Community-Based, Acute Posttraumatic Stress Management: A Description and Evaluation of a Psychosocial-Intervention Continuum

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Much of today's psychological trauma can be identified as resulting from sudden and seemingly random events, and particularly from events that involve the loss of human life. This article presents a perspective on how behavioral health providers may approach the design, development, and implementation of community-based psychological trauma interventions. These interventions allow those community members most affected by the trauma to play a central role in the resolution of, and community adaptation to, traumatic losses. After a brief discussion of "critical incident stress debriefing"—a common form of psychological "first aid" that is sometimes used following traumatic events that affect a community—the article turns to the description of a community-based trauma-response program that provides a continuum-of-care model for the care and management of individual and group reactions to shared, traumatic events. A recent evaluation of that program, which was developed by the Community Services Program of the Trauma Center in Boston, is presented as an important first step toward determining the types of community-based responses that show promise in our efforts to ameliorate the impact of traumatic events in communities nationwide and internationally. (HARV REV PSYCHIATRY 2004;12:217–228.)

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Much of today's psychological trauma that affects communities can be identified as resulting from sudden and seemingly random events, and particularly from events that involve the violent loss of human life, such as homicide, suicide, multiple-fatality motor vehicle accidents, and large-scale natural or man-made disasters. In this article, we present a perspective on how behavioral health providers may best approach the design, development, and implementation of community-based psychological trauma interventions that allow those community members most affected by the trauma to play a central role in the resolution of, and community adaptation to, traumatic losses and the psychosocial disintegration that may follow in their wake. As a way of introducing the program we have developed, it should prove helpful to contrast it with "critical incident stress debriefing," a common form of psychological "first aid" that is sometimes used following traumatic events that affect a community. We will then present a detailed description and evaluation of a community-based trauma-response program

that provides a continuum-of-care model for the care and management of individual and group reactions to shared, traumatic events. The program is designed to address both the sequelae of psychological trauma, which may include the development of PTSD,[1–4] and the potentially harmful and longitudinal effects of psychosocial distress and deterioration. Despite the program's limitations, which we will discuss, the evaluation of the program may be an important step in reviewing what types of community-based responses show promise in our efforts to confront psychological threats and traumatic events in our communities nationwide and internationally.

PERSPECTIVE ON INTERVENTIONS FOR PSYCHOLOGICAL FIRST AID

As behavioral health providers struggle to develop and test best-practice models for the response and recovery phases of community-trauma interventions—a special, ongoing concern following the events of September 11, 2001—several significant controversies have arisen over how best to intervene in a community struggling with large-scale disaster or unremitting traumatic events. A centrally important question is whether, in the immediate aftermath of a traumatic event, there are any community interventions that will not themselves produce increased distress and psychiatric symptoms. Of special relevance here is the use of critical incident stress debriefing (CISD),[5] which was developed by Jeffrey Mitchell more than two decades ago and has been used worldwide—especially by the first-responder community, which includes law enforcement, emergency medical services, fire and police, and clergy—as a brief psychosocial intervention for survivors of acute traumatic events. CISD is a structured group intervention usually provided within 72 hours of exposure to the critical incident. The debriefing lasts approximately $1^1/_2$ to 2 hours and utilizes a prompting question for each of its seven phases.

Despite the widespread use of CISD, empirical studies examining its use have been inconclusive concerning its value. The existing reviews of the CISD literature, for example, have come to markedly different conclusions. Five of the reviews[6–10]—all from the group that originated CISD and the related intervention, critical incident stress management (CISM)[11,12]—found that the debriefing interventions have had moderate to pronounced success in decreasing trauma symptoms. Three other reviews of the same debriefing literature, however—all conducted by groups not responsible for developing the CISD/CISM models—came to less favorable conclusions regarding debriefing.[13–15] Our goal here is not to delve further into this particular, ongoing debate on the merits of CISD. Instead, what we want to emphasize is that CISD has yet to be proven an effective intervention for the stabilization of acute trauma, and that it does not and cannot address the longer-term consequences associated with traumatic stress either for the individuals affected or for the communities in which they live. For this reason, the debate over CISD and its limitations has begun to bring into focus the problems of understanding and addressing the psychosocial and community dimensions of psychological trauma. What interventions, one needs to ask, are appropriate for addressing these consequences of traumatic events, and what type of practitioner (What training? What type of license, if any?) should provide those interventions?

DESCRIPTION OF A COMMUNITY-BASED PSYCHOLOGICAL-TRAUMA RESPONSE CONTINUUM

As a means of addressing the full range of consequences of psychological trauma, we believe that it is necessary to take a psychosocial, community-based approach that seeks to include the affected community in the design and implementation of a psychosocial-intervention *continuum*. The important question of when and what intervention should be used during and after community trauma is a critical one. Yet the specific choice of intervention should follow upon, rather than precede, the resolution of a larger question: what has actually happened according to *the community's perception* of the traumatic event or disaster?

In order to develop an appropriate continuum of interventions, the behavioral health provider must work in tandem with community members who are willing and able to assume a leadership role in supporting recovery in their community. These community members may include, for example: clergy; sports coaches; school principals, counselors, and nurses; directors of boys and girls clubs; reformed members of violent gangs; directors of halfway houses; and leaders from the substance abuse recovery community. These community members are, in effect, the natural "gatekeepers" of their neighborhoods and can accurately and reliably assess the community's perception of the trauma's impact (in part, sometimes, because they may themselves be adapting to sudden, violent losses). In addition, these community leaders are often able to identify the most affected community members and to help them to accept and take advantage of the ongoing interventions offered by the behavioral health providers. Finally, these leaders can fill an essential role by collaborating with the behavioral health care providers to organize and conduct an immediate series of community-based trauma assessments.

The community-based trauma assessment can provide an in-depth understanding of the cultural, social, and economic patterns of traumatic reactions, as well as a comprehensive

knowledge of the loss scenarios. Community members seem most readily to accept such assessments of their needs if the assessments are process oriented—with frequent, regular meetings focused especially on assessing the needs of those most affected by the event—rather than product oriented, with an emphasis on psychological testing.[16] This type of immediate, in-depth community engagement will also allow for the identification and assessment of various other salient factors, including: the community's capabilities for addressing both short-term, acute problems and longer-term, psychosocial disruptions; the community's innate healing capacities; and its leadership structure and roles. An ongoing challenge for behavioral health providers throughout this assessment process is to make oneself known as a compassionate presence able to help the community to marshal its own human resources to deal with the trauma and its consequences.

Once the community-based assessment has begun—and in our view it is essential to continue this assessment even as trauma-specific interventions are initiated—one needs to determine which groups within the community will require what level of resource management from the behavioral health community. These assessments are significantly aided by advances in the field of trauma psychology, which has recently emerged as a specialized field both to study human responses to life-threatening events, and to develop methods of support for survivors of such events. Based on established research and practice, support for trauma survivors may be divided into two general areas. The first concerns time-limited interventions for those who have essentially normal responses (and over a normal period of time) to terrifying and life-threatening experiences. The baseline functioning of such people is disrupted in the service of the physiological survival response, but they can regroup and return to baseline functioning with short-term support. The second area concerns intensive, long-term interventions for those survivors experiencing a prolonged disruption of functioning and who require significant external supports to adapt to their traumatic exposures. Although the first group is by far larger, considerably more professional attention has been paid to the latter group—and for good reason. The survivors in this group may be struggling with painful, debilitating symptoms and require a significantly higher and more costly level of specialized therapeutic care.

In conducting the series of community-based assessments (if possible, immediately after the traumatic event has occurred), we work closely with our community partners—a network of behavioral health providers in the schools and community—to screen for those survivors who will require the more resource-intensive interventions, ensuring that they are led to appropriate referrals. At the same time, we are also trying to identify the survivors from the first group—those whose progressive adaptation to the traumatic exposure will allow them to cope positively with their terror, losses, and new meaning making (by which we refer to a survivor's ongoing cognitive and emotional processing of the traumatic event, which allows for reconstruction of the trauma narrative, thereby providing the opportunity to give a new interpretation to the traumatic event). This first group is a precious commodity in any traumatized community and must be identified and then protected at all costs; if comforted, supported, and guided, this group naturally self-selects its triage leaders and healing trajectories, and can act as the local, long-term resource pool for the community's resilience. As behavioral health providers face the increased incidence of community violence and resulting traumatic stress, and as the field of community psychiatry struggles to make clear what to do and what not to do in the face of large-scale traumatic exposures, it is important to consider how we, as professional service providers, may encourage and support the community's own members to play a unique role in helping the community to heal itself.

THE COMMUNITY SERVICES PROGRAM

We would like to present the specifics of a currently functioning program that utilizes this type of community assessment and intervention continuum during and after major traumatic incidents. The Community Services Program (CSP) (a branch of the Trauma Center in Boston, Massachusetts), in collaboration with the Center for Trauma Psychology (CTP) (also in Boston), has developed a conceptual and practice framework for responding to such events and for assessing and intervening with children, youths, families, and their various types of adult caregivers. The care continuum has been designed to help community members identify and manage their traumatic stress responses, fostering strength and safety, and potentially preventing traumatic situations from augmenting psychosocial degradation of the community. That is, if community members are not immediately supported by the collaboration of the natural community gatekeepers and the behavioral health providers, the psychosocial infrastructure that supports a community's healing rituals, collaborative congregating, and, ultimately, its resilience may deteriorate after exposure to a traumatic event.

CSP began in the Boston area almost 15 years ago, funded by the Massachusetts Department of Mental Health's Metro Boston Area office. In 1996, the program was reorganized and refined in order to build a training program and an infrastructure for responding to traumatic incidents, with the ultimate goal of meeting the needs of some 90,000 school-age children in metropolitan Boston. Since 1996, CSP has developed partnerships with professional providers, school-based professionals, and community workers. By establishing this

network of roughly 100 trained personnel, the small staff of three professionals, one manager, and one graduate student has created the capacity to respond throughout the city of Boston to traumatic events affecting children, families, and communities 24 hours a day, 7 days a week, 365 days a year (365/24/7).

What the Community Services Program Does

The Trauma Center, a program of Arbour Health Systems, provides an array of services to people who have been exposed to traumatic events, who continue to suffer, and whose daily functioning is affected by their responses to the trauma. CSP, one of the Trauma Center's programs, focuses specifically on short-term, immediate interventions to help stabilize such people and to prevent them from developing longer-term psychological problems. The efforts to provide psychological stabilization follow a public health model and involve working within the community to help "normal people who have been exposed to overwhelming situations." The goals are (1) to mobilize people's internal strengths to help them cope; (2) to augment those strengths by mobilizing the external supports present in the community; and (3) to develop a network of trained people throughout the city in order to assist with interventions at the time of a traumatic incident. CSP can best be understood through the descriptions of its work helping individuals and communities to handle traumatic events in particular situations. The following two examples are drawn from the more than 1,500 situations to which CSP has responded in the Boston area in the last seven years.

The suicide cluster in South Boston. During the fall of 1996, CSP began working with youths in Boston because of their exposure to deaths of peers from violence or from drug overdoses. By tracking the drug overdoses and through information received from the youths, the staff became aware of multiple overdoses and of suicides or attempted suicides in three housing developments in South Boston. The staff visited those housing developments and found the situation was serious: dozens of youths, ages 14 to 20, were heavily using and sometimes overdosing (fatally) on drugs—heroin and cocaine, as well as prescription drugs. Others were becoming suicidal. Much of this chaos was witnessed by younger children in the neighborhood.

In the following months, the program staff worked with the Mayor's Office and community leaders in what proved to be a remarkably complex and challenging situation; there were more suicides and attempted suicides, and more deaths from drug overdoses, too. More than a hundred youths were hospitalized, and hundreds and hundreds more attended wakes and funerals of their friends over a period of 18 months, plunging the neighborhood into deep despair and hopelessness. The adults of the community were overwrought about the seemingly contagious effect of the suicides and about the rampant availability and use of drugs.

CSP, with the continuing support of the Mayor's Office, Metro Boston Department of Mental Health, and Massachusetts Association of Mental Health, provided the guidance to identify community leadership that would ultimately assist in resolving this grim situation. First, the CSP program provided three days of intensive training to 47 South Boston adults, thereby creating a team of local residents available to respond to survivors of suicide attempts, to witnesses to suicide attempts or actual deaths, and to friends of the victims. Over the next 18 months, this new team and CSP staff worked with children, youths, families, and neighbors in group meetings, the goals of which were to calm rumors, provide facts about the events, and develop safety plans for the children and youths. These plans were designed both to help adults identify behaviors that indicated the need to listen, to calm, and provide support, and to help the children and youths understand that there were people and places available for comfort, conversation, and assistance. They were thus encouraged to have experiences with trusted and trustworthy adults.

CSP staff worked with the media, with political and religious leaders, and with human services professionals in order to develop a consensus that publicity was worsening the situation and that the absence of it would help calm things down. The staff also worked to stop the "finger-pointing" and to persuade community groups to move proactively together to prevent more occurrences. These various constituencies worked together to assess the community resources and to determine what additional local programs were needed. New services were put in place, new approaches to the children and youths were developed, and the suicides and attempted suicides stopped.

Over the past six years, the community leaders and citizens have continued their efforts to bring the community together over the problems of their children and youths, to maintain the supports provided by families, friends, and neighbors, and generally to maintain the strengths of the community that were identified and built upon during the tragic period of the suicide clusters. Community leaders described the efforts of CSP as "bringing us out of Hell; bringing order from chaos; and saving the lives of hundreds of our children." High praise—though not, of course, a controlled experiment.

The bus accident of the Oak Hill Middle School, Newton. On the evening of April 26, 2001, 42 students and 5 chaperones left Oak Hill Middle School in Newton, Massachusetts, on a bus headed for Halifax, Nova Scotia, where they were scheduled to play in the Atlantic Band Festival. They planned to

arrive in Nova Scotia the next morning. About 4:00 a.m., as the bus approached Halifax, the bus turned onto an exit ramp, slid out of control, and hit a curb, turning over onto its side. Four children were killed instantly; two adults sustained serious, but not life-threatening, injuries; and the others were essentially unharmed.

The immediate responses involved many people. The injured were taken to the local hospital. The school's principal was called. Parents of all children were notified. The family members of the adults were called. Arrangements were made to transport family members to the scene of the accident in Canada. And arrangements were made to bring the children and adults home. The Royal Canadian Mounted Police and the adults on the trip organized these actions. There was an overwhelming outpouring of emotion—sympathy for the families of the victims and concern for the survivors—from across the Newton community. Tremendous leadership, technical assistance, clinical direction, and compassionate care were given by a number of senior psychiatric professionals from the local hospital (Newton-Wellesley Hospital) and from a psychiatric hospital (McLean Hospital) and a major (general) teaching hospital (Massachusetts General Hospital) in the Boston area. There was considerable media coverage of this tragedy that involved so many children—those who were killed and also those who survived.

Two days after the accident, the central office of the state's Department of Mental Health asked CSP to assist with the response efforts within the school and community. Many of the students, teachers, school administrators, parents, and others in the community were shocked about the accident and, of course, extremely distressed about the children who had died. It was anticipated not only that many students, but also many adults, would need help.

On the day after that, which was a Sunday, there was a meeting for school administrators, teachers, parents, mental health professionals, and community and religious leaders. The group began to develop a comprehensive strategy to deal with this tragedy and, in particular, to help the students return to school and cope with the loss of their classmates. Those at the meeting realized that this task was a daunting one—given the gravity and resource intensive demands of the situation. They asked CSP to partner with them and to provide centralized leadership for the trauma-specific assessment and for the development of an intervention continuum.

CSP oversaw the stabilization plan, which was implemented by its staff and the program's community partners. They focused on the following goals:

- to identify different groups that needed supportive services (Among the 12 groups identified were teachers, students who were on the bus, children who were supposed to go but did not, other students who knew the victims, the victims' parents and siblings, parents of the other children, and adult chaperones.)
- to provide overall stress-management activities for the 12 groups identified
- to provide support at the victims' funerals and wakes, and at the memorial service at school
- to identify those in need of counseling and to refer them to mental health providers
- to identify the various circles of survivors and to plan outreach, support, and stress-management activities for them

In the month and a half following the initial organizational meeting for the trauma-response effort, CSP provided 20 interventions, including support groups, resiliency-based psychological coping groups, meetings with school administrators to help them assume leadership roles over time, and classroom-based discussions. These interventions helped to keep the situation organized and calm. As the school year ended, there was considerably more stability, and both the students and adults were better able to cope.

The Program's Approach to Trauma Intervention

Using best practices. Between 1990 and 2003 the multidisciplinary staffs of CSP and CTP developed what has become a promising and effective, but still evolving, set of practices in community-based trauma response, as well as complementary protocols for assessment and intervention.[17,18] These advances were based on research studies, on tests of emerging, promising, evidence-based practices, on community-based trauma-specific clinical skills, and on a public health systems approach acquired from extensive experience responding to critical incidents ranging from the streets of Boston, to other urban centers in the United States, and to large-scale disaster, mass casualty, and war zones in the Middle East, Nepal, and Turkey.

The practice protocols utilized by CSP and CTP include carefully structured, group sessions utilizing a blend of systems theory, techniques from cognitive-behavioral, expressive, and play therapy, and mindfulness training.[19–22] We have designed these protocols to provide a continuum of care that is accessible to the community members and sensitive to each participant's gender, developmental stage, ethnocultural background, and magnitude of trauma exposure. We refer to the overall phase-oriented, intervention continuum as posttraumatic stress management (PTSM). Especially at the outset of an intervention, our protocols utilize portions of Mitchell's CISD model (discussed earlier), but rather than focusing primarily on disturbing or negative elements of the traumatic event, we take great care to build a sense of safety and stability at the beginning of our group sessions. We then

focus on phenomena that elicit the expression of, and that promote, the resiliency of the group members and of the community as a whole. In the process, we hope to identify, and plan for the utilization of, resources of one kind or another that support adaptive coping.

We provide four basic interventions (but are flexible enough to provide others, too, when needed) as part of CSP's continuum model of PTSM: orientation sessions, stabilization groups, coping groups, and individual and dyadic sessions. *Orientation sessions* can accommodate any number of participants and usually last 30 to 45 minutes. For instance, following the tragedy of 9/11, we provided PTSM for some 800 eyewitnesses at Ground Zero. Our very first intervention, however, was a single PTSM orientation session for all Ground Zero survivors (again, about 800). At such a session, survivors are oriented to the core components of traumatic stress sequelae and also to the range of services that are available to them under the PTSM continuum. *Stabilization groups* include 15 to 20 participants, last approximately 45 minutes, are usually conducted within three to five days of the incident, and focus on grounding and mindfulness techniques to reduce neurophysiological arousal secondary to the traumatic stress exposure. *Coping groups* can accommodate 10 to 12 participants; the sessions (typically two or three spread out over a period of weeks) last approximately two to three hours and focus on multiple strategies for adapting to the traumatic stress and loss. (Stabilization and coping groups are significantly transformed versions—distant cousins—of "defusings" and "debriefings," respectively, in Mitchell's CISD model.)[16] The *individual and dyadic sessions* are used at the outset as a means of assessing individual and, indirectly, group needs, and as a means of identifying those who will need more intensive interventions than those available in a group setting. Since the overarching goal is to provide whatever help is needed to each individual who participates in a PTSM program, we generally demand that individuals be willing and able to work with us, if necessary, over a period of weeks to months and that they commit to a minimum of three PTSM sessions (typically including both an initial evaluation and an orientation session).

All three of the group interventions—orientation sessions and stabilization and coping groups—are highly structured, theme based, and phase oriented, and each requires both a leader and co-leader. These sessions include the following phases: safety building; stabilization; identification of current access to support resources; nonverbal and verbal processing of the traumatic narrative utilizing exposure techniques from cognitive-behavioral therapy and also techniques from expressive therapy; psychoeducation regarding the neurophysiology of traumatic stress and the impact of psychosocial destabilization; the identification of internal and external resources that will appropriately assist in the progressive adaptation to the traumatic event; and a final phase focusing on immediate future planning for the survivor's self-care and resource utilization.

This PTSM program has always operated under a "golden rule" that, no matter what the geographic or cultural setting, those most affected by the traumatic or threatening event must be afforded an ongoing opportunity to play a central role in the resolution of, and recovery from, the trauma and its aftermath. In practice, this means that the members of the community involved—its leaders, healers, teachers, caregivers, and families, among others—should be empowered at the neighborhood level to respond to, and guide, traumatized or threatened members of the community. It also means that for such efforts to be effective, there may need to be programmatic, fiscal, and administrative support for these local responses—at least until the infrastructure for these efforts is stable and self-supporting.

Building a community network. To turn the golden rule of broad community involvement into a practical response, CSP has worked to develop in Boston an organized, ongoing, trauma-response infrastructure at the neighborhood level to address the needs of community members, especially children and youths, exposed to trauma. For this purpose, CSP has trained a cadre of people from the neighborhoods and schools to become part of CSP's trauma-response network and to function either independently or under the direction, and with the support and advice, of CSP—depending on the skill and comfort level of the individual, and also on the intensity of the traumatic event.

CSP staff train approximately 260 new people each year in an introductory training process, building practical skills that prepare trainees to assist with community interventions. In order to be qualified to handle the full range of PTSM interventions (see preceding subsection) as the lead person, responders who have completed the 20-hour basic PTSM training must continue to be credentialed through a series of advanced skill-building seminars, practice, and "live" responses. This extra training involves, at a minimum, an additional 30 hours of training, 14 of which require participation, under close supervision, in actual interventions during traumatic situations. The credentialed responders then complete four eight-hour, advanced training courses per year in order to keep their skills up to date. They also have the option of calling in CSP staff for backup help or advice. CSP staff tell the credentialed trainees that "we will work in front of you, by your side, or behind you"—however you feel comfortable. In the past four years, training has been provided to 1,040 individuals in Boston, and the group with advanced credentials—our neighborhood partners—has 100 members (20 licensed professionals, 35 school-based personnel, and 45 community youth workers) who form the network of those who can triage acute trauma scenes and take a leadership

role in collaboration with the Metro Boston Department of Mental Health.

The neighborhood partners—those with the advanced training described above—represent the Commonwealth of Massachusetts Departments of Mental Health, Mental Retardation, Public Health, Social Services, Youth Services, Probation, and Emergency Management; public and parochial schools; multiple departments within the Mayor's Office; public agencies; law enforcement; juvenile court; municipal, state, and national nonprofit agencies; emergency medical services; crisis-intervention teams; public housing authorities; private health/mental health providers; and faith-based organizations. CSP staff are available 365/24/7 to respond to traumatic events, and to bring in, as necessary, trained members of the trauma-response network.

Responding to a traumatic event. In the first 24 to 48 hours following a traumatic event, the work of CSP and its local network is to stabilize the situation by helping individuals or groups to feel safe. During this time period the community-based assessments are conducted, and very detailed reconnaissance is completed to ensure that the responding trauma team has the information—both facts and rumors—that it needs in order to function effectively. If invited by the community to help further, CSP is prepared to provide the full range of PTSM interventions described earlier.

Traumatic events that CSP staff most frequently respond to include: domestic violence; homicides (especially by youths); suicide attempts and completions (especially by youths); fatal car and school bus accidents; deaths of students from illness; gang violence; and hostage takings. The staff have also provided two years of specialized services, both in Boston and New York City, to the families and friends of victims killed in the 9/11 terrorist attacks. In some situations, the program provides direct interventions. In others, where there are trained community partners available, the staff may provide consultation, backup, and support. Through a pager system, the staff are connected to the Mayor's Office, Boston Police, state emergency-management systems, and International Red Cross Alert System, and it can be accessed by approximately 500 public and parochial schools, and by 1,000 community-based professionals who work in various capacities with youths.

EVALUATION OF THE PROGRAM

In the spring of 2003, the Massachusetts Department of Mental Health requested an independent review of CSP's program in PTSM in order to describe the program model and determine its impact. If the impact was judged to be positive, the Department of Mental Health would then want a study to clarify the essential elements, so that similar programs could be developed in other communities in the Commonwealth in order to provide interventions when traumatic events occur. Child and Family Program Strategies in Durham, North Carolina, Consumer Quality Initiatives, Inc. in Boston, and the Research and Training Center of the Florida Mental Health Institute undertook the study.

Methods

The study was conducted over a five-month period, between June and October 2003. The design was essentially that of a case study structured to capture PTSM's essential elements and to enable an assessment of program effectiveness, specifically through a three-component design: (1) a study of stakeholders in order to assess their views of the program, its impact on individuals and communities, and its quality; (2) a study of case records of interventions with individuals and community groups experiencing traumatic events in order to assess the breadth and depth of the interventions, the manpower and time required, and the effectiveness of the interventions; and (3) an assessment of the effectiveness of the training that was designed to create a cadre of people to assist with community interventions.

The stakeholders study. Structured interviews were conducted by one of two experienced interviewers with 29 community leaders and other stakeholders to gather their views of CSP's program in PTSM, its impact on individuals and communities, and its quality. An interview guide provided the topics for discussions. The questions addressed the relationship of the respondents to the program, their description of the services provided, their appraisal of the quality and usefulness of the services, and areas that needed improvement. The interviewees were encouraged to expand their answers, as needed. The interviewers did not provide prompts.

In deciding whom to interview from the list of potential interviewees, the goal was to achieve a broad, representative sample of the group. The categories of respondents were: political leaders, professionals/agency staff, religious leaders, community leaders, and recipients of services (i.e., family members, or friends of victims). There were 9 interviewees from this last category, and 20 (total) from the first four, including: a U.S. congressman; a state senator; a representative from the Mayor's Office; state mental health leadership; public and parochial school principals, counselors, and teachers; clinicians; probation officers; police; community agency heads and staff; leaders of several minority communities; and religious leaders.

The study of case records. There were 250 records of responses by CSP to traumatic events between August 1999 and June 2003. Each of the cases was assigned a number,

and a table of random numbers was then used to choose the random sample of 25% ($n = 63$) of the 250 case records. A case-extraction protocol was developed to capture the nature of the incident, the neighborhood in which the incident occurred, the number and range of interventions, the composition of the crisis-response team, the race/ethnicity and gender of the primary recipients of the intervention, and its major themes and outcomes.

The study of training. A questionnaire was administered by one of two experienced interviewers to 57 randomly selected subjects representing 5% of each of three categories: licensed mental health professionals, school personnel, and community youth workers. The interviewees had participated, over the past four years, in the CSP training seminars to learn how to provide PTSM interventions at the time of traumatic events. The trainees were chosen by selecting every fifth person from a list of all trainees in each category. If a person could not be located, his or her name was removed from the list, and the counting continued, selecting every fifth person until the full sample in that category was chosen.

The questionnaire was divided into five major sections: (1) level of training, both professional and through CSP; (2) experience with PTSM interventions; (3) experience with trauma response; (4) acquisition of knowledge and skills; and (5) confidence in ability to accomplish tasks in a trauma intervention. The questionnaire was constructed to include 35 items with either yes/no answers or a response to a checklist; 20 items with answers scored on a three- or five-point scale; and 20 items that were follow-up questions and were open-ended to allow for more discussion. The first two sets of questions were designed to determine whether the trainees learned what was intended, whether they retained this knowledge, whether they used this information to assist with traumatic events in their communities or their personal lives, and whether they found the training to be useful. The open-ended questions were used if the trigger questions were answered affirmatively. They sought descriptive data about the usefulness of the training, the kinds of situations that the interviewees felt they could handle as a result of the training, the kinds of situations that they did handle, how they used the training other than working with CSP, and what was missing in the training.

An additional assessment of the impact of training was made through reviews of the 1,616 evaluations provided by the participants in the training seminars and collected at the end of each of the trainings. Participants were asked to provide a global rating of the training on a 1–5 scale and to describe the changes that they would like to see in that particular course. These evaluations do not represent the views of 1,616 different individuals, since each person in the response network was required to take four advanced courses a year. In addition, this survey reflects an evaluation of the training immediately after the event; the formal, randomized survey described above, which can be administered as much as four years after the completion of such training, is a better measure of the training's long-term effectiveness. Since there were three different groups who had received the training, the differences among them were examined.

Findings

Stakeholder interviews. The interviews yielded responses indicating that all the respondents understood PTSM's goals and the way that the program operated. They all expressed a high regard for the program and thought it was useful to their community. The respondents described the program as having a substantial impact on the community.

In assessing the quality and usefulness of the program, four main elements were identified and discussed by the majority of the interviewees: the program's responsiveness, the visibility of the staff/network people, their responsiveness to ethnic differences, and the overall quality of the program. The elected officials and their staffs described the program, across the board, as the most effective program in the city of Boston for helping children deal with their problems.

With respect to the program's responsiveness, 26 of the 29 interviewees (90%) mentioned that CSP was able to respond around the clock and was ready to help, either with its own staff or with network people who had been trained. The interviewees reported that through the use of pagers and cell phones, calls would be quickly answered and handled in a calm and professional way. Of the 29 respondents, 23 (79%) mentioned that they had called for advice or assistance after normal working hours, and had felt comfortable doing so.

With respect to the visibility of the staff and the others on the network, the four respondents involved with a suicide cluster in South Boston—that is, two elected officials and two senior agency managers—indicated that the interventions had proved to be very instructive for them. They had learned that interventions in serious, life-threatening matters required "low-key, behind the scenes work—no publicity, no news coverage, no press, just hard work to help people develop a calm and sound approach to understanding their children better and opening avenues of communication with them." The officials had also learned that an important part of such interventions is to develop plans for how to work with the children at risk and to ensure that the services that they need are available and in place. Such planning was its own means of bringing comfort and calm, as well as a feeling of safety, to a crisis situation (which was not, the officials now recognized, the time for publicity or for taking credit).

Responsiveness to ethnic differences was another area in which the interviewees rated the program highly. Fourteen of them (48%) discussed how valuable the program's sensitivity to cultural differences had been. The respondents

noted that different cultures have different views of outsiders coming into their midst during a crisis, and that these differences were especially great with respect to attending funerals. The people interviewed indicated that the program's staff were respectful of cultural differences, understood how to handle these issues, conveyed their understanding of people's wishes and sensitivities, were reassuring that they wanted to provide support rather than to take over the situation (so that the community members would have no say in how the crisis was handled), and offered help in ways that were acceptable to the culture.

Respondents identified the most helpful or useful parts of the program as (1) providing direction to help communities to heal themselves; (2) helping the community to come together and handle the crisis; and (3) in the case of a suicide cluster, saving hundreds of children's lives. The interventions were described as calming and supportive, and the staff were described as being behind the scenes but thoroughly available when needed, and as unintrusive while helping the community unite to bring about healing. School leaders and others described the program as important in helping teachers and other caretakers of children to view them differently—that is, to understand that a child's behavior might be related to exposure to a traumatic event and be a reflection of suffering, rather than an indication that the child had a bad attitude, disrespected authority, or was simply mean.

Another aspect of the program reported as "most helpful" (by 12 of 29 respondents, or 41%) was that those working in the PTSM program attended funerals. The respondents who mentioned funerals indicated that they are important places to provide support, to identify those that need special support, and to gain understanding of the community's needs and resources. All 29 respondents discussed the PTSM program as providing outstanding services that "made a real difference in the community, made a real difference to the people involved." They indicated that it was very important and very helpful to have local teams trained to work with CSP staff or trained to work successfully on their own.

Only the respondent from the Mayor's Office noted an area that needed improvement. He said that he would like to see reports following each intervention, rather than just an annual report. He also noted he would, from now on, make just such a request of the program.

Case record review. A major purpose of the case record review was to establish if CSP provided a wide range of services to a broad and diverse population. For the 63 cases reviewed, CSP had responded to 11 different kinds of trauma incidents, including natural deaths, reactions to 9/11, assaults, vehicle accidents, homicides, and suicides. Homicides (21) and suicides (15) were the most frequent traumas to which CSP responded.

There were eight different kinds of intervention services reported in these case records. In most incidents a variety of interventions was used. Consultations, debriefings, and traumatic stress orientations were used in 25% of the cases, supportive services in 33%, and defusings in about 15%. In the majority of the cases, the interventions were handled by the community-based crisis-response network developed by CSP—that is, by CSP-trained community members, assisted by the CSP staff.

The sample of 63 case records indicated that the program served 19 different neighborhoods in Boston. Of the trauma-related victims in these cases, 28 were Caucasian, 22 African American, 18 Latino, 5 Haitian, and 6 Cape Verdean. These statistics likely underestimate the number of minorities served, as an additional 16 were listed as "other" and 10 were unknown. A third of the interventions involved more than one ethnic group.

The major themes that emerged in the case records were what would be expected in trauma situations. Most often reported were feelings of anger, sadness, disbelief, helplessness, guilt, and grief. There were also reports of concerns for the safety of those involved and, in the case of homicides, concerns that the violence would continue. Those responsible for organizations usually focused on whether there was anything that they could have done to prevent the incident and how they could help the recovery of those who were experiencing the trauma.

The short-term outcomes reported in the records were generally completed shortly after the initial incident and thus reflect activities that were very focused and immediate. They include, for example, plans for further debriefings and counseling, and how an organization should change its rules and procedures (e.g., after a drowning at a public swimming pool) to make things safer. On the individual level, the outcomes typically concerned the next steps to take, such as developing a self-care plan, following up on a referral for more intensive support, identifying other resources, or expressing gratitude to the team for their support and help.

Trainee survey and trainee evaluations. For the training evaluations reviewed from a four-year period ($n = 1{,}616$), the ratings were extraordinarily high, averaging 4.7 on a 5-point scale. For the randomized study sample of 57 interviewees, the ratings from the formal structured interviews were equally high. Randomized respondents reported learning skills about interventions that mirrored what the training program intended to teach. One would expect that mental health professionals, who might well have had explicit training in trauma, would react differently to the training than would school personnel or community youth workers. The three groups were remarkably consistent, however, in their responses, which evidenced few striking differences.

According to the respondents, the vast majority of them (88%) had received the basic training only, with 12% taking one or more advanced trainings from CSP. Of the entire group studied, 75% reported having minimal involvement with the center since the training; 16%, moderate involvement; and 9%, extensive involvement. These reported levels of involvement, which did not vary across the three groups of trainees, correspond closely, overall, to the actual number of trauma interventions in which respondents had been involved (with CSP and its staff) since completing their training: 77% had been involved in no intervention; 7%, in 1; 7%, in 2; and the remaining 9%, in 3 or more. It should be emphasized that in this context, "involvement" means participating as a member of the lead response team during a formal intervention with CSP and its staff.

Even though the large majority of trainees did not frequently participate in interventions by CSP, the amount of information and skills learned, as well as the level of retention, was very high. Ninety percent of the trainees reported that they learned and retained information and skills for handling traumatic events. Eighty percent reported that they were confident about leading discussions in all eight areas of trauma response with groups gathered after a traumatic event. Ninety percent reported that they were somewhat to very confident about handling eight of the nine tasks essential to handling trauma, including (1) being part of the trauma-response team, (2) identifying those who need trauma support, (3) being able to lead a trauma-incident orientation session, (4) being able to provide grief support, and (5) understanding their own self-care when helping those exposed to trauma.

The vast majority (89%) reported that, after being trained, they had responded to traumatic incidents in many settings other than a formal intervention with CSP. Even in such cases, however, interviewees reported seeking assistance from CSP in the form of a telephone call, whether as a source of support and confirmation for what they had done, or as a backup resource. A large majority (80%) said that they believed that their communities were better prepared for a traumatic event as a result of their training. When asked whether the training was beneficial to (1) friends and family, (2) the workplace, and (3) their own community, a high percentage of respondents (70%, 90%, and 56%, respectively) answered in the affirmative.

Discussion

This study involved the collection of new data through the interviews with stakeholders and the randomized survey of trainees, and it also organized existing information from randomly selected case records. Given the kinds of information available in the study, there is remarkable consistency across these three data sources—all of which indicate that CSP's program in PTSM is effective. The effectiveness is seen in the reports that CSP helped communities to handle crises and in its having trained a network of local people to lead or assist with the interventions.

Central to the program's effectiveness is CSP's understanding of the issues related to the trauma experience, and its knowing what to do and what not to do. This knowledge can be, and is, taught to others, who augment the CSP staff. As a model for services that are needed on an irregular basis, this model works well. It seems very likely that this model can be overlaid on existing human services programs (with proper training, and with proper backup and support) until a trauma-response network, as described in an earlier section of this article, is locally in place and has become stable. In a number of instances, the training received from CSP has had a broader impact on communities and organizations. Interviewees commented on how they had used the training received as a basis for reconsidering how their organizations operated. For example, several community leaders commented that it had helped them to change the way that their organizations interacted with others in their communities.

Posttraining data from the whole population, as well as the information from interviews with randomly selected trainees, are consistent with the stakeholder interviews and demonstrate collectively that the training was successful and that it remains useful even years later. The overarching aim of the training program was to develop the capacity of mental health professionals, school personnel, and community youth workers in Boston to assist or lead trauma interventions. The particular goals were threefold: (1) to extend the response capacity of a modestly sized staff, so that they can effectively work throughout the city, as need arises; (2) to increase the availability of trainees within schools and neighborhoods, where they can respond to traumatic events, with or without the backup of CSP; and (3) to ensure that trainees understand the ethnic/cultural aspects of the community, so that assistance can be provided in a culturally responsive manner. The study shows that these goals were met—that a wide network of people exists to meet the threefold purpose of the program. The survey of trainees indicates that the information and skills to be imparted during the training were learned well, retained, and put to use in assisting others during trauma events. The evaluation indicates that training produces individuals in the community who can participate in trauma/crisis responses as incidents occur, thus augmenting the work of the CSP team and bringing knowledge of the community to CSP.

Limitations of the evaluation. As the first attempt to measure the effectiveness of CSP's program in PTSM, this study has focused on primarily qualitative assessments. Although promising trends are illustrated, the evaluation

methodology has some limitations, most notably that there was no comparison or control group, no use of standardized and validated assessment instruments, and no analysis and presentation of quantitative client-outcome data. Future evaluations of PTSM and its community-based continuum approach will need to include further randomization, a control group, and some standard measures that assess client change before and after the interventions. The nature of the case records limited the ability to evaluate the program's long-term effectiveness. For example, the program provided for individual counseling in conjunction with the formal interventions, but the impact of individual counseling was not captured in the case records, which were completed almost immediately after the incidents in question. In this respect and others, the case records do not take into account the longer-term or broader outcomes of the interventions.

Conclusion

In the wake of 9/11, threats, stress, terrorism, and trauma have become everyday concerns. But even before the startling psychological impact of that day, communities across the country had been struggling with trauma in many forms: school, community, and family violence; child abuse; the sudden violent deaths of children and adolescents; and man-made and natural disasters. Trauma psychology has developed as a specialized field in order to study human responses and develop ways of handling these responses. As in any new field, there is much work to be done to clarify theories and the practical applications of these theories, and to scientifically test models of best practice. The model presented here has evolved through practice, based on current knowledge. It has achieved some face validity and, through an initial evaluation, the beginnings of validation of its worth.

It is important to build on this initial study, to consider how future studies should approach the impact of community "healing" in times of psychological trauma, and to determine what form of psychological first aid works best. One crucial comparison concerns the effectiveness of psychological first-aid interventions conducted as a series of sessions versus those conducted via one-time "cure-all" sessions. Consideration should be also given to assessing the effectiveness of a series of developmentally appropriate and culturally enhanced interventions that are highly structured and carefully controlled. Based on current theory, such studies would increase knowledge about (1) whether efforts to monitor and contain the processing of trauma yield positive results, and (2) whether behavioral action plans will not only assist survivors to modify their adaptation to the stress event progressively over time, but, more generally, promote the practice of positive coping strategies in the context of a clearly defined social network. It is important to increase the understanding of what works, for what reasons, and with whom. Doing so is no mere matter of advancing scientific knowledge. Communities need to be prepared for traumatic events, and professionals need to be knowledgeable about how to help them. The responses of professionals should be based on sound knowledge of what helps, what does not help, and what potentially causes harm. A partnership between science and practice is most important in this search for valid and practical responses to individual and community needs.

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