

A Critical Review of Psychological Debriefing and a Proposal for the future

The management of psychological health after traumatic experiences

Neil Greenberg

BACKGROUND

Psychological trauma is an entity without a clear consensus definition. Perhaps one of the most widely used definition is that from DSM-IV¹ which defines trauma in Post-Traumatic Stress Disorder (PTSD) as an event which involves intense helplessness, horror or fear in response to experiencing or witnessing a traumatic event. Even though trauma is defined in the section on PTSD, the consequences of these events are legion. They include adjustment disorders, depressive episodes and substance misuse disorders. Post incident reactions can extend to those not directly involved with the incident such as family and friends.

Although the prevalence of Post Traumatic Stress Disorder (PTSD) in the general population may be as low as 1-2%² certain groups exist that are at higher risk. Of those exposed to significant disasters, 30-40% show significant psychological morbidity one year later³. Exposure to traumatic events can be an occupational hazard and from an employers perspective there is a legal and moral need to protect employees from foreseeable psychological trauma and its consequences. This is backed up by the legal framework of the Health and Safety Executive who require employers to ensure as far as is reasonably practicable, the health, safety and welfare at work of their employees⁴. There is no distinction made between physical and psychological health. There are many examples of employment-related high-risk groups that can be found in the literature. In military combat veterans, post incident

psychological morbidity has been reported to be over 50%⁵. In the Gulf war this figure was reported to be 54% for survivors of friendly fire⁶. Studies in bus crews have shown that 23% of those who have been subject to violent assaults go on to develop PTSD compared with no cases in a control group of non-assaulted crews. There are many other occupations that have a significant risk of being exposed to psychological trauma, including police officers⁷ and emergency health care workers⁸. Thus organisations that expose their employees to potentially traumatic events need to have an effective management strategy for those who have been or might be exposed to psychologically traumatic events. Not addressing this issue can prove expensive, for example court cases in Australia have agreed payments of A\$613,293 to plaintiffs who could have been given post trauma debriefing, but were not⁹. These legal and moral pressures for employers have helped fuel the extensive literature base concerning pre-incident and post incident interventions and it is the aim of this essay to look at the latter. In the following review I will attempt to critically examine the role of psychological interventions have to play in the management of survivors of traumatic incidents and conclude with how this evidence might be of use to organisations that put their employees in high risk situations, (such as the Royal Navy).

SEARCH STRATEGY

A search was carried out for all reports from MEDLINE, PsychLit, the Cochrane Collaboration, BNI, AMED, ClinePsych and CINAHL using the MeSH and text terms, “Post incident Debriefing”, “Crisis intervention” and “Stress Disorders, Post-Traumatic/prevention and control” from the years 1979 to 2000. Papers reporting psychological interventions for interventions after critical incidents were eligible for this review. These included randomised and non-randomised trials, with or without controls, case series and case reports. The studies that reported only treatment of established Post-traumatic stress disorder were excluded from the review. The search was backed up by direct consultation with relevant professionals in this field including the psychological injuries unit at the Duchess of Kent’s Psychiatric Hospital and Mr Paul Cawkhill a Senior Psychologist at the Defence Research Agency. Additionally I attended a research seminar in psychological debriefing organised by the Defence Research Agency at which many of the prominent authors in the field of

traumatic stress were present and sought out relevant references suggested by speakers there. I also hand-searched the last year's issues the British Medical Journal, the Journal of Traumatic Stress and the British Journal of Psychiatry and sought out relevant papers cited by the articles retrieved. I also examined the PILOTS database that addresses all aspects of research into Post-traumatic stress disorder.

HISTORICAL PERSPECTIVE

Jeffrey T. Mitchell was the first author to coin the term Critical Incident Stress Debriefing¹⁰ (CISD) and a similar model was described by Dyregrov³¹ which he called Psychological Debriefing (PD). Their model of debriefing involves promotion of emotional processing and ventilation by encouraging the recollection and reworking of the traumatic event. The seven stages described for CISD and the aim of each stage are in table 1.

Table 1. Critical Incident Stress Debriefing

Phase	Aim of Phase
Introductory Phase	To establish climate and signal structure
Fact Phase	Create wholeness and common understanding
Thoughts Phase	First thoughts
Feelings Phase	Dealing with the emotional reactions
Assessment Phase	Looking at clients symptoms
Education Phase	Stress response teaching
Re-entry Phase	Referral if needed

As the legal obligations of health and safety at work were enforced by litigation and mental health workers increasingly recognised a need for post incident interventions the use of CISD became widespread. The use of this technique was initially without the backing of any evidence base for its effectiveness. Whilst in some organisations CISD was being offered for those who had been exposed to traumatic events, in other organisations it was mandatory to attend a post incident debriefing. Given that one of medicine's prime dictums is 'do no harm' the results of early research was equivocal

and many prominent authors in the field became skeptical at the widespread use of CISD¹². As a result of these doubts around CISD outcomes and the fact that some organisations had made debriefing mandatory¹³ the need for good quality trials of CISD became increasingly apparent. Dyregrov has presented an alternative view by suggesting that ‘the psychiatric professional elite’ felt threatened by the use of CISD, as it was designed for delivery by non-psychiatric personnel. The use of CISD has now become somewhat of a political issue with prominent authors presenting conflicting and confusing arguments.

RESEARCH ISSUES

Outcome measures

When assessing the outcome of any intervention, researchers commonly use quantitative outcome measures. As psychological trauma can cause many different psychological problems, studies often use more than one measure of outcome. Commonly used outcome measures are listed in table 2.

Table 2. Commonly used outcome measures in CISD research

Measure	Description	Abbreviation
Impact of events Scale	A measure of how much a person is bothered by unpleasant memories of the trauma. Has avoidance and intrusion scales	IES
Clinician Administered PTSD Scale	A semi structured interview, to assess whether a patient meets diagnosis criteria for PTSD	CAPS
General Health Questionnaire	Reliable and validated in disaster workers. Detects non specific psychiatric morbidity	GHQ
Hospital Anxiety and Depression Scale	Validated in hospital and community settings, free from contamination by physical symptoms	HADS
Beck Depression	Commonly used validated scale for	BDI

Inventory	depressed mood	
-----------	----------------	--

A Review of the literature

The Cochrane Library review¹⁴ excludes all but 8 trials of brief psychological debriefing. The 8 included within the systematic review are listed in table 3.

Table 3. Cochrane Library Randomised Trials

Study	Participants
Bisson, 1997	Burns patients with no major psychiatric disorder
Bordrow, 1979	Male road traffic accident inpatients
Bunn, 1979	Relatives of primary victims of trauma in a general hospital
Conlon, 1998	Road traffic accident victims in a hospital trauma clinic
Hobbs, 1996	Road accident victims in a hospital casualty department
Lee, 1996	First episode of miscarriage in a gynaecological ward
Rose, 1999	Victims of violent crime identified from police and casualty
Stevens, 1997	Casualty attendees after road traffic accident, dog bite or assault

These studies form the basis for the Cochrane review as they are regarded as being of sufficient quality to be considered in the assessment of whether psychological debriefing is effective. These studies are all randomised controlled trials and as they constitute the most robust evidence base for the subject of this essay I have considered their evidence first.

Randomised controlled studies

Bisson¹⁵ et al reported a study of burns trauma victims. The study was ranked as the highest quality of the accepted studies in the Cochrane systematic review. The trial assessed 165 patients at 3 and 13 months. Those with major physical or psychiatric disorder were excluded. The randomisation left the debriefed group having higher

initial scores and more severe burns than the control group. The interventions were conducted by a nurse or research psychiatrist trained and supervised by the main author and followed a CISD model closely. The outcome measures used were the IES, HADS and CAPS and they showed that after 13 months, 26% of the debriefed group had PTSD. This compared rather unfavorably to the control group of whom only 9% had PTSD. They also found that the length of the debriefing was associated with worse outcome.

Brewin, Andrews and Rose¹⁶ looked at a program for victims of violent crime. They looked at the impact of one session of debriefing with and without an educational package on 157 victims. They excluded victims of repeated violence such as that found in a domestic setting and undertook 6 and 11 month follow up assessments. The outcome measures used were the IES and BDI and a scale looking at PTSD symptoms. They also looked extensively at other support services that had been used by the participants. The outcome measures at both 6 and 11 months were not significantly different between the groups suggesting debriefing is ineffective.

Conlon¹⁷ and colleagues looked at a group of 40 trauma clinic attenders who had been involved with road traffic accidents. Those requiring admission or having a head injury were excluded from the study. The intervention group received a single counselling session, of about 30 minutes, which seemed similar to a CISD approach. They followed the group up at about 100 days after the trauma and managed to interview 32 patients at this time. The investigators found that during the follow up 4 of the control group developed PTSD compared with 2 of the counselled group. At the 3 month point this was found to be 0 in the intervention group compared with 2 in the control group. These results were not significant. Their conclusions were that psychological debriefing did not provide any benefit for trauma victims.

Lee¹⁸ and others studied 39 women over the age of 18 who had miscarried between 6 and 19 weeks of pregnancy. The authors excluded those who were under 18, under psychiatric care or were taking psychoactive drugs at the time of admission. The debriefed group had an hour session based on the models of Mitchell and Dyregrov, which took place approximately 2 weeks after the miscarriage. Their outcome measures included the IES and HADS and the results showed no significant

difference between the experimental and control groups at a 4-month follow up point. Those who had been debriefed were asked to rate how helpful it had been on a scale from 0 (extremely unhelpful) to 100 (extremely helpful). The mean score was 74. It is arguable whether suffering a miscarriage, whilst distressing and unpleasant, can really be regarded as a trauma.

Hobbs, Mayou¹⁹ and others looked at the effects of debriefing for 114 patients who were admitted following injuries in road traffic accidents. They excluded those with a significant head injury and who were intoxicated when admitted. They used a research assistant to get baseline psychometric scores soon after admission to hospital and their intention was to provide the experimental group with a 1 hour debriefing package by trained nurse specialists or social workers. Unfortunately this proved impossible after the first 10 debriefings, so the research assistant undertook the debriefing sessions immediately after the screening interview. It is unclear how much training the assistant was given for this task and this obviously compromised the blindness of the study. Follow up was at 4 months and the randomisation process left the debriefed group containing patients who were more severely injured and had longer hospital stays. Most of the outcome measures (including the IES) for both groups were not significantly different, although there was a tendency towards anxiety reduction and a significant reduction in somatisation in the control group. The intervention group also showed trends towards increased symptomatology characteristic of post-traumatic states. Additionally the debriefed group were significantly less likely to talk to family and friends about their experiences. The authors note that randomisation left the debriefed group as having a higher mean injury score and this might be some explanation for the poor outcome found in that group. The three year follow up study was recently published²³ which restates the authors reservations about the use of short debriefing sessions after traumatic experiences and confirms the increased symptomatology in the debriefed group.

Stevens and Adshead²⁰ looked at the effects of an intervention with attendees at an A&E department in London in 1993. The inclusion criteria were that they had suffered a dog bite, an assault by a stranger or a road traffic accident. Those who were not fluent English speakers, intoxicated, in need of immediate psychiatric care, homeless or were not physically fit enough to be interviewed were excluded. The

debriefing offered was from an experienced counsellor within 24 hours of attendance. The authors give a brief description of the debriefing used that appears to be similar to but not the same as formal CISD. Those who became unusually distressed during the debriefing were excluded from the rest of the study. Follow up was for three months in total using a number of psychometric tools for assessment. The study comprised of 63 participants of which 21 of these were lost to follow up. The randomisation left the group that received the debriefing being older and more depressed and having higher trait anxiety levels (a measure of how anxious a person generally felt prior to the trauma) than the control group. At three months 46% of the counselled group had significant PTSD, anxiety or depression symptoms compared with 56% of the non-counselled group. The authors conclude that debriefing made no difference to the outcome on the psychometric tools used. The exception to this was those participants who had high trait anxiety and initial depression scores, in which debriefing was significantly beneficial at the 3 month follow up point. This study also asked the participant to rate how useful they felt the debriefing was and 66% felt it was useful. One of this study's shortcomings is that by excluding those who 'became unusually distressed during the debriefing' an important cohort of trauma victims has not been included within the study population.

Bordow and Porritt²¹ looked at 70 male hospitalised road trauma victims who were inpatients for at least one week. Females, and those who were deemed too ill to be seen, were excluded from the study. The study looked at two types of intervention: a one session debrief, which looked at the facts and feelings associated with the trauma (immediate review) and the other intervention was the same debrief followed by the assistance of a social worker (full intervention). The full intervention group had a full emotional, practical and social support package over a maximum of 10 hours of intervention time. The counsellors in the both groups were social workers experienced in crisis intervention. They showed that most outcome measures were in favour of those in the full intervention group, followed by those in the immediate review group followed by the control group. The same people who performed the debriefings administered the assessment measures and this might be expected to have biases the results. One important exception to the results was in the 'return to work' category in which the control group showed a trend towards an earlier return to work. The authors concluded that a full intervention was better than a partial intervention, which was

better than no intervention.

Bunn and Clarke²² looked at an intervention designed to assist the relatives of those seriously injured or ill hospital patients (defined as having a life threatening condition). The 30 participants were all immediate relatives. They excluded those who were frequent hospital attenders due to the author's worry about the effects of learned behavior. The study consisted of recording a 5-minute verbal sample before and after the 20 minute debriefings, which was conducted by the main author himself and followed a CISD-like format. Those in the control group were left alone for the 20 minutes instead. The authors analysed the verbal samples for anxiety by 2 different methods. They found that the debriefed group fared better in that they showed decreased anxiety levels compared to the control group, who tended to show a rise in anxiety rather than a fall. There was no follow up of either group.

Comparison Studies – non randomised

Carlier⁷ et al undertook a study to look at the effects of debriefing on 200 police officers that were involved in the aftermath of a plane crash. 110 of these were not debriefed for operational circumstances. They looked at an 18 month follow up and found no significant differences between the two groups regarding the diagnosis of PTSD, but did find a statistically significant difference showing those who had been debriefed to exhibit more disaster-related hyperarousal symptoms.

Deahl²⁴ and colleagues looked at the effectiveness of debriefing in 74 soldiers who acted as gravediggers during the Gulf war. Only 55 received were debriefed using a CISD model based on Dyregrov's 1989 model. Interesting, in a review paper by Dyregrov he denies such a model being in existence or having taught the authors! There were no baseline measures taken, but the IES and GHQ as were used as outcome measures. There was no significant difference between the groups at 9 months. Deahl and others also conducted a study into debriefing and operational stress training in 106 soldiers. The study was randomised in a sense with regard to the debriefing. The authors made use of the IES and HADS as outcome measures. Overall they found a low incidence of psychological symptoms, but those in the debriefed group had lower HADS scores than those personnel who had been debriefed.

Additionally the IES scores were decreased in the non-debriefed group, but not in the debriefed group. The authors could not conclude that debriefing was effective. They did, though, comment on the apparent efficacy of the operational stress-training package in reducing overall symptom scores compared to previous trials of soldiers in similar circumstances.

Kennardy²⁵ and others examined the effect of debriefing for 195 emergency service personnel and disaster workers following an earthquake in Australia. The study was retrospective and the debriefing sessions were carried out non-standardly by a variety of organisations. The authors state that they do not know how experienced the debriefers were or what sort of debrief was conducted. The outcome measures used were the IES and GHQ. Although 80% of those debriefed found it helpful in some way, statistical analyses did not show any benefit. There was a significant rise in GHQ scores in the debriefed group. Overall the authors report that the subjects in the debriefed group showed less improvement in symptoms than the control group.

Jenkins²⁶ examined the outcomes of debriefing with 36 emergency medical workers after a mass shooting incident in Texas. She looked at 36 emergency, 15 of who voluntarily attended at least one CISD session. Those who attended CISD tended to report more symptoms than those who declined CISD did. Those who attended felt it had helped and demonstrated the strongest recovery from depression and anxiety symptoms. The author concluded that CISD was beneficial.

Uncontrolled studies and case reports

There are numerous examples of these sorts of studies and examination of all the available evidence is beyond the scope of this review. As this group of studies is the least sound when considering evidence based medicine guidelines only a selection of the studies revealed by the search strategy will be presented here.

CISD following a strict Mitchell model protocol was the basis for group debriefings after an air ambulance disaster in which 5 fatalities occurred. Macnab²⁷ and others took the opportunity to assess the effectiveness of this intervention over a period of 2 years and used the IES and GHQ as final outcome measures and also an empirically

designed questionnaire to assess PTSD symptoms at 6 months. The CISD's were carried out by a hospital stress management team who were not part of the debriefed team and also by other members of the ambulance service. The 2-year follow up of 19 transport paramedics was complete. The authors also looked at 'days of sick leave' one prior to and one year after the incident as a measure of ongoing problems. They found that the 10-16% of the debriefed group reached caseness levels on the outcome measure scales and also that there were no significant differences in the 'days of sick leave' in the two periods studied. The group that had been debriefed by the hospital stress management team found the CISD intrusive and unhelpful, unlike those who were debriefed by other ambulance service members who found the debriefings comforting. The authors conclude that CISD was unhelpful.

Chemtob²⁸ et al looked at debriefing following a Hurricane in Hawaii. The author debriefed the 43 study participants in 2 groups. These were done at 6 months and 9 months after the disaster. The outcome measure was the IES. The results were that both groups had significant reduction in IES scores after the interventions. The study claims to have controlled for the passage of time by virtue of debriefing participants in 2 temporally spaced groups. They also used an educational package along with the debriefing.

Flannery²⁹ and colleagues looked at a program designed to help psychiatric staff members who had been assaulted. The debriefings offered by the program were not compulsory and were conducted by volunteer clinicians including nurses, psychologists and social workers. Debriefing sessions occurred immediately after the incidents by use of an on call system by which the volunteer clinicians would respond having been paged. The debriefers were able to assess whether the victim could continue working and whether they should be referred on. There was follow up at 3 and 10 days. Additionally the program included a group session for those who were thought to be appropriate to be included. The 90-day evaluation period included 62 episodes of assistance. The outcomes of the program were that 69% reported regaining a sense of control, 11% were required to attend the group and 1 member of staff left the work force due to their trauma. The author discussed the possibility that debriefings should be made mandatory.

Robinson and Mitchell³⁰ looked at debriefing in 172 emergency service, welfare and hospital personnel in Australia. Outcome of the intervention was assessed at 2 weeks and the results showed a significant difference on a 5 point self reported scale that was used to rate how much the trauma had impacted on their lives. Nearly 20% of those in the study still rated the event as having considerable or great impact on their lives even having been debriefed. It seemed though that when asked if they thought the debriefing had been helpful, those who were more affected by the traumas felt the debriefing had been more of more value.

Results

The eight randomised-controlled trials constitute the highest quality of evidence available. Six of the trials showed no benefit of debriefing, with two suggesting that those who had been debriefed had a worse outcome than a control group^{15, 19}. The other two trials^{21, 22} show some benefit to debriefing. Although Bunn and Clarke's trial fulfils the quality criteria for a randomised controlled trial it is debatable whether debriefing is the correct subject matter. Counselling for just 20 minutes immediately after relatives had arrived at hospital has a very different objective to true post disaster debriefing. The authors themselves call the procedure supportive counselling.

The Cochrane library gives the results of some statistical analyses in the form of odds ratios. The confidence intervals around the pooled odd ratios for 3-5 month follow up and for one years follow up both include one. This suggests that there is absence of evidence to support the efficacy of debriefing. The statistical trends were towards debriefing being harmful.

The comparison studies and uncontrolled trials are more subject to the effects of bias and confounding factors. The results are mixed with some studies showing a beneficial effect of debriefing and others showing a harmful effect. Many studies show that the majority of those who had been debriefed thought it was beneficial. At times this was at odds with what the researchers had found using objective outcome measures²⁵.

GENERAL METHODOLOGICAL ISSUES

These studies are heterogeneous in nature. In order to try and make some sense of the myriad of results presented above it is necessary to look more closely at the problems associated with research into this area of mental health.

Victims

The original concepts of CISD were developed to help secondary victims and were designed for use in a group setting. Secondary victims are those who have helped the primary victims, for example firemen or rescue workers. None of the randomised-controlled trials looked at group debriefing of secondary victims. Most of the studies, including all the randomised-controlled trials, have focused on single patients who are primary victims. Can the results from individualised debriefing be extrapolated to group debriefing?

Debriefers

It has been suggested that the debriefers should be from within the same organisation as the victims, so that during the CISD there is an implicit understand of the vocabulary used and the experiences being recounted^{31,32}. Most of the published work has been done with debriefers who are not from the same organisation. This would be expected to adversely affect the debriefer-patient relationship. This may cause particular difficulties in establishing a proper atmosphere and therefore make encouraging the patient to believe his feelings are normal, more difficult. The studies considered in this essay use a variety of debriefers ranging from some of the authors themselves with years of experience of dealing with victims of trauma²⁸ to research assistant with the extent of training being unstated¹⁹. Can the quality of the debriefing be expected to be similar in the face of such a wide variety of persons conducting the debriefings? Would using debriefers from the same organisation lead to more effective debriefing?

Environment

In planning a good quality trial it is vital to ensure extraneous factors other than the

intervention that the researchers are interested in, are the same in both the treatment and control group. By their very nature, traumatic events are usually sudden, unplanned and unexpected, which is at odds with the planning required for high quality studies. Controlling for additional assistance given by persons other than the debriefers is understandably difficult but might have a large bearing on the outcome. Does the difficulty in standardising the environmental conditions make study results meaningless?

Trauma

Much of the recent understanding of genesis of PTSD comes from realising that the traumatic event somehow causes psychological dissonance because it challenges people's own schemas and is not processed. Ascertaining what a victim's preexisting schemas were and controlling for them is a very difficult problem to address but may have considerable bearing on that person's susceptibility to suffer adverse consequences after traumatic events.

DISCUSSION

The outcome of this review suggests that CISD is ineffective as a stand-alone strategy and may be detrimental in that it may make PTSD and other adverse psychological outcomes more likely. This is in keeping with the findings of the Cochrane Library review¹⁴ whose conclusions are that there is absence of evidence to support the efficacy of debriefing. The statistical trends were towards debriefing being harmful. This is contrary to the finding that many of the victims find the debriefings subjectively beneficial.

Many authors agree that one of CISD's important attributes is the identification of those at risk of going on to develop psychological problems^{15, 31, 33}. In a recent paper looking at the health services response to the 1999 Manchester bombing, it was suggested that a rational response to traumatic events is to screen those at risk and treat early Post Traumatic symptoms. One suggestion was that early treatment with effective therapies could prevent the adverse social and psychological consequences³⁴. There is evidence from a number of well-controlled studies that PTSD can be

effectively treated by both Cognitive Behavioral^{35,36} and pharmacological means³⁷. If it were possible to identify those at risk and refer them early by performing a simple risk assessment then this would avoid the possibility of harm associated with psychological debriefings like CISD. It would avoid causing psychological problems in those who would not have done otherwise whilst making use of the accepted evidence base that treatment for PTSD can be effective. In the armed forces just such a strategy is being developed and used³³.

CONCLUSIONS

Thus the main conclusions from this review are:

1. Psychological debriefing cannot be considered safe to be used as a first line procedure in victims of traumatic events
2. Patient satisfaction with debriefing is no indication of it's objective effectiveness
3. Psychological debriefing may be harmful in that it can degrade normal psychological adjustment and cause adverse psychological consequences
4. The legal and moral basis for supporting the statement that 'doing nothing is not an option' may be better served by risk assessment performed by members of the same organisation as the trauma victims

Implications for future research

Future research should address group debriefing of secondary trauma victims. The CISD model should be followed closely and debriefers should be rigorously trained and come from the same organisation as the victims.

Studies of debriefing are unlikely to be of a very high quality as the nature of the traumatic events mean that consistent controlling for important variables is difficult. For example PTSD research has shown that the nature of the victims pre-trauma

schemas (ways of organising thoughts and beliefs) are important in the genesis of PTSD. Thus if a fireman has a personal schema which suggests he is a capable fireman and it is important that he is able to rescue people in distress, if he encounters a situation in which he is unable to rescue a young child, then a personal schema will have been challenged. This will mean that he will be more likely to have an adverse psychological outcome than another fireman who did not hold the same pre-trauma schema. Controlling for pre-trauma schemas may be a key area of PTSD research, but is practically very difficult to achieve. It is a real problem to balance the evidence-based desire for randomised controlled trials to achieve conclusive answers against the need to make sure that trial results have meaning for everyday clinical practice. This concern, which is in common with other areas of medical research, is especially problematic for research on debriefing. Nonetheless, the moral and legal obligation for employers to provide for employees who are at risk of psychological trauma dictates that research in this field must continue. It is only with more conclusive answers that effective post incident interventions can be designed and implemented

THE ROYAL MARINES APPROACH TO MANAGEMENT OF PSYCHOLOGICAL TRAUMA

As a consequence of the poor outcomes associated with research into debriefing, the royal marines have adopted a protocol that uses risk assessment as the key strategy in the management of psychological trauma. Even if future research was able to show that debriefing was useful, there would be serious problems if specialist debriefers had to go to the scene of a psychological trauma in order to assess the need for debriefing and then conduct it if appropriate. The global nature of military operations conducted by the Royal Marines mean that their psychological health needs would be best served by training selected Royal Marine personnel how to manage psychological trauma. It would then be an integral part of the planning for any military operation to ensure that psychological assets were included in the manpower requirements

To ensure that the risk assessments can take place as an 'in house' event there is a need to provide training for those personnel who are to be the psychological trauma assessors and managers. Currently the Royal Marines conducts stress trauma

practitioners courses on a regular basis. The 4-day training course, run at CTCRM Lympstone, is designed to provide the necessary background knowledge into psychological trauma and also to teach the course participants how to gather the necessary information to enable them to perform effective risk assessment and plan effective management strategies.

Possible strategies that are available to manage the risks are diverse, but include increased vigilance for adverse psychological sequelae, moving the person at risk into a different job within the unit, to allow closer monitoring or in extreme cases early referral to medical personnel. It is anticipated that the majority of personnel will be managed within their unit and referral to specialists will be unusual. The specific risk management strategy to be used will be based on a number of factors including not only the perceived risk to the individual, but also on availability of key personnel, including but not limited to the regimental medical officer or regimental chaplain. The tactical objectives that the unit commanders are expected to achieve will also influence what management plan is put into place. It is anticipated that the trained psychological trauma managers will act as advisors to the unit commanders about psychological risk management.

Clearly as the role of the psychological trauma manager becomes more clearly defined there will be a need to research what strategies to manage risk are most effective. Currently there is an ongoing process of evaluation for the now established risk assessment process which aims to ensure it is a valid method of psychological management and that it can be delivered in a reliable manner.

Summary

Psychological debriefing cannot be considered safe and thus it should not be routinely used. There is evidence to suggest that risk assessment for adverse psychological outcomes after traumatic events may be a useful management strategy. This process is ongoing with the Royal Marines and evaluations of its effectiveness are ongoing.

Acknowledgements

I would like to thank Major Norman Jones, Peter Roberts and Cameron March for their help and enthusiasm with the collating of information and discussion of ideas.

Reference List

1. American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th edition) (DSM-IV). Washington, DC, APA.
2. Helzer J E, Robbins L N, McEvoy . (1987). Post-traumatic stress disorder in the general population. Findings from the epidemiological catchment area survey. *New England Journal of Medicine*, 317, 1630-1634.
3. Raphael B. (1986). When disaster strikes. A handbook for caring professionals. London, Hutchinson.
4. Health and Safety at work act. (1995). HSE Books.
5. Kulka R, Schlener W, Fairbank J, Hough R, Jordan B, Marmar C. (1990). Trauma and the Vietnam War Generation. New York. Brunner Mazel.
6. Searle M, Bisson J I. (1992). Psychological sequelae of friendly fire. *Proceedings of the Military Psychiatry conference 'Stress Psychiatry and War'*. Paris, France.
7. Carlier I V E, Lamberts R D, Van Uchelen A J, Gersons B P R. (1998). Disaster related post-traumatic stress in police officers: A field study of the impact of debriefing. *Stress Medicine*, 14, 143-148
8. Oster N S, Doyle C J. (2000). Critical incident stress and challenges for the emergency workplace. *Emergency Medical Clinics of North America*, 18(2), 339-353.
9. Freckelton I. (1998). Critical incident stress intervention and the Law. *Journal of Law and Medicine*, 6, 105-113.

10. Mitchell J. (1983). When disaster strikes.... the critical incident stress debriefing procedure. *Journal of Emergency Medical Services*, 8, 36-39.
11. Dyregrov A. (1989). Caring for helpers in disaster situations: Psychological debriefing. *Disaster Management*, 2:25-30.
12. Bisson J I. (1997). Is post-traumatic stress disorder preventable? *Journal of Mental Health*, 6, 2, 109-111.
13. Bailes G. (1998). Commentary: Psychological Debriefing. *Evidence based mental health*, 1, 4, 118.
14. Wessely S, Rose S, Bisson J. (2000). Brief psychological interventions (“debriefing”) for trauma-related symptoms and the prevention of post traumatic stress disorder (Cochrane Review). *The Cochrane Library*, Issue 3. Oxford: Update Software.
15. 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.
16. Rose S, Brewin C, Andrews B, Kirk M. (1998). A Preventative Program for Victims of Violent Crime. A study funded by the *NHSE Research and Development Programme*.
17. Conlon L, Fahy T, Conroy R. (In press). PTSD in RTA victims: prevalence, predictors and a randomised controlled trial of psychological debriefing in prophylaxis. *Journal of Psychosomatic Research*.
18. Lee C, Slade P, Lygo V. (1996). The influence of psychological debriefing on emotional adaption in women following early miscarriage: a preliminary study. *British Journal of Medical Psychology*, 69, 47-58.
19. Hobbs M, Mayou R, Harrison B, Worlock P. (1996). A randomised controlled trial of psychological debriefing for victims of road traffic accidents. *British Medical Journal*, 313, 1438-1439.
20. Adshead G, Hobbs G. (1997). Preventive psychological intervention for road

crash victims. In Mitchell M (ed). The aftermath of road accidents: Psychological, Social and legal perspectives. London, Routledge, 159-171.

21. Bordow S and Porritt D. (1979). An experimental evaluation of crisis intervention. *Social Science and Medicine*, 13, 51-256.
22. Bunn T, Clarke A. (1979). An experimental study of the effects of a brief period of counselling on the anxiety of relatives seriously injured or ill hospital patients. *British Journal of Medical Psychology*, 52, 191-195.
23. Mayou R A, Ehlers A, Hobbs M. (2000). Psychological debriefing for road traffic accident victims. *British Journal of Psychiatry*, 176, 589-593.
24. Deahl M, Gillham A, Thomas J, Searle M, Srinivasan M. (1994). Psychological sequelae following the gulf war-factors associated with morbidity and the effectiveness of psychological debriefing. *British Journal of Psychiatry*, 165, 60-65.
25. Kennardy J A, Webster R A, Lewin T J, Carr V J, Hazell P L, Carter G L. (1996). Stress debriefing and patterns of recovery following a natural disaster. *Journal of Traumatic Stress*, 9, 37-49.
26. Jenkins S R. (1996). Social support and debriefing efficacy among emergency medical workers after a mass shooting incident. *Journal of Social Behavioural and Personality*, 11, 477-492
27. Macnab A J, Russell J A, Lowe J P, Gagnon F. (1999). Critical incident stress intervention after loss of an air ambulance: two year follow up. *Prehospital Disaster medicine*, 14(1), 8-12.
28. Chemtob C, Tomas S, Law W, Cremniter D. (1997). Postdisaster psychosocial interventions: a field study of the impact of debriefing on psychological distress. *American Journal of Psychiatry*, 154, 415-417.
29. Flannery R B Jr, Fulton P, Tausch J, Deloffi A. (1991). A program to help staff cope with the psychological consequences of assaults by patients. *Hospital and Community Psychiatry*, 42, 935-938.

30. Robinson R C, Mitchell J T. (1993). Evaluation of Psychological Debriefings. *Journal of Traumatic Stress*, 6, 367-382.
31. Dyregrov A. (1997). The process in Psychological Debriefings. *Journal of Traumatic Stress*, 1, 4, 589-605.
32. Jenkins S R. (1996). Social support and debriefing efficacy among emergency medical workers after a mass shooting incident. *Journal of Social Behavioural and Personality*, 11, 477-492
33. Jones N, Roberts P. (1999). Risk Management Following Psychological Trauma: A Guide to the Risk Management of Individuals and Groups Who Have Been Exposed to Traumatic Events. Royal Marines Stress Trauma Practitioners Handbook.
34. Foa E B, Ruthbaum B O, Riggs D S, Murdock T B. (1991). Treatment of post traumatic stress disorder in rape victims: A comparison between cognitive-behavioural procedures and counselling. *Journal of Consulting and Clinical Psychology*, 59, 715-723.
35. Guthrie E A, Creed F H, Dawson D, Tomenson B. (1991). A controlled trial of treatment for the irritable bowel syndrome. *Gastroenterology*, 100, 450-457.
36. Marks I, Lovell K, Noshirvani H, Livanou M, Thrasher S. (1998). Treatment of posttraumatic stress disorder by exposure and/or cognitive restructuring. *Archives of General Psychiatry*, 55, 317-325.
37. Neal L A, Shapland W, Fox C. An open trial of moclobemide in the treatment of post-traumatic stress disorder. *International journal of psychopharmacology*, 12, 231-237.