Critical Incident Stress Management: I. Interventions and Effectiveness

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A critical incident is any event that threatens to overwhelm a person's ability to cope or that produces unusually strong emotional, cognitive, or behavioral reactions in the person experiencing it (1). It is commonly accepted that certain professions, by their very nature, place personnel at risk of experiencing critical incidents. Professions considered most vulnerable generally include fire and emergency medical services, the military, and law enforcement. Recognition is growing that health care professionals, especially emergency department staff, are at risk for experiencing critical incidents (2,3). Commonly accepted risk factors characterizing such events have been identified (see box) (1–4).

Critical incident stress management refers to a number of techniques designed to provide early intervention and supportive services to professionals who have experienced critical incidents. Programs universally include mental health professionals to help guide peer training, provide consultation, and engage in one-on-one and group interventions.

Mental health professionals who work in emergency settings appear particularly well qualified to provide such consultation. They are trained to assess people for traumatic reactions and provide crisis intervention, skills that are vital in successful critical incident stress management. Moreover, their familiarity with the work environment of the emergency department and the dynamics of emergency situations allow them greater perspective and greater potential for developing rapport with emergency workers.

In this column we describe the basics of critical incident stress management programs and review the research on their efficacy. In the December issue we will describe the steps for developing such a program for an emergency department.

Critical incident stress management

The most widely recognized model for critical incident stress management is based on the work of Mitchell and Everly (1,4). The following is a summary of the Mitchell-Everly model.

♦ The premise of the model is prevention. Proponents believe that if a plan is developed to identify critical incidents when they occur and to address reactions early, more severe reactions such as posttraumatic stress disorder (PTSD) can be minimized or avoided.

♦ Programs should be flexible enough to accommodate the needs of the organization, a variety of incidents, and the personnel involved.

♦ Programs should involve peer leaders—for example, firefighters, police officers, and nursing staff—who have been formally trained in the principles of critical incident stress management as well as mental health professionals such as social workers, psychologists, and psychiatrists. Also, clergy are often included.

♦ Techniques include education, informal peer support, family support, one-on-one support, demobilizations, defusings, and debriefings, all discussed briefly below. Although debriefings are often what a critical incident stress management program is most noted for, an effective program should foster a more comprehensive approach using all of the techniques.

Education may include formal workshops or inservice training on traumatic stress management as well as handouts, columns in organizational newsletters, and books and journal articles.

In informal peer support, peers informally discuss an event, their thoughts about and reactions to the event, and how they are coping. Most of the support provided daily in most work settings is of this type. A program should encourage informal peer support networks and help teach personnel how to maximize the effectiveness of the support they provide.

Family support can be accomplished through formal family gatherings called after a particularly traumatic event—for example, line-of-duty injury or death—to allow the family members of emergency department personnel to learn what happened, express their concerns, and receive support from other family members. This support can also be provided informally through departmental social events such as parties, awards ceremonies, and spouse appreciation nights.

One-on-one support is also provided by a mental health professional—and a mental health professional is a required component of any program. This professional can often provide

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Risk factors for critical incidents

Multiple or mass casualties
Distraught relatives or bystanders
Physically demanding or prolonged incidents
Line-of-duty deaths or injuries
Victim(s) known to provider(s)
Events with high media coverage or community impact
Extreme injury, deformation, burns
Pediatric injury or death
Risk to the health care professional's personal safety
Coworker involvement
Belief of failed responsibility, guilt
Coworker suicide

one-on-one assessment and intervention, particularly if the incident affected only a small number of people.

Demobilizations, used only during mass disasters involving a large number of emergency response personnel, consist of having peer support and mental health professionals on-scene to provide education and a transitional period for emergency response personnel. After personnel are released from active duty, but before they return home or to normal duty, they are assembled and given information that might help them understand and manage their stress reactions. They are also given a brief period to eat and rest before they return to their normal routines. Demobilizations usually last 20 to 30 minutes. One-on-one support for personnel involved in rescue efforts who show signs of stress reactions also may be provided.

A demobilization is not a group process in which personnel talk about their reactions, as occurs in defusings and debriefings. Peer supporters and mental health professionals are present at demobilizations primarily to provide education, moral support, and early identification of individuals who are at risk of developing reactions later.

Defusing is a group process conducted within eight to 12 hours after the event. It is conducted away from the scene in order to reduce interference with ongoing activities related to the event and to allow the personnel being debriefed to be undistracted. The groups are kept fairly small, with three to eight people, and brief, running 20 minutes to an hour.

The debriefing is also a group process conducted after the event, generally within 12 to 48 hours, and it never takes place at the scene. It is conducted in greater depth than the defusing and can last up to three hours. Ideally, it is led by a peer leader with training in the debriefing process and who is supported by a mental health professional and, in some cases, a clergy member.

Does it work?

We were able to identify few published studies that actually investigated the effectiveness of critical incident stress management programs, and we found no published randomized, controlled trials of this type of intervention. None of the studies have evaluated a comprehensive approach; all available research targets debriefings specifically.

Perceived helpfulness and value

One of the most often cited studies evaluating the perceived helpfulness of debriefings described the opinions of 172 emergency service, welfare, and hospital personnel in Australia (5). Subjects reported that the debriefings were of considerable to great value to themselves and their peers. The greater the impact the event had on subjects, the more likely they were to value the debriefings. Seventy-seven to 96 percent of the subjects reported that the debriefing had contributed to a reduction in their stress symptoms. The effectiveness of the debriefing seemed to derive primarily from affording subjects an opportunity to talk about the incident and to develop an increased "understanding of one's self."

Criticism of the debriefing process centered primarily on procedural concerns, such as exclusion of some persons who should have been present, the length of the debriefing session, and ineffective leadership.

Similarly, Burns and Harm (6) studied emergency nurses' perceptions of critical incidents and stress debriefings, finding that the majority (88 percent) of those who had participated in a debriefing found it helpful in reducing their stress reactions. Other studies reported similar positive evaluations of debriefings (7–10).

Symptom reduction

Despite the generally favorable view of debriefings, studies that have actually compared persons who have been debriefed with persons who have not been debriefed have not found evidence of a protective effect or reduction in symptoms of distress (8,9, 11–13).

Kenardy and colleagues (9) studied 195 emergency service personnel and disaster workers after an earthquake in Newcastle, Australia, 62 of whom were debriefed and 133 of whom were not. Assessments of symptoms of psychological distress and of PTSD were taken 27, 50, 86, and 114 weeks after the event. Results suggested that distress tended to decrease over time for both groups. Subjects in the debriefing group did not report significantly fewer symptoms than those in the nondebriefed group at any point after the event. In fact, they tended to show the opposite pattern: debriefed subjects showed less improvement than nondebriefed subjects.

The Kenardy study did not provide evidence in support of symptom reduction or a protective effect of debriefings, even though debriefed subjects rated the value of the debriefings positively. The major limitation of the study, however, was that the groups were not randomized. Furthermore, the groups differed significantly in demographic characteristics—the debriefed group was more likely to be female and had more education on average—as well as in occupational characteristics—the debriefed group was more likely to have

higher occupational prestige, to have participated in nonthreatening situations, and to be employed as counselors and coordinators of services. Although the groups did not report different levels of event-related stress, it is possible that the debriefings were not conducted randomly and that some selection criteria that may have confounded the interpretation of the results were used.

MacFarlane (13), studying firefighters responding to a bushfire disaster, found that debriefings were associated with reduced acute posttraumatic stress but increased delayed posttraumatic stress. Hytten and Hasle (8) studied firefighters who responded to a hotel fire and found no difference in distress and psychological symptoms between those who had been debriefed and those who had not. A study conducted on troops responsible for burying the dead in the Gulf War found that although participants valued the debriefings, the debriefings appeared to have no significant effect on their psychological adjustment nine months after their tours (11).

Leonard and Alison (12) studied how debriefings affected coping and anger among a sample of Australian police officers involved in shootings. They found that the group receiving debriefings showed significant reductions in anger levels and greater use of some specific adaptive coping strategies. However, whether an officer was debriefed was correlated with several other factors that could have accounted for these favorable differences. For example, the debriefed group contained a higher proportion of officers involved in incidents in which someone was shot or killed. Hence it is not known whether the effect was due to the debriefing or resulted from the nonrandom manner in which debriefings were conducted.

Other researchers also have found that debriefing is not a random event but is associated with the severity of the event (10), suggesting that research that does not use random assignment may be critically flawed.

Conclusions

Certain aspects of crisis incident stress management, such as debriefings, have generally been favorably reviewed by participants. However, published research provides little direct support for the efficacy of the approach, perhaps in part because of methodological flaws in study design. Despite the lack of evidence, this type of intervention continues to enjoy widespread support.

Emergency mental health professionals appear well suited for providing critical incident stress management consultation because of their training and the milieu within which they work. Persons interested in participating in such programs, either in emergency departments or organizations they work for or on a broader scale with other organizations in the community, are encouraged to seek formal training in critical incident stress management. ♦

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