrements in functioning in the acute aftermath of disasters and mass violence (e.g., Bisson et al., 2010; Bryant & Litz, 2009; Disaster Mental Health Subcommittee, 2009; Inter-Agency Standing Committee, 2007; National Commission on Children and Disasters, 2010). PFA is designed to reduce distress, foster short- and long-term adaptive functioning, and link survivors with additional services. One of the most systematic PFA approaches is operationalized in the National Child Traumatic Stress Network and the National Center for Posttraumatic Stress Disorder *Psychological First Aid Field Operations Guide, Second Edition* (Brymer et al., 2006), which reflects many of the principles outlined by Hobfoll et al. (2007). It is a flexible, modularized approach that is sensitive to timing, context, age, culture, and preference of the survivor. Because PFA is designed to be tailored to the specific needs of each disaster survivor and to be conducted in the immediate aftermath of disasters, evaluating its effectiveness has been challenging.

Although PFA has not yet been systematically studied, reports from PFA providers in the field suggest that it is well-received by survivors because of its flexible, tailored approach to addressing current concerns and helping solve practical needs (Allen et al., 2010). Despite some preliminary findings, there remains a great need for further field research to evaluate the delivery and effectiveness of PFA in a variety of postdisaster contexts.

Mid- to long-term intervention. The goals of intermediate and long-term intervention are to prevent and treat psychopathology (Bryant & Litz, 2009). Although many have tried to define a time frame for when early interventions should end and when intermediate services should begin, there has not been clear consensus in the field. Some individuals have chosen one month as a cutoff, but Bryant and Litz (2009) have emphasized that the decision to implement early versus intermediate intervention should be determined not by the length of time after an event, but rather by the extent to which a sense of threat persists for survivors and the extent to which survivors have sufficient resources to engage in the intervention. Additionally, timing, setting, and service providers for delivery of early and longer term interventions will vary by type of disaster and postdisaster ecology (Pynoos, Steinberg, & Brymer, 2007).

For the minority of disaster survivors who might require more formal intervention in the midterm to longer term phases after disaster or mass violence, cognitive–behavioral therapy (CBT) interventions have received more empirical support than other treatment modalities. There have been a number of recent randomized controlled trials for CBT showing significant improvement in PTSD, depression, and functioning among indicated disaster survivors and first responders (e.g., Basoglu, Salcioglu, Livanou, Kalender, & Acar, 2005; Difede et al., 2007; Duffy, Gillespie, & Clark, 2007). In these studies, cognitive–behavioral interventions have yielded significantly greater reductions in PTSD, depression, and anxiety compared with the control conditions, although there has been acknowledgement that CBT requires resources and motivation on the part of survivors and may not be appropriate for all survivors at all times.

Uncontrolled studies of CBT for terrorism-related PTSD found similarly positive effects (e.g., Gillespie, Duffy, Hackmann, & Clark, 2002). Some disaster-related innovations to the standard CBT model have included (a) CBT for postdisaster distress (Hamblen et al., 2009), a disaster-specific manualized intervention for adults that focuses on a range of cognitive, emotional, and behavioral reactions to disaster rather than on a specific diagnosis; (b) skills training in affective and interpersonal regulation/modified prolonged exposure, which adds a focus on emotional regulation skills and on patterns of relating to others to a prolonged exposure model (Levitt, Malta, Martin, Davis, & Cloitre, 2007); and (c) the screen-and-treat approach used after the 2005 London bombings, which succeeded in its aim of generating many more referrals of affected individuals than came through normal referral channels (Brewin et al., 2008, 2010). All three of these

approaches resulted in significant improvement in disaster-related reactions (Brewin et al., 2008; Hamblen et al., 2009; Levitt et al., 2007).

Similar to the literature on adults, cognitive–behavioral approaches for use among children and adolescents have received the most empirical support (for a comprehensive review, see Brymer, Steinberg, Watson, & Pynoos, in press; Cohen, Mannarino, Gibson, et al., 2006; La Greca & Silverman, 2009; Silverman et al., 2008). Two recent randomized controlled studies of a classroom-based psychosocial intervention showed an improvement in PTSD symptoms compared with controls (Tol et al., 2008), increased prosocial behavior among girls, reduced aggression among boys, and increased hope for older children (Jordans et al., 2010). However, neither study found a reduction in stress-related physical symptoms, depression, anxiety, or functional impairment. Other mass trauma studies using cognitive–behavioral treatments with children and adolescents have shown the benefits of providing these services in schools (e.g., Berger & Gelkopf, 2009; Berger, Pat-Horenczyk, & Gelkopf, 2007; Jaycox et al., 2010). Finally, Salloum and Overstreet (2008) investigated the benefits of a child grief and trauma treatment using both a group and an individual format. They found a significant decrease in posttraumatic stress symptoms, depression, traumatic grief, and distress, with no differences in outcome between group and individual interventions.

Although questions have been raised about the timing and effectiveness of grief counseling for bereaved individuals (e.g., Bonanno, Moskowitz, Papa, & Folkman, 2005), issues of traumatic bereavement have recently gained more attention in the disaster mental health field (Bonanno et al., 2010; Neria, DiGrande, & Adams, 2011). Although there are currently no controlled intervention studies for disaster survivors, there have been a few studies of the treatment of complicated or traumatic grief in nondisaster settings. Shear, Frank, Houck, and Reynolds (2005) compared a manualized CBT protocol for complicated grief with interpersonal psychotherapy. Both treatments were associated with reductions in complicated grief symptoms, although the complicated grief treatment completers showed greater and earlier symptom reduction and improvement in depression, work, and social adjustment. An analysis of this trial for race differences found that African Americans and Caucasian Americans did not differ significantly in clinical presentation, treatment alliance, treatment completion, or outcome (Cruz et al., 2007). Boelen, de Keijser, ven den Hout, and ven den Bout (2007) found that exposure therapy and cognitive restructuring, respectively, were more effective than supportive counseling for reducing symptoms of complicated grief. Wagner, Knaevelsrud, and Maercker (2006) and Wagner and Maercker (2007) conducted a randomized, controlled trial of the effectiveness of a five-week Internet-based CBT program for complicated grief. Participants improved significantly relative to participants in the waiting list condition on symptoms of intrusion, avoidance, maladaptive behavior, and general psychopathology, with maintenance of improvement at 1.5-year follow-up. Two studies have evaluated outcomes for CBT for child traumatic grief (Cohen, Mannarino, & Knudsen, 2004; Cohen, Mannarino, & Staron, 2006). In both studies, children reported significant improvement in child traumatic grief, PTSD, depression, and anxiety, suggesting that this intervention is acceptable and efficacious for this population. Further work is clearly needed to better define the concept of traumatic or complicated grief and its relation to PTSD, and to develop assessment instruments that more comprehensively evaluate traumatic grief reactions and potentially compromised areas of adaptation to a traumatic death. In addition, further development and evaluation of potentially effective interventions is indicated.

In a response to the need expressed by many disaster behavioral health programs for intermediate interventions that are flexible, modular, and can be implemented by paraprofessionals, the National Child Traumatic Stress Network/National Center for PTSD developed Skills for Psychological Recovery (Berkowitz et al., 2010) as a skills-based solution-focused approach to assist children, adults, and families with moderate levels of distress. The skills included in this intervention (designed to be stand-alone modules if necessary) are problem solving, positive activity scheduling, managing reactions, promoting helpful thinking, and rebuilding healthy social connections. This intervention was developed to ensure that training and service provision would be feasible in the intermediate phase after a disaster and could be implemented by paraprofessionals. It has been introduced into several postdisaster programs in the United States and Australia, with evaluation reports indicating that the intervention was favorably perceived by providers as an acceptable and useful intervention for disaster survivors and that the intervention was implemented without difficulty, with most reporting that they would use the intervention in the event of a future disaster (Forbes et al., 2010; Hansel, Osofsky, & Steinberg, in press).

Ethnocultural factors in communities after disasters have historically been underrepresented in the literature. However, because individuals are embedded in a broader familial, interpersonal, and social context, many experts recommend that services should be tailored to meet the needs of as many community members as possible. Norris and Alegria (2006) have provided an excellent review of the literature on ethnocultural factors following disasters. When working with minority populations, it has been recommended that information be gathered about basic needs, barriers to care, concepts of recovery for specific ethnocultural groups and subgroups, and utilization of language that survivors can best understand (Marsella et al., 2008; Norris & Alegria, 2006). One example of a group intervention that focused on ethnocultural factors following disaster was developed by Healthy Outreach Through Psychoeducation for Project Liberty, following 9/11 (Lukens et al., 2004). The four-session model resulted in a number of recovery-related gains for participants as well as reduced distress and improved openness to the potential for mental health services.

Increasing Access to Services

Research on service utilization indicates that the majority of individuals exposed to a terrorist attack or other disasters do not seek mental health care or use available services (Brewin et al., 2010; DeLisi et al., 2003; Elhai & Ford, 2009; Fairbrother, Stuber, Galea, Pfefferbaum, & Fleischman, 2004; Jayasinghe, Giosan, Difede, Spielman, & Robin, 2006; Rosen, Matthieu, & Norris, 2009; Smith, Kilpatrick, Falsetti, & Best, 2002). Thus, it has been important that mental health professionals reach out to other service providers, including spiritual providers, school personnel, first responders, public health and health professionals, and volunteers. An example of this outreach has been in the adaption of the National Child Traumatic Stress Network/National Center for PTSD's *Psychological First Aid Field Operations Guide* for these constituents, including community religious professionals and school personnel (www.nctsn.org). More specifically, services need to be provided within these service systems. It has been well documented that services for children need to take place in schools (Jaycox et al., 2010).

For behavioral health principles to be integrated into all phases of disaster management and response, psychologists need to work with multidisciplinary teams. For example, Ruzek, Young, Cordova, and Flynn (2004; Ruzek et al., 2008) have outlined how to integrate cognitive–behavioral health components into emergency medicine and disaster programs. Laor, Wiener, Spiriman, and Wolmer (2005) highlighted that an appropriate role for behavioral health specialists is to lead multidisciplinary teams and provide training and consultation. By expanding their role beyond providing direct care, psychologists can expand access to care for those survivors who do not typically seek or receive mental health services.

For instance, recent findings suggest that employee assistance programs may potentially be worthwhile as an efficient and effective channel for attending to the needs of a large percentage of the community (Boscarino, Adams, Foa, & Landrigan, 2006). An uncontrolled prospective 9/11 study found that approximately 7% of employed local residents reported receiving employer-sponsored, work site crisis interventions related to the 9/11 attack and that attending one to three brief work-site crisis intervention sessions was found to be associated with positive outcomes up to two years after 9/11. Because disaster screening studies have reported difficulties getting affected populations to enter treatment and because this seems to be a promising way to gain access to a portion of those populations, there may be a role for mental health professionals in consulting with and training those working in employee assistance programs about effective postdisaster treatment. Of course, because this study was uncontrolled, more controlled studies are required to evaluate the extent of employee engagement with these types of services, their quality, and the short- and long-term benefits.

Because most survivors will not seek office-based services, alternative settings and modalities for delivery of services need to be developed. Since 9/11, some innovative interventions have been tested. For example, brief telephone interventions using adapted cognitive–behavioral techniques (e.g., relaxation breathing and challenging maladaptive thoughts) have been associated with decreased anxiety and PTSD symptoms postintervention and at three- to four-month follow-up, with some techniques showing gender effects that call for more research (Gega, Marks, & Mataix-Cols, 2004; Gidron et al., 2001, 2007; Greist, Osgood-Hynes, Baer, & Marks, 2000; Mohr, Lutz, Fantuzzo, & Perry, 2000; Schreiber et al., 2007; Somer, Tamir, Maguen, & Litz, 2005). In an uncontrolled study, Difede et al. (2007) determined that virtual reality strategies may constitute an effective treatment tool for enhancing exposure therapy for disaster workers with PTSD and may be especially useful for those who cannot engage in imaginal exposure therapy. Some suggestive randomized controlled trials of innovations on the CBT model have shown significant reductions in anxiety, PTSD, and depression using a single session of self-exposure to simulated earthquakes, a writing exercise, and an Internet-based, therapist-assisted self-management intervention (Basoglu, Salcioglu, & Livanou, 2007; Fernáandez & Dario, 2008; Litz, Engel, Bryant, & Papa, 2007; Salcioglu & Basoglu, 2010).

There has been a proliferation of self-help education interventions, although these require more investigation with disaster survivors (Basoglu, Salcioglu, & Livanou, 2009; Ehlers et al., 2003). For instance, a 9/11 study of a Web-based approach containing screeners and educational modules (focusing on PTSD, panic, depression, worry, and substance use) resulted in significant positive pre–post knowledge change and high participant satisfaction (Ruggiero et al., 2006). Wessely et al. (2008), in their review of the literature on psychoeducation, concluded that although there is limited evidence to draw conclusions about the effectiveness of self-help education, any education efforts should focus on providing information that enhances adaptation and resilient outcomes and is sensitive to the needs of the target audience, rather than focusing on messages that potentially create expectations of dysfunction and psychopathological outcomes, and is general rather than targeted to individual needs.

Training and Consultation

A key role that behavioral health providers play in disaster mental health is in developing training initiatives that are directed at increasing providers' ability to implement evidence-based interventions and services with fidelity (Hansel et al., in press; Ruzek, Friedman, & Murray, 2005). Combinations of direct training, ongoing consultation, and supervision have been shown to successfully train community service providers in empirically supported treatments (Amsel, Neria, Marshall, & Suh, 2005; Gillespie et al., 2002; Hoagwood, Vogel, Levitt, D'Amico, & Paisner, 2007; Levitt et al., 2007). Following 9/11, several efforts to train mental health providers in evidence-based treatments were undertaken. Amsel et al. (2005) described their efforts to provide systematic training and supervision in prolonged exposure treatment for PTSD to over 500 local clinicians in a 12-month period. They later provided a similar training in

manualized treatment for complicated grief (Shear et al., 2005). The Child and Adolescent Trauma Treatments and Services Project, which was also created after 9/11, consisted of nine provider organizations that provided evidence-based treatments to almost 600 children and adolescents at no cost in 45 different community-based and hospital clinics and schools throughout New York City and Long Island. This project combined face-to-face training, biweekly consultation calls with the treatment developers, and site-specific supervision (Hoagwood et al., 2007). This project led to the development of a New York State Evidence-Based Treatment Dissemination Center that has subsequently made refinements to this training and consultation model (Gleacher et al., 2010).

These training efforts significantly increased the number of well-trained clinicians available to provide an effective community response to a whole range of posttrauma clinical problems and provided many lessons in regard to the most effective approach to mass dissemination of treatments, including the importance of follow-up consultation to improve not only knowledge but a sense of confidence in applying newly learned techniques and skills (Amsel et al., 2005; Marshall, Amsel, Neria, & Suh, 2006; Ruzek & Rosen, 2009).

Discussion: Future of Disaster Mental Health Services

A wealth of research and experience after 9/11 has led to the development of evidence-based and evidence-informed guidelines and strategies to support the implementation of public mental health programs after terrorism and disaster. Advances have been made in clarifying risk, protective, and resilience factors; identifying varying outcome trajectories; understanding adaptive versus maladaptive coping strategies; improving knowledge about early, midterm, and late interventions for children, adults, and families; adaptation of interventions for cultural, ethnic, and minority groups; improving the training of mental health and paraprofessionals to deliver services; and developing metrics and methodologies for needs assessment, screening, clinical evaluation, surveillance, and program evaluation. This being said, what 9/11 began in terms of developing a framework for responding to future disasters remains a work in progress. Improvement of the field will now depend on its continued movement toward several key objectives.

First, the field must move toward more systematic prospective longitudinal research regarding risk, resilience, and coping/recovery factors. This will allow the field to continue to develop and adapt more efficient and effective interventions to better address the impact of disasters and mass violence on individuals and communities and facilitate both natural resilience and recovery for those most affected. This can be done only if mental health professionals continue to identify key mechanisms that predict either adaptive or maladaptive trajectories across time. As Neria et al. (2009) pointed out, the field must make progress in developing metrics and methods for the early identification of those at risk for long-term problems, documenting the effectiveness and efficacy of acute, intermediate, and long-term mental health treatment interventions and enhancing the understanding of delayed onset reactions and relapse.

Further research into both the longitudinal needs and required resources of affected populations will also help guide the nature and timing of interventions. In this regard, research on factors related to resilient trajectories may be useful in informing intervention efforts following mass violence. As an example, Bonanno, Papa, Lalande, Westphal, and Coifman (2004) demonstrated that coping or emotional regulation does not necessarily rest on the use of specific coping strategies but rather on the flexible application of coping strategies to meet the needs of the situation (Bonanno, Pat-Horenzcyk, & Noll, in press). They recommended a number of specific strategies for providers to assist individuals in working toward this flexibility, including helping survivors maintain or reestablish an underlying sense of identity and the ability to respond flexibly to the demands of a changed world, identify and take stock of what is continuous in their life, accept what has happened, renew their capacity for generative experiences, redefine their beliefs, try out new roles and new relationships, engage in new activities, identify and focus on strengths and values, and develop different strategies for managing reactions and emotions, which could promote elasticity in their use, such as cognitive reappraisal and restructuring. As Neria et al. (2009) suggested, there is a pressing need for further research on factors related to adaptive recovery, including the complex dynamics of social support patterns and trajectories. Further elucidation of these factors will help professionals develop prevention and intervention techniques that capitalize on what we know of risk factors and strengths to overcome adverse situations.

Second, attention needs to be given to the use of theoretical models to guide research (Benight, Ciezlak, & Waldrup, 2009), including the appropriate use of more sensitive and revealing statistical analyses and methods (e.g., reliable change indices, measures of effect size, propensity score analyses, structural equation modeling) and consideration of individual, cultural, and sociodemographic differences and their moderating effects on both positive and negative outcomes. For instance, the need for multimodal prevention and intervention programs specific to the culture of different first responder populations is highlighted by both quantitative and qualitative research suggesting a need for tailored approaches for these populations (Bills et al., 2009; Katz et al., 2006; McCaslin et al., 2009; Perrin et al., 2007; Stellman et al., 2008).

Third, the field must make a commitment to providing more structured and systematic evaluation of services. The bulk of existing evidence to date rests on studies of the impact of disasters and mass violence, rather than on the effectiveness and efficacy of intervention strategies. If the disaster response community is to learn from mass violence and terrorism events, it is vital that systematic information be gathered in regard to the effectiveness of different response efforts. None of this work is easily

accomplished in an environment where chaos and overwhelming conditions prevail; nevertheless, it is only by systematically introducing new interventions and at the same time evaluating and improving services that the field of disaster mental health can move forward. It is apparent that there is a great need for both program evaluation and randomized controlled trials that will evaluate intervention strategies in a number of contexts and eventually rigorously evaluate the effectiveness of each separate component, especially with respect to the optimal timing of such interventions. This research should consider a wider range of outcomes, including not only PTSD but substance abuse, depression, anger and violence, interpersonal and role functioning, behavioral and developmental disturbances, and physical health.

In addition to such individual outcomes, research is needed that focuses on group, organizational, and community outcomes, such as behavioral, emotional, and functional consequences most likely to be expressed in the school or workplace (e.g., school milieu, academic functioning, staff turnover, organizational cohesion, morale, absenteeism, performance deficits, and physical health). Research is also needed in regard to the most appropriate interventions across a diversity of populations, such as first responders, those who suffer traumatic bereavement, children, adolescents, frail older individuals, minorities, and those with disabilities.

Fourth, disaster mental health professionals must devote increased attention to the delivery of evidence-based interventions and evidence-informed services. Cognitive–behavioral interventions that have been tested in other service contexts are increasingly being adapted and provided following disasters (Hamblen et al., 2009; Ruzek & Rosen, 2009). The high demand for services in many disasters, coupled with the limited availability of trained mental health counselors, means that training efforts for local providers will need to be modified and delivered on the basis of the local needs of the community. Research on best practices in behavioral health workforce education and training (e.g., Hoge & Morris, 2004) suggests that such training should be competency based and that teaching methods themselves should be evidence based (Fouad et al., 2009; Kaslow et al., 2009). Training must be of sufficient intensity and interactivity (e.g., role playing, discussion groups, experiential activities) to change provider behavior. It must incorporate the continued supervision, monitoring, and evaluation necessary to establish that providers have mastered new skills and are continuing to provide services with fidelity following training. Training programs should demonstrate that training results in increased ability to perform a defined set of competencies that reflect the best available interventions for the varied needs of disaster survivors.

Fifth, further research is needed to guide the implementation of disaster mental health services that are acceptable and feasible for both recipients and providers. As McNally et al. (2003) pointed out in a thorough review of the early intervention literature: "The bottom line is that in the immediate aftermath of trauma, professionals should take their lead from the survivors and provide the help they want, rather than tell survivors how they will get better" (p. 68). Providers often have to modify standard therapeutic approaches after catastrophic events, including utilizing interventions that are more practical to and supportive of the majority of disaster survivors (rather than formal clinical interventions); helping families mourn when there is no body to bury; waiting more than a year after the event before survivors are ready to begin to address their traumatic grief reactions; meeting with survivors intermittently after reminders and anniversaries of the event; and helping survivors to tolerate instability and to see distress caused by the event not as evidence of mental disorder but as part of the human condition (Seeley, 2008).

Finally, research should focus on community resilience, outreach strategies, ways of marketing services to survivors who need them, and ways of delivering services that are more acceptable to survivors than traditional face-to-face counseling. In keeping with social support research (Kaniasty & Norris, 2009), a more acceptable intervention than individual counseling might be to provide family and friends with the information and tools necessary for helping loved ones more effectively manage posttraumatic stress and grief reactions. Web-based and other technologically delivered services are another potentially useful area for research. Many individuals who accessed the 9/11 disaster mental health response websites for support were concerned about confidentiality (particularly rescue workers) and felt that email correspondence was a more confidential modality. Thus, offering Web-based crisis counseling may be an innovative way to engage those who otherwise would not accept such support and to motivate individuals to stay engaged in treatment when they may be overwhelmed by life's demands (Hamblen et al., 2009; Kessler et al., 2008). Currently, new CBT-based protocols are being tested for Web-based interventions (e.g., Benight, Ruzek, & Waldrep, 2008; Wagner & Maercker, 2007).

Although the field of disaster behavioral health is still developing, much has been learned since 9/11 that has improved postdisaster mental health intervention from immediate to long-term response. It is expected that continued experience and research, as well as creative collaboration across disciplines and communities, will further contribute to a more evidence-informed approach to assisting a broad range of survivors in all phases of recovery from incidents of mass violence.

REFERENCES

Allen, B., Brymer, M. J., Steinberg, A. M., Vernberg, E. M., Jacobs, A., Speier, A., & Pynoos, R. S. (2010). Perceptions of use of Psychological First Aid among providers responding to Hurricanes Gustav and Ike. *Journal of Traumatic Stress, 23*, 509–513. doi:10.1002/jts.20539

Amsel, L. V., Neria, Y., Marshall, R. D., & Suh, E. J. (2005). Training therapists to treat the psychological consequences of terrorism: Disseminating psychotherapy research and researching psychotherapy dissemination. *Journal of Aggression, Maltreatment and Trauma, 10*, 633–647. doi:10.1300/J146v10n01_21

Andrews, B., Brewin, C. R., Philpott, R., & Stewart, L. (2007). Delayed onset posttraumatic stress disorder: A systematic review of the evidence. *American Journal of Psychiatry, 164*, 1319–1326. doi:10.1176/appi.ajp.2007.06091491

Balaban, V. F., Steinberg, A. M., Brymer, M. J., Layne, C. M., Jones, R. T., & Fairbank, J. A. (2005). Screening and assessment for children's psychosocial needs following war and terrorism. In M. J. Friedman & A. Mikus-Kos (Eds.), *Promoting the psychosocial well-being of children following war and terrorism* (pp. 121–161). Amsterdam, The Netherlands: IOS Press.

Basoglu, M., Salcioglu, E., & Livanou, M. (2007). A randomized controlled study of single-session behavioral treatment of earthquake-related posttraumatic stress disorder using an earthquake simulator. *Psychological Medicine, 37,* 203–213. doi:10.1017/S0033291706009123

Basoglu, M., Salcioglu, E., & Livanou, M. (2009). Single-case experimental studies of a self-help manual for traumatic stress in earthquake survivors. *Journal of Behavior Therapy and Experimental Psychiatry, 40,* 50–58. doi:10.1016/j.jbtep.2008.04.001

Basoglu, M., Salcioglu, E., Livanou, M., Kalender, D., & Acar, G. (2005) Single-session behavioral treatment of earthquake-related posttraumatic stress disorder: A randomized waiting list controlled trial. *Journal of Traumatic Stress, 18,* 1–11. doi:10.1002/jts.20011

Benight, C. C., Cieszlak, R., & Waldrup, E. (2009). Social and cognitive frameworks for understanding the consequences of disasters. In Y. Neria, S. Galea, & F. Norris (Eds.), *Mental health and disasters* (pp. 161–174). New York, NY: Cambridge University Press.

Benight, C. C., Ruzek, J. I., & Waldrep, E. (2008). Internet interventions for traumatic stress: A review and theoretically based example. *Journal of Traumatic Stress, 21,* 513–520. doi:10.1002/jts.20371

Berger, R., & Gelkopf, M. (2009). School-based intervention for the treatment of tsunami-related distress in children: A quasi-randomized controlled trial. *Psychotherapy and Psychosomatics, 78,* 364–371. doi: 10.1159/000235976

Berger, R., Pat-Horenczyk, R., & Gelkopf, M. (2007). School-based intervention for prevention and treatment of elementary-students' terror-related distress in Israel: A quasi-randomized controlled trial. *Journal of Traumatic Stress, 20,* 541–551. doi:10.1002/jts.20225

Berkowitz, S., Bryant, R., Brymer, M., Hamblen, J., Jacobs, A., Layne, C., ... et al. (2010). *Skills for Psychological Recovery: Field operations guide.* Washington, DC:National Center for PTSD (U. S. Department of Veterans Affairs) and National Child Traumatic Stress Network (funded by the U.S. Department of Health and Human Services and jointly coordinated by the University of California, Los Angeles, and Duke University).

Bills, C. B., Dodson, N., Stellman, J. M., Southwick, S. M., Sharma, V., Herbert, R., ... Katz, C. L. (2009). Stories behind the symptoms: A qualitative analysis of the narratives of 9/11 rescue and recovery workers. *Psychiatric Quarterly, 80,* 173–189.

Bisson, J. I., Tavakoly, B., Witteveen, A. B., Ajdukovic, D., Jehel, L., Johansen, V. A., ... Olff, M. (2010). TENTS guidelines: Development of post-disaster psychosocial care guidelines through a Delphi process. *British Journal of Psychiatry, 196,* 69–74. doi:10.1192/ bjp.bp.109.066266

Boelen, P. A., de Keijser, J., ven den Hout, M. A., & ven den Bout, J. (2007). Treatment of complicated grief: A comparison between cognitive–behavioral therapy and supportive counseling. *Journal of Consulting and Clinical Psychology, 75,* 277–284. doi:10.1037/0022-006X.75.2.277

Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59,* 20–28. doi:10.1037/0003-066X.59.1.20

Bonanno, G. A., Brewin, C. R., Kaniasty, K., & La Greca, A. M. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest, 11,* 1–49.

Bonanno, G. A., Galea, S., Buchiarelli, A., & Vlahov, D. (2006). Psychological resilience after a disaster: New York City in the aftermath of the September 11th terrorist attack. *Psychological Science, 17,* 181–186. doi:10.1111/j.1467-9280.2006.01682.x

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2007). What predicts psychological resilience after disasters? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology, 75,* 671–682. doi:10.1037/0022-006X.75.5.671

Bonanno, G. A., Ho, S. M. Y., Chan, J. C. K., Kwong, R. S. Y., Cheung, C. K. Y., Wong, C. P. Y., & Wong, V. C. W. (2008). Psychological resilience and dysfunction among hospitalized survivors of the SARS epidemic in Hong Kong: A latent class approach. *Health Psychology, 27,* 659–667. doi:10.1037/0278-6133.27.5.659

Bonanno, G. A., Moskowitz, J. T., Papa, A., & Folkman, S. (2005). Resilience to loss in bereaved spouses, bereaved parents, and bereaved gay men. *Journal of Personality and Social Psychology, 88,* 827–843.

Bonanno, G. A., Papa, A., Lalande, K., Westphal, M., & Coifman, K. (2004). The importance of being flexible: The ability to both enhance and suppress emotional expression predicts long-term adjustment. *Psychological Science, 15,* 482–487. doi:10.1111/j.0956-7976.2004 .00705.x

Bonanno, G. A., Pat-Horenzcyk, R., & Noll, J. E. (in press). Coping flexibility and trauma: The Perceived Ability to Cope with Trauma (PACT) Scale. *Psychological Trauma.*

Bonanno, G. A., Rennicke, C., & Dekel, S. (2005). Self-enhancement among high-exposure survivors of the September 11th terrorist attack: Resilience or social maladjustment? *Journal of Personality and Social Psychology, 88,* 984–998. doi:10.1037/0022-3514.88.6.984

Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology, 7,* 511–535. doi:10.1146/annurev-clinpsy-032210-104526

Boscarino, J. A., Adams, R. E., Foa, E. B., & Landrigan, P. J. (2006). A propensity score analysis of brief worksite crisis interventions after the World Trade Center disaster: Implications for intervention and research. *Medical Care, 44,* 454–462. doi:10.1097/01.mlr .0000207435.10138.36

Brewin, C. R. (2005). Systematic review of screening instruments for adults at risk of PTSD. *Journal of Traumatic Stress, 18,* 53–62. doi: 10.1002/jts.20007

Brewin, C. R., Andrews, B., & Valentine, J. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma exposed adults. *Journal of Consulting and Clinical Psychology, 68,* 748–766. doi: 10.1037/0022-006X.68.5.748

Brewin, C. R., Fuchkan, N., Huntley, Z., Robertson, M., Thompson, M., Scragg, P., ... Ehlers, A. (2010). Outreach and screening following the 2005 London bombings: Usage and outcomes. *Psychological Medicine, 40,* 2049–2057. doi:10.1017/S0033291710000206

Brewin, C. R., Scragg, P., Robertson, M., Thompson, M., D'Ardenne, P., & Ehlers, A. (2008). Promoting mental health following the London bombings: A screen and treat approach. *Journal of Traumatic Stress, 21,* 3–8. doi:10.1002/jts.20310

Bryant, R. A., & Litz, B. T. (2009). Mental health treatments in the wake of disaster. In Y. Neria, S. Galea, & F. Norris (Eds.), *Mental health and disasters* (pp. 321–335). New York, NY: Cambridge University Press.

Brymer, M., Jacobs, A., Layne, C., Pynoos, R., Ruzek, J., Steinberg, A., ... Watson, P. (2006). *Psychological first aid: Field operations guide* (2nd ed.). Retrieved from http://www.nctsnet.org/nctsn_assets/pdfs/pfa/ 2/PsyFirstAid.pdf

Brymer, M. J., Reyes, G., & Steinberg, A. M. (in press). Disaster behavioral health for children and adolescents. In J. L. Framingham & M. L. Teasley (Eds.), *Behavioral health response to disasters.* New York, NY: Taylor & Francis.

Brymer, M. J., Steinberg, A. M., Vernberg, E. M., Layne, C. M., Watson, P. J., Jacobs, A., ... Pynoos, R. S. (2009). Acute interventions for children and adolescents. In E. Foa, T. Keane, M. Friedman, & J. Cohen (Eds.), *Effective treatments for PTSD* (2nd ed., pp. 106–116 & 542–545). New York, NY: Guilford Press.

Brymer, M. J., Steinberg, A. M., Watson, P. J., & Pynoos, R. S. (in press). Prevention and early intervention programs for children and adolescents. In J. G. Beck & D. Sloan (Eds.), *The Oxford handbook of traumatic stress disorders.* New York, NY: Oxford University Press.

Cohen, J. A., Mannarino, A. P., Gibson, L. E., Cozza, S., Brymer, M. J., & Murray, L. (2006). Interventions for children and adolescents following disasters. In E. C. Richie, P. J. Watson, & M. J. Friedman (Eds.), *Interventions following mass violence and disasters: Strategies for mental health practice* (pp. 227–256). New York, NY: Guilford Press.

Cohen, J. A., Mannarino, A. P., & Knudsen, K. (2004). Treating childhood traumatic grief: A pilot study. *Journal of the American Academy of Child and Adolescent Psychiatry, 43,* 1225–1233. doi:10.1097/ 01.chi.0000135620.15522.38

Cohen, J. A., Mannarino, A. P., & Staron, V. R. (2006). A pilot study of modified cognitive–behavioral therapy for childhood traumatic grief.

Journal of the American Academy of Child and Adolescent Psychiatry, 45, 1465–1473. doi:10.1097/01.chi.0000237705.43260.2c

Covell, N. H., Allen, G., Essock. S. M., Pease, E. A., Felton, C. J., Lanzara, C. B., & Donahue, S. A. (2006). Service utilization and event reaction patterns among children who received Project Liberty counseling services. *Psychiatric Services, 57*, 1277–1282. doi:10.1176/appi.ps.57.9.1277

Cruz, M., Scott, J., Houck, P. R., Reynolds, C. F., Frank, E., & Shear, M. K. (2007). Clinical presentation and treatment outcome of African Americans with complicated grief. *Psychiatric Services, 58*, 700–702. doi:10.1176/appi.ps.58.5.700

DeLisi, L. E., Maurizio, A., Yost, M., Papparozzi, C. F., Fulchino, C., Katz, C. L., . . . Stevens, P. (2003). A survey of New Yorkers after the Sept. 11, 2001, terrorist attacks. *American Journal of Psychiatry, 160*, 780–783.

Difede, J., Cukor, J., Jayasinghe, N., Patt, I., Jedel, S., Spielman, L., . . . Hoffman, H. G. (2007). Virtual reality exposure therapy for the treatment of posttraumatic stress disorder following September 11, 2001. *Journal of Clinical Psychiatry, 68*, 1639–1647. doi:10.4088/JCP.v68n1102

DiGrande, L., Neria, Y., Brackbill, R. M., Pulliam, P., & Galea, S. (2011). Long-term posttraumatic stress symptoms among 3,271 civilian survivors of the September 11, 2001, terrorist attacks on the World Trade Center. *American Journal of Epidemiology, 173*, 271–281. doi:10.1093/aje/kwq372

Disaster Mental Health Subcommittee. (2009). *Disaster mental health recommendations: Report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board.* Retrieved from http:www.phe.gov/Preparedness/legal/boards/nbsb/Documents/nsbs-dmhreport-final.pdf

Donahue, S. A., Jackson, C. T., Shear, M. K., Felton, C. J., & Essock, S. M. (2006). Outcomes of enhanced counseling services provided to adults through Project Liberty. *Psychiatric Services, 57*, 1298–1303. doi:10.1176/appi.ps.57.9.1298

Duffy, M., Gillespie, K., & Clark, D. M. (2007). Post-traumatic stress disorder in the context of terrorism and other civil conflict in Northern Ireland: Randomised controlled trial. *British Medical Journal, 334*, 1147–1150. doi:10.1136/bmj.39021.846852.BE

Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M. J. V., Herbert, C., & Mayou, R. A. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Archives of General Psychiatry, 60*, 1024–1032. doi:10.1001/archpsyc.60.10.1024

Eisenberg, N., & Silver, R. C. (2011). Growing up in the shadow of terrorism: Youth in America after 9/11. *American Psychologist, 66*, 468–481. doi:10.1037/a0024619

Elhai, J. D., & Ford, J. D. (2009). Utilization of healthcare services after disasters. In Y. Neria, S. Galea, & F. Norris (Eds.), *Mental health and disasters* (pp. 366–386). New York, NY: Cambridge University Press.

Fairbrother, G., Stuber, J., Galea, S., Pfefferbaum, B., & Fleischman, A. R. (2004). Unmet need for counseling services by children in New York City after the September 11th attacks on the World Trade Center: Implications for pediatricians. *Pediatrics, 113*, 1367–1374. doi:10.1542/peds.113.5.1367

Fernández, I., & Dario, P. (2008). The benefits of expressive writing after the Madrid terrorist attack: Implications for emotional activation and positive affect. *British Journal of Health Psychology, 13*, 31–34. doi:10.1348/135910707X251234

Forbes, D., Fletcher, S., Wolfgang, B., Varker, T., Creamer, M., Brymer, M., . . . Bryant, R. A. (2010). Practitioner perceptions of Skills for Psychological Recovery: A training program for health practitioners in the aftermath of the Victorian bushfires. *Australian and New Zealand Journal of Psychiatry, 44*, 1105–1111. doi:10.3109/00048674.2010.513674

Fouad, N. A., Hatcher, R. L., Hutchings, P. S., Collins, F. L., Grus, C. L., Kaslow, N. J., . . . Crossman, R. E. (2009). Competency benchmarks: A model for understanding and measuring competence in professional psychology across training levels. *Training and Education in Professional Psychology, 3*(Suppl.), S5–S26. doi:10.1037/a0015832

Galea, S., Vlahov, D., Resnick, H., Ahern, J., Susser, E., Gold, J., . . . Kilpatrick, D. (2003). Trends of probable post-traumatic stress disorder

in New York City after the September 11 terrorist attacks. *American Journal of Epidemiology, 158*, 514–524. doi:10.1093/aje/kwg187

Gega, L., Marks, I. M., & Mataix-Cols, D. (2004). Computer-aided CBT self-help for anxiety and depressive disorders: Experience of a London clinic and future directions. *Journal of Clinical Psychology, 60*, 147–157.

Gidron, Y., Gal, R., Freedman, S. A., Twiser, I., Lauden, A., Snir, Y., & Benjamin, J. (2001). Translating research findings to PTSD prevention: Results of a randomized-controlled pilot study. *Journal of Traumatic Stress, 14*, 773–780. doi:10.1023/A:1013046322993

Gidron, Y., Gal, R., Givati, G., Lauden, A., Snir, Y., & Benjamin, J. (2007). Interactive effects of memory structuring and gender in preventing posttraumatic stress symptoms. *Journal of Nervous and Mental Disease, 195*, 179–182. doi:10.1097/01.nmd.0000254676.11987.5d

Gillespie, K., Duffy, M., Hackmann, A., & Clark, D. M. (2002). Community based cognitive therapy in the treatment of post-traumatic stress disorder following the Omagh bomb. *Behaviour Research and Therapy, 40*(4), 345–357. doi:10.1016/S0005-7967(02)00004-9

Gleacher, A. A., Nadeem, E., Moy, A. J., Whited, A. L., Albano, A. M., Radigan, M., . . . Hoagwood, K. E. (2010). Statewide CBT training for clinicians and supervisors treating youth: The New York State Evidence Based Treatment Dissemination Center. *Journal of Emotional and Behavioral Disorders.* Advance online publication. doi:10.1177/1063426610367793

Goenjian, A. K., Walling, D., Steinberg, A. M., Karayan, I., Najarian, L. M., & Pynoos, R. S. (2005). A prospective study of posttraumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. *American Journal of Psychiatry, 162*, 2302–2308. doi:10.1176/appi.ajp.162.12.2302

Gray, M. J., & Litz, B. T. (2005). Behavioral interventions for recent trauma: Empirically informed practice guidelines. *Behavior Modification, 29*, 189–215. doi:10.1177/0145445504270884

Greist, J. H., Osgood-Hynes, D. J., Baer, L., & Marks, I. M. (2000). Technology-based advances in the management of depression. Focus on the COPE Program. *Disease Management & Health Outcomes, 7*(4), 193–200. doi:10.2165/00115677-200007040-00003

Hamblen, J. L., Norris, F. H., Pietruszkiewicz, S., Gibson, L., Naturale, A., & Louis, C. (2009). Cognitive behavioral therapy for postdisaster distress: A community based treatment program for survivors of Hurricane Katrina. *Administration and Policy in Mental Health and Mental Health Services Research, 36*, 206–214. doi:10.1007/s10488-009-0213-3

Hansel, T. C., Osofsky, H. J., Steinberg, A. M., Brymer, M., Landis, R., Riise, K. S., . . . Speier, A. (in press). Louisiana Spirit Specialized Crisis Counseling: Counselor perceptions of training and services. *Psychological Trauma: Theory, Research, Practice, and Policy.*

Hoagwood, K. E., Vogel, J. M., Levitt, J. M., D'Amico, P. J., & Paisner, W. I. (2007). Implementing an evidence-based trauma treatment in a state system after September 11: The CATS Project. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*, 773–779. doi:10.1097/chi.0b013e3180413def

Hobfoll, S. E., Watson, P. J., Bell, C. C., Bryant, R. A., Brymer, M. J., Friedman, M. J., . . . Ursano, R. J. (2007). Five essential elements of immediate and mid-term mass trauma intervention: Empirical evidence. *Psychiatry, 70*, 283–315.

Hoge, M. A., & Morris, J. A. (2004). Implementing best practices in behavioral health workforce education—Building a change agenda. *Administration and Policy in Mental Health, 32*, 85–89. doi:10.1023/B:APIH.0000042741.19527.a8

Holman, E. A., & Silver, R. C. (2005). Future-oriented thinking and adjustment in a nationwide longitudinal study following the September 11th terrorist attacks. *Motivation and Emotion, 29*, 389–410. doi:10.1007/s11031-006-9018-9

Inter-Agency Standing Committee. (2007). IASC guidelines on mental health and psychosocial support in emergency settings. Retrieved from http:/www.who.int/mental_health/emergencies/guidelines_iasc_mental_health_psychosoci al_june_2007.pdf

Jayasinghe, N., Giosan, C., Difede, J., Spielman, L. A., & Robin, L. (2006). Predictors of responses to psychotherapy referral of WTC utility disaster workers. *Journal of Traumatic Stress, 19*, 307–312. doi:10.1002/jts.20113

Jaycox, L. H., Cohen, J. A., Mannarino, A. P., Walker, D. W., Langley,

A. K., Gegenheimer, K. L., ... Schonlau, M. (2010). Children's mental health care following Hurricane Katrina: A field trial of trauma-focused psychotherapies. *Journal of Traumatic Stress, 23,* 223–231. doi:10.1002/jts.20518

Jordans, M. J. D., Komproe, I. H., Tol, W. A., Kohrt, B., Luitel, N., Macy, R. D., & de Jong, V. T. M. (2010). Evaluation of a classroom-based psychosocial intervention in conflict-affected Nepal: A cluster randomized controlled trial. *Journal of Child Psychology and Psychiatry, 51,* 818–826. doi:10.1111/j.1469-7610.2010.02209.x

Kaniasty, K. Z., & Norris, F. H. (2009). Distinctions that matter: Received social support, perceived social support, and social embeddedness after disasters. In Y. Neria, S. Galea, & F. Norris (Eds.), *Mental health and disasters* (pp. 175–202). New York: NY: Cambridge University Press.

Kaslow, N. J., Campbell, L. F., Hatcher, R. L., Grus, C. L., Fouad, N. A., & Rodolfa, E. R. (2009). Competency Assessment Toolkit for professional psychology. *Training and Education in Professional Psychology, 3*(Suppl.), S27–S45. doi:10.1037/a0015833

Katz, C. L., Smith, R. P., Silverton, M., Holmes, A., Bravo, C., Jones, K., ... Herbert, R. (2006). A mental health program for Ground Zero rescue and recovery workers: Cases and observations. *Psychiatric Services, 57,* 1335–1338. doi:10.1176/appi.ps.57.9.1335

Kessler, R. C., Galea, S., Gruber, M. J., Sampson, N. A., Ursano, R. J., & Wessely, S. C. (2008). Trends in mental illness and suicidality after Hurricane Katrina. *Molecular Psychiatry, 13,* 374–384. doi:10.1038/sj.mp.4002119

La Greca, A. M., & Silverman, W. K. (2009). Treatment and prevention of posttraumatic stress reactions in children and adolescents exposed to disasters and terrorism: What is the evidence? *Child Development Perspectives, 3,* 4–10. doi:10.1111/j.1750-8606.2008.00069.x

Laor, N., Wiener, Z., Spiriman, S., & Wolmer, L. (2005). Community mental health in emergencies and mass disasters: The Tel-Aviv model. *Journal of Aggression, Maltreatment and Trauma, 10,* 681–694. doi:10.1300/J146v10n03_02

Levitt, J. T., Malta, L. S., Martin, A., Davis, L., & Cloitre, M. (2007). The flexible application of a manualized treatment for PTSD symptoms and functional impairment related to the 9/11 World Trade Center attack. *Behaviour Research and Therapy, 45,* 1419–1433. doi:10.1016/j.brat.2007.01.004

Litz, B. T., Engel, C. C., Bryant, R. A., & Papa, A. (2007). A randomized, controlled proof-of-concept trial of an Internet-based, therapist-assisted self-management treatment for posttraumatic stress disorder. *American Journal of Psychiatry, 164,* 1676–1683. doi:10.1176/appi.ajp.2007.06122057

Lukens, E. P., O'Neill, P., Thorning, H., Waterman-Cecutti, J., Gubiseh-Ayala, D., Abu-Ras, W., ... Chen, T. (2004). Building resiliency and cultural collaboration post September 11th: A group model of brief integrative psychoeducation for diverse communities. *Traumatology, 10,* 107–129. doi:10.1177/153476560401000204

Marsella, A., Johnson, J., Watson, P., & Gryczynski, J. (Eds.). (2008). *Ethnocultural perspectives on disaster and trauma: Foundations, issues, and applications.* New York, NY: Springer.doi:10.1007/978-0-387-73285-5

Marshall, R. D., Amsel, L. V., Neria, Y., & Suh, E. J. (2006). Strategies for dissemination of evidence-based treatments: Training clinicians after large-scale disasters. In F. H. Norris, S. Galea, M. J. Friedman, & P. J. Watson (Eds.), *Methods for disaster mental health research* (pp. 226–239). New York, NY: Guilford Press.

McCaslin, S. E., Inslicht, S. S., Henn-Haase, C., Chemtob, C., Metzler, T. J., Neylan, T. C., & Marmar, C. R. (2009). Uniformed rescue workers responding to disasters. In Y. Neria, S. Galea, & F. Norris (Eds.), *Mental health and disasters* (pp. 302–320). New York, NY: Cambridge University Press.

McNally, R. J., Bryant, R. A., & Ehlers, A. (2003). Does early psychological intervention promote recovery from posttraumatic stress? *Psychological Science in the Public Interest, 4,* 45–79.

Mohr, W. K., Lutz, M. J. N., Fantuzzo, J. W., & Perry, M. A. (2000). Children exposed to family violence: A review of empirical research from a developmental–ecological perspective. *Trauma, Violence, and Abuse: A Review Journal, 1,* 264–283.

Mollica, R. F., Lopes Cordozo, B., Osofsky, H., Raphael, B., Ager, A., & Salama, P. (2004). Mental health in complex humanitarian emergencies. *Lancet, 364,* 2058–2067. doi:10.1016/S0140-6736(04)17519-3

National Commission on Children and Disasters. (2010). *National Commission on Children and Disasters: 2010 report to the president and congress.* Retrieved from http://www.childrenanddisasters.acf.hhs.gov

National Institute of Mental Health. (2002). *Mental health and mass violence: Evidence-based early psychological intervention for victims/survivors of mass violence: A workshop to reach consensus on best practices* (NIH Publication No. 02-5138). Washington, DC: U.S. Government Printing Office. Retrieved from http://www.nimh.nih.gov/health/publications/massviolence.pdf

Neria, Y., DiGrande, L., & Adams, B. G. (2011). Posttraumatic stress disorder following the September 11, 2001, attacks: A review of the literature among highly exposed populations. *American Psychologist, 66,* 429–446. doi:10.1037/a0024791

Neria, Y., Galea, S., & Norris, F. H. (2009). *Mental health and disasters.* Cambridge, England: Cambridge University Press.

Neria, Y., Gross, R., Marshall, R. D., & Susser, E. D. (2006). *9/11: Mental health in the wake of terrorist attacks.* Cambridge, England: Cambridge University Press. doi:10.1017/CBO9780511544132

Neria, Y., Olfson, M., Gameroff, M. J., DiGrande, L., Wickramaratne, P., Gross, R., ... Weissman, M. M. (2010). Long-term course of probable PTSD after the 9/11 attacks: A study in urban primary care. *Journal of Traumatic Stress, 23,* 474–482. doi:10.1002/jts.20544

Norris, F. H. (2005). *Range, magnitude, and duration of the effects of disasters on mental health: Review update 2005.* Retrieved from http://www.redmh.org/research/general/REDMH_effects.pdf

Norris, F. H., & Alegria, M. (2006). Promoting disaster recovery in ethnic-minority individuals and communities. In E. C. Ritchie, P. J. Watson, & M. J. Friedman (Eds.), *Interventions following mass violence and disasters: Strategies for mental health practices* (pp. 319–342). New York, NY: Guilford Press.

Norris, F. H., Friedman, M. J., & Watson, P. J. (2002). 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. *Psychiatry, 65,* 240–260. doi:10.1521/psyc.65.3.240.20169

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981–2001. *Psychiatry, 65,* 207–239. doi:10.1521/psyc.65.3.207.20173

Norris, F. H., Galea, S., Friedman, M. J., & Watson, P. J. (2006). *Methods for Disaster Mental Health Research.* New York, NY: Guilford Press.

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology, 41,* 127–150. doi:10.1007/s10464-007-9156-6

Norris, F. H., Tracy, M., & Galea, S. (2009). Looking for resilience: Understanding the longitudinal trajectories of responses to stress. *Social Science and Medicine, 68,* 2190–2198. doi:10.1016/j.socscimed.2009.03.043

North, C. S., Pfefferbaum, B., Tivis, L., Kawasaki, A., Reddy, C., & Spitzagel, E. L. (2004). The course of posttraumatic stress disorder in a follow-up study of survivors of the Oklahoma City bombings. *Annals of Clinical Psychiatry, 16,* 209–215. doi:10.1080/10401230490522034

Perrin, M. A., DiGrande, L., Wheeler, K., Thorpe, L., Farfel, M., & Brackbill, R. (2007). Differences in PTSD prevalence and associated risk factors among World Trade Center disaster rescue and recovery workers. *American Journal of Psychiatry, 164,* 1385–1394. doi:10.1176/appi.ajp.2007.06101645

Pfefferbaum, B., Nixon, S. J., Tivis, R. D., Doughty, D. E., Pynoos, R. S., Gurwitch, R., & Foy, D. W. (2001). Television exposure in children after a terrorist incident. *Psychiatry, 64,* 202–211. doi:10.1521/psyc.64.3.202.18462

Pynoos, R. S., Goenjian, A. K., & Steinberg, A. M. (1998). A public mental health approach to the postdisaster treatment of children and adolescents. *Child and Adolescent Psychiatric Clinics of North America, 7,* 195–210.

Pynoos, R. S., Steinberg, A. M., & Brymer, M. J. (2007). Children and disasters: Public mental health approaches. In R. J. Ursano, C. S. Fullerton, L. Weisaeth, & B. Raphael (Eds.), *Textbook of disaster psychiatry* (pp. 48–68). New York, NY: Cambridge University Press. doi:10.1017/CBO9780511544415.004

Ritchie, E. C., Watson, P. J., & Friedman, M. J. (2006). *Interventions*

following mass violence and disasters: Strategies for mental health practices. New York, NY: Guilford Press.

Roberts, N. P., Kitchiner, N. J., Kenardy, J., & Bisson, J. I. (2009). Systematic review and meta-analysis of multiple-session early interventions following traumatic events. *American journal of Psychiatry, 166,* 293–301.

Rose, S., Bisson, J. I., & Wessely, S. C. (2003). A systematic review of single-session psychological interventions ('debriefing') following trauma. *Psychotherapy and Psychosomatics, 72,* 176–184. doi: 10.1159/000070781

Rosen, C. S., Matthieu, M. M., & Norris, F. H. (2009). Factors predicting crisis counselor referrals to other crisis counseling, disaster relief, and psychological services: A cross-site analysis of post-Katrina programs. *Administration and Policy in Mental Health and Mental Health Services Research, 36,* 186–194. doi:10.1007/s10488-009-0216-0

Ruggiero, K. J., Resnick, H. S., Acierno, R., Coffey, S. F., Carpenter, M. J., Ruscio, A. M., . . . Galea, S. (2006). Internet-based intervention for mental health and substance use problems in disaster-affected populations: A pilot feasibility study. *Behavior Therapy, 37,* 190–205. doi:10.1016/j.beth.2005.12.001

Ruzek, J. I., Friedman, M. J., & Murray, S. (2005). Toward a knowledge management system for posttraumatic stress disorder treatment in veterans healthcare. *Psychiatric Annals, 35,* 911–920.

Ruzek, J. I., & Rosen, R. C. (2009). Disseminating evidence-based treatments for PTSD in organizational settings: A high priority focus area. *Behaviour Research and Therapy, 47,* 980–989. doi:10.1016/j.brat.2009.07.008

Ruzek, J. I., Walser, R. D., Naugle, A. E., Litz, B. T., Mennin, D. S., Polusny, M. A., . . . Scotti, J. R. (2008). Cognitive–behavioral psychology: Implications for disaster and terrorism response. *Prehospital and Disaster Medicine, 23,* 397–410.

Ruzek, J. I., Young, B. H., Cordova, M. J., & Flynn, B. W. (2004). Integration of disaster mental health services with emergency services. *Prehospital and Disaster Medicine, 19,* 46–53.

Salcioglu, E., & Basoglu, M. (2010). Control-focused behavioral treatment of earthquake survivors using live exposure to conditioned and simulated unconditioned stimuli. *CyberPsychology, 13*(1), 13–19.

Salloum, A., & Overstreet, S. (2008). Evaluation of individual and group grief and trauma interventions for children post disaster. *Journal of Clinical Child and Adolescent Psychology, 37,* 495–507. doi:10.1080/15374410802148194

Schreiber, S., Dolberg, O. T., Barkai, G., Peles, E., Leor, A., Rapoport, E., . . . Bloch, M. (2007). Primary intervention for memory structuring and meaning acquisition (PIMSMA): Study of a mental health first-aid intervention in the ED with injured survivors of suicide bombing attacks. *American Journal of Disaster Medicine, 2,* 307–320.

Seeley, K. M. (2008). *Therapy after terror: 9/11, psychotherapists, and mental health.* New York, NY: Cambridge University Press.

Shear, K., Frank, E., Houck, P. R., & Reynolds, C. F., III. (2005). Treatment of complicated grief: A randomized controlled trial. *Journal of the American Medical Association (JAMA), 293,* 2601–2608. doi: 10.1001/jama.293.21.2601

Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11. *Journal of the American Medical Association (JAMA), 288,* 1235–1244. doi:10.1001/jama.288.10.1235

Silver, R. C., Poulin, M., Holman, E. A., McIntosh, D. N., Gil-Rivas, V., & Pizarro, J. (2004). Exploring the myths of coping with a national trauma: A longitudinal study of responses to the September 11th terrorist attacks. *Journal of Aggression, Maltreatment and Trauma, 9,* 129–141. doi:10.1300/J146v09n01_16

Silverman, W. K., Ortiz, C. D., Viswesvaran, C., Burns, B. J., Kolko, Putnam, F. W., & Amaya-Jackson, L. (2008). Evidence-based psychosocial treatment for children and adolescents exposed to traumatic events. *Journal of Clinical Child and Adolescent Psychology, 37,* 156–183. doi:10.1080/15374410701818293

Smith, D. W., Kilpatrick, D. G., Falsetti, S. A., & Best, C. L. (2002). Postterrorism services for victims and surviving family members: Lessons from Pan Am 103. *Cognitive and Behavioral Practice, 9,* 280–286. doi:10.1016/S1077-7229(02)80021-9

Somer, E., Tamir, E., Maguen, S., & Litz, B. T. (2005). Brief cognitive–behavioral phone-based intervention targeting anxiety about the threat of attack: A pilot study. *Behaviour Research and Therapy, 43,* 669–679. doi:10.1016/j.brat.2004.05.006

Stellman, J. M., Smith, R. P., Katz, C. L., Sharma, V., Charney, D. S., Herbert, R., . . . Southwick, S. (2008). Enduring mental health morbidity and social function impairment in World Trade Center rescue, recovery and cleanup workers: The psychological dimension of an environmental health disaster. *Environmental Health Perspectives, 116,* 1248–1253. doi:10.1289/ehp.11164

Tol, W. A., Komproe, I. H., Susanty, D., Jordans, M. J. D., Macy, R. D., & De Jong, J. T. V. M. (2008). School-based mental health intervention for political violence-affected children in Indonesia: A cluster randomized trial. *Journal of the American Medical Association (JAMA), 300,* 655–662. doi:10.1001/jama.300.6.655

Van Emmerik, A. A. P., Kamphuis, J. H., Hulsbosch, A. M., & Emmelkamp, P. M. G. (2002). Single session debriefing after psychological trauma: A meta-analysis. *Lancet, 360,* 766–771. doi:10.1016/S0140-6736(02)09897-5

Wagner, B., Knaevelsrud, C., & Maercker, A. (2006). Internet-based cognitive–behavioral therapy for complicated grief: A randomized controlled trial. *Death Studies, 30,* 429–453. doi:10.1080/07481180600614385

Wagner, B., & Maercker, A. (2007). A 1.5-year follow-up of an Internet-based intervention for complicated grief. *Journal of Traumatic Stress, 20,* 625–629. doi:10.1002/jts.20230

Wessely, S. C., Bryant, R. A., Greenberg, N., Earnshaw, N. M., Sharpley, J. G., & Hacker Hughes, J. G. (2008). Does psychoeducation help prevent post traumatic psychological distress? *Psychiatry, 71,* 287–302.