American Red Cross

American Red Cross Advisory Council on First Aid, Aquatics, Safety and Preparedness

ACFASP Scientific Review

Critical Incident Stress Debriefing (CISD)

Questions to be addressed:

What is the science in favor or against the Critical Incident Stress Debriefing (CISD) model?

Should CISD be recommended for rescuers following a traumatic event?

Review Process and Literature Search of Evidence Since Last Approval Performed

Medline Advanced (1973-2010), PsychINFO (1966 to 2010), Pub Med (1973 to 2010), and the Cochrane Database of Systematic Reviews were searched. The keywords used were “post-traumatic stress”, "debriefing", "prevention", and “intervention”. Well-known names of authors working in the debriefing field were also included. Inclusion criteria were single session debriefing, critical incident stress debriefing, and critical incident stress management. The Medline Advanced yielded 105 citations for CISD. PsychINFO yielded 462 citations for PTSD, CISD, and CISM. The Cochrane database yielded 39 citations for critical incident stress debriefing and critical incident stress management. Citation duplication occurred between the various databases and search terms. Preference was given to articles that appeared in peer-reviewed journals. Anecdotal reports and articles that appeared in trade magazines and non peer-reviewed journals were assessed for relevance and methodology.

Updated Scientific Foundation:

The 2010 triennial review re-examined research studies used for the 2006 CISD scientific advisory and post 2006 studies to determine if CISD as used within the CISM (Critical Incident Stress Management) model was effective in lessening or preventing the development of PTSD. The present analysis of the CISD/CISM literature reaffirmed the 2006 ACFASP scientific review. Irrespective of whether CISD was used as a stand-alone intervention or part of the Critical Incident Stress Management model there was a lack of convincing scientific evidence that either the CISD or CISM interventions were effective in either eliminating or lessening the development of PTSD. Often studies offered in support of CISD/CISM primarily were subjective anecdotal articles with neither a control group nor random assignment of subjects.

Definition of Key Terms

Many of the articles reviewed expressed uncertainty about the functional and therapeutic differences between the terms *Debriefing, CISD, and CISM*. In part, this ambiguity can be attributed to the continuing evolution of CISD/CISM methodology. The definitions provided below were the categorical classifications used during this scientific review.

Operational Debriefing

Debriefing traditionally has been used to factually review an incident either individually or with a group to determine what occurred during the traumatic event. Typically debriefing results then are used to improve future performance in closely similar situations and to increase the emergency response readiness of those being debriefed. NIMH (2002) noted "Debriefing should only be used to describe operational debriefing… [and] are done primarily for reasons other than preventing or reducing mental disorders."

Psychological Debriefing describes various structured events, led by an individual or team which includes education and review processes with a positive focus on resilience coping strategies and sometimes a detailed review of emotional reactions (NIMH 2002).

Critical Incident Stress Debriefing

Critical Incident Stress Debriefing has seven phases. These phases are: 1) the introduction phase; 2) the fact phase, 3) the thought phase; 4) the reaction phase; 5) the symptom phase; 6) the teaching phase; and 7) the reentry phase (Mitchell & Everly, 2006). CISD is conducted in groups of four – twenty five individuals, is facilitated by two to four individuals trained in post traumatic incident crisis intervention, and conducted between one day and two weeks after the traumatic event. CISD is now the fourth phase of critical incident stress management model (Mitchell and Everly, 2006).

Critical Incident Stress Management

Critical Incident Stress Management has eight core elements. These elements are: 1) pre-crisis preparation; 2) demobilization; 3) defusing; 4) *critical incident stress debriefing*, 5) individual

crisis intervention; 6) pastoral involvement; 7) family or organizational crisis intervention/ consultation; and 8) follow-up referral and evaluation for possible psychological assessment and treatment (Mitchell and Everly, 2006).

Everly, Flannery, and Mitchell, (2000) and Mitchell (2004), noted that CISD evolved from a stand-alone intervention into one of the eight core elements of CISM. This evolutionary intervention was designed to provide pre- incident educational training to help normalize psychological reactions to traumatic events; offer individual, group, and organizational acute care services; and put forward a variety of post incident referrals to trauma treatment specialists.

Evaluation of CISD/CISM Stress Debriefing Models.

This scientific review of the CISD/CISM intervention was conducted to determine the efficacy of this approach in lessening or mitigating the development of posttraumatic stress disorder. The variables examined included study design, intervention provider identification, intervention study, outcome measures, and the studies' outcomes.

Critics of the CISD/CISM debriefing model noted that studies supporting this intervention failed to include a control group, did not randomize subjects, and neglected to provide uniform CISD/CISM interventions. Devilly & Cotton (2003) believed that despite the evolution of CISD into CISM the two terms were not categorically distinguishable and therefore should be treated synonymously. McNally, Bryant, and Ehlers (2003) asserted CISM was not a clinical intervention but rather a psycho-educational administrative framework. Fawzy & Gray (2007) noted neither CISD nor CISD demonstrated efficacy since these interventions did not rest on a sound research design. Further, they noted the controlled trials necessary to demonstrate efficacy beyond normal post-traumatic resiliency were absent. Van Emmerik et al's. (2002) meta-analysis found CISD did not improve recovery from psychological trauma. Bledsoe (2002) suggested that CISD in addition to not demonstrating efficacy, paradoxically this intervention might be harmful to high risk individuals.

Everly (2000) noted that the CISD could interfere with the natural recovery mechanisms of some casualties and that strict inclusion criteria should be used before beginning any intervention.

Regrettably, despite the cautionary statement by the originator of the CISD/CISM models, various agencies still require mandatory attendance at CISD/CISM sessions when participation in this intervention was neither needed nor prudent.

Everly, Flannery, & Eyler (2002) conducted a meta-analysis of eight CISM studies and after pooling the results of these studies found CISM lessened the symptoms of psychological distress. However, when Fawzy and Gray (2007) examined Everly et al's. (2002) meta-analysis, the former authors found no identified inclusion criteria, a deficient definition of CISM, problematic assessment of different outcome domains, and inappropriate grouping of interventions provided at different post traumatic event time points.

Textual Summary of Recommendation and Answer to Questions Addressed

Implicit in the CISD/CISM approach is the idea that nearly all individuals exposed to a potentially traumatizing event (PTE) would benefit from this intervention. However epidemiological studies cited by several authors noted that most individuals exposed to acute traumatic events do not develop posttraumatic mental health problems. Sloan (1988) and. Cardena & Spiegel (1993) noted trauma-based psychological distress were common impairments in the weeks following a traumatic event. Bryant (2004) proposed that despite the wide range of posttraumatic anxiety symptoms, strong evidence exists that a substantial number of casualties, who have posttraumatic symptoms following an incident, typically have remittance of posttraumatic symptoms within months of trauma exposure. Rothbaum, Foa, Riggs, Murdoch, & Walsh (1992), Riggs, Rothbaum & Foa (1995), and Galea, et al. (2002, 2003,) noted that PTE exposed casualties are surprisingly resilient and found similar trends in posttraumatic symptom reduction identified by other researchers. Rose, Brewin, Andrews, & Kirk (1999) argued that indiscriminate stress debriefing applications were ineffective. Bisson, Jenkins, Alexander & Bannister (1997) and Mayou, Ehleers, & Hobbs, (2000) suggested such interventions may pathologize normal reactions to potentially traumatic events and undermine natural resilience to traumatic events. Litz, Gray, Bryant, and Adler (2002) proposed using an early trauma screening process intervention rather than CISD/CISM for individuals with risk factors for developing chronic PTSD.

Currently there have been no systematic controlled trials of the effectiveness of CISD or CISM. However, CISM is a multi-component approach that has the potential to become an effective intervention for reducing the effects of potentially traumatizing events (PTE). This potentially clinically significant intervention can only occur when rigorously controlled randomized trials based on evidentiary methodology are used to resolve the fundamental differences between the supporters and the critics of the CISD/CISD methodology.

Recommendations and Strength (using table below):

Standards: There is no convincing evidence that psychological debriefing or group debriefing are effective in reducing PTSD. CISD/CISM interventions have not been shown to be effective in either eliminating or lessening the development of PTSD and should not be used for rescuers following a potentially traumatizing event. There is evidence that CISD/CISM interventions may have deleterious effects by interfering with normative post-trauma reduction resiliency. (II)

Guidelines: None

Options: None

Summary of Key Articles/Literature Found and Level of Evidence/Bibliography:

(Please fill in the following table for any new articles found since the last approval. For references please us the American Medical Association Manual of Style and please only use abbreviations for journal names as listed in index medicus)

Author(s)	Full Citation	Summary of Article (provide a brief summary of what the article adds to this review)	Level of Evidence
Bledsoe, B. E.	Bledsoe, B. E. (2003). "Critical incident	Despite the	5

	stress management (CISM): benefit or risk for emergency services?" Prehospital Emergency Care **7**(2): 272-9.	limitations of the existing literature base, several meta-analyses and RCTs found CISM to be ineffective in preventing PTSD. Several studies found possible iatrogenic worsening of stress-related symptoms in persons who received CISM. Because of this, CISM should be curtailed or utilized only with extreme caution in emergency services until additional high-quality studies can verify its effectiveness and provide mechanisms to limit paradoxical outcomes. It should never be a mandatory intervention.	
Bryant, R.A.	Bryant, R.A. (2004) Acute Stress Disorder: Course, Epidemiology, Assessment, and Treatment in Litz, B.T.	Psychological distress is common after a traumatic	5

	(Ed.), *Early Intervention for Trauma and Traumatic Loss* (pp.15-34). New York: The Guilford Press.	experience. However acute stress reactions are temporary responses for most causalities.	
Everly, G. S. Flannery, R. P., & Eyler, V. A.	Everly, G. S. Flannery, R. P., & Eyler, V. A. (2002). Critical Incident Stress Management (CISM) : a statistical review of the literature. *Psychiatric Quarterly*, 74, 3, 409	Critical Incident Stress Management (CISM) is presented as described as an integrated multi-component crisis intervention system. A meta-analysis of eight CISM investigations revealed a Cohen's d of 3.11 and a fail safe number of 792 was obtained supportive of CISM.	6
Everly, G. S., Jr. and J. T. Mitchell.	Everly, G. S., Jr. and J. T. Mitchell. "A Primer On Critical Incident Stress Management (CISM)." Retrieved December 28, 2005, from http://www.icisf.org/about/cismprimer.pdf	CISD is helpful after an acute traumatic event.	6
Fawzy T. I. & Gray, M. J.	Fawzy T. I. & Gray, M. J. (2007). From CISD to CISM: Same Song Different Verse? *The Scientific Review of Mental Health Practice, Vol. 5, No 2*, 31-43.	CISD has been criticized for its belief that after potentially traumatizing events immediate	5

		intervention is required to prevent PTSD. CISM has incorporated CISD into the intervention for individuals who survive critical incidents. Studies supporting the efficacy of CISM were found to have methodological flaws.	
Mayou, R.. Ehleers, A. & Hobbs, M.	Mayou, R. Ehleers, A. & Hobbs, M. (2000). Psychological briefing for road traffic accident victims: Three-year follow-up of a randomized controlled trial. *British Journal of Psychiatry 176*:589-593	This study evaluated the three-year outcome of psychological debriefing in a randomized controlled trial for subjects hospitalized following a road traffic accident. The intervention group had a significantly worse outcome at three years in terms of general psychiatric symptoms, physical problems, overall	1A

		level of functioning and financial problems. Patients who initially had high intrusion and avoidance symptoms remained symptomatic if they had received the intervention. These findings suggest that psychological debriefing is an inappropriate treatment for traffic accident victims since it has adverse long-term effects	
McNally, R. J., R. A. Bryant, et al.	McNally, R. J., R. A. Bryant, et al. (2003). "Does Early Psychological Intervention Promote Recovery From Posttraumatic Stress?" Psychological Science In the Public Interest **4**(2): 45-79.	There is no convincing evidence that debriefing reduces the incidence of PTSD, and some controlled studies suggest that it may impede natural recovery from trauma.	5
Mitchell, J. T. & Bray, G.P.	Mitchell, J. T. and G. P. Bray (1990). Emergency services stress: guidelines for preserving the health and careers of	CISD is helpful after an acute traumatic event.	6

	emergency services personnel. Englewood Cliffs, N.J., Prentice Hall.		
van Emmerik, A., Kamphius, J. Hulsbosch, A.,Emmelkamp, P.(2002)	van Emmerik, A., Kamphius, J. Hulsbosch, A., Emmelkamp, P. (2002"Single session debriefing after psychological trauma: a meta-analysis." Lancet **360**(9335): 766-71.	CISD and non-CISD interventions do not improve natural recovery from psychological trauma.	1A

LEVEL OF EVIDENCE	***Definitions*** **(See manuscript for full details)**
Level 1a	Population based studies, randomized prospective studies or meta-analyses of multiple studies with substantial effects
Level 1b	Large non-population based epidemiological studies or randomized prospective studies with smaller or less significant effects
Level 2a	Prospective, controlled, non-randomized, cohort or case-control studies
Level 2b	Historic, non-randomized, cohort or case-control studies
Level 2c	Case series: convenience sample epidemiological studies
Level 3a	Large observational studies
Level 3b	Smaller observational studies
Level 4	Animal studies or mechanical model studies
Level 5	Peer-reviewed, state of the art articles, review articles, organizational statements or guidelines, editorials, or consensus statements
Level 6	Non-peer reviewed published opinions, such as textbook statements, official organizational publications, guidelines and policy statements which are not peer reviewed and consensus statements
Level 7	Rational conjecture (common sense); common practices accepted before evidence-based guidelines

Level 1-6E	Extrapolations from existing data collected for other purposes, theoretical analyses which are on-point with question being asked. Modifier E applied because extrapolated but ranked based on type of study.

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