



# ARROYO CENTER

- CHILD POLICY
- CIVIL JUSTICE
- EDUCATION
- ENERGY AND ENVIRONMENT
- HEALTH AND HEALTH CARE
- INTERNATIONAL AFFAIRS
- NATIONAL SECURITY
- POPULATION AND AGING
- PUBLIC SAFETY
- SCIENCE AND TECHNOLOGY
- SUBSTANCE ABUSE
- TERRORISM AND HOMELAND SECURITY
- TRANSPORTATION AND INFRASTRUCTURE

This PDF document was made available from [www.rand.org](http://www.rand.org) as a public service of the RAND Corporation.

[Jump down to document](#) ▼

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

## Support RAND

[Purchase this document](#)

[Browse Books & Publications](#)

[Make a charitable contribution](#)

## For More Information

Visit RAND at [www.rand.org](http://www.rand.org)

Explore [RAND Arroyo Center](#)

View [document details](#)

## Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents.

This product is part of the RAND Corporation monograph series. RAND monographs present major research findings that address the challenges facing the public and private sectors. All RAND monographs undergo rigorous peer review to ensure high standards for research quality and objectivity.

# Steeling the Mind

Combat Stress Reactions and Their  
Implications for Urban Warfare

---

Todd C. Helmus, Russell W. Glenn

Prepared for the United States Army

Approved for public release, distribution unlimited



RAND

ARROYO CENTER

The research described in this report was sponsored by the United States Army under Contract No. DASW01-01-C-0003.

**Library of Congress Cataloging-in-Publication Data**

Helmus, Todd.

Steeling the mind : combat stress reactions and their implications for urban warfare /  
Todd Helmus, Russell Glenn.

p. cm.

"MG-191."

Includes bibliographical references.

ISBN 0-8330-3702-1 (pbk.)

1. War neuroses—United States. 2. Urban warfare. I. Glenn, Russell W. II. Title.

RC550.H47 2005

616.85'212—dc22

2004026856

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

**RAND**® is a registered trademark.

© Copyright 2005 RAND Corporation

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from RAND.

Published 2005 by the RAND Corporation

1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138

1200 South Hayes Street, Arlington, VA 22202-5050

201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516

RAND URL: <http://www.rand.org/>

To order RAND documents or to obtain additional information, contact

Distribution Services: Telephone: (310) 451-7002;

Fax: (310) 451-6915; Email: [order@rand.org](mailto:order@rand.org)

## Summary

---

The stress of military operations can tax a soldier to his outermost limits. Negative reactions to this stress may include misconduct behaviors, post-traumatic stress disorder (PTSD), and combat stress reactions (CSR). CSR, the focus of this report, is defined as any response to combat stress that renders a soldier combat ineffective. Symptoms vary but often include debilitating forms of anxiety and depression and the “thousand-yard stare.”<sup>1</sup> Physical symptoms are also common. Depleting combat units of critical manpower, wartime rates have ranged from 10 to 30 percent of those wounded in action (WIA), with certain units experiencing rates well above 50 percent of those wounded. Still, rates of CSR can be limited by a variety of prudent leader actions, and the disorder is amenable to front-line treatment.

Urban operations are often characterized by a three-dimensional environment with innumerable fields of fire, poor concealment for offensive forces, close-quarters fighting, diluted leadership, restrictive rules of engagement, and ambiguity as to the identity of hostiles. Despite these challenges, the U.S. military is confronted with an increasing and unavoidable demand to place troops in potentially hostile cities. The unique demands required of this operating environment may pose a significant threat to the psychological make-up of friendly forces. Thus, one goal of this report is to evaluate the

---

<sup>1</sup> The “thousand yard stare” is generally considered a symptom of a mild form of CSR and is not necessarily indicative of combat ineffectiveness.

risk of CSR in urban operations. In addition, this report details the restorative methods applicable to CSR and steps that may be taken by military commanders and senior NCOs to prevent its occurrence. Treatment and prevention are also viewed from the urban operations perspective.

The major chapters of this report include a look back at the history of forward psychiatry,<sup>2</sup> a review of the factors that precipitate stress reactions, an examination of the risks of CSR in urban combat operations, a study of CSR treatment, and a review of recommendations for its prevention. The summary of each of these chapters is provided below.

## History

To fully understand the present-day approach to CSR, it is necessary to review both its history and the individual and environmental conditions that mediate its appearance. The “soldier’s heart” and “nostalgia” of the Civil War graduated to the “shell shock” of World War I. The British Army struggled to stem the tide of soldiers succumbing in vast rates to a seemingly physical malady, microhemorrhaging of the brain caused by the explosion of artillery shells and the shock waves they produced. Shell shock, eventually called “war neurosis,” was characterized by physical ailments, paralysis, and a host of psychiatric symptoms. The first vestiges of forward psychiatry appeared, in which treatment consisted of an expectation to return to duty, rest, and military drill provided close to the front and relatively soon after onset. The memory aid “Proximity, Immediacy, Expectancy, and Simplicity” (acronym PIES) was subsequently coined to summarize these principles.

Forgetful of French, British, and American hard-earned lessons, the U.S. military in World War II attempted to prevent stress casual-

---

<sup>2</sup> Forward psychiatry is here defined as actions taken to return soldiers suffering from stress-related reactions to their fighting units and to limit the tide of psychologically precipitated evacuations.

ties with a screening program that denied vast numbers of aspiring servicemen the opportunity to serve their country. Meanwhile, soldiers and marines at the battles of the Kasserine Pass and Guadalcanal suffered notoriously high rates of “psychoneurosis.” Forward psychiatric treatment principles embodied in PIES were then quickly adopted. The term “exhaustion” was applied to stress casualties in order to depathologize the disorder and to communicate that simple rest was sufficient for restoration. Rates of stress casualties throughout the war varied from 15 to 30 percent of those wounded.

In Vietnam, rates of stress casualties were low, possibly due to relatively brief engagements, rare subjection to indirect fire, and a 12-month rotation system. The rotation policy, however, may have created more problems than it solved in that it hampered unit cohesion and morale and limited combat effectiveness. Shortly after this war, Israel was suddenly attacked by its neighbors in what became known as the Yom Kippur War. Never incorporating the psychiatric lessons learned by the Americans and British, the Israelis suffered high rates of stress casualties, many of whom were lost to long-term disability. By the time Israel launched its invasion of Lebanon in 1982, its armed forces had successfully incorporated forward psychiatric doctrine. While dramatically improving stress casualty treatment, the Israelis still suffered CSR rates close to 23 for every 100 WIA.

The U.S. Army recognized combat stress control as an autonomous Medical Department functional area and distinct Battlefield Operating System. In the Gulf War, mobile psychiatric teams helped limit the rate of psychiatric evacuations during the buildup to the ground war. Subsequently, combat stress control teams have deployed to a number of different locations and helped provide outpatient treatment, command consultations, unit surveys, and stress management classes.

## **Precipitating Factors**

Throughout these various conflicts, the military has learned a number of lessons about the individual and environmental conditions that

precipitate CSR. From an individual perspective, while personality has never been directly implicated in CSR, it has been identified as a factor in combat effectiveness and in stress symptoms induced by stressful training regimens. The presence of home-front stressors and low educational levels do show a relatively strong relationship to breakdown<sup>3</sup> as seen in CSR. Variables related to the unit environment are also important. Low levels of unit morale, unit cohesion, and faith in self and command have shown disproportionately higher stress casualty rates than individuals or units without such problems. While elite special operations forces are well protected from CSR, individuals who comprise combat service support (CSS) units, as well as reserve units that come under fire, can experience rates of CSR as a function of total physical casualties well above their infantry counterparts. Battlefield factors that induce stress reactions include combat intensity, initial and prolonged exposure to combat, static warfare, and deficits in sleep, hydration, and nutrition.

## **Risk of Stress Casualties in Urban Warfare**

With this background in mind, we evaluated the degree of stress and rates of CSR for urban conflicts of the past. Soldiers and marines interviewed for this report testify that urban combat is inordinately stressful. Furthermore, it is the view of many medical and scholarly authorities that the stressors of urban combat are likely to increase the risk of CSR. Historical data, however, from the Battles of Brest, Manila, and Hue show no evidence of increased rates of stress casualties. It is suggested that the failure to find high urban-generated CSR rates, despite subjective reports of increased stress, may be due to the sense of control enjoyed by urban fighters who, due to close-quarters fighting, are more able to engage enemy combatants and benefit from the therapeutic effect of the distractions inherent in high-intensity combat. Add to this the fact that all operations reviewed by the

---

<sup>3</sup> In this report, the term “breakdown” is used synonymously with CSR.

authors were offensively fought. It must also be considered that the reviewed battles do not constitute the full range of modern history's urban operations. The battles of Brest, Manila, and Hue were not hampered by the presence of civilian populations who masked non-uniformed combatants and attempted to impede or directly engage U.S. forces. In contrast, many recent-day urban conflicts, especially military operations other than war, are characterized by operating environments replete with civilians, both friend and foe, who pose significant challenges to U.S. forces. Interviews suggest that the civilian element of urban operations may be a key risk factor for the development of acute or chronic stress reactions. Consequently, future research efforts must focus on evaluating the specific and acute psychiatric consequences of this operating environment.

## Restoration Methods

The U.S. military must remain vigilant about the psychiatric risks posed by future urban operations as well as operations on other types of terrain. To this end, commanders must be educated about CSR's treatment and prevention. When applied to the actual battlefield setting, CSR has been called battle fatigue. The diagnosis of battle fatigue is complicated by a number of factors, including symptoms that evolve over time and are often characterized by a vast array of behaviors or conditions that combine in disparate ways. To simplify symptom identification, soldiers are cautioned to beware of "persistent, progressive behavior that deviates from a [service member's] baseline behavior." Treatment for battle fatigue can be applied by both formal mental health assets such as combat stress control (CSC) units and division mental health teams and the combat or support unit of the battle-fatigued individual. Treatment by mental health assets first involves a screening to rule out the existence of medical and psychiatric conditions that require alternative treatments. The treatment principles for battle fatigue have frequently been summarized by the four "R"s: *Reassurance* of a quick recovery from a confident and authoritative source; *Respite* from intense stressors; *Replenishment* in the form

of water, a hot meal, sleep, regulation of body temperature, and hygiene; and *Restoration* of perspective and confidence through conversation and working.<sup>4</sup> PIES, i.e., proximity (treat close to the front), immediacy (treat as soon as possible), expectancy (assert expectation of recovery), and simplicity (simple treatment approach) are also used to describe battle fatigue treatment. Similar principles are applied when the unit is the treating agent, though the unit's tactical condition may impose significant restraints on caring for the soldier.<sup>5</sup> Importantly, simple and brief restoration techniques should reverse the psychological decline of many battle-fatigued soldiers whose symptoms are mild and identified early.

While PIES or the four Rs as administered by mental health units at locations separate from the soldiers' units successfully return many battle-fatigued soldiers to duty, there are limitations. Rates of return to duty (RTD) vary widely from 15 to 75 percent, and soldiers who have succumbed to acute stress reactions may be at increased risk for subsequent battle-induced stress reactions. Some afflicted soldiers may need to be reassigned to duties that limit involvement in direct combat operations. Soldiers with a prior history of battle fatigue may also be at increased risk for the development of PTSD.

Finally, PIES implemented by mental health units in locations separate from soldiers' units may be ill suited to maneuver warfare in which tactical units move great distances in short periods.<sup>6</sup> Such conditions make it difficult to return soldiers to duty. In addition, some U.S. Army mental health assets currently deploying to Iraq are doing so as organic to maneuver brigades. Changes such as this should continue. Reliance on NCO peer mentors who can coordinate in unit

---

<sup>4</sup> Paraphrased from COL James Stokes, M.D., written comments to the author, November 18, 2004.

<sup>5</sup> Historically, the unit has been the preferred primary treatment agent. External mental health assets such as a psychiatrist and other mental health personnel assigned to the division, or a psychiatric detachment or combat stress control units, serve as a second echelon depending upon the case and the combat environment.

<sup>6</sup> However, preventive mental health teams were able to successfully follow maneuver units during Operation Iraqi Freedom's major combat phase and provide in-unit PIES interventions.

care and act as liaisons with conventional mental health units may also serve an important need.

## **Prevention**

Finally, we describe a number of prudent and common-sense actions available to commanders to limit the occurrence of stress casualties. Although programs geared to screen out individuals who are at risk of psychiatric reactions lack feasibility, soldiers new to their unit can be placed in an indoctrination program that teaches unit history and lore. Training programs should seek to increase confidence and acquaint soldiers with various stressors that lie ahead. The authors review a training program that accomplishes just such a goal. In addition, commanders must make special efforts to enhance unit cohesion, and CSS units should develop combat-specific training programs.

For military operations, the authors suggest a number of specific steps. Combat stress control units can perform a variety of services for commanders and their units, ranging from evaluations of unit morale to seminars on stress and CSR-specific issues. Members of these units, however, must be intimately acquainted with the units that they service. Given the influence that rotation and replacement policies have on cohesion and length of exposure to combat, the authors suggest guidelines for these policies. Also suggested are ways for commanders to utilize offensive operations, intelligence, and rules of engagement to limit the degree of stress experienced by servicemen. In addition, commanders must see to servicemen's physiological needs by ensuring adequate amounts of sleep along with nutrition and water intake, just as they must be sure to maintain morale during military operations. Noncommissioned officers bear considerable responsibility in attaining these goals. Finally, following military operations, many military and civilian authorities advocate the use of psychological debriefings to prevent the subsequent development of PTSD. The authors review data that question the validity of this approach.