Peer-group risk assessment: a post-traumatic management strategy for hierarchical organizations

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Background	Organizations have moral and legal duties to consider the psychological needs of their workforce following exposure to potentially traumatic events related to the workplace. Additionally, it makes economic sense to avoid loss of valuable personnel to the effects of psychological trauma. There have been attempts to provide a range of psychological interventions for staff after exposure to potentially traumatizing events, but recent evidence-based medicine publications have questioned their effectiveness and, indeed, some studies show that single-session psychological debriefings may be harmful.
Aim	This paper presents a post-traumatic management strategy based upon peer-group risk assessment which was developed by the British military and is in use with other hierarchical organizations. The presented model keeps employees functioning after traumatic events and provides support and education to those who require it. Additionally, the strategy aims to identify those who are unable to cope after potentially traumatizing events and aims to refer them for early intervention, which has been shown to be of benefit.
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Introduction

This paper describes a psychological management protocol for personnel who have been exposed to traumatic events and who work within hierarchical organizations. Many organizations put their personnel in situations in which they may be predictably exposed to intense psychological stressors, e.g. the emergency services, the military and the diplomatic corps, to name but a few. The prevention of psychological illness following traumatic exposure may not be possible and interventions such as critical incident stress debriefing (CISD) and psychological debriefing (PD) do not seem to be effective as single-session interventions [1,2].

Previously, many organizations, including the British military and some of the emergency services, have used PD and CISD as standard psychological management strategies. As the evidence against debriefing has emerged, it has become necessary to examine other ways of delivering post-incident support, whilst avoiding the possibility of further traumatizing personnel. Indeed, within the British military the Surgeon General has issued instructions not to use stand-alone procedures such as PD or CISD following traumatic events, guidance which has also been issued by the Department of Health and suggested by the authors of the Cochrane systematic review on psychological debriefing [1]. What is more clear, though, is that current research indicates that if psychological illness is identified and treated at an early stage, then the more chronic forms of psychological illness such as PTSD (post-traumatic stress disorder, a potentially debilitating condition that often causes affected personnel to leave their primary occupation) may be prevented [3,4].

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Therefore, a peer-group model of psychological risk assessment has been developed by the British Royal Marines and is also in use with other organizations, including the Foreign and Commonwealth Office, the BBC and St John Ambulance. The strategy uses peer-group practitioners to identify psychological risk factors that might otherwise go unnoticed. Once identified, personnel are managed effectively by their managers and, where necessary, referred for appropriate treatment at an early stage.

A peer-delivered procedure has, for a number of reasons, advantages over one delivered by deployed mental health practitioners. In the military, adequate mental health support may be difficult to deliver due to factors such as logistical constraints, difficult terrain, wide dispersal of personnel and a limited number of practitioners. These sorts of constraints also apply to many other organizations. Additionally, organizations who employ external mental health practitioners, lacking an intricate organizational understanding, may find that post-trauma interventions are poorly received by their employees, who may be hostile to outside intervention.

The strategy

Psychological threat and risk assessment

The central objectives of the strategy are to provide managers with information to allow effective management of those exposed to potentially traumatic events and, where required, to facilitate an early referral for specialist psychological treatment. At the time of writing, there is no clear profile of the person who goes on to develop a psychological illness. However, there is a growing body of research that has identified certain risk factors that are linked to post-traumatic psychological illnesses. Although there are numerous identified risk factors, some are difficult to ascertain within a peer-group risk-assessment setting, for example low IQ is a risk factor [5]. The risk-assessment checklist used in this strategy has been developed from the current literature on post-traumatic reactions and is relatively straightforward for use by someone with the appropriate training. The factors are listed in Table 1.

The risk factors

Studies of PTSD suggest that the intensity and duration of the traumatic event can influence the development of post-traumatic illness [6]. Additionally, previous psychological problems and acute stress disorder can act as predisposing factors in the development of PTSD [7–10]. As acute stress disorder is one of the most robust predictors of later psychological problems, this is emphasized during practitioner training. Individuals who

Table 1. The risk-assessment checklist

	Risk factor
1.	The person felt that they were out of control during the event
2.	The person felt that their life was threatened during the event
3.	The person blamed others for what happened
4.	The person feels ashamed about their behaviour during the event
5.	The traumatic event involved death, serious injury or near miss
6.	The person experienced acute stress following the event
7.	The person had psychological problems before the event
8.	The person has been involved in previous traumatic events
9.	The person has poor social support (family, friends, unit support)
10.	The person has been drinking alcohol excessively to cope with their distress

feel that their life is threatened [11], who have a strong sense of shame, or blame others for the trauma are at risk of developing longer-term psychological problems [8]. Appraising the traumatic event as uncontrollable or unpredictable may also predispose towards psychological problems [12] and a history of previous significant traumatization increases the risk of developing post-traumatic illness when exposed to further traumatic events [13]. One central and robust finding from research into both trauma and general mental health is that accessible social support which is perceived as being useful is associated with lower levels of psychological illness [14–16]. It therefore follows that isolated employees who have poor family and social support are at risk of developing a psychological illness. Alcohol misuse is common in people who have developed PTSD. Although it is not clear whether this is a coping method, or whether it develops independently [17,18], it is associated with a range of psychological problems after a trauma and may develop as a problem in its own right.

The management protocol

Although risk assessment is at the heart of the proposed strategy, it is important that the entire intervention is suitably planned. The intervention timings have been allocated in order to allow sufficient planning, as shown in Figure 1. The 3 day period prior to the initial risk assessment is a minimum and often practical requirements dictate that the initial risk assessments occur later, i.e. as soon as is reasonably practicable.

Selection of risk assessors

An effective strategy requires selection of personnel suitable for training as risk assessors. Within the Royal Marines, all potential risk assessors are at least of corporal rank and will have been selected by a senior person
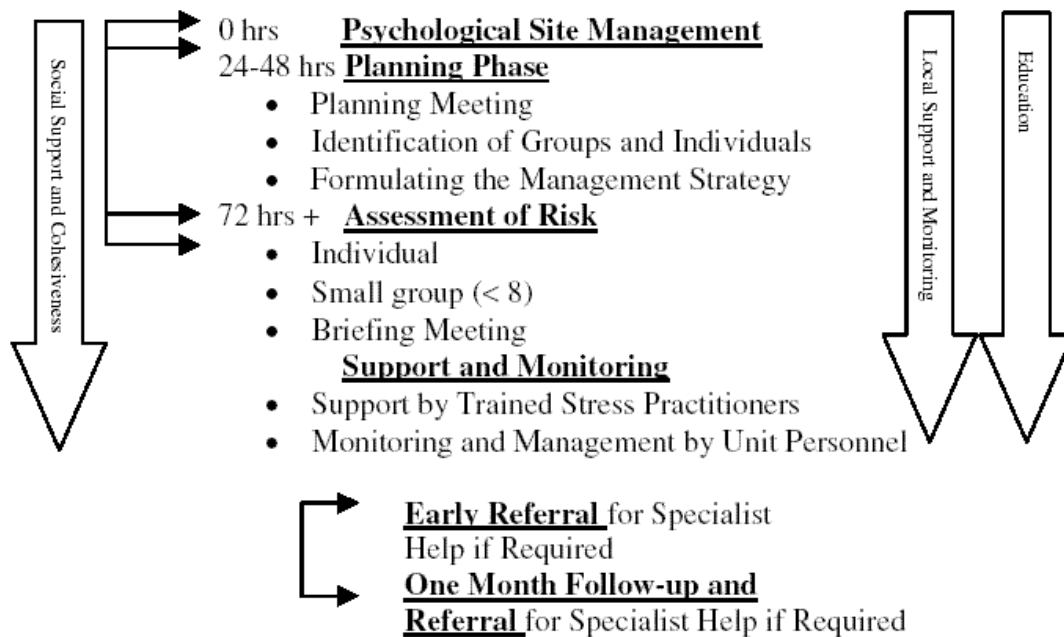
Social Support and Cohesiveness

Local Support and Monitoring

Education

0 hrs   **Psychological Site Management**
24-48 hrs **Planning Phase**
- Planning Meeting
- Identification of Groups and Individuals
- Formulating the Management Strategy

72 hrs + **Assessment of Risk**
- Individual
- Small group (< 8)
- Briefing Meeting

Support and Monitoring
- Support by Trained Stress Practitioners
- Monitoring and Management by Unit Personnel

Early Referral for Specialist Help if Required
One Month Follow-up and Referral for Specialist Help if Required

Figure 1. Specific strategies that are carried out following a traumatic event.

who has a detailed understanding of the risk-assessment process. As corporals, they will have been in the services for at least 5 years and have been promoted (which requires being successful in a competitive selection process) at least once. Attendance at the training courses is voluntary.

Training in post-incident psychological risk assessment

The training package aims to educate non-medical personnel within organizations (ideally junior and middle management) to be effective in the following.

1. Carrying out effective psychological management at the site of a traumatic event.
2. Convening and conducting a meeting with key unit managers to plan a response.
3. Analysing traumatic events and allocating personnel to group or individual risk assessment.
4. Conducting a risk-assessment interview.
5. Conducting a briefing meeting.
6. Facilitating a timely referral to an appropriate agency for treatment.

The training consists of both didactic teaching and realistic role-play scenarios. The course describes the rationale for risk assessment and gives a basic understanding of traumatic stress psychology and the practicalities of carrying out risk assessments. Training is conducted at introductory and consolidation levels, with additional regular update training and attendance at other appropriate courses.

The specific management strategies

1. Effective site management

The purpose of this strategy is to reduce exposure to the traumatic event wherever possible, in order to minimize adverse psychological outcomes on an organizational level. During the course, trainees are taught the benefits of rotating personnel through tasks and ensuring the provision of adequate rest and sleep. There is also teaching of aspects of dealing with human remains, as an example of site management after a traumatic event.

2. The planning meeting

Careful planning is required for any effective intervention. Within 48 h after an incident, a meeting is arranged to engage the organizational management structure and to examine who was involved. Key organizational personnel need to attend who both know about the event and about those exposed to the event. Additionally, the meeting should include representatives from the organizational medical and welfare system (including the occupational health department) and the risk assessors. The support of line managers is instrumental in ensuring that the strategy is implemented. Traumatic events vary and it is essential that a flexible approach to planning should be taken.

3. Analysing traumatic events and allocation of personnel

At a planning meeting, it is important that a decision is

made as to whether any intervention is required. Preliminary field research [19] has shown that certain events are more likely to cause psychological distress, including:

- experiencing or witnessing serious injury to others, particularly colleagues and vulnerable groups such as women, children and the elderly;
- complex or prolonged trauma;
- 'near miss' events which could have resulted in serious consequences;
- if personnel experience immediate overwhelming distress.

Many traumatic events involve relatively small numbers of personnel and, thus, the analysis is quite straightforward. Larger events, which can include personnel from different organizations, are more complex. Figure 2. shows the structure used to filter the event [20]. Use of the filtering template ensures consideration of all involved personnel. It does not always follow that everyone will require risk assessment.

After deciding whether or not to intervene and then filtering, it is necessary to decide between carrying out individual or small group interviews, as shown in Figure 3.

Prior to conducting risk assessments, the 10 risk factors are discussed within the confines of the planning meeting and some preliminary information obtained, especially that relating to exposure to previous traumatic events and previous psychological problems.

4. Risk-assessment interview structure

A structured interview model, referred to as the BDA (before, during and after) model, is used to conduct risk-assessment interviews with both groups and individuals. Its purpose is not to eliminate or reduce post-traumatic reactions, but to allow the interviewer to identify those who may be at risk of developing

psychological problems. The BDA grid is presented in Figure 4.

Risk assessors use the BDA grid, ensuring they spend sufficient time on the 'before' phase to allow for the early identification of very stressed personnel and also to build rapport. The interview structure focuses on the individual's perception of the event and their emotional and cognitive reactions to it. The interviewer simply works through the numbered grid and enquires as dictated by the row and column headings for that box. It is derived in part from the 'facts, feelings and future' approach described by Braddon and Tate [21].

In a group risk assessment, every attempt is made to encourage people to support one another. Risk assessor training emphasizes the requirement to avoid excessive exploration of emotions, as risk assessment is not about emotional ventilation, as is the case with other forms of psychological debriefing. This is in keeping with the conclusions of the Cochrane systematic review [1], which suggests that it may be the exploration of an exposed person's feeling toward the event that may in part be responsible for the worsening of symptoms after psychological debriefing.

Information disclosed during the interview is considered to be confidential; the only caveat to this (as explained to the interviewees) concerns information which causes a serious concern for the safety of the interviewees or others. With permission, risk assessors are required briefly to inform managers to allow effective management of such risks. Risk assessors are advised to seek assistance if they are unclear as to how to proceed.

The 1 month follow-up assessment

The importance of the 1 month follow-up assessment is threefold. First, some exposed personnel may develop psychological problems after a delay and a stand-alone interview will not detect these. Secondly, some individuals continue to experience psychological distress following the initial interview and are at risk of developing

- Those directly exposed to the disaster.
- Those with family or close friends involved in the event.
- Rescuers, helpers, and the emergency services.
- Large scale community traumatisation.
- Vulnerable individuals who react strongly to minimal stress. Those previously exposed to trauma who react strongly to the current event and "Ghouls", (individuals who attend the scene out of morbid curiosity).
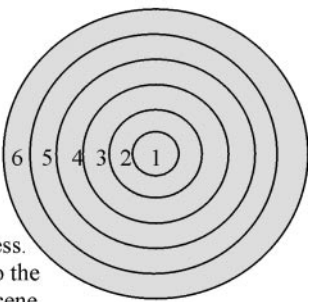- Those who would have been involved but were not.
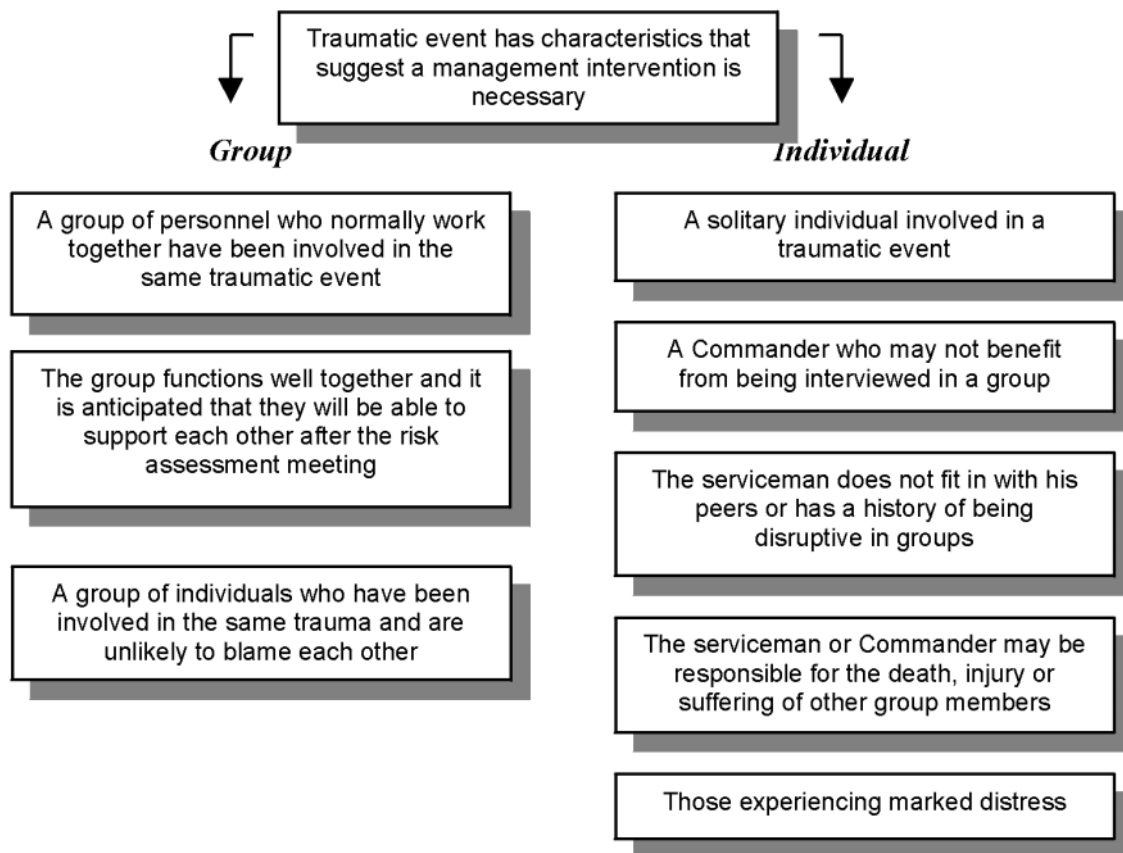
Figure 2. Analysis tool for traumatic events.

Figure 3. Decision tree for group or individual assessment.

long-term psychological problems. Lastly, an individual's adjustment to the traumatic event can be gauged by comparing their initial psychological and behavioural state (and risk-assessment score) with that assessed at the 1 month follow-up.

Preliminary evidence: inter-rater reliability

In a preliminary study, Greenberg [22] demonstrated that inter-rater reliability increased significantly following the training course. The trainees carried out a risk assessment of a number of standardized video presentations of soldiers' responses to a traumatic event. There was a significant training effect, where the risk-assessment scores became more consistent and accurate as a result of the training [22]

5. The briefing meeting

Where a planning meeting decides that the event is relatively minor, or that some groups of personnel were only marginally involved in the event, it may not be appropriate to instigate a formal assessment procedure. In such cases, it may be appropriate to carry out a two-stage briefing. This consists of a factual brief about the event, in order to clarify details, and a psycho-

educational briefing to ensure that personnel are aware of the usual sorts of post-traumatic reactions and some coping strategies. Often, such briefings are supported with a psycho-educational leaflet.

6. Personnel management and referral

After the initial risk-assessment meeting, managers are informed about the degree of psychological stress that exposed personnel have assimilated. This is done collaboratively with the interviewee. After the 1 month follow-up interview, personnel are encouraged to seek help if their distress is not settling (as indicated by persistently raised scores or scores which have increased). During the training course, risk assessors are also encouraged to be vigilant for signs of marked changes in behaviour that are indicative of significant distress.

In the first instance, it is intended that psychologically informed managers will be able to manage their staff effectively. Clearly, occupational health departments will be able to assist with this and other organizational sources of help may be available, e.g. employee assistance programmes. Where such management strategies are ineffective, referral to a specialist agency, via the patient's general practitioner, is encouraged. The actual source of help is dependent on available resources and the wishes of
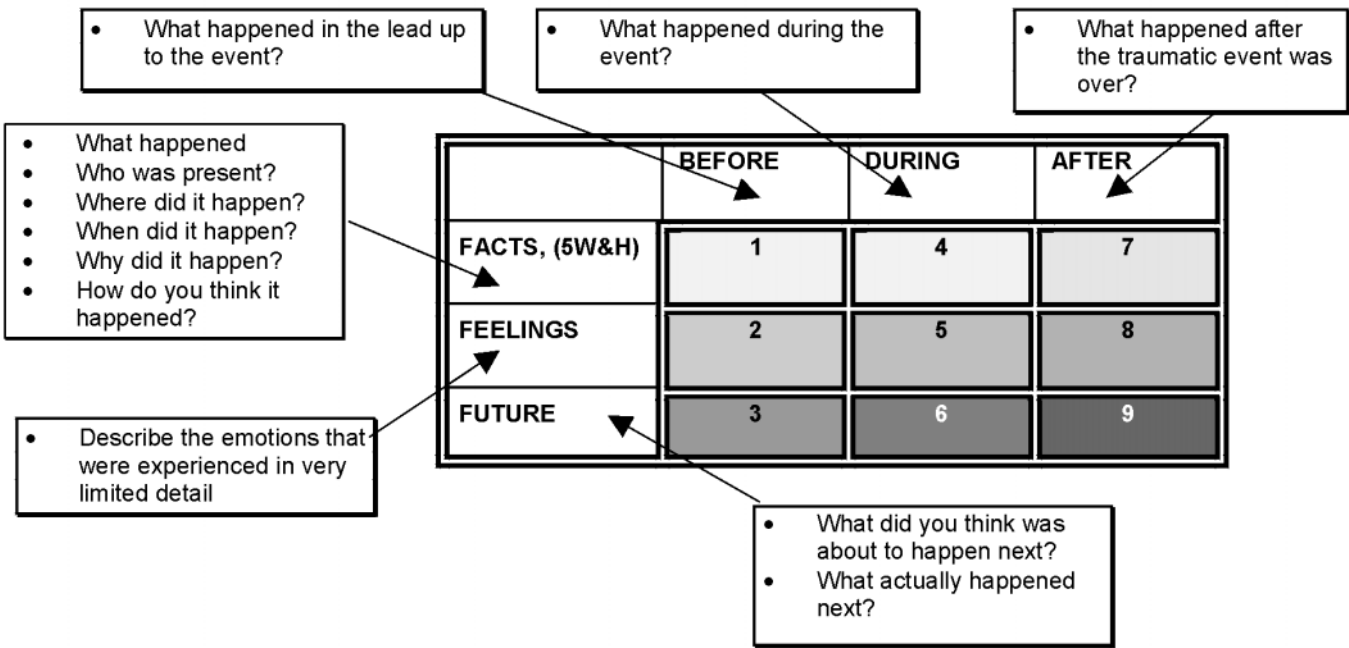
Figure 4. The 'before, during and after' (BDA) grid.

the distressed individual; for example, the UK military has an 'in-house' psychiatric service.

Documentation

Information from the initial assessment is securely stored and used when conducting the follow-up interviews. After completion of the 28 day follow-up, only a simple record is kept in the form of a diary entry of who was assessed, their scores and a brief management plan. This information is kept separately from other personnel and health records. From a legal perspective, it is important to record the names of those who were offered the procedure, but declined to take part.

Future research

Field trials appear to be successful and organizations that employ this model of post-traumatic personnel management report that it is well received. Clearly, future research is required to ensure that use of this strategy is effective. Work is currently under way to compare the use of this risk-assessment strategy with 'normal practice' within the UK armed services. The study will examine two groups of trauma-exposed personnel: one who will have had risk assessments and another group who will have not. Outcome measures will include measurements of post-traumatic stress, activities of daily living and use of medical services. Other studies are under way looking at concurrent validity of the risk-assessment checklist, comparing it with other well-validated measures such as the 'Impact of Events' scale. It is only by rigorous

scientific investigation that the validation of this strategy will be achieved. Such studies will also ensure that the strategy is not potentially harmful, as has been found with some methods of psychological debriefing.

Conclusion

This paper presents a post-traumatic management strategy based upon peer-group risk assessment. Its effectiveness relies on effective personnel management by psychologically informed managers and early referral where required. It builds upon the positive aspects of psychological debriefing, namely using an interview as an opportunity to detect those who are suffering from considerable degrees of post-traumatic stress, whilst aiming to avoid deep emotional exploration related to the traumatic event. It aims to build upon and support resilience and avoid unnecessary medicalization of normal post-traumatic reactions.

All the authors are employed by the Ministry of Defence.

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