

# THE MANAGEMENT OF POST TRAUMATIC STRESS REACTIONS IN THE MILITARY

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## What is a Post Traumatic Stress Reaction?

Given the substantial scientific and media interest in traumatic events, whether civilian or military, natural or man-made it is perhaps understandable that such events are often regarded as being likely to leave a legacy of psychological symptoms. To a degree this is true. There are a variety of psychiatric conditions which can follow traumatic experiences and these have collectively been labelled as Post Traumatic Stress Reactions (PTSR). Whilst Post Traumatic Stress Disorder (PTSD) is undoubtedly a significant component of PTSR it does not constitute the majority of diagnoses subsumed under this heading. Other common PTSR include mood disorders (including clinical depression), anxiety disorders (including phobic and panic disorders), somatoform and sleep disorders in the longer term [1] and acute stress disorders in the immediate aftermath [2]. One common misconception is that a large number of those exposed to traumatic events will initially exhibit normal symptoms of distress and then almost inevitably develop a psychological illness. This is not necessarily the case.

Following a traumatic event classical symptoms of avoidance, re-experiencing and hyperarousal commonly occur. Despite this, there is significant evidence to suggest that after the initial distress, approximately 50% of individuals will adapt, that is return to their normal state of functioning, over a period of 3 to 6 months without any formal therapeutic input [3]. Understanding the "normal" responses to abnormal events leads to several relevant points: firstly, not everyone who might be diagnosed as suffering from an Acute Stress Reaction (ASR) [4] or Acute Stress Disorder (ASD) [5] following a trauma will develop PTSD in the long term, although Bryant suggests that up to 75% will do [3]. Secondly, it is not possible to reliably predict those who will go on to long term PTSD from the pattern of symptoms experienced in the acute stages of resolution from the trauma [3]. Finally, there is an ongoing debate about what form of treatment, if any, should be provided to those who are experiencing normal reactions to traumatic events [6].

## What we know about PTSR in the military

Military personnel are required to routinely deploy to hostile environments where there is often a significant risk of exposure to traumatic events. These events can be a result of not only war-fighting missions, but also peacekeeping operations and the provision of humanitarian relief. Military history is littered with evidence of the often changing views as to why military personnel suffer psychological breakdowns on operations [7]. Prior to World War Two the prevailing opinion was that those

personnel who suffered psychological injuries were inherently weak. This led to the view that if the military could simply employ the right people then psychological breakdown would be "a thing of the past". However, this has been found to be both overly simplistic and indeed wrong. The more contemporary, and perhaps unsurprising, view is that the cause of breakdown is multifactorial; a complex interplay of person, circumstance and event. Changing theories have led to a variety of diagnostic labels being used to describe similar phenomena in keeping with the cultural tone at the time. Terms such as Soldier's Heart, effort syndrome, neurasthenia and shell shock have all been employed at one stage or another since the American Civil war to describe combat related conditions [8].

Work conducted at the King's Centre for Military Health Research has shown that most wars result in the experience of a number of symptoms that cannot be linked to a specific causative agent, and that over time the pattern of these presentations has changed [9]. For instance the Boer War was characterised by soldier's complaints of general fatigue and weakness, whereas during the two World Wars chest pain and dizziness were more prominent features. More contemporary complaints have also been linked to military service, including Gulf War Syndrome, where once again physical symptoms have been linked to psychological distress [10].

So what effect can operational service have on a service man or woman? In a clinician interview study of 1871 Australian Gulf War Veterans [11], individuals who had served in theatre had an increased risk of developing any DSM-IV diagnosis when compared with those who had not deployed (30.8% vs. 21.1% OR 1.7 CI 1.3-1.9 p<0.001). Of note were increases in anxiety disorders, PTSD, affective disorders, and alcohol use disorders. The authors also found that when a measure of combat related stress was included the risk of developing psychological disorders was associated strongly with an increasing number of psychological stressors being experienced during the operation. Whilst this may be of interest to the commanders on the ground some caution needs to be made in interpreting these findings as work by other authors has shown an amplification of memory for traumatic events over time [12]. Put simply when we think of past experiences, our current psychological state strongly influences how we remember events. For instance, those who suffer with the symptoms of Gulf War Syndrome, remember having more vaccinations than those who do not. However, when records are examined, it reveals that actually both groups had the same number [13].

## Management

The management of PTSR within an operational theatre is multidimensional and should occur as a result of close cooperation between the command, medical and welfare staff (including chaplains). Those who manage such reactions should remember that within the UK Armed Forces the

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psychological welfare of troops is primarily a command responsibility [14]. Without the various support services interacting effectively there is a considerable danger that many personnel will not be expeditiously returned to service or indeed that they may not be picked up at all.

During the First World War a new group of military psychiatrists with an interest in the treatment of soldiers with psychological disorders developed the principle of what has come to be known as Forward Psychiatry after working close to the battle line [15,16]. This concept is made up of several facets of treatment which are all still relevant today: Proximity, Immediacy, Expectancy and Simplicity (PIES).

The PIES concept has been adapted following its initial introduction to reflect the ever-changing demands of contemporary warfare, and has been modified for use by a variety of forces and in a variety of contexts. Although the PIES concept is not without its critics [17] it remains the guiding principle by which mental health practitioners and all medical services manage those with an acute PTSR in order to return them to full operational efficiency as quickly as possible. There are two key aims of this approach, firstly to maintain the individual's mental health and then as a consequence preserve the ability of the fighting force. A 20 year follow up of the use of the PIES principle by the Israeli Army showed that the more principles that were applied the better the long term outcome (see table 1) [18].

Number of PIES principles used in treatment	% of group who experienced PTSD
0	47.9
1	38.5
2	32.6
3	25

Table 1: (This study only investigated the use of Proximity, Immediacy and Expectancy so effects for a maximum of 3 principles are described. [18])

### Within The Unit

The first stage at which psychological disturbance can be managed is within the unit. This relates to the principle of proximity, that is treating the individual as close to the front line as possible. Historically, such treatment was supposed to be carried out “within the sounds of the guns” however in this era of asymmetric warfare and rapidly moving battlefields this may not be possible. Nevertheless, keeping a distressed individual within their unit is the first component of effective treatment. This can, and indeed should, be co-ordinated by an individual's commander, who upon being made aware that one of their personnel is distressed should arrange for them to be re-tasked into an operationally significant but yet rehabilitative role. It is imperative that this movement of personnel should be done in such a way as to not stigmatise the individual within his peer group. Stigma relating to mental health issues is a real issue and must always be kept in mind [19]. Suitable tasks might be helping with re-supply, aiding the wounded or assisting with communications.

Commanders should implement any intervention relatively rapidly in accordance with the principle of immediacy. This principle suggests that a timely intervention following awareness of an individual's stress may negate the development of prolonged stress symptoms which could be sufficient to eventually overwhelm the individual's ability to cope. Early intervention can thus be operationally advantageous; prompt action may lead to an individual not requiring longer-term removal from duties. Techniques which could be employed to aid an individual to recover full fighting ability would be to ensure a period of rest, hot food, and clean clothing depending

on availability. The US forces often summate this advice as “three hots and a cot” indicating a period of time when an individual receives three good meals and a good period of sleep.

The importance of meeting basic requirements has been highlighted in Maslow's “hierarchy of needs” (Figure 1). The hierarchy of needs ascends from “the basic biological needs to the more complex psychological motivations that become important only after the basic needs have been satisfied. The needs at one level must be satisfied before those at the next level become important...” [20]. What this indicates is that when managing distressed individuals it is important to attend to basic physiological needs before more complex ones.

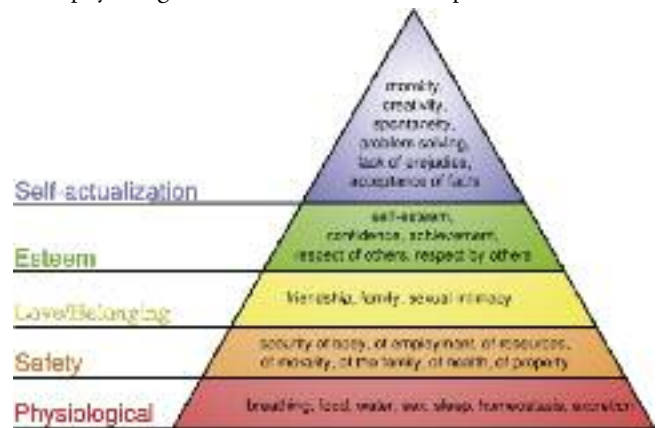


Figure 1: Diagrammatic representation of Maslow's Hierarchy of Needs. Lower needs should be at least partially met before an individual can move to a higher level.

The unit commander's next role, which may be assisted by medical staff, is to normalise stress responses, by providing the message that such responses are understandable and can be dealt with. The mere suggestion that an individual will be strong enough to cope with future stressors and will be able to continue to fulfil their role increases the likelihood that they will overcome their difficulties and return to fighting duties. This follows the principle of expectancy. Unfortunately the converse argument is also true, suggesting that an individual lacks the resources to cope and it is likely that they will not be able to cope will lead to the potential development of a self-fulfilling prophecy. Thus commanders need to be educated about the basic principles of PIES before taking to the battlefield.

Stressed individuals will often want to talk about their experiences and research has shown that communicating with Mental Health Professionals is low on their list of choices [21]. Rather, discussing their situation, and in some cases emotional responses, at a time convenient to the individual with people chosen by the individual such as family, friends and work colleagues seems to be more important. To further highlight this with an example from the civilian literature, a survey was conducted in the immediate aftermath of the London 2005 bombings. Researchers who conducted telephone interviews with about a thousand Londoners less than two weeks after the bombings found that whilst a third of respondents reported experiencing substantial stress, only 1% of the sample felt that they needed professional help to deal with their reaction to the attacks. In contrast, 71% of the sample had spoken to family and friends “a great deal or a fair amount” about the attacks [22]. The use of lay networks in times of trauma is something that should be encouraged and facilitated within the operational unit allowing comrades' time to talk between themselves.

The Royal Marines have pioneered an approach to dealing with the stressed individual known as Trauma Risk Management (TRiM). Utilising unit personnel who have had

a short training course, the identification and presentation of stressed individuals can be retained within a unit and so effectively managed close to the "frontline". The aim is that having trained TRiM practitioners within a unit will gradually reduce the stigma attached to the presentation of stress and so people will be able to seek help at an earlier stage [23].

## Role One

So what is the role of the on the ground medic, nurse, medical officer and Padre if actually the aim is to encourage the unit to sort out and address its own stressed members? Firstly, such staff may be able to spot distressed personnel, as they are in a good position to detect individuals who are under mounting pressure. Presentations at sick parades or to the chaplain may be an indication that an individual is unduly stressed and might need support. The role one intervener should be aware of this possibility and use their unique status to engage command in the appropriate management of the individual as outlined above; early liaison is the name of the game.

Also chaplains and medical staff have an important role in allowing individuals the time and opportunity to ventilate their feelings in an unpressurised and safe environment before returning to duty; sometimes this may be all that is required in order to help someone through their difficulties. Normalisation may also be especially reassuring if it comes from someone who is deemed to have the relevant experience and training as is the case for many role one staff.

It is worthwhile remembering that role one staff may also be affected by their operational duties and so should carefully monitor their own responses to stress and set an example to the rest of the unit by engaging in healthy stress reduction techniques.

Finally, the role one medical team has a responsibility to support the command in maintaining the fighting efficiency of its unit. It is important to remember that command is often a lonely position and that a stressed commander may have nowhere to turn to for their own support. Engaging with the commander and supporting them in their personnel management is an important function. If the role one team establishes a good working relationship with commanders, and in doing so eases the commander's pressure levels even a little, this is likely to have benefits for all those who are subordinate to him.

Currently mental health professionals in theatre are mainly based at the role 2 or 3 facility; however the Field Mental Health Team (FMHT) staff will visit role one facilities on a regular basis. Their expertise can often assist the role one staff by providing reassurance and advice to bolster any local management plans.

## Roles two and three

Is there any point therefore in having mental health professionals in the war fighting zone? During the acute stage of a battle most stress related problems should be managed effectively within the unit and the mental health professional will act in an advisory capacity to those working in the frontline. The knowledge that advice is available should it be required will help individual units feel more confident to manage their men effectively. However FMHT staff can and do visit forward units in order to both support the medical team's work and to offer an informal source of expert support for commanders and medical personnel. Supporting the carers requires deployed mental health professionals to work hard at establishing trusting relationships with those that they may advise before such a need arises.

Rarely will an individual require urgent psychiatric attention as a result of overwhelming stressors. However, such florid

presentations may well be detrimental to the fighting efficiency of a unit utilising more manpower to control than is readily available. In such circumstances the FMHT will be in a position to respond quickly and effectively to provide advice and possibly management of such individuals. The way in which this is achieved is obviously dependent on the nature of the case and the environment in which the unit is operating; geography is an ever important consideration and rapid intervention may be achieved by provision of a management plan and support to the Regimental Medical Officer by specialist staff. However, the option to "treat as far forward as possible" is PIES compliant and should be considered where practicable.

Historically there was much interest in the role of the Mental Health Professional in providing what has come to be known as the "Critical Incident Stress Debrief" (CISD) or "Psychological Debriefing" [4,24,25]. Various models of this approach exist but all primarily aim to allow either individuals or groups of people, subject to traumatic event, a time and place to talk about their experience and ventilate their feelings. Whilst, as caring professionals, this process was something that 'instinctively feels correct' there is no conclusive empirical research which supports this practice. In fact systematic reviews of the literature [4,25] state that at the very least individual single session debriefing does not work, and actually it may do more harm in some circumstances, particularly where the individual is more distressed. As a result of this the UK Armed Forces have now abandoned the use of single session psychological debriefing and nowhere should the appearance of "trained counsellors" be seen. Of interest however, is the emerging US data that appears to suggest that modified group debriefing may have a place in the management of cohesive combat exposed groups [26].

Technical or operational debriefing following a major incident is however a different entity to CISD and has been used effectively to enable discussion about the event. It is primarily used to establish the facts about an incident, what worked and what didn't, and to allow a dissemination of information between those involved and their commanders; it is not intended to allow ventilation of feelings or as any sort of psychological intervention and as such should not be considered a medical treatment. However there are likely to be many positive psychological elements to operational debriefings as personnel will want their experience to matter and this forum is an ideal opportunity to "adjust the plan" based on what the commander hears.

## Long Term Treatment

Most personnel who deploy to operational theatres do not go on to experience long term psychiatric sequelae as a result of their experiences. For instance a recent paper from the King's Centre for Military Health Research showed that about 4% of regular personnel who have deployed to Iraq will have experienced such problems [27]. However, spotting the few that may do requires commanders to be aware of what to look for and for distressed individuals to overcome any stigma and come forward for help. The presence of TRiM practitioners [23] within units will hopefully allow those who may be suffering with the early manifestations of psychological disorders to be picked up and referred for treatment by specialist mental health teams in an expedient fashion. As stated earlier there are a variety of problems which may occur after traumatic events and any suggestion of these should prompt the command, medics or welfare services to investigate and refer these individuals to professional help if required. Although treatment for PTSD can be effective, whatever time has elapsed since the event [28], the sooner an individual is

treated the less suffering they will experience and the less is the chance that any disorder related decrease in work efficiency will have impacted upon their career. For instance, in a recent study by Rowan and colleagues, the authors found that self referral for a psychological disorder was more likely to be associated with a positive outcome than referral by a manager who had noted a decrease in work performance [29]. Thus early referral and early intervention may well have benefits for the Service as well as the individual. It is also possible that those personnel who suffer with "hidden" disorders would be more likely to leave the Services, perhaps as a result of an illness informed poor decision. As such, a low threshold for early liaison with, or indeed referral to, a mental health practitioner should be considered by both medical and command staff, whilst also adopting a National Institute of Clinical Excellence compliant policy of "watchful waiting" to see if the symptoms spontaneously resolve [30].

## Preventative measures

The British Military is currently experiencing a very considerable operational tempo and this is likely to continue for the foreseeable future. With the ongoing operations in both Iraq and Afghanistan, as well as other smaller operational commitments the likelihood of increasing exposure to potentially traumatic events seems inevitable. Unfortunately whilst there is nothing that can be done prevent exposure to trauma there is much that commanders and medical staff can do to prepare personnel for deployment which will encourage resilience in the face of adversity.

The UK Armed Forces acknowledge that excessive deployments may have an effect on job satisfaction and have recommended maximum deployment levels, called the harmony guidelines. Although these vary by Service, the Army guideline is for a six months' operational tour with 24 months interval during 36 months; therefore, a unit should not be deployed for more than 12 months in three years. A recent paper published in the British Medical Journal showed that this guideline held up when subject to scientific scrutiny in that those personnel who were within the guideline were significantly less distressed than those who breached it [31]. The same paper also showed that personnel who had their tour length extended beyond what they expected it to be had higher levels of distress than those who did not. Both findings suggest that the Armed Forces policy makers have properly considered the impact of operational tempo; however shortfalls in manning have the potential to impact not just operationally but also psychologically.

Whilst it would be ideal to recruit only resilient individuals, this is neither feasible nor with the current state of knowledge possible, given the considerable numbers of personnel needed to maintain Service manning. However commanders should be aware that intensive, realistic and regular training can be expected to increase an individual's resilience and hence operational effectiveness. This point was bought out in the 2003 MoD class action where a number of ex Service personnel attempted to prove that the MoD had negligently caused them to develop PTSD; the case was unsuccessful [32]. The Judge was convinced that the robust training programmes used by the Armed Forces allowed individuals to face their fears during training and that doing so made it easier for them to do so in reality. Training is thus important for psychological as well as operational reasons and should be sufficiently robust to induce resilience.

Fostering an awareness of mental health issues within the military context may help to reduce the stigma of suffering from stress. A psychoeducational approach can be delivered by deploying mental health teams, or other competent and

confident individuals (for instance Medical Officers or Chaplains). Such briefs are often given in three parts: normalisation of anticipatory anxiety and post incident distress, identification of simple self help strategies to deal with the effects of stress (e.g. distraction, talking to colleagues, sleep, exercise) and an explanation of the avenues of support available. Although there is evidence which suggests that such briefs may be beneficial when given during homecoming [33] there does not appear to be similar evidence of briefs given before troops deploy [34]. However, it is worth noting that the provision of appropriate briefs to military personnel is not just potentially useful but is also part of policy [35].

Fostering unit cohesion and morale is another vitally important element which will allow those exposed to operational stressors to cope. Faith in leadership, faith in the common purpose, having an adequate balance of work and rest and most importantly having faith in each other are all important constituents of morale [36]. At times of significant stress much of this may not be evident but the faith in each other is a key element to determining how personnel will perform in difficult condition [16]. Health professionals can reinforce this message.

Finally the individual's perception of his family and home life is an important factor in his response to in theatre stressors. If a serviceman knows their family are safe and well at home, and supportive towards them they are more likely to cope with the exigencies of their operational role. This can be helped by ensuring that any family needs can be met by service welfare services. Within the UK military the operational welfare package which allows for communication with home can be an effective tool with which to achieve this, although at times this may expose people to home stressors that adversely impact upon their mental health. As such both health care providers and military commanders need to be aware of this potential.

## Conclusion

With adequate preparation, good unit cohesion and support the effects of traumatic experiences on an individual can be minimised but not removed. Traumatic incidents during operations will occur however what is important is an individual's ability to respond to challenges and recover from them sufficiently to continue functioning. There is a plethora of research currently examining military mental health and it is hoped that novel techniques may be developed which will aid the recovery of individuals. One thing is certain however, and that is the requirement to place military personnel in harm's way and thereby subject them to possible traumatic experiences. The aim of commanders, medics, chaplains, welfare services and finally mental health practitioners is to increase the resilience of individuals to this stress and to quickly and effectively manage individuals once they have been seen to suffer from the effects of stress.

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