

Critical Incident Stress Debriefing (CISD): Efficacy in Question

Katherine Barboza, B.A.¹

When a person experiences a traumatic event, s/he may have a strong emotional reaction. This reaction may disrupt the person's ability to function at the scene of the incident or later, and may range from a normal stress response to the symptoms indicative of Post Traumatic Stress Disorder (PTSD). Psychological debriefing is an immediate intervention used following a traumatic experience that purportedly helps individuals manage their normal stress reactions to the incident. Critical Incident Stress Debriefing (CISD) was designed for workers in high-risk occupations, such as police officers, disaster workers, and firefighters. Critical Incident Stress Management (CISM) is a multi-component intervention system that incorporates CISD. The use of this intervention has been expanded to individuals, groups, and com-

1: Department of Psychology, The New School for Social Research, New York, USA.

Address correspondence to Katherine Barboza, barbk846@newschool.edu

munities. While this intervention has been used extensively following traumatic events, its efficacy is under much debate. Currently, there is a controversy regarding the issue of whether it helps with initial distress and if it does, in fact, prevent post-traumatic symptoms. This review is limited to studies assessing emergency response workers, as critical incident stress debriefing and management was originally designed for this population.

Psychological Debriefing

Although many people experience acute stress-related symptoms in the wake of a traumatic event, only some develop Acute Stress Disorder (ASD), PTSD, or both. PTSD symptoms include an intrusive re-experiencing of the event, avoidance and/or numbing behaviors, and increased physiological arousal (American Psychological Association, 2000). The search for effective emergency mental health intervention has been controversial as there has been a growing awareness and understanding of psychological trauma and its effects. Crisis intervention has emerged as a method for providing urgent psychological support after a traumatic event. Intervention techniques can be primary, reducing the frequency of traumatic events, or secondary, delivered shortly after the traumatic events occur. Psychological debriefing is a secondary strategy for prevention of PTSD, depression, and other post-traumatic psychological sequelae. It is designed to mitigate distress and prevent post-traumatic psychopathology. Litz, Gray, Bryant, and Adler (2002) explain that this debriefing technique was developed during World War I. Following a major battle, commanders would debrief the soldiers. The aim was to boost the soldiers' morale by having them share stories about what happened during battle. This debriefing was used by American troops in WWII and is now used by the Israeli army (Litz et al., 2002).

Critical Incident Stress Debriefing (CISD)

In 1983, Dr. Jeffrey Mitchell, a former firefighter and paramedic, proposed that a similar approach might diminish stress reactions among emergency workers, such as firefighters, emergency medical technicians, and police officers (Dyregrov, 1997). He drew a parallel between the combat stress soldiers felt on the field to the stress that emergency service providers felt in the wake of a traumatic event, stating that emergency service personnel were not impervious to trauma. He referred to these events as "critical incidents" and he developed the widely used method of CISD. He believed that the mental health of the emergency personnel would be best served if they were provided with a structured session that enabled them to talk about the event and their emotions. Further, it would be more beneficial to have such a session in the company of their peers who had experienced the same event (Bledsoe, 2003). The hypothesis behind CISD is "that the cognitive structure of the event, such as thoughts, feelings, memories, and behaviors, is modified through retelling the event and experiencing emotional release" (Bledsoe, 2003). This, in turn, mitigates the psychological consequences of the traumatic event by reducing the symptoms of acute stress and lowering the risk of ASD, PTSD, and depression.

Since its development as a "group processing technique" for relieving occupational stress in emergency workers, CISD has expanded and evolved (Reyes & Elhai, 2004). It was embraced as a preferred technique for stress management and has been mandated in some police, emergency care, and fire departments in the United States and internationally (Reyes & Elhai, 2004). Mitchell founded the International Critical Incident Stress Foundation, Inc. (ICISF), which was established to promote CISD and assure a high quality of training. The ICISF manufactures and distributes training manuals and videos and sponsors workshops and seminars about CISD.

Critical Incident Stress Management

CISD has expanded to become "Critical Incident Stress Management" (CISM), which offers a more comprehensive approach to debriefing and stress management. It is a multi-component crisis intervention program whose purpose is to "reduce the incidence, duration, and severity of, or impairment from, traumatic stress" (Everly & Mitchell, 1999). CISM incorporates additional methods, such as pre-incident training, where people with high risk occupations are educated about common stress reactions. CISM also includes one-on-one individual crisis support, where a counselor may provide psychological distance between the scene of a trauma and the person in distress by taking him for a walk or get him a cup of coffee. Techniques like demobilization and defusing are also taught. In demobilization, a practitioner provides food and information about coping and stress to large groups of emergency workers as they rotate off duty. In defusing, small-group intervention takes place within twelve hours of a traumatic event. Participants are asked to explore and discuss the incident and their emotional reactions. Defusing is incorporated in the teaching phase of CISD (Linton, Kommer, & Webb, 1993). There is a family support component in CISM where family members of the emergency personnel are also debriefed. There are additional procedures for referring people for psychological services (Everly & Mitchell, 1999).

The terms CISD, CISM, and psychological debriefing are used interchangeably throughout the literature. This can become confusing, but the order of the terms and how they relate to each other is very simple. CISD is a type of psychological debriefing used specifically after critical incidents, such as natural disasters and crimes. CISD is a key component in CISM, which incorporates additional techniques. Some researchers speak of psychological debriefing while also citing Mitchell's phases and protocol. This implies that the type of psychological debriefing they

are discussing is CISD. Throughout this review, the terms will be discussed as they were distributed in the literature.

The Controversy

CISD and CISM have become increasingly popular since their conception in the 1980s. However, there has been much debate regarding their effectiveness in preventing PTSD symptoms and other psychological sequelae. According to Cannon, McKenzie, and Sims (2003), Wessely, a supporter of the intervention, has claimed that "when facing disasters, all of us must feel the need to do something...that talking about trauma must be better than 'repressing' or 'bottling-up'" and that "many people who have been debriefed report the experience in a positive fashion." Some researchers claim that most people who receive debriefing find it helpful (Carrier, Voerman, & Gersons, 2000). However, as several critics of CISD have argued, finding it helpful does not equal preventing psychopathology or even reducing PTSD. While Mitchell and other advocates of the intervention argue that the "experiences of 700 CISM teams in more than 40,000 debriefings cannot be ignored" (Everly & Mitchell, 1999), some studies suggest that the debriefing process may be not only ineffective, but may cause harm by potentiating PTSD symptomology (Cannon, McKenzie, & Sims, 2003). Given the conflicting findings, is it ethically justifiable to employ this intervention in light of evidence indicating not only that it does not reduce posttraumatic stress, but that it may also cause harm?

Evaluating CISD

The efficacy of this intervention should be gauged by comparing the outcomes for people who received the intervention with people who did not receive the intervention. However, empirically evaluating the effectiveness of crisis intervention programs is complicated. Acquiring control groups may prove to be difficult,

because practitioners may be reluctant to randomly assign a worker to a no treatment group. Doing this means preventing some workers from potentially getting psychological help. Randomization may also not be possible if organizational regulations require that all emergency response personnel participate in the critical incident intervention. In this case, people cannot be randomized to a control or "no treatment" group. It is also difficult to get a baseline of the workers' premorbid functions and stress level as pre-trauma assessments are not usually done. Further, the unpredictability of traumatic events makes it difficult to "plan" a crisis intervention study. Researchers may have a difficult time writing a sound research proposal and getting consent from workers within a small window of time (CISD should be implemented shortly after the critical incident occurs).

While it is difficult to conduct Randomized Controlled Trials (RCT), a number of clinical studies have been conducted on the efficacy of CISD and CISM. Studies providing evidence that CISD does work, studies providing evidence that CISD has no effect, and studies indicating that CISD may actually perpetuate pathological symptomology will be presented here, but will be restricted to studies involving mostly emergency response personnel.

Supporting Evidence for CISD

Jenkins (1996) evaluated CISD conducted among paramedics and emergency medical technicians involved in a mass shooting. CISD took place within 24 hours of the response call to the shooting. She administered questionnaires to 36 workers at two time periods. The first period was 8 to 10 days after the shooting, following 3 successive 24-hour shifts. The second period was a one-month follow-up, 29 to 30 days after the shooting. She evaluated symptoms via semi-structured interviews, the symptom checklist 90-R (SCL-90-R), and a psychosomatic distress questionnaire. At

Time 1, workers in the CISD group reported significantly fewer feelings of helplessness. At Time 2, Jenkins found that the strongest decrease in anxiety and depression symptoms were seen in the CISD group. Approximately half of the people who attended the debriefing spontaneously indicated that it helped them cope with the incident. Although Jenkins (1996) concludes that her study shows "the apparent usefulness of CISD for reducing symptoms of depression and anxiety over the month after the incident" there were a number of limitations including a small sample size, the lack of random assignment, and no ratings of premorbid functioning.

Chemtob, Tomas, Law, and Cremniter (1997) evaluated whether CISD reduced disaster related distress caused by Hurricane Inicki in September of 1992, on the Hawaiian island of Kuauai. Participants were separated into two groups. Group 1 consisted of local staff members of a temporary post-disaster counseling project who had no prior counseling experience ($N=25$). The second group was made up of experienced counselors who worked at the local mental health care center ($N=18$). Both groups were assessed before and after participating in a debriefing group. They were asked to complete the Impact of Event Scale (IES), which quantifies the effects of severe stress experiences. Group 1 was debriefed 6 months after and Group 2 was debriefed 9 months after the event.

The results of this study suggest that post-traumatic intervention may have contributed to a "substantial reduction in hurricane-related distress." Chemtob et al. (1997) found a decrease in IES scores from pre- to post-treatment in both groups. Results of an ANOVA indicated that there were no significant differences in treatment effects in relation to the clinical status of the groups.

Throughout the literature, Assaulted Staff Action Program (ASAP) has been cited frequently in support of CISM. ASAP was

developed by Flannery in 1990 (Everly, Flannery, & Eyler, 2002). ASAP is a voluntary, system-wide, peer-help, crisis intervention program for staff victims of patient assaults (Flannery, Anderson, Marks, & Uzoma, 2000). Whenever a staff member is assaulted, a trained ASAP clinician (recruited from the staff) immediately runs a one-on-one debriefing with the victim. The clinician assesses the staff member's sense of emotional control, social support, and ability to reflect on what happened. The clinician then contacts the victim again 3 to 10 days later. If the victim needs further intervention, the victim is referred to a support group comprised of staff members who are also coping with an assault made by a patient. Flannery states that if an assault is severe enough, it may warrant a group debriefing for all the staff. The program includes individual crisis counseling, debriefing, a staff victims' support group, family counseling, and a referral service (Flannery et al., 2000). Since its inception in 1990, the program has been implemented in several community residences, in a rural acute-care facility, and in an urban hospital in Massachusetts. Flannery and his colleagues have run several retrospective studies to evaluate the success of the program via the rate decrease of patient assaults. In a review, Everly, Flannery, and Ehler (2002) show that since the implementation of the programs, assault rates have declined, sometimes significantly in one year. They claim that the decline in assaults is indicative of CISM's effectiveness. In addition, the authors claim that victims of all of the facilities welcomed and benefited from the program's intervention (Flannery et al., 2000).

However, these findings must be interpreted with caution. Flannery has yet to provide empirical evidence supporting the program's capacity to attenuate post-assault stress symptoms. Moreover, the findings were not based on RCT's and did not incorporate control groups, which makes it difficult to assess whether the decline in violence in the mental health facilities was due to implementation of ASAP or other variables. Flannery and

his team did not take into account that the presence of a program alone might play an important role in discouraging patients from assaulting the staff. Furthermore, they did not discuss the dynamics of the staff, if there had been any turnover, or if there had been a change in their attitudes towards the patients (which would then have an effect on the patients' attitudes). The authors recognized the need for improved and standardized outcome measures as well as "refinements in operational definitions of traumatic events" (Flannery et al., 2000). Although violence rates have declined since ASAP started at all of the sites, the underlying reason why remains unclear.

Leonard and Alison (1999) investigated appraisals, coping behaviors, and symptom outcomes in a control group ($N=30$) and a debriefed group ($N=30$) of Australian police officers following shooting incidents. Participants who voluntarily participated in the CISD were matched with officers who chose to not participate in the CISD. In some cases, a firearm was directed at the officer and in other cases the officer was simply present at the time of the shooting. No differences were found between groups on these factors. Both groups received a questionnaire in the mail that asked for the officers' demographics, details of the shooting incident, and what kind of support they had experienced (from the police department or from their family, peers, friends). The Coping Scale, the State-Trait Anger Expression Inventory (STAXI), and four scales measuring anger management were administered to both groups (post debriefing for the intervention group). Interestingly, the control group scored higher on state and trait anger and angry temperament scales. Results indicated that the group that had participated in the intervention showed a significant reduction in anger levels and a greater use of adaptive coping strategies. However, Leonard and Alison have cautioned about how to interpret these results. They stated that over two-thirds of the control group participants were overlooked by the department as needing intervention and received less help from

their colleagues. The control group was also significantly less satisfied with the department. Any of these features could have contributed to elevated anger levels. Another finding worth noting: Despite the fact that the debriefed group showed reduced anger levels, many of the officers did not perceive the intervention as useful. Over half commented that CISD did not change the way they coped with the incident. However, some comments made by the group suggested that the quality of the CISD offered was poor. Limitations include a lack of randomization and a lack of pre- and post-intervention comparisons.

Evidence Against CISD

Bisson, Jenkins, Alexander, and Bannister (1997) designed an RCT to evaluate the effects of debriefing on a group of hospitalized burn victims. All of the victims were given questionnaires to assess the severity of their burns (percentage of body burned and pain index). They randomly assigned 57 participants to a debriefing group and 46 to a control group. The researchers followed Mitchell's (2003) protocol. The debriefing session was scheduled 2 and 19 days after hospitalization. Although at the 3-month assessment, there were no differences between the two groups, by 13 months PTSD rates were significantly higher in the debriefed group than in the control group. The debriefed group also had significantly higher scores on self-reports of PTSD, anxiety, and depression. It is interesting to note, though, that this group scored slightly higher on these self-ratings prior to randomization. However, the differences remained significant even when the researchers controlled statistically for baseline severity. The debriefed group also scored significantly higher on one measure of the burn severity questionnaire, but there were nonsignificant trends on four other severity measures. This suggests that the debriefed group overall may have also had more severe trauma. The authors wondered if the increased rate of PTSD was due to higher questionnaire scores in the debriefed group, the possibili-

ty that debriefing made them worse, or if it was just chance. While they could not draw a solid conclusion they did advise that debriefing be discontinued until further evidence of its efficacy was provided.

Hytten and Hasle (1989) designed one of the earliest RCT's employing Mitchell's (2003) CISD methods. The study evaluated the stress reaction of 115 professional and non-professional firefighters who had been involved in a large hotel fire in Norway in September of 1986. Three days after the fire, the investigators gave the firefighters a self-report questionnaire that inquired about their background, training, and if they had suffered any physical strains or any stress reactions during action. They were also given the IES. The firefighters were given two weeks to return the questionnaires. In this group, 47% described this fire as the "worst experience they ever had." Of the 115, 39 firefighters volunteered to attend the CISD session, which was held two weeks after the incident.

Out of the 39 men, 38 stated that the debriefing was helpful "to some degree" or to a "higher degree." Further, 26 of the firefighters claimed that the effort had been "professionally useful" and that their self confidence had increased. Nevertheless, their scores for intrusive thoughts and avoidance behavior, measured by the IES, were no different from the scores of the group who had not gone to the debriefing. Hytten and Hasle also found that, despite how highly stressful the incident was rated by the firefighters, the frequency of disturbing stress reactions following the incident was low across both groups. They discovered that those firefighters who had not attended the CISD intervention talked to their colleagues informally, which may have served the same purpose as the formal debriefing. Hytten and Hasle also questioned just how extreme this fire was despite the high ratings on the stress scale, since 90% of the hotel guests survived. It is also possible, though the authors did not make this point, that the

high rate of rescues may have buffered the firefighters' subsequent traumatization by giving them a sense of competence and alleviating the initial stress reaction.

The Federal Emergency Management Agency (FEMA) headed a three-year study on the effectiveness of CISD as an intervention for traumatic stress in firefighters (Harris, Baloglu, & Stacks, 2002). The purpose of the study was to measure the relationship between CISD and a variety of mental health issues, including PTSD symptoms, depression, anxiety, world assumptions, and coping strategies/resources, in a large, diverse sample of firefighters. Of 1,747 firefighters who had completed the survey, 660 met selection criteria of having completed the survey correctly and reporting stress from an incident in the course of their work. Of this group, 264 had attended one or more CISD sessions associated with the reported incident. Harris and colleagues randomly selected the 396 participants who made up the "non-debriefed" control group. Both groups were given a series of self-report questionnaires during a single session.

There were no significant differences found between the groups on any of the measures. The researchers found a weak inverse relationship with negative affectivity, namely depression and anxiety. They also found a weak positive correlation with positive world assumptions, namely beliefs about the benevolence of people and self-worth. No relationship was found between CISD and PTSD. The researchers concluded that there was no evidence in support of a direct relationship between debriefing and coping skills or traumatic stress. Although they did not discuss limitations, it is worth noting that this study suffered from a few flaws, including a lack of pre-trauma baseline ratings, the reliance on self-reports, and a the lack of measure indicating the severity of the trauma each firefighter experienced. Also, Harris et al. did not indicate what the time frame was between each participant's experience and their CISD intervention, or between the interven-

tion and the time of this study. Participants' scores may have had a direct relationship with how much time passed since the incident.

Carlier, Voerman, and Gersons (2000) tested the idea that debriefing might reduce posttraumatic symptoms if offered as a multiple-session intervention (as Mitchell had intended CISM to be employed) to police officers who had experienced a traumatic event in the line of duty. They conducted three debriefing sessions, one at 24 hours, one at 1 month, and one at 6 months after the incident. Their intervention also included a traumatic stress education component. Due to police regulations, randomization was not possible, so the researchers formed a control group of officers ($N=75$) who had undergone trauma before debriefing techniques were introduced. They pulled the data of this group from a study they ran in 1997. This group became an "external control group." They compared the external control group to a sample of 86 officers who had been debriefed and to a sample of 82 officers who had declined CISD. Scales used in this study included the Self-Rating Scale for PTSD (SRS-PTSD), Peritraumatic Dissociative Experiences Questionnaire (PDEQ-R), Anxiety Disorders Schedule-Revised (ADIS-R), and the IES. These scales were administered to all participants before intervention, at 24 hours, and at 6 months post-incident. At 6 months, the Structured Interview for PTSD (SI-PTSD) was administered. The administrators of the measures were blinded to the officers' groups.

The results indicated that there were no differences in psychological symptomology between the groups at pre-intervention, at 24 hours, or at 6 months. There were also no differences in the specific trauma-related variables such as the duration or the amount of danger the officer may have been in. However, debriefed participants showed significantly more posttraumatic stress symptoms than the control groups at the one-week post-

incident assessment. Debriefed participants generally expressed great satisfaction with the intervention, but there was no statistical correlation between the degree of satisfaction and the number of psychological symptoms reported; high levels of satisfaction did not appear to play a role in the reduction of symptoms. They concluded that CISD did not have a negative or positive effect on posttraumatic stress symptoms. One of the caveats to this study is that the prevalence of stress symptoms among the officers was low to begin with. The authors suggest that debriefing may be helpful in groups with more acute symptomatology. Moreover, their inability to randomize their subjects could have confounded their findings. Additionally, their 6-month data was collected retrospectively, so there is a chance of recall bias.

Analysis of the Research

Upon close readings of the literature, it appears that the advocates and the critics of CISD rely on different sources of evidence, which share similar weaknesses, to state their cases. Most, if not all, of the studies on CISD suffered from general limitations, including failure to randomize, lack of control groups, inadequate sample sizes, low response rates, and sampling biases. However, the CISD advocates cite the positive findings and only state their methodological flaws as limitations of the study. Meanwhile, critics of CISD run studies with the same methodological flaws that indicate that CISD does not work. Further, the negative outcome studies tend to deviate from the original protocol that Mitchell wrote and advocated for (i.e., one-on-one debriefing instead of group debriefing).

It is interesting to note that three strong supporters of CISD and CISM are Mitchell, Everly, and Flannery. These three investigators have written several literature reviews in support of these interventions. In a review article (2000) they discussed anecdotal "evidence" that predated the founding of CISD and CISM, two

from 1977 and one from 1979. They then reviewed positive outcome results from studies that did not have control groups. However, they admitted that some of the studies had "few empirical data" (Everly et al., 2000). Also, as previously discussed, much of the data considered relevant to the efficacy of CISD is high ratings of self-reports asking whether or not debriefing was "helpful." The subjective feeling of being helped does not necessarily translate to a reduction of stress and posttraumatic symptoms. Also noteworthy, many of the studies they reviewed are conducted by themselves. In a 2004 review, seven of twenty studies were also by Flannery and one study was by Mitchell (Flannery & Everly, 2004). In their reviews, Everly, Flannery, and Mitchell responded to the negative outcome studies in their reviews by stating, "although negative outcomes deserve serious consideration, these negative outcome studies have some methodological flaws that limit useful interpretation" (Everly et al., 2000). They dismissed the results because of a "lack of standardized implementation of debriefing approaches" or, in some studies, because they were not randomized samples. In some cases, such as the Hobbs et al. (1996) study, the training of those who provided the debriefings have been questioned. They also claimed that if researchers are only testing CISD then they fail to really evaluate CISM, as CISD is only one component of CISM.

Bledsoe (2003), a critic of CISD, discussed the difficulties of tracking down some of the studies referenced in the Mitchell et al. reviews. He noted that many of the articles supportive of CISD were published in trade or obscure mental health journals. One particular journal, where a bulk of the supportive research is published, is the *International Journal of Emergency Mental Health*. Bledsoe explained that this journal is edited by Everly and is published by Chevron Publishing Corporation, which is owned by Mitchell and Everly. This company is strongly associated with the ICISF, which promotes and markets CISM training, workshops, and seminars. Mitchell is president and Everly is

"Chairman Emeritus" of the ICISF. In addition to the obvious conflict of interests issue, another question comes to mind: If their data is really proving the efficacy of CISD and CISM, why isn't it being published in well known journals instead of their own journals? Why was it easier to find research against the interventions than for the interventions?

The popularity of CISD and CISM may be partly due to the legal implications of their use. In 1983, Mitchell discussed the legal ramifications of not providing this psychological service to emergency care workers. He argued that these interventions would reduce sick days taken by stressed employees, appealing to the business side of emergency medical service facilities (Everly & Mitchell, 1999). He argued these points without any reliable research. Later, he and Everly wrote that if a business fails to implement some psychological service immediately after a critical incident, this may constitute negligence, increasing their legal liability to the stressed personnel who may then file suit. To avoid the threat of litigation, some police departments in Great Britain have enforced psychological debriefing following a traumatic event, while in the Netherlands, it is standard practice to offer a series of three debriefing sessions following any traumatic experience (Carlier, Voerman, & Gersons, 2000).

A Question of Efficacy

Based on this review it appears that CISD is not clinically efficacious. Further, none of the research seems to be empirically sound. While advocates for and against CISD argue back and forth about its empirical validity, very little is written about its efficacy as treatment. However, some researchers have addressed the actual problems with CISD. Intervention may alter the person's usual social support system. The person may not go to family or friends s/he would ordinarily go to because s/he may feel that debriefing helped enough. A CISM program may inadver-

tently discourage and replace an already supportive environment where colleagues speak among themselves. The very act of implementing CISD intervention may "medicalize" stress symptoms. These normal post-traumatic symptoms may be reinterpreted as pathological simply because of the way they are addressed in the intervention. Also, debriefing may inadvertently be given to workers who may not be feeling the effects of post-traumatic stress. As discussed earlier, not everyone is at risk for pathology, but the intervention team does not differentiate between those who are at risk and those who are not when addressing a group. Further, the timing of debriefing has not been clearly established. In some studies, interventions happened within 24 hours of the traumatic event, while in others debriefing occurred 2 weeks after the event. There appears to be no consistency about when debriefing may be appropriate.

Across the literature, very little has been written regarding who was providing the intervention. While one would assume it would be a task only for highly qualified mental health practitioners, it was not explicitly stated in any of the studies. Some studies implied that the researchers themselves may have been the practitioners providing CISD. However, in the Kershaw et al. childbirth study (2005), community midwives, whose experience in mental health was not discussed, were trained to administer the debriefings. In the ASAP program (Flannery et al., 2000), group leaders and team members are picked from the hospital staff to provide group crisis interventions. The authors did not explain whether the leaders' and members' educational background included extensive training in the field of mental health. It was surprising to see that the qualifications of the "debriefers" were not made readily available in any of the studies.

The evidence suggesting that CISD may actually harm individuals prompted me to look into what theories, if any, may explain this effect. Raphael, Meldrum, and McFarlane (1995) suggest

that the debriefing may traumatize individuals further because it involves "intense imaginal exposure to a traumatic incident" shortly after they have experienced it. This may exacerbate their symptoms rather than alleviate them. Intense exposure therapy has been used to treat PTSD and an initial exacerbation of symptoms is common. But as the exposure is prolonged and habituation occurs, the symptoms and distress diminish. CISD and CISM are time-limited interventions. In some of the studies they were provided as a single-session treatment. Participants were not able to engage in the exposure work that is ordinarily done in exposure therapy, such as discussing the trauma repeatedly. Habituation cannot occur in a debriefing session or two. There is also a possibility that the practitioners providing intervention may be secondarily traumatized. There appears to be no evidence of this, as I did not see any literature on the effects of debriefing on the debriefer.

Considerations for Future Research

Before serious claims as to whether or not CISD and CISM potentially prevent PTSD and psychiatric symptoms, the quality of the research needs to be greatly improved. Studies should involve a control group that experiences the same event as the debriefing group at the same time. Understandably, randomizing may be a very difficult task due to the ethical implications, but may be the only way to truly determine the efficacy of the intervention. In evaluating CISD and CISM in particular, researchers should adhere to the original protocol, as written by Mitchell. Changing the program in the slightest confounds the data. One is no longer evaluating the CISM program but rather a variation of it, and cannot extend the findings to that specific intervention.

Researchers should work to find ways to assess their subjects' premorbid functioning, prior to experiencing the traumatic event. It seems only logical that the investigators have solid baseline

data of where the mental health of each subject is before they can "prevent" any psychological sequelae. Furthermore, valid and standardized measures should be used to evaluate symptoms throughout the study, such as the SCL-90-R or the Beck's Depression Inventory (BDI). It may also be helpful to provide another assessment of distress, in addition to the IES. Another concern is the use of self-reports. Although self-ratings provide important subjective information, they can be extremely biased, as the reports can be colored by a participant's concern to answer the questions "correctly."

A method of screening that includes "who needs psychological intervention" and "who does not" should be implemented. By screening before intervening, one may be able to get a better sense of whether the person needs intervention and whether the intervention will have a positive effect. This would make the data more valid if a difference is found. Timing of the intervention should also be further addressed. Pushing people to discuss their feelings and thoughts shortly after a trauma may not be beneficial. Lastly, the person providing the intervention should be a competent, well-trained mental health practitioner who has experience working with individuals who have experienced trauma. It is worrisome that this treatment is being implemented in vulnerable populations, and even more so that it may be facilitated by someone with a limited background in mental health education.

Whereas CISD and CISM may be meeting some of the political, financial, and legal needs of an organization, they do not appear to be meeting the needs of the individuals who are exposed to traumatic events. Theoretically, CISD and CISM might sound compelling and humane, but they do not appear to reduce psychological morbidity caused by the trauma. There may be some benefits to CISD and CISM, since many participants perceive them to be helpful. Making someone "feel better" at least momentarily after s/he has experienced a traumatic event is much

more desirable than doing nothing. However, given the lack of empirical support for CISD and CISM, they should not be used as a first line of treatment, or prevention of PTSD until there is a better understanding of their effects. These problems will only be solved if future research includes well-designed, controlled studies that overcome the methodological limitations of its predecessors.

References

- American Psychiatric Association (2000). Diagnostic and statistical manual of mental disorders (4th ed. Text Revision). Washington, DC: American Psychiatric Association.
- Bisson, J.I., Jenkins, P.L., Alexander, J., & Bannister, C. (1997). Randomised controlled trial of psychological debriefing for victims of acute burn trauma. British Journal of Psychiatry, 171, 78-81
- Bledsoe, B.E. (2003). Critical incident stress management (CISM): Benefit or risk for emergency services? Prehospital Emergency Care, 7, 272-279.
- Cannon, M., McKenzie, K., & Sims, A. (2003). Psychological debriefing is a waste of time. British Journal of Psychiatry, 183, 12-14.
- Carlier, I.V., Voerman, A.E., & Gersons, B.P. (2000). The influence of occupational debriefing on post-traumatic stress symptomology in traumatized police officers. The British Journal of Medical Psychology, 73, 87-98.
- Chemtob, C.M., Tomas, S., Law, W., & Cremniter, D. (1997). Postdisaster psychosocial intervention: A field study of the impact of debriefing on psychological distress. American Journal of Psychiatry, 154, 415-417.
- Dyregrov, A. (1997). The process in psychological debriefings. Journal of Traumatic Stress, 10, 589-605.
- Everly, G.S., Flannery, R.B., & Eyler, V.A. (2002). Critical incident stress management (CISM): A statistical review of the

- literature. Psychiatric Quarterly, 72, 171-182.
- Everly, G.S., Flannery, R.B., & Mitchell, J.T. (2000). Critical incident stress management (CISM): A review of the literature. Aggression and Violent Behavior, 5, 23-40.
- Everly, G.S., & Mitchell, J.T. (1999). Critical Incident Stress Management (CISM): A new era and standard of care in crisis intervention (2nd ed.). Ellicott City, MD: Chevron.
- Flannery, R.B., Anderson, E., Marks, L., Uzoma, L. (2000). The Assaulted Staff Action Program and declines in rates of assaults: Mixed replicated findings. Psychiatric Quarterly, 71, 165-175.
- Harris, M.B., Baloglu, M., Stacks, J.R. (2002). Mental health of trauma-exposed firefighters and critical incident stress debriefing. Journal of Loss and Trauma, 7, 223-238.
- Hobbs, M., Mayou, R., Harrison, B., & Worlock, P. (1996). A randomized controlled trial of psychological debriefing for victims of road traffic accidents. British Medical Journal, 313, 1438-1439.
- Hytten, K., & Hasle, A. (1989). Firefighters: A study of stress and coping. Acta Psychiatrica Scandinavica, 55, 50-55.
- Jenkins, S.R. (1996). Social support and debriefing efficacy among emergency medical workers after a mass shooting incident. Journal of Social Behaviour and Personality, 11, 477-492.
- Kershaw, K., Jolly, J., Bhabra, K., & Ford, J. (2005). Randomised controlled trial of community debriefing following operative delivery. British Journal of Obstetrics and Gynaecology, 112, 1504-1509.
- Leonard, R., & Alison, L. (1999). Critical incident stress debriefing and its effects on coping strategies and anger in a sample of Australian police officers involved in shooting incidents. Work & Stress, 13, 144-161.
- Linton, J.C., Kommor, M.J., & Webb, C.H. (1993). Helping the helpers: The development of a critical incident stress management team through university/community cooperation.

- Annals of Emergency Medicine, 22, 34-38.
- Litz, B.T., Gray, M.J., Bryant, R.A., & Adler, A.B. (2002). Early intervention for trauma: Current status and future directions. Clinical Psychology: Science and Practice, 9, 112-134.
- Raphael, B., Meldrum, L., & McFarlane, A.C. (1995). Does debriefing after psychological trauma work? Time for randomized controlled trials. British Medical Journal, 310, 1479-1480.
- Reyes, G., & Elhai, J.D. (2004). Psychosocial interventions in the early phases of disasters. Psychotherapy: Theory, Research, Practice, Training, 41, 399-411.