

AD-A267 287



AD _____

(Handwritten signature/initials)

GRANT NO: DAMD17-90-Z-0045

TITLE: HISTORICAL GROUP DEBRIEFING FOLLOWING COMBAT

PRINCIPAL INVESTIGATOR: Arie J. Shalev, M.D.

CONTRACTING ORGANIZATION: Hadassah University Hospital
Department of Psychiatry
P.O. Box 12000
Jerusalem, Israel

REPORT DATE: May 1, 1993

TYPE OF REPORT: Final Report

PREPARED FOR: U.S. Army Medical Research and
Development Command, Fort Detrick
Frederick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for public release;
distribution unlimited

The findings in this report are not to be construed as an
official Department of the Army position unless so designated by
other authorized documents.

DTIC
SELECTED
JUL 26 1993
S B D

92 218

93-16675



SCB

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 1 May 1993	3. REPORT TYPE AND DATES COVERED Final Report (7/31/90-6/30/91)		
4. TITLE AND SUBTITLE Historical Group Debriefing Following Combat		5. FUNDING NUMBERS Grant No. DAMD17-90-Z-0045		
6. AUTHOR(S) Arieh Shalev, M.D.		62787A 3M162787A879.AA.002 WUDA335412		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Hadassah University Hospital Department of Psychiatry P.O. Box 12000 Jerusalem, Israel		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research & Development Command Fort Detrick Frederick, Maryland 21702-5012		10. SPONSORING / MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) Debriefing is a group-oriented intervention in which the major elements of an event are reviewed by the participants shortly after its termination. Debriefing has been recommended by several authors as a stress management technique suitable for groups which have been exposed to traumatic events. Although debriefing is intuitively considered helpful, its beneficial effects have not been measured.				
14. SUBJECT TERMS Ground Combat; Cohesion; Group Support; RAIH; Combat Stress; Oral History; Debriefing; Coping; Volunteers; Stress Management			15. NUMBER OF PAGES	
17. SECURITY CLASSIFICATION OF REPORT Unclassified			16. PRICE CODE	
18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified		19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified		20. LIMITATION OF ABSTRACT Unlimited

FOREWORD

For the protection of human subjects, the investigator(s) have adhered to policies of applicable Federal Law 45CFR56.

Citations of commercial organizations and trade names in this report do not constitute an official Department of the Army endorsement or approval of the products or services of these organizations.

DTIC 100-100-100-100-1

Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

Historical Group Debriefing Following Combat

Table of Contents

Abstract	2
Introduction.....	3
The stressful effects of combat exposure.....	3
Debriefing vs. other modes of early intervention.....	4
The various forms of debriefing.....	5
SLA Marshall's Historical Group Debriefing.....	7
Method.....	7
Debriefing sessions.....	7
Psychometrics.....	8
Statistics.....	9
Human subjects	9
Results I: Psychometrics.....	9
Effect of battle intensity on psychological responses	10
Correlation between various response measures	10
Relationship between combat evaluation and measures of psychological response.....	10
The effects of combat debriefing	11
Results II: Narrative.....	11
Feasibility of debriefing sessions	11
Networking with combat units and line officers.....	11
Obtaining consent and working with groups.....	12
Conducting the interviews.....	13
Lessons learned about combat action.....	14
Uniformity and "chaos" during combat.....	14
Attribution of meaning in the aftermath of combat	15
Grief and mourning.....	16
Conflict and scapegoating within the groups.....	16
Conclusions	17
References	18
Tables	25
Table 1: Descriptive Statistics of variables recorded before and after debriefing	25
Table 2 Pearson's Correlations Between Psychometric Variables	26
Table 3. State Anxiety, Self Efficacy and Combat Evaluation Scores Before and After Debriefing	27
Figures.....	28
Fig. 1. State Anxiety Scores Before and After Debriefing.....	28
Fig. 2. Self Efficacy Scores Before and After Debriefing.....	29
Fig. 3. Combat Evaluation Scores Before and After Debriefing	30
Appendix I: SLA Marshall's Historical Group Debriefing.....	31
Table: Summary of Marshall's Debriefing Technique.....	35
Appendix II: Psychometric Instruments.....	37
Appendix III: Company A's Firefight.....	44

Abstract

Debriefing is a group-oriented intervention in which the major elements of an event are reviewed by the participants shortly after its termination. Debriefing has been recommended by several authors as a stress management technique suitable for groups which have been exposed to traumatic events. Although debriefing is intuitively considered helpful, its beneficial effects have not been measured.

Six infantry units of the Israel Defense Forces (IDF) were debriefed shortly after having been involved in fire fights on the Lebanon border. Debriefing sessions followed SLA Marshall's Historical Group Debriefing protocol. State Anxiety (SANX), Self-Efficacy (SELF) and Combat Evaluation scores were recorded before and immediately after the sessions. Levels of combat exposure, dissociation during combat, perceived social support, and post traumatic symptomatology (intrusion and avoidance) were assessed before the session.

The degree of dissociation during combat correlated significantly with the intensity of exposure. Intense preoccupation with the event was reported, but did not correlate with battle exposure or dissociation. Anxiety and Self Efficacy scores correlated significantly with the Avoidance subscale of the Impact of Events (IES) scale, but not with the Intrusion subscale. Debriefing sessions were followed by a significant decrease in anxiety and a significant increase in self efficacy. These effects were evidenced by a decrease in State Anxiety scores of subjects who were most anxious before the session, and an increase in the Self Efficacy scores of subjects with the lowest scores before the session. Debriefing sessions, therefore, seem to have affected those subjects whose avoidance of traumatic recollections was associated with high levels of anxiety.

The narrative generated by debriefing sessions suggests that combat events involve a substantial degree of disorganization and miscommunication. The author suggests that these "chaotic" elements of combat might play a positive role (e.g., by prompting individuals to take initiatives).

Introduction

The stressful effects of combat exposure

Combat exposure regularly provokes acute and chronic distress in the participants (Kardiner, 1941; Hendin and Pollinger-Haas, 1984; Helzer et al., 1987; Card, 1987; Solomon et al., 1987). Most soldiers, however, do not suffer from prolonged stress reactions, and for some individuals, combat experience may even be associated with a positive outcome (e.g., maturation, increased self-confidence). The following factors have been associated with distress and dysfunction during and after combat exposure: the intensity and duration of the exposure (Solomon et al., 1987; Helzer et al., 1979); lack of control over events (Lazarus and Folkman, 1984); proximity of death, exposure to atrocities (Brett & Ostroff, 1985); inadequate decompression (Figley and Leventman, 1980); and post combat attribution (Milgram, 1986). Mediating factors, such as hardiness (Kobasa et al., 1982), cohesion (Noy et al., 1986), training (Hytten & Weisaeth, 1989) and good recovery-environment (Wilson, 1978) have been found to modulate the stressful effects of combat.

Studies of populations which have been exposed to traumatic stress (e.g., Green, 1987, Solomon et al. 1987; Kulka et al., 1989) show that a substantial number of survivors suffer from after-effects for prolonged periods. While post-traumatic stress disorder (PTSD) is the most widely recognized consequence of trauma, it is far from the only one. A variety of psychiatric disorders have been described in trauma (e.g., Rundell, Ursano & Holloway, 1989), including dysthymia, phobias, dissociative disorders, alcohol and drug abuse, as well as profound personality changes, increased rates of physical morbidity and mortality and an uncontrolled trend to re-enact the trauma by self-exposure or by victimization of others.

In the case of military personnel, traumatic exposure is a professional risk. Moreover, traumatic exposure within the military is often repetitive. Most importantly, our current knowledge does not allow us to predict who, of all individuals exposed, will develop PTSD or other disorders. Hence, despite the protective role of preparation and training (Hytten & Weisaeth, 1989), the recognition of the potential effects of combat stress and the availability of treatment facilities in all armies, combat exposure continues to produce a substantial amount of disabling psychological sequelae (Solomon et al., 1987; Helzer, 1987; Kaylor et al., 1987; Kulka et al., 1989).

Debriefing vs. other modes of early intervention

In its fully developed form, PTSD is a chronic condition that defies therapeutic intervention, and thus the best treatment of PTSD is prevention. Several studies provide a rationale for conducting psychological intervention soon after combat exposure, and delineate the target population for such intervention.

The classical model of early psychiatric intervention, practiced in most western armies since World War I (Salmon, 1919), consists of the treatment of **identified patients** (e.g., combat stress reaction casualties) by **qualified professionals** as soon as possible after the event. Recent research suggests, however, that many trauma survivors develop post-traumatic sequelae without presenting disabling symptoms during the exposure. Solomon et al. (1987), for example, found that 16% of a control group of 386 combat veterans of the 1982 Lebanon War, who had not suffered from CSR, and did not seek treatment during the following year, suffered from PTSD one year after the war. Similarly, despite the low number of identified stress casualties during the first years of the Vietnam War (Bourne, 1969; Ingraham & Manning, 1986) a substantial number of veterans developed PTSD in succeeding years (e.g., Kulka et al., 1989). Data on delayed PTSD among Israeli veterans of the Lebanon War has

similarly shown that 90% of these patients had suffered since the war without seeking specialized help (Solomon et al., 1989). Thus, the "classical" mode of intervention, which focuses on identified patients, clearly addresses only part of the population at risk. New modes of intervention are therefore required.

Debriefing is one such method: it addresses all the subjects who have been exposed, regardless of their immediate reaction; it uses the group's natural resources and healing power; it takes advantage of existing institutional structures; and it results in minimal distortion of routine and no labeling of subjects' reactions as deviant or pathological. Implied in the practice of group debriefing is the assumption that peer groups sustain individual healing, and that shared experiences are better worked-through when verbalized and legitimized within the group sharing the trauma.

Debriefing has been implemented by several rescue organizations (Griffin, 1987; Raphael, 1986; Birenbaum, Copolon & Scharff, 1976; Cohen, 1976; Cohen & Ahearn, 1980; Dunning & Silva, 1980; Jones, 1985; Mitchell, 1981; Griffin, 1987; Bergman & Queen, 1986). Immediate and long-term beneficial effects of debriefing have been postulated -- however with very little systematic evidence (Bloom 1985).

The various forms of debriefing.

Debriefing interviews follow a variety of protocols, but usually entail (a) a systematic review of the event and the participants' reactions, and (b) application of a "stress management" technique (e.g., working-through negative emotions, psycho-education, teaching of coping skills).

The goals of debriefing have been formulated in a variety of ways. These include: (a) working-through emotional overload (e.g., Mitchell, 1981, 1983); (b) improvement of group cohesion (e.g., Griffin, 1987); teaching of coping skills (e.g., Bergman & Queen, 1986); initiation

and disengagement from a 'disaster role' (Raphael, 1986); and detection of symptomatic individuals (e.g., Mitchell, 1983).

Accordingly, various aspects of the exposure have been suggested as focal points for the sessions. Among these are the factual reality of the event (Marshall, 1944), the emotional reactions of individuals exposed (e.g., Mitchell, 1983), post-event elaboration and attribution (e.g., Bergman 1986) and residual symptoms (e.g., Mitchell, 1983).

Similarly, different techniques have been employed, including cognitive rehearsal, ventilation, support and resource mobilization (Mitchell, 1983), education (Raphael, 1986) and active counseling and teaching (Wagner 1979). A valid distinction is that proposed by Ch. Dunning (1990), who identified two distinct types of formally structured debriefings: the educational debriefing which informs participants of the psychological and behavioral reactions of others in similar situations, and the psychological debriefing which includes ventilating feelings about the event and discussing signs of stress response.

Within the military context, however, psychological debriefing has obvious limitations. Mental health professionals are few in number, and when available, are often perceived by combat units as strangers and intruders. In addition, the military group has its own psychological leaders whose authority has been forged by months of training, stress and combat exposure. Finally, within the military context, emotional openness is often in conflict with the need to regroup one's defenses for the next action.

These considerations led to the attempt, in this study, to implement and measure the effect of a debriefing technique which might be carried out by commanders, and which does not necessarily require the skills of a mental health professional. As a model for that approach, we chose SLA Marshall's Historical Group Debriefing technique.

SLA Marshall's Historical Group Debriefing

The method of Historical Group Debriefing (see Appendix I for a detailed description) was developed during World War II by the Chief Historian of the US Army Brig. Gen. S. L. A. Marshall (Marshall, 1944, 1956, 1974; Spiller, 1980, 1988). Marshall's debriefing was aimed at obtaining a comprehensive description of the battle from the fragments of information held by individual survivors. It consisted of long debriefing sessions conducted immediately after combat, in which all the survivors took part in a comprehensive reconstruction of the event (**Appendix I**).

Marshall's debriefing was not conceived as a form of psychological intervention, but rather as a method of gathering complex historical data. It did not include, therefore, any deliberate intervention aimed at reducing individual or group distress. However, Marshall relates to his interventions as having had a profound psychological effect on individuals and groups, an effect that he called "a spiritual purge." He also stated that debriefing promoted "unit morale" and cohesion. Although often referred to, prior to this study, Marshall's technique had not been implemented by others than Marshall himself.

The following is the report of a study of Historical Group Debriefing as applied to Israeli combat units on the Lebanon front. Two dimensions of combat exposure were studied: (a) lessons learned from combat history, and (b) effects of debriefing on post-combat anxiety, self-efficacy and combat evaluation.

Method

Debriefing sessions

Six infantry units of the IDF were debriefed between July 1990 and May 1992. Units were selected on the basis of their participation in combat events against regular or irregular armed forces. Each of the units underwent a **session of**

debriefing following the protocol in Appendix I. The session was preceded by **pre-interview evaluation** and followed by **post interview evaluation** as specified below. Preceding each interview was a short **preparation phase**, which consisted of gathering information about the unit's organizational structure, history, chain of command, and level of training and the special circumstances of the particular event.

All the events involved small units and all resulted in casualties. The largest number of casualties was five killed in action and 1 wounded, and the smallest number was one slightly wounded soldier. Most of the events consisted of short firefights between regular infantry units of the IDF and small enemy detachments (e.g., ambushes). **Appendix III** describes a typical event.

All the subjects who had taken part in the event, with the exception of those evacuated to hospitals in the rear, were invited to participate in the sessions. No other subjects were allowed to attend. All subjects ($n=39$) agreed to participate in the study, although two left the sessions before termination. The average age of the study population was 19.4 ± 1.8 (range 18.5 to 24.0).

With the exception of one debriefing session, which took place ten days after the event, the sessions were held within two days of the event. They were conducted by the personnel of Hadassah University Trauma Center (A. Shalev, Yael Rogel-Fuchs, and Tuvia Peri) at various posts of the IDF on the northern frontier of Israel and were coordinated at the brigade and battalion levels. The sessions were conducted in strict adherence to SLA Marshall's protocol (see **Appendix I**). The average length of a debriefing session was 2.5 hours. All sessions were recorded and transcribed.

Psychometrics

The following self administered rating scales were used (for details of each instrument, see **Appendix II**): Combat Exposure scale; Dissociation scale; Spielberger's State-

trait Anxiety inventory; Procidano & Heller's Perceived Social Support - Friends; Bandura's Self-Efficacy (combat version); Horowitz's Impact of Events Scale and a Combat Evaluation scale.

Seven questionnaires were administered before each session: Combat Exposure (COMBEXP), Dissociation (DISSOC), Perceived Social Support-Friends (PSS-F), Impact of Events (IES), Self-efficacy in Combat (SELF-1), Combat Evaluations Scale (EVAL-1) and State Anxiety Scale (SANX-1). Three of these were again administered after the session: Self-efficacy in Combat (SELF-2), Combat Evaluations Scale (EVAL-2) and State Anxiety Scale (SANX-2). Due to a technical mistake, SANX scores were not recorded for the participants of one event (n=6)

Statistics

Relevant correlations were assessed using Pearson's Product-Moment, Multiple Regression, and, where appropriate, non-parametric statistics. Student's t-test and, where appropriate, non-parametric tests were used to compare SANX, EVAL and SELF scores before and after debriefing. For the IES, intrusion (IES-INT) and avoidance (IES-AV) subscales were studied in addition to the total score.

Human subjects

The project was approved by the Human Use Committee of Hadassah University Hospital (February 24, 1989). The study's design and purpose were explained to each subject before the session. All the participants signed an informed consent.

Results I: Psychometrics

Descriptive statistics

Table 1 presents descriptive statistics of all the variables (SEE TABLES AT THE END OF THE TEXT). Combat exposure scores are positively skewed, thus indicating uneven distribution of exposure among subjects. The IES scores (mean=23.8) suggest an intense preoccupation with the event, particularly through intrusive thoughts and feelings about

it. Self-efficacy and Combat Evaluation scores are in the higher range, suggesting that the soldiers' evaluations of their own resources, as well as those related to their military environment were rather positive. Finally, in contrast to the elevated IES scores, SANX-1 scores are relatively low (average=25.3; minimum score for SANX=20). Figures 1, 2 and 3 illustrates the unequal distribution of SANX-1, EVAL-1 and SELF-1 scores.

Effect of battle intensity on psychological responses

Table 2 presents the Pearson's correlation computed for all the psychometrics recorded prior to debriefing session.

As expected, battle intensity correlated positively with dissociation. Correlation between battle intensity and other variables did not reach statistical significance.

Correlation between various response measures

A salient finding are the correlations between SANX-1 and IES, that is, between levels of anxiety and intrusion/avoidance symptoms. While a significant correlation between global IES scores and SANX exists ($p < .02$), the relationship between IES **Avoidance** scores and SANX ($r = .66$; $p < 0.001$) suggests that subjects who tend to avoid thinking about the event are also more anxious. The correlations between Self-efficacy scores and IES subscales (i.e., no significant correlation for Intrusion, but $r = .65$ and $p < .0001$ for Avoidance) suggests, again, that the higher the avoidance, the lower is the subject's evaluation of his capacity to perform in future combat.

Relationship between combat evaluation and measures of psychological response

Table 3 presents the relationship between Combat Evaluation (that is evaluation of the quality of military preparedness before combat, and of leadership and peer support during combat) and various measures of psychological response. Combat evaluation correlated positively with the use of dissociation during combat, with battle intensity, and

with perceived social support. Multiple regression analysis showed that dissociation alone contributed 49% of variance in Combat Evaluation (partial correlation = 0.49, $t(37)=2.77$, $p.<0.02$), while the independent effect of battle intensity did not reach statistical significance (partial correlation of 0.22; $t(37)=1.17$ $p.=.025$). Combat Evaluation correlated negatively with State Anxiety (SANX)

The effects of combat debriefing

As shown in Tables 1-3, combat debriefing had a significant effect on Self efficacy and State Anxiety. Self efficacy scores recorded after debriefing were significantly higher than those recorded before debriefing ($p.<0.001$) and SANX scores recorded after debriefing were significantly lower than those recorded before the sessions ($p.<0.03$). Closer observation of the data (Table 1) reveals the differences to be due mostly to a reduction of the highest SANX scores and an increase in the lowest SELF scores, and they are, therefore, associated with a decrease in the skew of the distribution of both variables. Debriefing sessions, therefore, resulted in bringing deviant scores (outliers) back into the normal distribution. In other words, debriefing seems to have been particularly effective in reducing anxiety and increasing self efficacy in those subjects who were most anxious and least self-confident before the session. Figures 1-3 illustrate these changes.

Results II: Narrative.

Feasibility of debriefing sessions

Networking with combat units and line officers

All the researchers involved in this study had previously served in combat units of the IDF. They were, therefore, very familiar with the military routines and norms. Moreover, our entry to the line units was facilitated by the sponsorship of the Department of Mental Health, IDF-MC. Despite the above, a substantial amount of work had to

be devoted to gaining access to combat units and getting the appropriate clearance from each level of the chain of command. We soon learned that in spite of having obtained, fairly easily, clearance "in principio," actual access to soldiers had to be negotiated at all these levels. After a series of trial-and-error attempts we finally discovered that field surgeons - particularly at the brigade and battalion levels - were the best agent through whom to work. Field surgeons are personally involved at all levels of military actions, either directly as life savers or indirectly as organizers of medical support. They thus sustain a highly prestigious status. Once we had got their support, all doors were opened to us.

Another difficulty resulted from our attempt to reach the units within 24-48 hours of action and to conduct the sessions as close as possible to the site of the action. We had to be "on call" 24 hours a day, and ready to leave our daily routine in Jerusalem and travel to the Lebanon frontier (about 250 Km away) where a meeting with a unit had been coordinated. Here, again, liaison with the field physician was very helpful. The Lebanon front being a very active one, we discovered on two occasions that units that had scheduled a debriefing session when we left Jerusalem in the morning, had already been called into action when we arrived at noon.

On the whole, despite the ongoing activities and operational responsibility of line commanders, we enjoyed more than casual support from all military agents involved. We, therefore, received the distinct impression that the subject matter, i.e., the well-being of combat soldiers and their psychological reactions to combat, are of prime interest to commanders at all levels.

Obtaining consent and working with groups

Having overcome the technical obstacles, we had no difficulty debriefing the soldiers and engaging the groups in the serious work of reconstructing the combat history.

Indeed, we rediscovered Marshall's old truth, that soldiers are eager to talk and that they do so better in groups. A non-critical environment is rarely provided by the military. Once given the opportunity, soldiers readily open up and share their views and experiences. We also observed that the chronological reconstruction of the event served as a useful framework for conducting the sessions in a way that did not depart from the soldiers' own routines, was not perceived as intrusive or threatening, and easily invited the participations of both soldiers and officers. Despite their "historical" perspective and factual tone, debriefing sessions quickly became a challenging experience for all.

Conducting the interviews.

In most cases, the units had undergone at least one fact-finding debriefing, conducted by their commanders, before being debriefed by our team. However, our debriefing method differed significantly from those previously conducted, and the difference was clearly obvious to all the participants. We noted the following differences between the two modes of debriefing.

- Fact-finding debriefing *focuses on military-relevant facts* (e.g., enemy forces, usefulness of various types of weapons) rather than on individual or group experiences.
- Fact-finding debriefing is often limited to the questioning of a few central individuals and is not concerned with collecting all points of view and experiences.
- Learning and teaching lessons are part of fact-finding debriefing. In that sense, fact-finding debriefings tend to bring questions to a closure.
- By often enforcing an "instrumental" (and psychologically premature) closure these forms of debriefing do not allow for the degree of openness which is needed in order to reach an elaborate view of facts and human interactions.

- Fact-finding debriefing is part of the military routine. Hence the typical "moratorium in time" created by more reflective types of debriefing is not present.
- Time constraints, which are typical of fact-finding debriefing, are conspicuously absent from the method applied in this study.
- *Fact-finding debriefing, nevertheless, is a powerful psychological experience, which imparts meaning and value to various aspects of the action.*

Lessons learned about combat action

Uniformity and "chaos" during combat

When one collects information from each of the individuals who took part in an event, a salient fact emerges: individual soldiers perceive and interpret an ongoing combat event in many different ways. Clarity and uniformity of appraisal during combat are the exception rather than the rule.

Marshall had postulated that "disorganization of the information" was detrimental to soldiers' performance in combat and that it promoted fear. We found, however, that the "information" is usually disorganized, is unequally distributed, and almost never reaches all the addressees. Moreover once the information does reach a participant it is likely to be interpreted, compared with his own observation and given practical meaning (i.e., lead to decision and actions) in a way that is far from predictable.

Our observation further suggests that, in terms of its effect on performance, "disorganized" information is not always a negative, adverse phenomenon. Lack of information very often prompted soldiers to act or to improvise their own solutions. One is tempted to conclude that (a) "disorganization" is ever-present, (b) a degree of disorganization provides individuals with enough freedom to take initiative and act and (c) in this sense

"disorganization" is essential to the effective functioning of groups in combat.

Prior training and military routines provide the individual soldier with a repertoire of actions from which to choose. This previously-rehearsed repertoire establishes a level of organization that can sustain instantaneous decisions and actions committed under highly stressful conditions.

Although in sharp contrast with the "chaotic" reality described above, a mental illusion of orderliness, integrity and purposefulness is equally necessary. Such an "illusion" has the role of a *protective mental shield* which keeps subjects motivated and ready to exercise their relative freedom of action. Otherwise stated, while combat events are pretty much chaotic, clearsighted cognizance of the degree of randomness is bound to create panic and decrease performance.

It would thus seem very likely that soldiers have to project a scheme of orderliness onto an act that is fairly disorganized in order to keep their sense of purpose and trust their previous learning to supply them with solutions and indeed to fight. In contrast to with Marshall's statement, we would hold that it is the sudden realization of the randomness of combat actions (rather than the mere existence of such "disorganization") that is likely to create panic among troops.

Attribution of meaning in the aftermath of combat

As illustrated in Appendix II, a definite structure of meaning is often attributed to the event after its termination. Furthermore, a good (i.e., coherent, stable) structure of meaning seems necessary to the resolution of the mental event that follows the real event.

A stable version of the event is likely to be created by the group within a few days. However, notwithstanding this 'version,' many individual soldiers still retain doubts and questions. Many of these questions appear to be informative,

that is, to pertain to facts and events. On a deeper layer, however, the information requested and received is heavily loaded with emotions and relevant to the individual's self and his relation to external realities.

Grief and mourning

The combat actions that we debriefed were, for most of the soldiers, their first encounter with injury and death. Many were, therefore, grieving for their lost friends, while at the same time coping with a new and painful awareness of the reality of death and its too-evident proximity. Several factors seem to have mitigated the traumatic effect of this encounter, among them: (a) the fact that grieving was shared by other members of the group, (b) the requirement to visit the families of the casualties and the forgiving attitude of most families towards their son's peers, and (c) the continuation of the military mission and the perception of the importance and justification of the mission.

Conflict and scapegoating within the groups

Although several soldiers expressed guilt about actions taken in combat, mainly in regard to "failed enactment," we did not observe overt accusations or scapegoating within the groups interviewed. It might well be that such sentiments are not readily shared with strangers. However, we felt that the fact of having shared a common experience during combat had made every participant aware of human limitations and of the powerful constraints imposed by fear, misinformation and distress. Hence, our subjects might have become less judgmental and more forgiving towards their peers.

Conclusions

Briefly summarized, the main points that arise from this project are the following:

- Symptoms of intrusion and avoidance are prevalent at the offset of short combat incidents.
- Combat exposure correlates with the use of dissociation during combat. However, dissociation does not correlate with intrusion and avoidance (that is with "post-traumatic" symptoms).
- Anxiety seems to correlate with avoidance symptoms.
- Historical Group Debriefing has a measurable effect on anxiety and self-efficacy.
- The modification in Anxiety and Self-efficacy scores may result from an effect on soldiers with "deviant" scores.
- Combat soldiers and line officers readily participate in Historical Group Debriefing.
- Historical Group Debriefing differs significantly from "fact-finding debriefing" and may have an added beneficial effect.
- A complex picture of combat events stems from group debriefing. This picture requires further study.

References

- Bar-On, R. Solomon, Z. Noy, & S. Nardi, C. (1986). The clinical picture of combat stress reaction in the 1982 Lebanon War: Cross war comparison. in Milgram N (ed.) *Stress and Coping in Times of War*. Brunner/Mazel, New York, pp.97-102
- Bartone PT, Wright KM. Grief and group recovery following a military air disaster. *Journal of Traumatic Stress* 1990;3:523-539.
- Baum, A. Gatchel, R. J. & Scaeffler, M. A. (1983) Emotional behavioral and physiological effects of chronic stress at the Three Miles Island. *Journal of Consulting and Clinical Psychology* 51, 565-572.
- Bergman, L. H. & Queen, T. (1986) Critical Incident Stress: part 1. Fire Command, April pp. 52-56
- Bernstein E. M., Putnam F. W (1986) Development, reliability and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727-735
- Birenbaum, F. Copolon, J. & Scharff, I. (1976) Crisis intervention after a natural disaster. In R. H. Moos (Editor.), *Human Adaptation: Coping with Life Crises*. Heath and Company, Lexington, pp.394-404.
- Bloom, B. L. (1985) Stressful life event theory and research: Implications for Primary Prevention. NIMH/ADAMHA, Rockville, MD. Chapter 6 concluding Summary, p. 98.
- Bourne, P.G. (1978) Military psychiatry and the Viet Nam war in perspective. in Bourne P.G, (editor) *The Psychology and Physiology of Stress* New York Academic Press, 219-236
- Cohen, R. E. and Ahearn, F. L. (1980) *Handbook of Mental Health Care for Disaster Victims*. Johns Hopkins University Press, Baltimore, MD.
- Cohen, R.C. (1976) Post disaster mobilization of a crisis intervention team: The Managua experience. In H. G. Parad, H. L. P. Resnick and L. P. Parad (editors.), *Emergency and Disaster Management: A Mental Health Handbook*. Charles Press.
- Dasberg, H. (1976) Belonging and loneliness in relation to mental breakdown in battle. *The Israel Annals of Psychiatry and Related Disciplines* 14, 307-321
- Davies MF. Self-focused attention and belief perseverance. *Journal of Experimental Social Psychology* 1982;18:595-605.

- Dunning C. (1990) Mental health sequelae in disaster workers: prevention and intervention. *International Journal of Mental Health*, 19,91-103
- Dunning, C. Silva M. (1980) Disaster-induced trauma in rescue workers. *Victimology* 5, 287-297.
- Dyregrov A, Mitchell JT. Psykologisk debriefing. / Critical incident stress debriefing. *Tidsskrift for Norsk Psykologforening* 1988;25:217-224.
- Feldmann TB, Bell RA. Crisis debriefing of a jury after a murder trial. *Hospital and Community Psychiatry* 1991;42:79-81.
- Figley, C. & Leventman, S. (1980) *Strangers at Home, Vietnam Veterans Since the War*. Praeger Publishers, New York.
- Fortin PJ, Reed SR. Diagnosing and responding to emotional abuse within the helping system. *Child Abuse and Neglect* 1984;8:117-119.
- Gal R. *A portrait of the Israeli Soldier*. Greenwood Press, Connecticut.
- Green, B. L. Grace, M. C. Lindy, J. D. Titchener, J. L., & Lindy, J. G. (1983) Levels of functional impairment following a civilian disaster: The Beverly Hills Supper Club fire. *Journal of Consulting and Clinical Psychology* 51, 573-580.
- Green, B.L. (1986). Conceptual and methodological issues in assessing the psychological impact of disaster. In: B. J. Sowder & M. Lystad, (Editors.) *Disasters and Mental Health: Contemporary Perspectives and Innovations in Services to Disaster Victims*. American Psychological Association: Washington, D.C. pp.191-208
- Green, B.L. (1987). Long term consequences of man made catastrophes. In R. J. Ursano and C. S. Fullerton, (editors.), *Individual Responses to Disasters*. Uniformed Services University of the Health Sciences, Bethesda, MD pp.39-70.
- Greenberg, M.S. & Van der Kolk B.A. (1987) Retrieval and integration of traumatic memories with the "painting cure" in B.A. Van der Kolk (ed) *Psychological Trauma*. American Psychiatric Press, Washington, pp. 191-216
- Griffin, C.A. (1987) Community disasters and Post Traumatic Stress Disorder: a debriefing model for response. in Williams T (editor) *Post Traumatic Stress Disorders: a Handbook for Clinicians American Disabled Veterans Publication*, Cincinnati.

- Hearst N Newman TB Hulley SB Delayed effects of the military draft on mortality. *New Engl. J Med* 314:620-624, 1986
- Helzer, J. E. Robins, L. N. & McEnvoi, L. (1987) Post-traumatic stress disorder in the general population. *New England Journal of Medicine* 317, 1630-1634.
- Hytten K. & Weisaeth L. (1989) Helicopter crash in water: effects of simulator escape training. *Acta Psychiatrica Scandinavica*, (Supplement 355) 73-78.
- Ingraham, L. & Manning, F. (1986) *American Military Psychiatry* in Gabriel RA (editor) *Military Psychiatry*. Greenwood Press, New York. pp 25-65
- Jones, D. R. (1985) Secondary disaster victims: the emotional impact of recovering and identifying human remains. *American Journal of Psychiatry* 142, 303-307.
- Kaylor, J.A. King D.W. & King L.A. (1987) Psychological effects of the military service in Vietnam: a meta-analysis. *Psychological Bulletin* 102, 257-271
- Klein, H. & Kogan, I. (1987) Life under existential stress 40 years after the Holocaust, *Therapeutic Aspects*. Sihot, Israel *Journal of Psychotherapy*, 1, 94-98.
- Krystal, H. (1978) Trauma and affect. *Psychoanalytical Study of the Child*. 33, 81-116.
- Kulka RA, Schlenger WE, Fairbank JA, Hough RL, Jordan BK, Marmar CR, Weiss DS. Trauma and the Vietnam War Generation: Report of Findings from the National Vietnam Veterans Readjustment Study. New York: Brunner/Mazel, 1990.
- Kulka, R.A., Schlenger, W.E. Fairbank, R.L. Hough, R.L. et al. (1989) Trauma and the Vietnam War generation. Brunner Mazel (Psychosocial series # 18) New York.
- Lazarus, R. S. & Folkman, S. (1984) *Stress Appraisal and Coping*. Springer.
- Lazarus. (1982) The costs and benefits of denial. In Bereznits s (ed) *The Denial of Stress*. International University Press, New York, pp. 1-30
- Lederman LC. Debriefing: A critical reexamination of the postexperience analytic process with implications for its effective use. *Simulation and Games* 1984;15:415-431.
- Lifton, R. J. (1973) *Home From The War*. Basic Books, New York.

- Lindemann, E. (1944) Symptomatology and management of acute grief. *American Journal of Psychiatry* 101:141-148.
- Lindy, J. D. (1985) The trauma membrane and other clinical concepts derived from psychotherapeutic work with survivors of natural disasters. *Psychiatric Annals* 15, 153-160.
- Lindy, J. D., & Grace, M. (1986) The recovery environment: Continuing stressor versus a healing psychological space. in Sowder J & Lystad M (Editors) *Disasters and Mental Health: Contemporary Perspectives and Innovations in Services to Disaster Victims*. American Psychiatric Press, Inc.: Washington, DC. pp. 147-160
- Lindy, J. D., Grace, M. C., & Green, B. L. (1981). Survivors: Outreach to a reluctant population. *American Journal of Orthopsychiatry* 51, 468-478.
- Loftus, E.F. (1979) *Eyewitness testimony*. Harvard University Press. Cambridge Mass.
- Lund M, Foy D, Sipprelle C, Strachan A The combat exposure scale: a systematic assessment of trauma in the Vietnam war. *Journal of Clinical Psychology*, 1987, 40:1323-1328
- Malamuth NM, Check JV. Debriefing effectiveness following exposure to pornographic rape depictions. *Journal of Sex Research* 1984;20:1-13.
- Marshall, S. L. A. (1944) *Island Victory*. Penguin Books, New York.
- Marshall, S. L. A. (1947) *Men Under Fire: The Problem of Battle Command in Future War*. The Infantry Journal Press, Penguin Books, Washington D.C. pp. 201-213.
- Marshall, S. L. A. (1953) *The River and the Gauntlet*. William Morrow & Co. New York
- Marshall, S. L. A. (1956) *Pork Chop Hill*. William Morrow & Co, New York 1956.
- Marshall, S. L. A. (1962) *Night Drop, The American Airborne Invasion of Normandy*. Little Brown, New York.
- McCaughey BG. US Navy Special Psychiatric Rapid Intervention Team (SPRINT). *Military Medicine* 1987;152:133-135.
- Melton, C. (1985) The days after: Coping with the after effects of the Delta 1-1011 crash. *Firehouse*, December pp.49-50.
- Mitchell, J. T. (1981) Emergency response to crisis: a crisis intervention. In *Guidebook of Emergency Service Personnel*. R. J. Brady Co..

- Mitchell, J. T. (1982) Recovery from rescue. Response Magazine, Fall Issue 7-10.
- Mitchell, J.T. (1983) When Disaster Strikes... Journal of Emergency Medical Services, 8: 36-39.
- Mitchell, J.T. (1986). Critical incident stress management in R. Minard (Ed.) Response! 5, 24-25.
- Murphy SA. An explanatory model of recovery from disaster loss. *Research in Nursing and Health* 1989;12:67-76.
- Procidano ME Heller K Measure of Perceived Social Support from Friends and from Family: Three Validation Studies. *American Journal of Community Psychology*. 11: 1-23,1983
- Pennebaker, J. W. Susman J. R. (1988) Disclosure of trauma and psychosomatic processes. *Social Science and Medicine*, 26, 327-332.
- Quarantelli, E. L. (1986) Community Responses to Disaster. In: B. J. Sowder & M. Lystad, (Editors.). *Disasters and Mental Health: Contemporary Perspectives and Innovations in Services to Disaster Victims*. American Psychiatric Press: Washington, DC pp. 169-179.
- Raphael B. Psychiatric consultancy in major disaster. *Australian and New Zealand Journal of Psychiatry* 1984;18:303-306.
- Raphael, B. (1986) When Disaster Strikes. Basic Books, New York pp. 222-244.
- Raphael, B. Singh, B. Bardbury, L. & Lambert, F. (1983) Who helps the helpers: the effect of a disaster on the rescue workers. *Omega*, 14: 9-20.
- Rundell, J. R., Ursano, R. J., & Holloway, H. C. (1989). Psychiatric responses to trauma. *Hospital and Community Psychiatry*, 40, 68-74.
- Salmon, T. (1919) The war neurosis and their lesson. *New York State Journal of Medicine*, 59, 933-944.
- Small RH. Practical training in the management of psychiatric combat casualties. *Military Medicine* 1984;149:276-279.
- Sokol RJ. Early mental health intervention in combat situations: The USS Stark. *Military Medicine* 1989;154:407-409.

- Solomon, S. D. (1986) Enhancing social support for disaster victims In: B. J. Souder & M. Lystad (Editors.). Disasters and Mental Health: Contemporary Perspectives and Innovations in Services to Disaster Victims. American Psychiatric Press: Washington, D.C. pp. 115-129.
- Solomon, Z., & Benbenishty, R. (1986) The role of proximity, immediacy, and expectancy in frontline treatment of combat stress reaction among Israelis in the Lebanon War. *American Journal of Psychiatry* 143, 613-617.
- Solomon, Z., Schwarzwald, J. & Mikulincer, M. Frontline treatment of Israeli Soldiers with combat stress reactions. *American Journal of Psychiatry* 144, 448-454.
- Solomon, Z, Kotler, M. Shalev, A. & Lin, R. (1989) Delayed post traumatic stress disorder. *Psychiatry*, 52, 428-436.
- Speilberger CD Manual for State Trait Anxiety Inventory. Palo Alto, Consulting Psychologists Press, 1983.
- Speilberger CD, Gorsuch RL, Lushen RE (1970) : Manual for State Trait Inventory. Palo Alto, CA Consulting Psychological Press
- Spiller, R.J. (1988) S.L.A. Marshall and the ratio of fire. The Royal United Service Institute for Defense Studies *Journal* 133, 63-71.
- Stratton JG Parker DA Snibbe JR Post-traumatic stress: study of police officers involved in shootings *Psychol Rep* 1984;55:127-131
- Talbot A. The importance of parallel process in debriefing crisis counselors. *Journal of Traumatic Stress* 1990;3:265-277.
- Ursano RJ Holloway HC Jones DR Rodriguez AR Belenky GL Psychiatric care in the military community: family and military stressors *Hosp Community Psychiatry* 1989;40:1284-1289
- Ursano RJ, Fullerton CS. Cognitive and behavioral responses to trauma. Special Issue: Traumatic stress: New perspectives in theory, measurement, and research: II. Research findings. *Journal of Applied Social Psychology* 1990;20:1766-1775.
- Ursano RJ, Wheatley RD, Carlson EH, Rahe AJ. The prisoner of war: Stress, illness and resiliency. *Psychiatric Annals* 1987;17:532-535.
- Wagner, M. (1979) Airline disaster: a stress debriefing program for police. *Police Stress*, 2: 16-20.

- Walker G. Crisis-care in critical incident debriefing. Eleventh Annual Conference of the Association for Death Education and Counseling (1989, Baltimore, Maryland). *Death Studies* 1990;14:121-133.
- Wegner DM, Coulton GF, Wenzlaff R. The transparency of denial: Briefing in the debriefing paradigm. *Journal of Personality and Social Psychology* 1985;49:338-346.
- Weisaeth L. The stressors and the post-traumatic stress syndrome after an industrial disaster. Special Issue: Traumatic stress: Empirical studies from Norway. *Acta Psychiatrica Scandinavica* 1989;80:25-37.
- Weissaeth L. (1989) A study of behavioral responses to an industry disaster. *Acta Psychiatrica Scandinavica*, (Supplement 355), pp. 13-24.
- Wright KM, Ursano RJ, Bartone PT, Ingraham LH. The shared experience of catastrophe: An expanded classification of the disaster community. *American Journal of Orthopsychiatry* 1990;60:35-42.

Tables

Table 1: Descriptive Statistics of variables recorded before and after debriefing

Variable	N	Min	Max	Mean	Std.Dev.	Skewness
COMBEX	39	12.0000	61.0000	1.7692	12.13837	2.509376
DISSOC	39	.0000	13.0000	4.3077	4.44945	.927516
PSS-F	39	11.0000	19.0000	15.1538	2.50829	-.140523
IES	39	16.0000	34.0000	23.8462	4.54532	.441382
IES-INT	39	9.0000	27.0000	14.3846	4.66011	1.216812
IES-AV	39	7.0000	20.0000	9.4615	3.63351	1.897246
SELF-1	39	29.0000	59.0000	46.8462	7.49575	-.539808
EVAL-1	39	93.0000	120.0000	108.3077	7.98075	-.355489
SANX-1	33	20.0000	41.0000	25.6364	6.03541	1.235737
SELF-2	33	39.0000	59.0000	47.7273	5.81094	.435469
EVAL-2	33	103.0000	120.0000	111.5455	5.39728	.391879
SANX-2	33	20.0000	29.0000	23.9091	2.78796	.191382

*Interpretations of the various abbreviations are provided in the text.

Table 2 Pearson's Correlations Between Psychometric Variables

	DISSOC	BATEXP	PSS-F	IES	IES_INT	IES_AV	SELF 1	EVAL 1	SANX 1
DISSOC	1.00000 .46765 .20079 .04925 -.13531 .23515 -.28260 .63756 -.03835	p< .003 (N= 39) p< .220 (N= 39) p< .766 (N= 39) p< .411 (N= 39) p< .150 (N= 39) p< .081 (N= 39) p< .832 (N= 33)							
BATEXP	.46765 1.00000 -.04807 .10952 -.00397 .14210 .17921 .41149 -.11906	p< .003 (N= 39) p< .771 (N= 39) p< .507 (N= 39) p< .981 (N= 39) p< .388 (N= 39) p< .275 (N= 39) p< .009 (N= 33)							
PSS-F	.20079 -.04807 1.00000 .38299 .31900 .06996 -.40181 .33674 -.20253	p< .220 (N= 39) p< .771 (N= 39) p< .016 (N= 39) p< .048 (N= 39) p< .672 (N= 39) p< .011 (N= 39) p< .036 (N= 33)							
IES	.04925 .10952 .38299 1.00000 .68866 .36771 -.51744 -.02478 .41845	p< .766 (N= 39) p< .507 (N= 39) p< .016 (N= 39) p< .000 (N= 39) p< .021 (N= 39) p< .001 (N= 39) p< .881 (N= 33)							
IES_INT	-.13531 -.00397 .31900 .68866 1.00000 -.42106 .00400 .18566 -.16901	p< .411 (N= 39) p< .981 (N= 39) p< .048 (N= 39) p< .000 (N= 39) p< .008 (N= 39) p< .981 (N= 39) p< .258 (N= 33)							
IES_AV	.23515 .14210 .06996 .36771 -.42106 1.00000 -.65242 -.26911 .66503	p< .150 (N= 39) p< .388 (N= 39) p< .672 (N= 39) p< .021 (N= 39) p< .000 (N= 39) p< .098 (N= 39) p< .000 (N= 33)							
SELF 1	-.28260 .63756 .41149 .17921 .41149 .20669 1.00000 -.46969	p< .081 (N= 39) p< .832 (N= 33) p< .275 (N= 39) p< .001 (N= 39) p< .981 (N= 39) p< .000 (N= 39) p< .207 (N= 33)							
EVAL-1	.63756 .41149 .33674 .20669 .20669 1.00000 .20669 -.46953	p< .000 (N= 39) p< .009 (N= 39) p< .036 (N= 39) p< .881 (N= 39) p< .258 (N= 39) p< .207 (N= 39) p< .000 (N= 33)							
SANX-1	-.03835 -.11906 -.20253 -.46953 -.46953 -.46953 1.00000	p< .832 (N= 33) p< .509 (N= 33) p< .258 (N= 33) p< .015 (N= 33) p< .347 (N= 33) p< .006 (N= 33) p< .006 (N= 33)							

Table 3. State Anxiety, Self Efficacy and Combat Evaluation Scores Before and After Debriefing

Variable	Before DBFG			After DBFG			Wilcoxon MPT	
	Mean(SD)	Range	Skew	Mean(SD)	Range	Skew	T	Z p-level
SANX	25.6(6.0)	20-41	1.24	23.9(2.8)	20-29	0.19	48	2.35 0.019
SELF	46.8(7.5)	29-59	-0.54	47.7(5.8)	39-59	0.43	15	3.49 0.001
COMBEVAL	108.3(8.0)	93-120	-0.35	111.5(5.4)	103-120	0.39	48	0.68 0.495

Figures

Fig. 1. State Anxiety Scores Before and After Debriefing

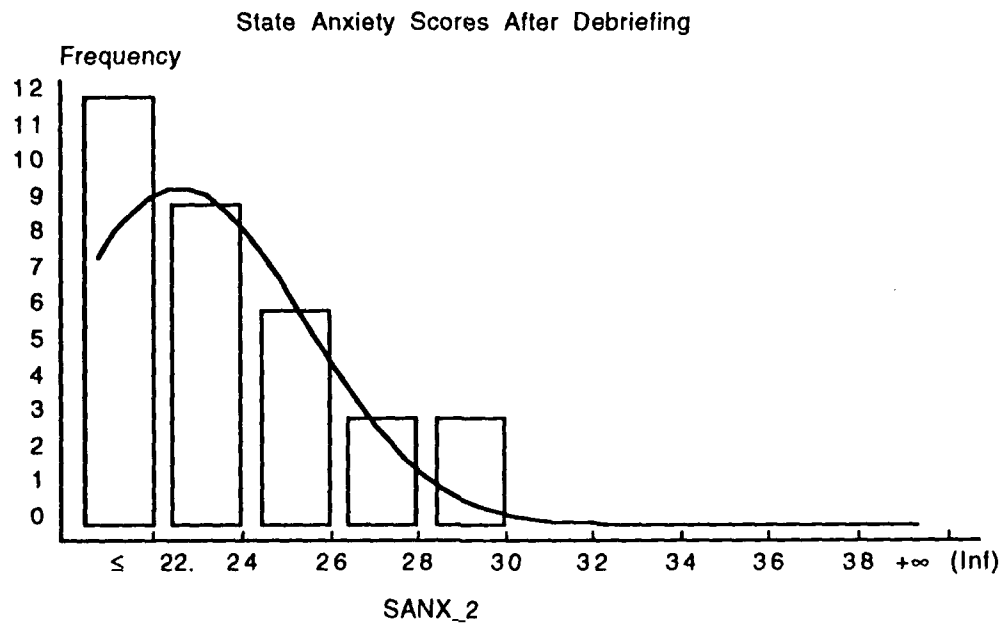
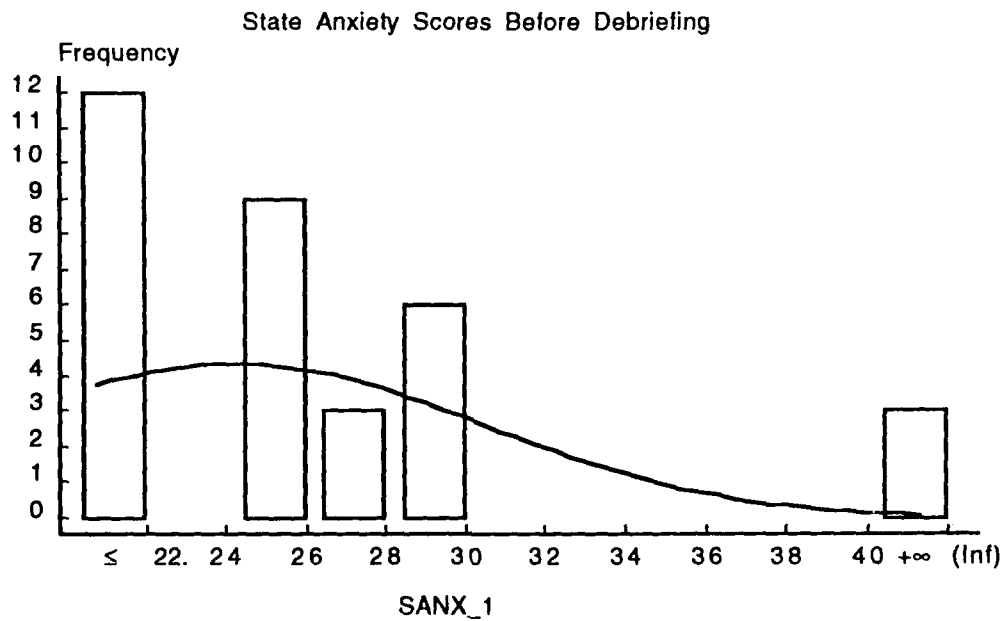


Fig. 2. Self Efficacy Scores Before and After Debriefing

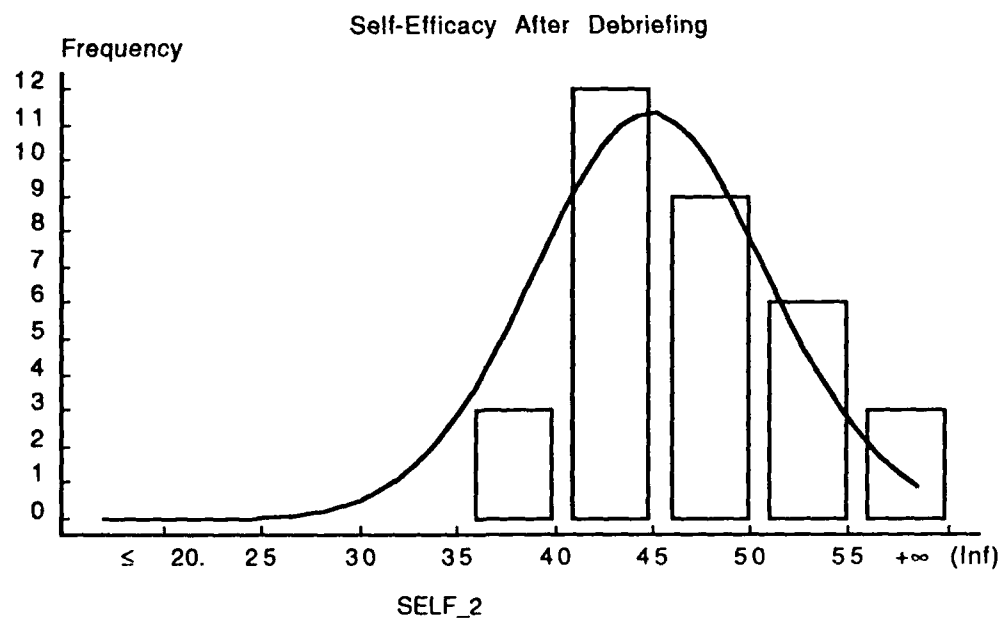
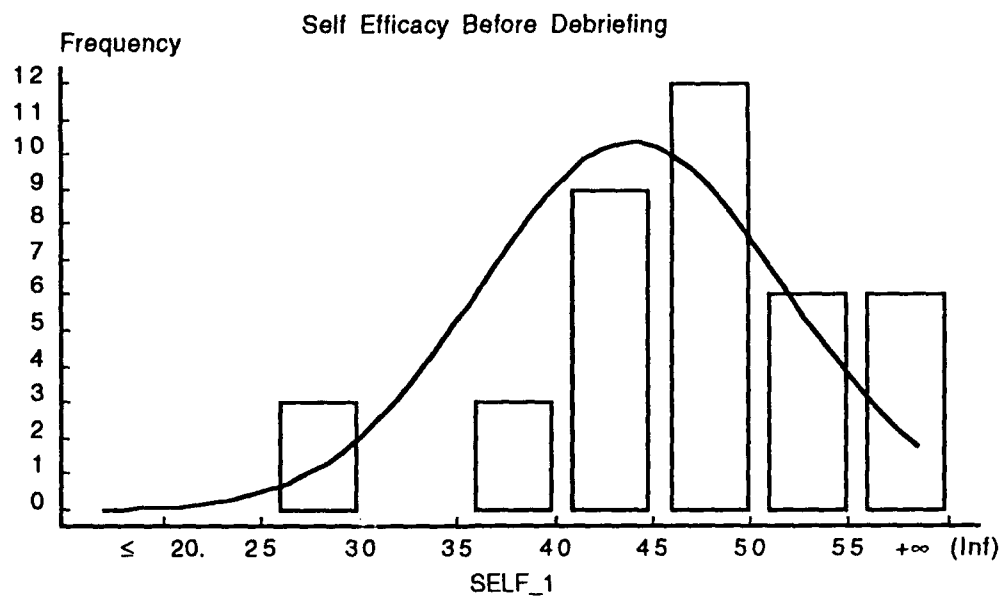
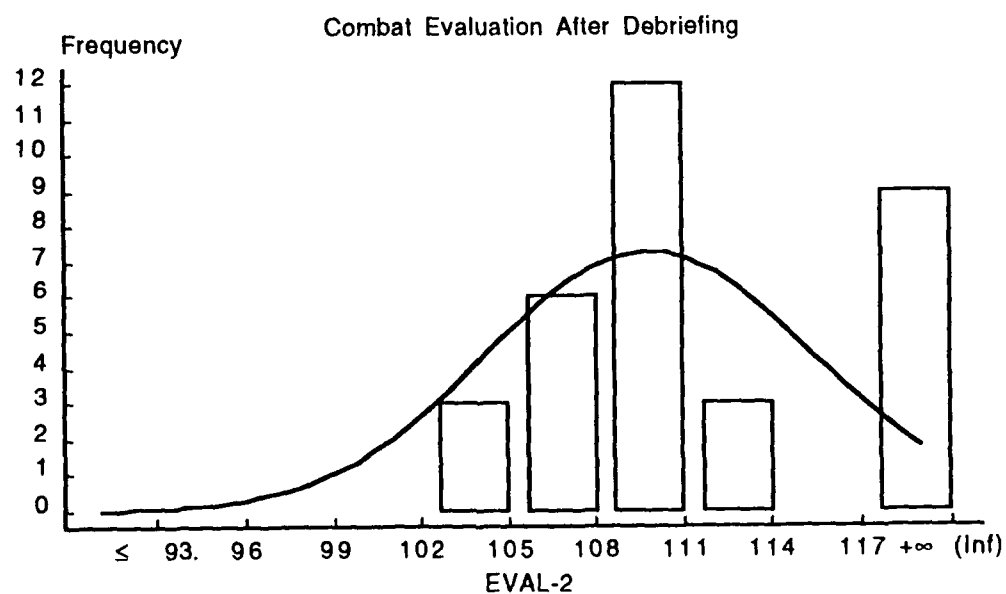
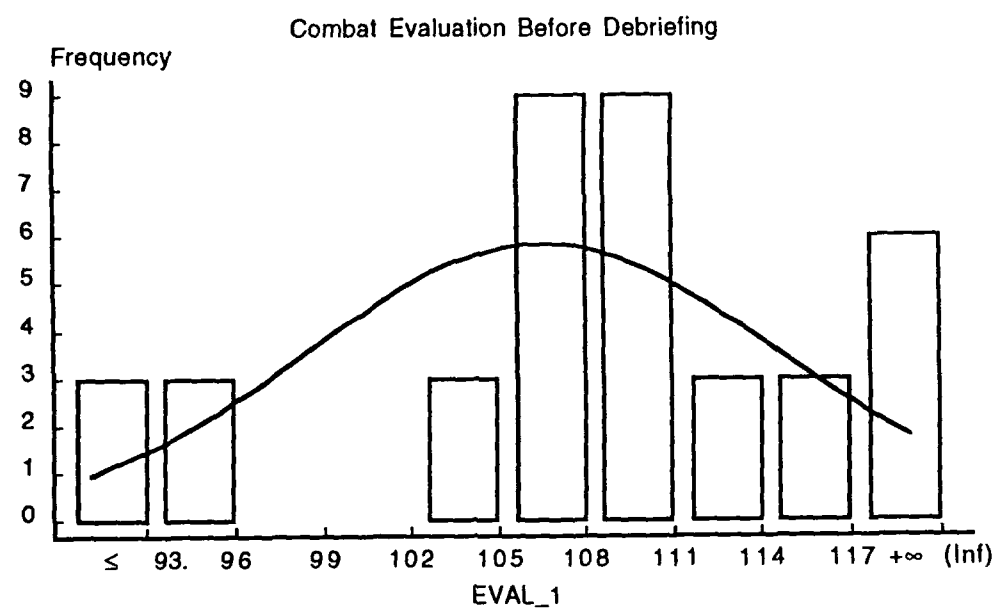


Fig. 3. Combat Evaluation Scores Before and After Debriefing



Appendix I: SLA Marshall's Historical Group Debriefing

The following is a description of Marshall's debriefing technique as it emerges from his own outline (Marshall, 1944) and from raw documents examined at the US Army Military History Institute in Carlisle, PA, and in particular, a number of handwritten transcripts of debriefing sessions of the Ninth Infantry Division in Korea, 1950.

See Table at the end of the appendix for a summary of the SLA Marshall' debriefing technique.

Debriefing sessions took place on the battle field as soon as possible after the action. All the survivors of the battle, with the exception of those medically evacuated were present, regardless of ranks and roles.

Prior to the session, Marshall learned about the battle outline and the specific role played by the unit to be debriefed. Acquaintance with technical information (e.g., ground, weather, manpower, weapons, food, ammunition, etc.) was considered a *sine qua non* for making sense of the material brought up by the group during the session. In Marshall's words: the interviewer has to "study all the available maps" and "learn beforehand the larger significance of what the company accomplished - more fully than the company itself".

The sessions were opened by informing the group about the procedure and its goals. At this point, superiors were often invited to endorse the sessions and give their blessing. The instructions defined the group's task as "*describing the combat with all the possible details*" and emphasized the significance of learning from the experience. Witnesses were encouraged speak and to share their contribution with the whole group: "*The narrative is constructed out loud in the presence of the whole company*" (Marshall, 1944; p. 209).

For the duration of the session military ranks were set aside: "Here you are all equal witnesses For the time being we all stand on the same ground. If you hear any man present, whatever his rank, say something which you think is incorrect....it is your duty to stand up and speak your piece" (Marshall, 1944 p. 206). Testimonies were weighed according to their "obvious validity" and pertinence to the course of the operation regardless of the rank of the witness: "The word of a superior as to what a man (or a group) did should not be allowed to prevail against the direct testimony of the man himself" (Marshall, 1944; p. 204).

Spiller (1988) related to this aspect of Marshall's method as being a "democratic interpretation of the battle" and "genuinely American." He contrasted it with more traditional ways in which military institutions make sense of combat events, where the right to interpret and convey meaning is reserved for officers and commanders.

After a short period of modeling by the military historian, company commanders were invited to take the lead and conduct the interview : "If he is fit to lead them in battle, he is fit to lead them in reliving the battle experience." The professional leader, however, was always there to remind the commander not to use the session for teaching purposes and to refrain from expressing opinions on soldiers' conduct during the engagement.

Marshall demanded that the reconstruction of the battle follow a "strict chronological path" and uncover the events in sequential order. This structure helped to avoid evasions and to focus the discussion on factual reality rather than on interpretations. Accordingly, all the available information on each stage of the battle was exhaustively collected from all witnesses present. The ideal was to cover every aspect of the action, gather all points of view, clarify each issue, and leave no blank spots: "No scrap of evidence is too small to be disregarded at the time of the inquiry It is often found that the key to all that occurred may be some fact known to only two or three members of the company which they themselves considered to be of minor import " (Marshall, 1944). A lengthy portion of an

interview with an infantry company in Korea, 1950, dealt, for example, with the reason for taking only one hand grenade on that particular mission. Marshall insisted on clarifying whether this was what the soldiers usually did, whether it was approved and known to commanders etc. (Marshall's collection, Carlisle;).

Tolerance of ambiguous information was the rule during the sessions and premature closure was systematically avoided. Marshall dealt with contradictory statements by encouraging further clarification and looking for more details. Additional information was never discredited on the basis of existind data: *"The record should not by regarded as closed at any time."*

Marshall warned future interviewers against discarding any testimony and confronting any witness with disbelief or mistrust. It appears, therefore, that maintaining the integrity of the process (i.e., encouraging openness and communication) was preferred over rectifying misperception and achieving a definitive version of the events. Marshall was, however, very cautious in accepting pieces of information that might reflect projection or scapegoating. He warns future interviewers against giving credit to soldiers' attribution of fire received from unknown sources to other American units. Such descriptions, he maintained, should never be accepted as accurate without confirmation from other sources.

As a military historian, Marshall was interested in facts rather than in opinions. A closer scrutiny reveals, however, that his concept of 'factual reality' included soldiers' thoughts, assumptions and feelings as well as the decisions and actions that followed. *"The record is supposed to be warm and humane since an Army is a living and not a mechanical organism."* It is just as important *"to gather the facts on the moral side of war as on the purely physical side"* (Marshall, 1944). The "group's spirit" was also part of the factual reality. Fatigue, malnutrition and anticipatory intuitions were recorded and studied as causes of behavior during action.

The attitude of the interviewer should be one of "warm interest and respectful attention." The interviewer "should be ever ready with praise ... He cannot obtain the interest of the company and its complete participation unless he conducts himself as a student rather than as a teacher." No open critique of any witness's contribution was allowed "The interviewing officer should never cut any witness short or disbelieve in any statement" (Marshall, 1944; p. 212). Marshall's respect for the witness's integrity and identity was also expressed by his careful recording of each soldier's name, address, rank, and some personal history on each of the primary documents.

The facts concerning death of comrades in combat were of critical importance: "It will be found, almost without exception, that these men [those who had died] played a conspicuous part in the actions and that the living are especially concerned with being exact in relating what did happen to those who were killed " (Marshall, 1944; p. 204). The interviewer had to be particularly sensitive to the way in which the death of comrades affected survivors during the battle and during its reconstruction. The memory of the dead added a dimension of seriousness and truthfulness to the process.

Marshall's debriefing sessions are the longest described in the literature. Debriefing, according to Marshall, should continue until the whole picture was obtained and be limited only "by the time it takes to achieve the desired result." Allegedly some sessions took three working days. Marshall estimated that roughly seven hours were necessary to debrief one fighting day. This attitude towards time (i.e., the unfolding of the process determines its length) is similar to that of traditional psychodynamic therapy. This might have helped to generate a group process characterized by lack of pressure and openness, thus engaging the soldiers in a meaningful process of reliving and restructuring their experience.

Although Marshall considered the practice of debriefing to be fairly simple and recommended it to commanders without formal training, it is clear that he recognized the existence of group

resistance and had to deal with it. What he described, in fact, was a group process that started in an atmosphere of caution and closure and progressively changed into one of openness and enthusiastic participation. This process might take from a few hours to several working days. With some companies, a congenial atmosphere could be established *"within ten minutes of the start of an interview,"* while in other cases, the interviewing officer had to work patiently with the company for a day or more before the "dam breaks." He postulated a relationship between difficulties in debriefing and the quality of leadership: a company with poor leaders was harder to engage in debriefing.

Finally, Marshall used very simple terminology to define the individual's emotions and attitudes. Fear, camaraderie, loneliness, pride, honor and leadership were his key concepts. Terms such as anxiety, stress, motivation, denial, or support, were not a part of either his narrative or his combat analysis. Although apparently poor in abstract concepts, Marshall's language seems to have matched that of the soldier and must have facilitated communication (Spiller, 1988).

Table: Summary of Marshall's Debriefing Technique

1. Debriefing sessions are conducted as soon as possible after the action.
 2. Prior to the session the interviewer collects information about the unit's background, structure, and role in the battle, and the outcome of the battle.
 3. The session consists of a chronological reconstruction of the event in its minutest details.
 4. All those who took part in the battle participate in the session. No others are allowed to participate.
 5. The entire group takes part in the reconstruction of the action in its minutest details. Each participant is encouraged to add his own version to other soldiers' accounts.
 6. All ranks are put aside during the session and all the interviewees have an equal status.
 7. All the information and all points of view on each stage of the action are collected from the participants.
 8. Ambiguous information and contradictory statements are recorded by the interviewer as illustrating the complexity of human interactions during an event.
 9. Criticism and attempts to teach are discouraged. Accordingly, no open disbelief in any witness's testimony is expressed by the interviewer.
 10. No attempt is made to reach agreement among participants. Premature conclusions and closure are avoided.
 11. The interviewer endeavors to create and maintain a congenial atmosphere and to facilitate communication and openness throughout the session.
 12. Emotional reactions are not focused upon. No deliberate psychological intervention (e.g., clarification, interpretation, education) is attempted by the interviewer.
 13. The session is not limited in time and continues for as long as it takes to reach a comprehensive description of the event.
-

Appendix II: Psychometric Instruments

Combat Exposure Scale (enclosed)

Adapted from Lund et al.'s Combat Exposure Scale, this questionnaire consists of 16 items pertaining to various aspects of combat exposure. The main difference between this scale and Keane's is that the items here relate to a single combat event, rather than to lengthy exposure to numerous combat actions, such as in the Vietnam War, .

Dissociation Scale (enclosed)

Adapted from the Dissociative Experience Scale, this 9 item rating scale was used to evaluate dissociative symptoms during the San Francisco earthquake by Marmar et al. Symptom severity is rated on a scale of one to five. The total score of all items (range 9-45) served to evaluate the severity of dissociation during combat.

Procidano & Heller's Perceived Social Support - Friends

This rating scale includes 20 statements pertaining to various dimensions of social support as perceived by the subject. Items are answered either positively or negatively (Yes/No). The PSS-Friends has been used widely in studies of US and Israeli military populations.

Bandura's Self-Efficacy (IDF/combat version)

This 17 item questionnaire, based on typical combat experiences undergone by the IDF ground forces, was developed and validated by Solomon et al. on the basis of Bandura's concept of perceived self-efficacy. The questionnaire inquires into the soldiers' estimate of their ability to function effectively during various stressful situations encountered in combat. It has been strongly correlated to subjective distress following combat and, according to its authors, predicts future efficacy in combat.

Horowitz's Impact of Events Scale

The Impact of Events Scale is a 15 item questionnaire inquiring into two cardinal dimensions of traumatic responses to stressful exposure: intrusive recollections and avoidance. Extensively used in various studies, this scale was found to correlate highly with combat stress reactions and post-traumatic stress disorder among Israeli veterans of the 1982 Lebanon war.

Speilberger's State Anxiety

This 20 item questionnaire assesses various aspects of concurrent anxiety on a five-point intensity scale. It has been used extensively in studies on American and Israeli soldiers.

Combat Evaluation Scale (enclosed)

In this questionnaire the subject is requested to express his evaluation of twelve "qualitative" aspects of a combat event by giving each of them a grade from 1 (poorest) to 10 (perfect). Possible scores, thus range from 12 to 120.

Immediate reactions and experiences

Instructions: Please complete the items below by selecting the choice that best describes your experiences and reactions during the battle itself and immediately afterwards.

1. I had a moment of losing track of what was going on. I "blanked out" or "Spaced out" or in some what felt that I was not part of what was going on.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

2. I found that I was on "automatic pilot." I ended doing things that I later realized I hadn't actively decided to do.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

3. My sense of time changed. Things seemed unusually speeded up or slowed down.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

4. What was happening seemed unreal to me, like I was in a dream or watching a movie or a play.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

5. I felt as though I were a spectator watching what was happening to me, as if I was floating above the scene or observing it as an outsider.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

6. There were moments when my sense of my own body seemed distorted or changed. I felt disconnected from my body or that it was unusually large or small.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

7. I felt as though things that were actually happening to others were happening to me -- like I was being trapped when I really wasn't

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

8. I was surprised to find out afterwards that a lot of things had happened at the time that I was not aware of, especially things I ordinarily would have noticed,

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

9. [Please complete only if injured] I felt surprisingly little pain at the time of my injury.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

Combat Evaluation Scale

The following questions pertain to the event that you have just experienced. Please answer each by giving your personal impression, without considering others' opinions. Give each of the item a note from one to ten (as in school notes) when 10=perfect; 1=no good; 5=barely enough; 6=enough; 8=good etc....

1. Quality of the preparation to combat (training, specific preparation).

1 2 3 4 5 6 7 8 9 10

2. Quality of the information received before the fight (intelligence, maps, briefing).

1 2 3 4 5 6 7 8 9 10

3. Weapon, ammunition and equipment (quantity and adequacy).

1 2 3 4 5 6 7 8 9 10

4. The preparative stages (reconnaissance, approach, fire positions).

1 2 3 4 5 6 7 8 9 10

5. The units' functioning during the fight.

1 2 3 4 5 6 7 8 9 10

6. The commanders' functioning during the fight.

1 2 3 4 5 6 7 8 9 10

7. Your own functioning during the fight.

1 2 3 4 5 6 7 8 9 10

8. Mutual help between buddies.

1 2 3 4 5 6 7 8 9 10

9. Medical treatment, first aid and evacuation.

1 2 3 4 5 6 7 8 9 10

10. Commander debriefing and lessons learned.

1 2 3 4 5 6 7 8 9 10

11. The atmosphere in the unit after the event.

1 2 3 4 5 6 7 8 9 10

12. Your own mood after the event.

1 2 3 4 5 6 7 8 9 10

Immediate reactions and experiences

Instructions: Please complete the items below by selecting the choice that best describes your experiences and reactions during the battle itself and immediately afterwards.

1. I had a moment of losing track of what was going on. I "blanked out" or "Spaced out" or in some what felt that I was not part of what was going on.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

2. I found that I was on "automatic pilot." I ended doing things that I later realized I hadn't actively decided to do.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

3. My sense of time changed. Things seemed unusually speeded up or slowed down.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

4. What was happening seemed unreal to me, like I was in a dream or watching a movie or a play.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

5. I felt as though I were a spectator watching what was happening to me, as if I was floating above the scene or observing it as an outsider.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

6. There were moments when my sense of my own body seemed distorted or changed. I felt disconnected from my body or that it was unusually large or small.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

7. I felt as though things that were actually happening to others were happening to me -- like I was being trapped when I really wasn't

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

8. I was surprised to find out afterwards that a lot of things had happened at the time that I was not aware of, especially things I ordinarily would have noticed,

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

9. [Please complete only if injured] I felt surprisingly little pain at the time of my injury.

01.....	02.....	03.....	04.....	05
NOT AT ALL	SLIGHTLY	SOMEWHAT	VERY	EXTREMELY
TRUE	TRUE	TRUE	TRUE	TRUE

Appendix III: Company A's Firefight¹

Company A. walked straight into an enemy ambush. Later they would say that their movements must have been spotted during the previous day, but when they moved into enemy territory at night, they were not expecting anyone to be around, and especially not on the steep and rocky hill which was off the road and 'of no tactical value'.

It all started in an instant. Small weapons fire began at very close range. The commanding officer and the radio operator next to him were wounded immediately. A second officer must have run forward and was killed on the spot. In the dark, however, no one knew exactly what was going on. Fire seemed to come from all directions. Hand grenades were thrown by the enemy and soldiers who heard them coming warned their buddies. A sergeant took command. He thought that he had seen a source of fire and instructed the machine gun operator to climb up on a heavy boulder and return fire. The man was hit as soon as he reached a firing position. He rolled down, dead, leaving his weapon on the boulder. Other men started returning fire and throwing hand grenades. One managed to operate the radio. Then everything was silent again. The enemy seemed to have vanished.

While the firefight was still going on, the medic ran forward to treat the wounded. He first found the second officer lying on the ground, and checked his body for wounds. His hands found two large bleeding holes in the officer's back. The officer was apparently dead. The medic, therefore, decided to leave him and treat the company commander, who was lying next to him.

Shots were still being fired, preventing the use of light. The medic put a bandage over the commander's open abdominal wound and kept talking to him to reassure him. They must have communicated that way for several minutes; the medic will never be able to give an accurate estimate of the time that elapsed. When, at last, he could use a light and try to insert an IV line it was already too late. A field surgeon, who arrived with a rescue

unit, tried to operate on the commanding officer and find a deeper vein, but the man died in their hands.

The company left the area quickly. According to military routine, they counted remaining ammunition and underwent a series of fact-finding debriefings. However, the main witnesses were wounded, and on their way to hospital. Consequently, many questions remained unanswered. No one knew, for example, how and why the second officer had reached the spot where he was found. No one could tell how the shooting had started or where it had come from. Information about the commanding officer's injury came in later: an autopsy revealed a liver injury which caused slow but fatal bleeding. That information, however, did not reach the medic until quite some time, leaving him with an acute sense of guilt.

Another company searched the battle field the next morning. They found the body of one enemy soldier. Their grasp of the topography of the hill, however, was very different from the impression of the company's soldiers during the night fight. The two versions never matched completely. Most men were consequently left with a sense of uncertainty about actions and errors, which could be neither confirmed nor dispelled.

Visits to families of the killed in action are customary, and most of the survivors went to see the bereaved parents where each was asked, repeatedly, to describe the action. By the third day after the incident, therefore, many had begun to conceive a 'definitive' version of the event, shaped by retelling of the story again and again. Group debriefing revealed the individual versions to differ from one another. One soldier, for example, believed that the two officers had been killed by the same bullets coming from an 0.5" machine gun. Others, however, considered this to be totally impossible. The medic claimed that the company commander had died within 20 minutes of his injury, whereas the field surgeon's estimate was 45 minutes.

A comparison between versions became a very stressful experience. Five days after the incident the first wounded men were released from the hospital and joined the others. Among them

was the soldier who had been walking with the commander. He seemed to remember clearly what had happened. He said that they had heard a word spoken in a foreign language, that consequently the commander had shouted "enemy ahead - open fire" and fired his M-16. This thoroughly contradicted what everyone had believed to be true until then - namely that the first shot were fired be the enemy. As the soldier was relating this new 'truth' one of the survivors left the room, saying that he couldn't listen any longer. His own version had already been delineated and he found that reshuffling the cards was too upsetting at this point. However, even the wounded soldier, who claimed that he remembered everything, had no recollection of the deceased second officer walking next to him. Since he never saw him, he just could not have been there! It was, nevertheless, 'there' that the officer had been killed.

Interviewed at this point, some soldiers indicated that they were having nightmares and were suffering from increased alarm reaction. Others were reconstructing, again and again, their own recollections, trying to make sense of memory gaps and to reconcile paradoxical information.

This company's story illustrates the type of stressful events for which group debriefing is usually recommended.

¹ Some details have been omitted as to prevent the identification of individuals and groups involved in this action.