

# **Pre-Operational Stress Briefing: Does it have any Effect? A Comparison of Royal Naval and Royal Marine Personnel Receiving a Pre-Operational Stress Briefing with a Group of Personnel who did not**

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## **ABSTRACT**

*The literature on effectiveness of stress education is relatively sparse. There is some indication that stress education has some beneficial effect with respect to reducing anxiety and improving coping skills, but so far there is little evidence concerning longer term outcomes. There is no equivalent literature for UK military. Current policy requires all personnel going on operations to have this pre-deployment education, but there is very little evidence to recommend this, other than good face validity. In 2003 approximately 8000 Royal Naval and Royal Marines personnel deployed on Operation TELIC 1. A Mental Health Team (MHT) of four personnel (1 psychiatrist and 3 psychiatric nurses) was deployed with forces afloat. During the transit to the Northern Arabian Gulf, the MHT provided pre-deployment operational stress education to approximately 4000 personnel. Data from the KCMHR study into the health and wellbeing of UK Armed Forces personnel who deployed on Operation TELIC 1 has allowed a linkage study to look at the effect of a pre-operational stress brief. RESULT: [Data yet to be analysed] CONCLUSIONS [To be confirmed]*

## **1.0 INTRODUCTION**

It is axiomatic that military personnel should be fit for the task of combat. That fitness has many domains: military skill, physical, mental and spiritual fitness. Mental fitness includes elements of individual fitness as well as group factors such as cohesion, trust in leadership, faith in equipment and skills and attitude to legitimacy of the military tasks. In searching for ways of improving mental fitness (Selection, Robust training programs, Detection measures, Provision of support agencies that aim to provide primary, secondary and tertiary preventive measures) the concept of preparing military personnel for the stress of combat has led to the delivery of Pre-Operational stress briefing.

### **1.1 Rationale for Pre-Operational Stress Briefing**

Pre-Operational stress briefing has been standard practice within the UK Armed Forces for many years. It is Surgeon General's policy to deliver this education (SGPL 03/06) and has been so since 1995 (SGPL

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07/95). These briefs inform personnel on the nature and effects of stress, especially stressors related to operations, on simple methods for managing stress in self and others, on when and how to access further support. The aim of this education is to prevent stress related problems from developing into illness and to encourage early presentation. With regard to the latter there is evidence that the earlier management of traumatic stress disorders is more effective [National Institute for Clinical Excellence 2005]. There is also evidence from the US that there are significant barriers to personnel presenting with psychological problems [Hoge et al 2004]. This may be the case in the UK military as attitudes of commanders to stress related problems suggest a reluctance to present [Cawkill 2004].

## **1.2 Literature Review of Stress Management in Military Settings**

There is sparse evidence regarding the efficacy of pre-operational stress educational briefs. A search of Medline and Ingenta databases revealed no controlled studies comparing groups of military personnel receiving such an intervention with those who have not. There is some literature focusing on military personnel and stress management. Preventive mental health interventions in operations have been reported on, but in general and largely qualitative terms (numbers of referrals and briefings being a quantitative aspect) [Hall et al 1997]. A UK study looked at the provision of post-operational psychological debriefing amongst soldiers returning from the peacekeeping duties in the Former Republic of Yugoslavia. A group receiving debriefing was compared with a control group who did not receive any debriefing. Both groups had received a pre-operational stress brief, and both groups were found to have low rates of PTSD [Deahl et al 2000]. A US study looking at the effect of stress training (multiple sessions) on graduation rates of military trainees, who had presented for a mental health evaluation, showed that the stress training had no effect on their likelihood of graduation [Cigrang et al 2000]. This study included a review of literature on stress management interventions in military training settings. Whilst some studies show benefits in terms of improved subjective indicators, such as coping and anxiety levels, there was little evidence that the interventions lead to improved performance. More recently a stress management initiative at a US Navy recruit establishment showed that recruits at risk of depression had an equivalent graduation rate to a well control group, whereas a non-intervention group of at risk recruits showed lower graduation rates [Williams et al 2004].

## **1.3 Literature Review in Non-Military Settings**

The wider literature on occupational stress and preventative activity suggests there are three levels of prevention: Primary prevention, which is alteration of the stressors in the workplace; Secondary prevention, which aims to improve coping and resilience in individuals, such as stress management training; and Tertiary prevention, which is provision of mental health interventions such as employee assistance programs [Cartwright & Cooper 1996]. Pre-operational stress briefings fall into the category of secondary prevention. There is some indication that stress management interventions have beneficial effects on individuals' coping mechanisms, but the return in terms of less absence from work is less marked [Reynolds 2000; Erikson et al 2002]. Nevertheless these interventions are generally multiple session interventions. To our knowledge no trials assessing the effectiveness of a brief intervention such as pre-operational stress briefing have been conducted.

## **2.0 PRE-OPERATIONAL STRESS BRIEFING TO AMPHIBIOUS FORCES DURING OPERATION TELIC 1**

In the lead up to Operation TELIC, British amphibious forces deployed by sea to the Northern Arabian Gulf along with RFA ARGUS on which a Naval Mental Health team deployed. The Mental Health team visited as many ships and marine units as possible, providing pre-operational stress briefings, the average attendance rate was about 60 – 70 %. At each briefing an attendance register was kept, noting name, rank and service number, therefore, the Mental Health team can identify all those that attended. This amounted to just over 4000 personnel (from all services, but predominantly Naval and Marine personnel).

The King's Centre for Military Health Research (KCMHR) has initiated a study looking at the physical and psychological health effects of deployment on Operation TELIC 1. A 10% random sample of personnel who deployed on Operation TELIC 1 (as well as a similar sample of non-deployers) has been surveyed over a large range of possible health and occupational outcomes. The ability to link data between stress brief attenders and the KCMHR data has led to the ability to compare outcomes between groups: Those who attended a stress brief and those who did not.

This study is, to the authors' knowledge, the first of its kind, in that there is no previous work on determining the effectiveness of pre-operational stress briefings. The effects are likely to be modest if there are any at all. The large numbers involved are more likely to detect small differences.

### **3.0 METHOD**

This is a controlled non-randomised parallel group study aiming to determine the effect of a pre-operational stress briefing on health and occupational indices amongst Naval and Marine personnel who deployed on Operation TELIC 1. The null hypothesis is that no difference will be found on health and occupational indices between a group of personnel who received a pre-operational stress briefing compared with a similar group who did not receive such a briefing.

#### **3.1 Participants and Sample size**

The linkage of the attendance data from the Pre-Operational stress briefs and the KCMHR Op Telic Study produced a group of [size] Marine and Naval personnel who attended a stress brief and have had data captured on occupational, social and health outcomes. The KCMHR data was then mined for a control group of random but age, gender and rank matched, RM and RN personnel who deployed on Op Telic but did not receive a stress brief. [Provide gender, age and rank stats of both groups]. Assuming a difference between the two groups of 5% points with relation to those scoring positive on the GHQ-12, the study would have an 68% power (with alpha of 0.05) [recalculate when size of groups finally set]. The criterion for inclusion in either group were that personnel are Marine or Naval personnel who deployed on Op Telic 1 (19 March 03 to May 03).

#### **3.2 Procedure**

##### **3.2.1 The Stress Brief**

This was a 50-60 minute presentation using PowerPoint. Size of audience at each group varied, but 91 briefs were given to 4062 personnel, making the average audience size 45. A psychiatrist and mental health nurse gave the briefs, sometimes each doing half the brief and at others times briefings were given two at a time when time was short. The brief itself covered the following: Rationale for giving the brief; Aim of the brief; Role of mental health team in theatre; An outline of medical facilities in the Primary Casualty Receiving Facility; Definitions of stress, pressure and strain; types of stressors (physical, social, occupational & traumatic); effects of stress on individuals; Importance of understanding the meaning of stressors to individuals; Some advice on handling human remains; Advice on managing distressful thinking in a chemical or biological environment; Other simple advice on reducing stress; the importance of morale and its constituent parts (Trust in leadership; confidence in skills and equipment; legitimacy issues; cohesion and confidence in comrades' willingness to fight); Advice on levels of support available and when to seek this; The role of debriefing; A summary of key messages about stress control for both individuals and leaders.

##### **3.2.2 Outcome measures**

Differences between the two groups were assessed on the following variables: Marital status; Serving status (whether in service or not) and type of discharge; Health in theatre; Level of cohesion; Departure

from theatre type (Medical, early or standard); Health status and health related behaviour (includes General Health Questionnaire 12 Item, Post Traumatic Stress Disorder Check List and Alcohol Use Disorders IT); Current intention to stay in services.

Ethical and scientific approval was granted by the Ministry of Defence (Naval) Personnel Research Ethics Committee.

### **3.2.3 Statistics**

Means and corresponding 95% confidence intervals for each continuous score were calculated for those attending and those not attending a pre-deployment briefing. Unpaired t-tests were used to compare these two groups. Chi-squared tests were performed to examine differences between these two groups for categorical variables. Logistic regression analyses were performed. Odds ratios, 95% confidence intervals and two-sided P-values were estimated using unconditional logistic regression to allow for the inclusion of all cases and controls (Breslow & Day, 1980). A range of demographic characteristics were examined along with their attendance at a pre-deployment brief. Statistical significance were defined at the  $P < 0.05$  level. All analyses were conducted using the statistical software package, STATA (version 9.0).

## **4.0 RESULTS**

[Data analysis yet to occur]

## **5.0 DISCUSSION**

Explain any differences as far as possible. Will include discussion of confounding factors, whether data shows differences or not between those receiving stress briefs or not (e.g. the provision of a homecoming brief, which all personnel should have received). And address any future research strategy.

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