Psychological risk assessment following the terrorist attacks in New York in 2001

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Abstract
Background: Trauma Risk Management (TRiM) is a post-traumatic psychological management model utilizing peer support/assessment, developed by the UK military. Following September 11th, 2001, the UK Foreign & Commonwealth Office (FCO) deployed TRiM personnel to New York.
Aims: This report describes the use of TRiM by the FCO in New York and examines the correlation validity of the TRiM assessments.
Method: Assessments were conducted among personnel shortly after the event and again after a further month. The initial and follow-up scores on the 10-item TRiM Risk Assessment Tool (RAT) and the Impact of Events Scale (IES) were compared.
Results: Twenty-eight people were assessed using the RAT; 20 also completed the IES. The IES identified 19 cases at initial assessment compared to 5 using the RAT. At follow up, the IES identified 10 cases compared to two using the RAT. Initial RAT and IES scores were not correlated however the follow-up scores (Pearson’s \( r = 0.79 \), \( p < 0.001 \)) and the change in scores were (Pearson’s \( r = 0.56 \), \( p = 0.02 \)).
Conclusion: Results suggest the TRiM process was well received and the RAT appears to measure a similar change in post traumatic distress as the well validated IES. Further research will determine the efficacy of this system.

Keywords: TRiM, Impact of Events Scale, UK military, FCO

Introduction
The aftermath of the events of September 11th 2001 left many organizations that employed personnel in New York City wondering what, if any, psychological support they should provide for their staff. In previous years some organizations would have conducted critical incident stress debriefings, aimed at preventing the development of Post Traumatic Stress Disorder (PTSD). However there are now numerous publications that conclude that such single session debriefings are not effective and may in fact cause harm (Rose, Bisson, & Wessely, 2003; Van Emmerik, Kamphuis, Hulsbosch, & Emmelkamp, 2002). Nonetheless, organizations such as emergency services that regularly expose their staff to potentially distressing situations are still required to exercise their duty of care towards their staff. Within the UK Health and Safety Executive, figures show that stress-related disorders are now the largest cause of occupational incapacity (Department for Work and Pensions [DWP], 2002) and therefore it makes economic sense to try and ameliorate trauma-related....
sickness absence and organizational disruption as a result of traumatic events. Additionally, there are also clear moral reasons for adopting a supportive role towards staff who may be suffering after traumatic events. In the aftermath of September 11th, the UK Foreign and Commonwealth Office (FCO) felt it appropriate to provide support for their staff in New York City. They used a model of peer group risk assessment which enabled the personnel managers in New York to be psychologically informed when managing their staff. This model of post traumatic psychological management had been developed by the UK military and the detail of the system has been reported elsewhere (Jones, Roberts, & Greenberg, 2003; Greenberg, Cawkill, & Sharpley, 2005). In brief the model, which is known as Trauma Risk Management (TRiM) within the UK Military, aims to enable personnel without extensive training to manage the psychological and emotional needs of those who have been exposed to traumatic events. It builds upon peer group support and is primarily a tool that enables an organization’s personnel management system to assist those individuals who are having difficulty after critical events. It develops principles of combat psychiatry (Solomon & Benbenishty, 1986), especially the principle of expectancy – TRiM does not make the assumption that those exposed to trauma will inevitably become victims, instead it assumes that with the right support most personnel will eventually continue to lead a healthy life and fulfil their functional duty. Where personnel management systems cannot achieve this, an early referral to trained professionals is encouraged.

This paper aims to describe how the FCO used TRiM in New York in the aftermath of September 11th 2001. As TRiM was implanted the opportunity was taken to use a well validated measure of post traumatic psychological stress at the same time as the TRiM in order to gain some preliminary correlational validity of the risk assessment process. It was hypothesized that the TRiM process would measure similar constructs to the standardized measure of post traumatic stress.

Method

Overview

Following an initial request for psychological support by the FCO, a team of four risk assessors flew out to New York some 2 weeks after the events of the 11 September 2001. The team aimed to use TRiM as a basis to provide an appropriate level of emotional support to the FCO’s personnel in New York. This was to involve the provision of psycho-educational briefings to the UK diplomatic staff and families in New York and to provide psychological risk assessments for those who required them. The information from the risk assessments would then be fed back to managers to allow them to be sensitive to the needs of their staff, some of whom might be adversely affected by the World Trade Centre incident. The team was composed of two experienced Risk Assessors (who were military personnel not peers), and two people who has just completed the training course the week before (peers who were employed by the Foreign Office).

Planning and briefing meetings

When the team arrived in New York, they spent the first 2 days conducting planning meetings with the senior Foreign Office managers in New York and with the personnel department there. The purpose of these meetings was firstly to explain the process of TRiM to the managers, and secondly to find out which Foreign Office employees might be at risk of having suffered significant degrees of psychological stress. In order to identify these
“higher risk personnel” managers were asked about their staff’s role on both the 11 September and the days afterwards. Examples of those considered as “higher risk” were personnel who went to the twin towers site on 11 September, who had direct contact with the relatives of deceased British nationals or who had appeared to be acting out of character since the event. Such higher risk personnel were then offered a risk assessment.

During the first few days the team also provided briefing meetings, which were offered to both FCO employees and their families who lived in New York. These meetings were conducted in two phases and lasted approximately between 15 and 30 minutes. The purpose of the briefing meetings was to impart some potentially useful information to personnel who were not deemed to be at higher risk. In the first phase a member of the senior FCO management team would explain the factual details of the incident and the current situation and in the second phase a member of the TRiM team would give an educational brief about normal reactions to stressful events. The factual brief was intended to dispel rumours which have the potential to generate a significant amount of anxiety or stigma, and also show Foreign Office employees that their senior management were interested in their psychological needs supported the process of a team being dispatched from London. The educational brief covered normal reactions to stress, self help techniques and where to seek additional help. These briefings were backed up with an information leaflet that was distributed at the end of the meeting. There was an opportunity for questions at the end and additionally the risk assessment team remained behind in case any member of staff wanted to talk to them in confidence.

**Trauma risk assessment**

Attendance at the risk assessment interviews was encouraged but voluntary. Those invited to attend the assessments were a combination of “higher risk individuals” identified at the planning meetings and anyone who asked to see the assessors after a briefing meeting. Group risk assessments were undertaken wherever possible if a cohesive group, who knew each other, had had a similar experience during the incident and there was no likelihood of group members apportioning blame to each other. Otherwise assessments were carried out a 1:1 basis. Risk assessments would last for approximately one hour and their focus was the measurement of the degree of stress assimilated by individuals who had been exposed to the recent events. The meetings did not focus on emotional ventilation and Risk Assessors were aware of the need to avoid re-traumatization of personnel. All steps were taken to be supportive but not emotionally invasive. The initial risk assessments were undertaken between 24 and 29 September 2001.

The risk assessment itself uses a 10-item checklist, each item being rated on a 0–3 scale, (Table I), where 0 was given when the item was not present and 3 being given when (in the view of the assessor) the item was present to a substantial degree. The ten risk assessment items are rated by a combination of a semi-structured interview and informant history which is obtained prior to conducting the risk assessment (the planning meeting, see above). As is evident from the checklist, it is unnecessary during the risk assessment interviews to encourage emotional reliving of the event. Attendance at the interviews is voluntary and all interviewees were given assurance that no information would be discussed with any of their managers without their permission unless something was disclosed which presented a serious concern for either their safety or the safety of others. Should this have happened (it did not) then the assessor would have urgently discussed the case with a member of the FCO’s health and welfare department.
A follow-up risk assessment was carried out about a month later (29 October–2 November 2001) by the two FCO Risk Assessors. The follow up is standard procedure with the psychological risk assessment model that was being used. The basis for the follow up assessment is that most people show signs of emotional adjustment to traumatic events within the first 4–6 weeks after traumatic events (National Institute of Clinical Evidence [NICE], 2005) and thus by comparison of the initial and follow up risk assessment scores it should be possible to ascertain those personnel who were not adjusting. These people would then be actively managed by the usual personnel management systems and if these were not sufficient they would be encouraged to seek medical and/or psychological help at an early stage.

Whilst undergoing a risk assessment personnel were asked to fill in an Impact of Events Scale (IES) questionnaire. The IES is a well validated 15-point checklist which has been shown to measure post traumatic psychological distress (Horowitz, Wilner, & Alvarez, 1979).

**Risk assessment scoring and analysis**

The initial RAT action threshold was set at a score of 15 to take account of the fact that high initial distress levels are relatively common in the immediate aftermath of traumatic incidents. However because the same evidence shows that after a month, most people’s distress has dissipated (NICE, 2005) a lower action threshold of 10 is used. Scoring above the initial RAT threshold indicated the need for close monitoring and/or relevant managerial intervention whereas scoring above the follow up a score of 10 indicated the need for further assessment by a trained professional in order to ascertain whether a formal referral was required. The lower follow up RAT score also takes into account the likelihood that personnel might underreport residual distress because of stigma, which has been shown to be a barrier to accessing care (Langston, Gould, & Greenberg, 2007). Underreporting of symptoms is likely to be less of an issue at the initial risk assessment both because the initial provision of support by colleagues is likely to be regarded as natural in the aftermath of a serious incident and because the initial actions, should the threshold be crossed, did not involve interaction with a mental health professional.

The Pearson correlation coefficient was calculated for the initial risk assessment tool. (RAT) score and the initial IES score, for the follow up RAT and IES score and for the change in RAT and IES score from initial to follow up. Caseness was assessed using a cut of score of 20 on the IES, as has been used elsewhere (Wildgoose, Briscoe, & Lloyd, 2003). Although other authors have suggested a higher, > 25, caseness score for the IES (Chemtob,
Tomas, & Law, 1997) this is taken to indicate that an individual might require professional help. The lower cut-off was used in this report as intention was to compare the IES to the TRiM score which intends to identify those who might need further help which, in most instances, should initially come from the employing organization rather than a professional. Data were analysed using SPSS version 11.0.

Results

Planning and briefing meetings

Over the first three days that the team were in New York, 14 planning meetings and 8 briefing meetings were conducted. In all 90 FCO personnel and families attended the meetings. The team received numerous questions relating to the aftermath of the terrorist attacks related both factual information (such as the possibility of further attacks) and emotional responses that could be expected. Where the team lacked expertise it was possible to use the FCO contacts to obtain rapid liaison with experts back in the UK to clarify particular points (for instance none of the team felt sufficiently experienced in matters relating to the psychological adjustment of children and guidance on this matter was obtained).

Trauma risk assessments

After the planning meetings and the briefing meetings, 28 people were formally risk assessed and 20 of those agreed to fill in the IES. Only one of those assessed was identified at the briefing meetings (by discussion with the TRiM assessors after the meeting); the rest were identified at the planning meetings.

After the first risk assessment, the general findings were fed back to managers to allow them to have an initial insight into how their personnel were functioning after the traumatic event. This was done only after seeking permission from the person who had been risk assessed. At the beginning of the Risk Assessment interview, a clear statement is made that if the interviewer has serious concerns about the safety of the person who is being risk assessed or others, then confidentially may have to be breached. Such breaches were unnecessary during any of the assessments that were carried out in New York. No cases were identified at the initial interview which appeared to need urgent psychological or medical intervention.

At the follow-up assessment, two people scored over 15 (out of a maximum of 30) on the risk assessment tool. Both of these personnel were referred on for formal help via the usual medical referral system that operated for Foreign Office personnel in New York.

Statistical analysis

There was no significant correlation between the initial Risk Assessment score and the initial IES score (Pearson’s $r = 0.16$, $p = 0.49$, 2 tailed). The IES classed 19/20 as cases whilst the RAT classed only 5/20 as cases.

At follow up the RAT and the IES were significantly correlated (Pearson’s $r = 0.79$, $p < 0.001$, 2 tailed). This is shown graphically in Figure 1. Using the same IES cut-off of 20 and a follow up RAT cut-off of 10, the IES identified 10 cases and the RAT identified two cases. The decrease in RAT threshold is based on evidence which has identified that whilst distress symptoms are common soon after critical incidents they are less common as time progresses.
When the changes in RAT and IES scores were examined, there was a significant correlation between the change in the IES score and the change in the RAT score (Pearson’s $r = 0.56$, $p = 0.02$, 2 tailed). This is shown graphically in Figure 2.

**Discussion**

This paper describes the psychological support given to the New York based FCO personnel after the events of September 11, 2001. The process used by the FCO was relatively novel, having been developed by the UK military. As well as providing a sensible support structure...
for personnel, the opportunity was taken to attempt a simple validation of the TRiM risk assessment tool. The results, albeit it preliminary given the small number of subjects, suggest that TRiM risk assessment is able to measure a similar change in the levels of distress in those assessed as the IES, a commonly used measure of post traumatic distress.

**Limitations of the report**

This report was conducted opportunistically after an unpredictable event. As such, some of its methods are ad-hoc and the numbers involved relatively small, limiting the comparability of the outcomes. Additionally two of the four risk assessors had only just finished their training, and the two experienced Risk Assessors were not peers. The Consulate staff in New York were unsure what sort of support was coming from the UK and were under the impression that “counsellors” were being sent out and appeared to be surprised that counsellors did not arrive. The present model of psychological risk assessment does not follow any convention-counselling genre. It is plausible this apparent lack of familiarity with the TRiM process contributed to the relatively small numbers of people that were identified at planning meetings as requiring formal Trauma Risk Assessments.

**Significant main findings**

In spite of its limitations, this report provides a provisional indication that the Risk Assessment Tool can measure change in psychological distress over a period of time and that such change correlates significantly with the Impact of Events Scale, a well validated measure of post traumatic psychological distress.

The initial scores on the RAT classed less people as being traumatic stress cases than did the IES. This could represent that the RAT was missing people who really were distressed or it could suggest that using the IES, at a cut-off score of 20, as a diagnostic tool would have resulted in substantial numbers of false positives. As the entire Risk Assessment process relies on conducting two risk assessments, approximately one month apart, the key is whether the change in RAT score correlates with psychological outcome. The two personnel who appeared to be having difficulties at follow up were referred on for formal help and the authors are unaware of the specifics of their treatment. However, it is known that 6 months after the event both personnel were still fulfilling their functional role.

What is clear is that the TRiM process was able to provide a structured approach to organizational post traumatic support. The New York diplomatic office were grateful for the support that was given (personal communication, Sir Jeremy Greenstock, Ambassador to the UK’s mission to the United Nations, November 2001) and personnel were given the opportunity to attend educational briefs and have their concerns aired and attended to. Additionally, a logical approach was taken in order to identify who might be at increased risk and to ensure that such people were given appropriate managerial support and assistance.

**Implications for the future**

Whilst this report was opportunistic in nature there is a clear need for more robust studies to be conducted with different sample groups each of a sufficiently large number to provide statistical power. Also, whether or not TRiM practitioners are able to identify those individuals who are at risk of subsequently developing psychological disorders, it remains to be seen whether those identified can be effectively encouraged to seek appropriate help and recover sufficiently to rejoin their work colleagues. Also although TRiM appears to merely
formalize “a common sense” approach to good personnel management future studies should ensure that it does not do harm as has been found with previous post trauma interventions (Rose et al., 2003). Currently a randomized controlled study of TRiM is underway in the Royal Navy which seeks to investigate whether TRiM is indeed effective and whether it might do harm (Greenberg et al., 2005).

Conclusion

TRiM was designed to be used as a method of post traumatic peer group support and this report describes how it was implemented in the aftermath of the events of 11 September 2001. TRiM appeared to be well received and the statistical results of the report lends some support to the concept that the risk assessment element of TRiM is able to effectively changes in measure post traumatic stress. Clearly it remains to be seen if the use of psychological Risk Assessment can be further validated not just by further correlational validity studies but also by better quality trials which look at functional outcome after using TRiM.

TRiM was designed to be a sensible alternative to single session debriefing for all and also to fill the post incident duty of care gap that is so often filled with reports of “counsellors are in attendance”. It is hoped that within organizations where exposure of personnel to distressing events is probable, TRiM can empower managers to take appropriate, psychologically sound action and where necessary refer on those for whom simple man management techniques cannot help. Further research will no doubt clarify how effective TRiM really is.

Declaration of interest: At the time of writing the article Dr Carol Dow was the Chief Medical Officer for the FCO and Dr Neil Greenberg had provided TRiM training for the FCO. The FCO has approved but altered the article. There are no other declarations of interest to declare.

References


