

# COMBAT STRESS

IN THE 20TH CENTURY:  
THE COMMONWEALTH PERSPECTIVE



TERRY COPP & MARK OSBORNE HUMPHRIES

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CANADIAN DEFENCE ACADEMY PRESS

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Canadian Defence Academy Press  
PO Box 17000 Stn Forces  
Kingston, Ontario K7K 7B4

Produced for the Canadian Defence Academy Press  
by 17 Wing Winnipeg Publishing Office.  
WPO 30346

### Library and Archives Canada Cataloguing in Publication

Copp, Terry, 1938- Combat stress in the 20th century : the Commonwealth perspective / Terry Copp and Mark Osborne Humphries.

Produced for the Canadian Defence Academy Press by 17 Wing Winnipeg Publishing Office. Issued by: Canadian Defence Academy. Includes bibliographical references and index. ISBN 978-1-100-12725-5 (bound).--ISBN 978-1-100-12726-2 (pbk.) Cat. no.: D2-251/1-2009E (bound) -- Cat. no.: D2-251/2-2009E (pbk.)

1. War neuroses--Commonwealth countries--History--20th century. 2. Soldiers--Mental health services--Commonwealth countries. 3. Veterans --Mental health services--Commonwealth countries. 4. War neuroses. 5. Military psychiatry. I. Humphries, Mark Osborne, 1981- II. Canadian Defence Academy III. Canada. Canadian Armed Forces. Wing, 17 IV. Title.

RC550 C665 2010

362.2'5

C2009-980332-1

Printed in Canada.

1 3 5 7 9 10 8 6 4 2

# Acknowledgements

Mark Humphries would like to acknowledge the following people who contributed in one way or another to the project: Tom Brown, Sarah Cozzi, Geoffrey Hayes, Andrew Iarocci, Geoff Keelan, John Laband, Lianne Leddy, Vanessa McMackin, John Maker, Kathryn Rose, Roger Sarty, Jane Whalen, and Jonathan F. Vance. Dr. Humphries' research was supported by a Social Sciences and Humanities Research Council (SSHRC) Canada Graduate Scholarship and a SSHRC Standard Research Grant. He would also like to acknowledge the support and encouragement of his colleagues in the Department of Humanities at Mount Royal College and the staff of the Mount Royal Research Office. Dr. Humphries work has benefitted from a course release provided by his department and the Dean of Arts, Manuel Merlin, for which he is most grateful.

Terry Copp would like to thank Kellen Kurschinski for his time and effort scanning the appendices. In addition to assisting with the digitization of the materials, Kathryn Rose provided vital editorial contributions during each phase of the publication process.

Both authors would like to thank the Canadian Forces Leadership Institute of the Canadian Defence Academy for their generous financial contribution, and for publishing these materials through the Canadian Defence Academy Press.

They would also like to express their gratitude to the technical component of CDA Press, namely 17 Wing Publishing Office – specifically Captain Phil Dawes, Evelyn Falk and Michael Bodnar, for their expertise and professionalism in turning the raw manuscript into a refined, finished publication.



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# Foreword

I am delighted to introduce *Combat Stress in the 20<sup>th</sup> Century: The Commonwealth Perspective*, which is co-edited by the well-known Canadian historian Professor Terry Copp and Mark Humphries. This very interesting and enlightening book is an important addition to the body of Canadian military literature. As we continue to prosecute the counter-insurgency in Afghanistan, as well as deploy personnel to other volatile and chaotic locations around the globe, the incidents of combat stress reaction (CSR) will inherently continue to increase. Undeniably, the greater our understanding of CSR, the more effective will be our response to it.

In this vein, Terry Copp and Mark Humphries bring their vast research, experience and insight of CSR into a single volume that provides the reader with a history of both the evolution of its diagnosis, as well as approaches to its treatment. In essence, they explore the various approaches psychiatrists have employed in their attempts to understand causation, prevention and treatment. The compilation of chapters captures Commonwealth perspectives on CSR from the Boer War to the end of the 20<sup>th</sup> century.

This latest CDA Press volume is an important addition to the body of Canadian military literature. As the 56<sup>th</sup> book published by CDA Press since its creation in 2005, it provides important Canadian and Commonwealth insights into how the issue of CSR, as well as the response to it, evolved within the Canadian experience. As such, the Press is well on its way to capturing operational experience that can be used in our professional development institutions. Moreover, this volume will assist Canadian military leaders, decision makers and the public in better understanding the challenges inherent in challenging deployments and the costs they incur. In the end, this book, like many of those before it and those still in press, is an integral component of our Strategic Leadership Writing Project, which is designed to (a) create a distinct and unique body of Canadian leadership literature and knowledge that will assist leaders at all levels of the Canadian Forces in preparing themselves for operations in a complex security environment, and (b) inform the public with respect to the contribution of Canadian Forces service personnel to Canadian society and international affairs.

In closing, I wish to reiterate that *Combat Stress in the 20<sup>th</sup> Century* is an important new addition to the CDA Press list of titles. It continues to add to the growing body of contemporary Canadian military operational literature. I believe

## **FOREWORD**

that it will provide valuable insight to all those who serve in, and equally those who interact with, the profession of arms in Canada.

Colonel Bernd Horn, OMM, CD, PhD  
Chairman, CDA Press

# Introduction

This book is designed to introduce readers to the history of the ways in which combat stress reaction and its aftermath have been interpreted by soldiers and psychiatrists in the British Empire and Commonwealth. The term Combat Stress Reaction (CSR) is used here to describe various manifestations of disabling anxiety that occur during or subsequent to combat or combat-like situations. Historically these reactions have been labelled “nostalgia”, “shell shock”, “battle exhaustion”, “battle shock”, and “Post Traumatic Stress Disorder (PTSD)” among others. A phrase used in both the First and Second World Wars “Not Yet Diagnosed (Nervous)” may best sum up the complexity and uncertainty of labelling mental illness.

The authors share the view that while combat stress is a universal phenomenon, practices varied greatly between individuals and cultures and changed over time. The “practices” surrounding combat stress are the ways in which doctors, patients, governments, and the military defined, experienced, and interpreted war-related mental illness. Patient experience and medical knowledge are thus inseparable from historic cultural and social contexts. The practices surrounding “shell shock” in the First World War differed from those of “Battle Exhaustion” in the Second World War and from later variants of combat stress reaction despite the similarity of the sources of stress. These paradigm shifts were the result of the waxing and waning of trends in medical thought and concepts of entitlement among patients. Medical knowledge and the patient experience cannot be separated from their specific socio-cultural contexts.

The decision to focus on the Commonwealth experience is a reflection of Canada’s experience in the wars of the 20<sup>th</sup> century and a belief in the value of a comparative dimension. The authors are historians, not medical professionals or psychiatrists, and their purpose is to illustrate the various approaches psychiatrists have employed in their attempts to understand causation, prevention and treatment of both immediate and delayed combat stress reactions.

Combat stress was certainly not unknown in 1914 and had been documented in the medical literature as far back as the 17<sup>th</sup> century. Medical experience with other forms of traumatic mental illness – as well as combat stress casualties in the American Civil War and the Boer War – came to define the practices of both doctors and patients between 1914 and 1918. During the First World War the armies of Australia, Britain, Canada, New Zealand, and South Africa were

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forced to deal with a heretofore unprecedented number of cases of CSR or “shell shock”. Treatment generally proceeded along well-established lines developed for individuals suffering from “hysteria”, “neurasthenia,” or a “traumatic neurosis” in the pre-war period, but a lively debate over the origins and appropriate means of treatment and prevention soon developed.

In chapter one, we find that shell shock challenged accepted medical knowledge and military authority. The practices that gained prominence were those that were the least problematic for doctors, the military, and governments. As the war progressed, it became apparent that large numbers of individuals who had not been exposed to battle were also exhibiting the symptoms of “war neurosis”. This lent credence to the view that such anxiety disorders were the result of inherited traits or developmental problems perhaps exacerbated by the stress of war, but really due to some predisposing cause. The articles reproduced in this section offer an introduction to the debate and practices surrounding CSR during the Great War.

Chapter Two examines the aftermath of shell shock and the pensions question in the interwar period. All the British Commonwealth countries created or extended the mandate of a war pensions board to include consideration of chronic mental conditions alleged to have been caused or exacerbated by military service. The possibility of compensatory payment for such illnesses, including delayed stress reactions created what became known as the “pension question”, inspired a far-reaching discussion of the aetiology of chronic neuroses. Governments guarded the public purse from the “pension evil”, employing doctors who used the idea of predisposition to nullify or limit pension claims. The ideas expressed in the articles selected for this section shed light on historic responses to what is today termed Post Traumatic Stress Disorder and the question of veteran’s rights.

Chapter Three examines the Second World War and offers an introductory narrative outlining the character and extent of CSR in various theatres of war and the controversies over causation, treatment, and expected outcomes. The issues surrounding personnel selection – the holy grail of many psychologists – are also considered. The documents reproduced in this section include reports by psychiatrists in the field offering a more detailed look at acute CSR.

Chapter Four begins with a brief reference to military psychiatry in the Korean War before exploring the development of treatment policies for veterans of both the Korean and Second World War. The discussion then focuses on the inclusion of PTSD in the third edition of the *Diagnostic and Statistical Manual (DSM-III)* of the American Psychiatric Association. The impact of this

## **INTRODUCTION**

paradigm-shifting decision on soldiers and psychiatrists is outlined as a means of introducing a number of articles and reports representative of the literature on PTSD in the Commonwealth forces.

Terry Copp  
Mark Humphries  
Waterloo, Ontario, Canada 2009





# Chapter 1

## FROM RAILWAY SPINE TO TRAUMATIC PSYCHOSIS: DOCTORS CONFRONT TRAUMA IN THE MODERN AGE, 1865-1918

Combat stress was already old news when the armies marched in August of 1914. Since the Greco-Persian wars there had been accounts of men behaving abnormally in combat. What was new was the pervasiveness of the phenomenon. During the Great War, hundreds of thousands of individuals succumbed to some form of what would enter the popular lexicon as “shell shock.” Whether twitching, stuttering, crying, or vomiting, these soldiers posed real problems for both the military and medical science. Generals had a war to fight and every soldier that was able to flee the field into madness meant one less rifle at the front. But how was the army to tell the difference between old-fashioned cowardice and legitimate illness? This question was left to doctors who acted as gatekeepers between the medical world of sickness and healing and the military world of desertion and executions. Although doctors loathed admitting it, medical knowledge had few concrete answers.

Had shell shock indeed been another “new disease of the war,” to borrow the headline of more than one medical article on trench foot, trench fever, or gas poisoning, doctors would probably have had a much easier time confronting the problem. In reality, shell shock had to be worked into a longstanding and complex array of ideas, stereotypes and patterns of behaviour towards mental illness. Contrary to popular belief, the professional medical literature had linked war and mental disorders since at least the 17<sup>th</sup> Century. Early accounts by army camp doctors use the term “nostalgia,” a condition that had been traditionally associated with the first European emigrants, some of whom grew so weakened by homesickness that their bodies became susceptible to infection. By the early 1700s, some doctors reported that nostalgia was a prevailing condition in the armies of Europe and it continued to gain prominence in the literature in the wake of the French Revolution.<sup>1</sup>

French doctors, who were some of the first to equate the health of the individual with the health of the nation, began to take more than a passing interest in France’s citizen soldiers.<sup>2</sup> In the course of their work during the *levée en masse*, they discovered that epidemics of *nostalgie* were common among the French Armies of the Rhine and Italy between 1793 and 1800. Later during the Napoleonic Wars, Dr. Dominique Jean Larrey described the nostalgic patients he had

## CHAPTER 1

encountered during the retreat from Moscow and recorded that they frequently exhibited an accelerated pulse, unusual movements of the body, and rapid and incoherent patterns of speech, all of which were symptoms that would later become familiar to shell shock doctors in the Great War. Similar conditions were later observed in British soldiers in the Crimea and following the Indian Mutiny. British surgeons tended to use the term “irritable heart” or “soldier’s heart” to describe soldiers who exhibited profound exhaustion, listlessness and fatigue.<sup>3</sup> Despite these observations, until the American Civil War nostalgia remained an unimportant curiosity in comparison to cholera, typhoid, and the other camp diseases which actually killed more men than the enemy’s guns.

Official Union army manuals provide a description of nostalgia and an indication of the serious attention given to it by doctors:

[Nostalgia is] a mental disease...[belonging] to the class of Melancholia. The extreme mental depression and the unconquerable longing for home soon produce a state of cachexy\*, loss of appetite, derangement of the assimilative functions, and, finally, disease of the abdominal viscera...As Nostalgia is not infrequently fatal, it is a ground for discharge if sufficiently decided and pronounced.<sup>4</sup>

The recognition that nostalgia constituted a legitimate grounds for discharge from the army raised questions that haunt doctors and soldiers to this day: was the nostalgic soldier a legitimate victim of war, or a malingerer and coward? Could soldiers be screened for predisposition before enlistment? Was the nostalgic soldier entitled to the same type of treatment as a gunshot victim? What commitment did the state have to soldiers who “burned out” after the war? Nineteenth century medicine presented few easy answers and doctors tried their best to incorporate nostalgia into their broader understanding of mental illness.<sup>5</sup>

In the later half of the 19<sup>th</sup> Century, it was generally understood that insanity was caused by somatic illnesses – physiological diseases of tissue, flesh, and blood – or defects of the brain and other organs, illnesses and defects that were thought to be hereditary in origin. Many doctors even speculated that as these illnesses and defects were passed down through the family tree, growing worse with each successive generation, hence the term *degeneration*. In an age when climbing the social ladder was often done through marriage, a mental illness in one’s family was a brand of poor genetic stock and could severely reduce one’s prospects for a successful courtship. Not surprisingly, most families avoided the public spectacle of asylum committal at almost any cost. The mentally ill were thus seen as immoral, corrupted, or failed human beings to be warehoused, restrained, and locked away from normal society.<sup>6</sup>

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\* A general and undefined reduction in the strength and vitality of the body.

## FROM RAILWAY SPINE TO TRAUMATIC PSYCHOSIS

In the United States, the Civil War forced doctors to confront the issue of whether soldiers who broke down during and after combat with nostalgia and other mental diseases should be treated the same way as civilian mental patients. Across the Atlantic, British doctors began asking similar questions following reports that many soldiers were being made ineffective by unexplained heart symptoms and exhaustion.<sup>7</sup> Medical science had to contend with the fact that many brave soldiers succumbed to nostalgia and what the British termed “Disordered Action of the Heart” without exhibiting any previous signs of illness. It seemed to many doctors that the experience of war and military service actually bred mental illness:

Regiments were formed in a day or a week. Many, impelled by the noblest of motives, left their daily avocation without a thought for the future. Fathers left their families, husbands their wives, young men their heart's idol... But the rough fare, the hard knocks of a soldier's life, will dispel any enthusiasm, although incited by the best of motives. Soon came a yearning to go home; the time they had expected to have been absent had gone by; their business was suffering, their families wanted them at home; they longed again for the luxuries to which they had been accustomed, a good bed, a cheerful fireside and the delicacies of the table. And now, as our armies are recruited with unwilling men, either conscripted or bought up by enormous bounties, none of them animated by the patriotism or manliness of our early volunteers, we have every cause necessary to the production of nostalgia.<sup>8</sup>

In this view, nostalgia was a disease of the soldier experience, not a hereditary mental illness. What then explained why some soldiers broke down and others did not?

As we saw earlier, nostalgia was thought of as a physical disease that was often fatal and thus doctors did not believe that was being feigned. At the same time, they excluded the likelihood that soldiers would malingering by simulating other mental diseases as “any one who would feign insanity and submit to its restraints and associations to avoid work and obtain ease” must surely be actually insane.<sup>9</sup> The answer seemed to be that some soldiers were predisposed to nostalgia while others were not.

In 1863-64 Dr. Charles Nichols, the head of the Government Hospital for the Insane reported a marked increase in the number of soldier admissions. The explanation, he thought, was the fact that “latter accessions to the Union armies include a large proportion of men who are more readily affected by the exciting causes of insanity than were to be found during the first two years of the war.” Such soldiers were dangerous and needed to be weeded out at the outset. “If the

## CHAPTER 1

recruit lacks the mental vigor and endurance necessary to receive and practice the discipline and instruction of a soldier, he will involuntarily betray both his companions and his country in the hour of battle ... and render worse than useless a costly novice. The acceptance of an incapable candidate for service and the exemption of a capable man are equally culpable frauds upon the country. The first is a gross cruelty to the individual, and the latter an equally gross partiality.<sup>10</sup> While selection seemed to hold promise, the recognition that combat could trigger mental illness among certain previously “normal” individuals challenged the prevailing view of insanity. After all, these patients – predisposed or not – had lived and worked among normal people for years before the onset of their symptoms. How could this be the case?

Mental illnesses were and are common and cannot simply be willed away to avoid stigmatization. While the public asylums protected society from insane paupers, members of the upper classes had usually managed to avoid commitment, provided that they or their families were willing to pay. For years civilian doctors had recognised a secondary category of mental illness, which they described as “nerves.” Nerves allowed those with enough money to pay for treatment and a respectable diagnosis to wrap many of the more common mental illnesses in a linguistic cloak thus avoiding the stigmatization of the asylum. The aftermath of the Civil War thrust nerves into mainstream medicine and the modern idea of the nervous disorder was born.

Unlike insanity, the nervous disorders were understood to be *acquired* conditions of the nervous system which could arise at any time and in any person. Nervous disorders included what would today be called depression and anxiety, and because they were thought to be acquired, not genetic, they carried far less social baggage. The linguistic cloak provided by the term “nerves” allowed patients to seek therapy without fear of social reprisal. It also served a purpose for doctors. The stigma of mental illness had worked both ways and psychiatrists, neurologists, and alienists had, by virtue of their craft, been confined to the public asylum. The linguistic guise of nerves gave them a way out and opened the door to private practice. Less cynically, it allowed them to administer to patients who would otherwise have suffered in silence. In either case, doctors quickly medicalised the nervous disorders, dividing them up into sub-categories which implied various degrees of responsibility or culpability on the part of the patient. Broadly speaking, these categories included neurasthenia, hysteria, and the traumatic neuroses.<sup>11</sup>

Originating in 1869 with Dr. George M. Beard, the term neurasthenia clustered together under a single heading an array of minor, unexplained somatic and mental symptoms that doctors such as Silas Weir Mitchell, W.W. Keen and George Morehouse had observed in Civil War veterans.<sup>12</sup> Neurasthenia was

## FROM RAILWAY SPINE TO TRAUMATIC PSYCHOSIS

understood to be a somatic disorder, although it did not represent a physical defect or illness in the body. Instead, doctors theorized that it arose from the depletion of a vague substance that they called “nerve force”. The body, it was thought, had finite reserves of energy that were used up by a person’s lifestyle, career choice, and inborn disposition. The modern world of railways, elevators, streetcars and electricity, which was unfamiliar and unnatural, sped up this process of depletion and eventually led to the symptoms of neurasthenia. Depending on the amount of nerve force with which an individual was endowed at birth, this process of depletion could take place quickly or over a long period of time. Most importantly it was not a stigmatized condition because it could be acquired by anyone, although some individuals were thought to be more predisposed to it than others. Indeed, a diagnosis of neurasthenia was often quite fashionable because it indicated that one was engaged with the modern world. It grew in popularity so quickly that soon the link between veterans and the diagnosis was all but forgotten.<sup>13</sup>

Neurasthenia was seen quite differently than a similar but more stigmatized condition known as hysteria, although they shared many of the same symptoms. Originally hysteria was thought to be a woman’s disease that arose from problems in the womb. Towards the end of the 19<sup>th</sup> Century, however, doctors recognized that men too could suffer from hysteria and they came to regard it as a disorder of the nervous system that was due to the inheritance of an “abnormally sensitive nervous organization,”<sup>14</sup> a lack of moral power, or a lack of self-control. Although it was similar clinically to neurasthenia, hysteria resulted from the *patient overexciting their own nerves* through some specific idea or act. Masturbation, obsession with romantic relationships, grief, and worry were all thought to unnecessarily tax the nervous system and sap the energies of the patient and, in extreme cases, produce a shock which resulted in the more pronounced hysterical symptoms like paralysis, blindness, and mutism. Hysterical patients were thus weak willed and incapable of overcoming their own urges and thoughts. For doctors like Jean-Martin Charcot, this explained why the hysterical patient was often susceptible to suggestion: the moral force of the patient was so minimal that mere ideas could easily overcome the body’s natural psychic defences to affect the functions of the nervous system.<sup>15</sup>

In this way, neurasthenia and hysteria were related conditions with similar pathologies but different implications for the patient. The neurasthenic patient was without guilt as his or her body had paid the price incumbent with living in a higher civilization. The hysterical patient, on the other hand, was guilty of excess or a weakness in character – as implied by the phrase “lack of nerve” – which made them morally culpable for their own physical and mental state. The neurasthenic patient’s superior moral constitution, to use contemporary parlance,

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had enabled them to fight the good fight mentally, but their naturally feeble body had ultimately betrayed them. The hysteric, on the other hand, was of feeble body *and* moral constitution and had therefore succumbed to hysteria immediately without offering resistance. But how was a doctor to tell the difference?

Class and sex were the main means of differential diagnosis. Doctors assumed that those from the upper classes had superior moral constitutions making them immune to many of the vices and weaknesses of character which were rife in the lower classes. Women were thought to be almost as weak willed and, more importantly, they were prone to “emotional fits”, something which also was thought to lead frequently to hysteria – although women of means were often able to find a doctor willing to label them neurasthenic. This served to separate the wealthy paying patients from the poor and reinforced existing class and sex divisions by ensuring that a “good” diagnosis was available to the right kind of people, meaning those who could pay. This inherent subjectivity was not lost on introspective doctors who occasionally used the medical journal and the lecture platform to point out that the label affixed to a patient usually depended solely on the kindness of the attending physician and not on some underlying pathological difference between the two disorders.<sup>16</sup>

The experience of nostalgia in the Civil War helped doctors and the public to accept the nervous disorder as a more benign form of mental illness. It explained why some people broke down – in combat and in civilian life – while others did not. Some fought the good fight and broke down over time, while others were predisposed. At the heart of the diagnosis of neurasthenia was the notion that modernity itself was traumatic. The mechanized, industrial slaughter of the Civil War and the hurdling pace of modern life were symptomatic of the trials and triumphs of the modern age and it was to be expected that man’s feeble body would recoil in horror as it was further disconnected from an agrarian, rural past. In the decades after the Civil War, doctors on both sides of the Atlantic were increasingly faced with victims who suffered from the after-effects of these head-on collisions with modernity. Without any major wars in the Western Hemisphere between 1871 and 1914, the traumatised victims who were most often studied by doctors had been in railway or industrial accidents.

In examining accident victims, doctors found that many exhibited the symptoms of neurasthenia and hysteria. Significantly, however, accident victims’ symptoms could be traced to an identifiable traumatic event. Doctors coined various labels for these conditions including railway spine, railway brain and traumatic neurosis. “The condition,” wrote Sir William Osler in his popular general medical text *The Principles and Practice of Medicine*, “follows an accident, often in a railway train, in which injury has been sustained, or succeeds a shock or concussion, from which a patient may not have suffered in his body.

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A man may appear perfectly well for several days, or even a week or more, and then develop the symptoms of the neurosis.<sup>17</sup> Yet one did not actually have to experience the physical accident to develop the condition. A strong emotional shock could also induce the same symptoms. Thus industrial workers who were *nearly* the victims of accidents could also be so shocked that they would react in a way that was similar to those who had actually been in an accident.<sup>18</sup>

In the late 1800s, lawsuits proliferated with nervous patients blaming all sorts of problems on railway companies and factories. Doctors were called as experts for both plaintiff and defence and the question of malingering took centre stage in many courtrooms in the United States and Europe. “My greatest difficulty in these cases has been to determine whether they were genuine hysterical subjects or malingerers,” wrote J.W. Geary Grant the day before an assassin’s bullet killed Archduke Franz Ferdinand in Sarajevo, “I frankly confess, in spite of the statements of some authorities that this is a simple matter, that I usually find it quite beyond my powers to give my reasons why I regard one case as that of a malingerer and the other as that of a hysterical subject.”<sup>19</sup> Keen observers had always been quick to point out that while such patients often did not appear to be intentionally deceptive, the mind itself seemed to exert remarkable control over the body’s physical condition. “In railway cases,” wrote Osler, “so long as litigation is pending and the patient is in the hands of lawyers the symptoms usually persist. Settlement is often the starting point of a speedy and perfect recovery.”<sup>20</sup> While there was much disagreement as to the nature of malingering and means of detection, the basic premise that the traumatic neuroses were real reactions to stressful, violent events was generally accepted.<sup>21</sup>

As war is perhaps the most traumatic of events for the individual, it makes sense that doctors began to identify the symptoms of nostalgia, soldier’s heart and disordered action of the heart with the traumatic neurosis. In 1902, a German doctor named Ewald Stier argued that 13 per cent of all combatants in the Franco-Prussian War of 1870-1 had suffered from what he termed “traumatic psychosis.”<sup>22</sup> Stier suggested that the chief causes of this disorder were “cranial and other injuries caused by shot or shell, accidents, and shocks sustained in moments of intense cerebral excitement.” For Stier, the condition was caused by biological injury to the nervous system and could be explained as traumatic neurosis. British doctors generally agreed, but as in civilian medicine recognised that near injury could also elicit the same symptoms.

Dr. Morgan L. Finucane, a surgeon attached to the Connaught Hospital at Aldershot, England during the Boer War, detailed the experience of a private of the 2nd Royal West Surrey Regiment who was knocked senseless by the explosion of a nine-inch shell at Colenso on 15 December 1899. Although physically uninjured from the explosion, the private soon developed symptoms which



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Finucane believed could be traced to a physiological injury to the patient's nervous system. The surgeon noted, "There is a distinct loss of power on both sides of the body. The patient is very nervous and shaky, suffering from twitching and especially over the right side, deafness... The reflexes are exaggerated with tremors of the hands and tongue. A general condition of neurasthenia is noted."<sup>23</sup>

As British doctors digested the lessons of the Boer War, the Russo-Japanese War and the Balkan Wars, they gradually came to realize that modern warfare might pose new problems for medical science.<sup>24</sup> Finucane warned his contemporaries: "The effects [of nervous shock] are of sufficient importance to the military authorities and to the profession generally by reason of the necessity there is at present, and probably will be in the future...of invaliding a large body of our best and most seasoned and experienced soldiers out of the service as unfitted for future service as soldiers, thus denuding our army of these experienced and gallant men."<sup>25</sup> Doctors recognized that traumatic neurosis had the potential to injure even the "best and most seasoned" soldiers, the most "experienced and gallant men" in the army. As in the Civil War, questions of malingering again seemed to be placed to the side. But the Boer War turned out to be a conflict with a relatively low instance of psychiatric casualties. Could Finucane's position be sustained when large numbers of the best and bravest men were actually removed from the battlefield as psychiatric casualties? Without major wars to fight, these questions were not of immediate importance. But just as doctors had argued over what constituted a legitimate injury in railway cases, so too would they be faced with similar questions when war broke out in August 1914.

Reports of men behaving erratically and breaking down under fire began to trickle in with first shots of the Great War, but it took time for doctors to process what they were seeing and put pen to paper. The first descriptions of shell shock during the First World War were published in French medical journals in late 1914 with British doctors following suit early the next year. During the course of the conflict more than 120,000 British soldiers were pensioned off with shell shock. In addition, 9,600 Canadians, 3,138 Australians<sup>26</sup>, and 1,500 New Zealanders<sup>27</sup> were diagnosed with some form of combat-induced mental illness. While shell shock seemed to be another type traumatic neurosis, there was no single, universal stimulus that precipitated psychological breakdown.

Australian doctor A.W. Campbell described the men who arrived at his hospital: "[They were] men unable to withstand fire. These were not necessarily wanting in courage, many of them possibly self-goaded continued on duty for weeks before parading sick. Some were finally knocked out, but not wounded, by an explosion of some kind."<sup>28</sup> The symptoms that greeted Campbell and the other doctors varied widely. David Forsyth, a doctor at Charing Cross Hospital in London, wrote:

the symptoms themselves are hardly ever the same twice over. To enumerate the commonest, the patients may appear obviously shaken in nerves, jumpy, and easily alarmed, with a tense, worried, or harassed expression; or they are dazed or stunned, or even stuporose. They probably feel physically exhausted; almost certainly they sleep badly, starting up, perhaps several times in a night, from fearful dreams of the horrors they have witnessed or undergone. They may be emotional, depressed, reserved, or irritable, and many of them are sexually impotent. They commonly complain of headache, perhaps of dyspepsia and other pains, giddiness, buzzing in the head, palpitation, memories fail them repeatedly, especially over proper nouns, and their power of concentration of attention is feeble. They may present some functional disturbances of common sensation, or may be deaf or blind. Most of them are tremulous; many twitch involuntarily, especially in the face. Some stutter; some are aphonic;\* mutism is the condition of others. Not a few are paralysed in leg or arm.<sup>29</sup>

To many doctors, these symptoms were not new or even all that surprising as they seemed to be exaggerations of the types of neurasthenia, hysteria and traumatic neuroses that they had witnessed in private practice before the war.

While they were unsure of the precise cause, doctors like Frederick Mott assured the profession that the phenomena was somatic, possibly caused by noxious gases given off by shell explosions, possibly by the concussive force of exploding shells.<sup>30</sup> Others such as Forsyth saw them as the same old traumatic neurosis regardless of “whether [they arose] in connexion with the war or [resulted] from railway collisions and other accidents in civil life.”<sup>31</sup> C.S. Myers focused on the physiological reactions of the patient, looking for telltale reflexes and pupil reactions, but thought that the origins of shell shock were hysterical.<sup>32</sup> Despite disagreement as to what actual physiological mechanism was at work, doctors initially agreed that shell shock was really old wine in new bottles. Thus the method that they employed to deal with shell shock cases was “very similar to that adopted in ordinary surgical and medical practice in the field” of mental and nervous disorders.<sup>33</sup>

In 1914-15, soldiers suffering from shell shock were first examined by a specialist in France or Belgium, diagnosed and then evacuated to England where they were treated in separate wards within larger general hospitals such as the Royal Victoria Hospital, Netley, the 4th Territorial Hospital at Denmark Hill or, as in the case of the Australians fighting at Gallipoli, to Number 2 Australian General Hospital in Cairo, Egypt.<sup>34</sup> From there they were dispersed, depending on the particulars of the case, to the various general hospitals and institutions which had been taken over by the military. Soon the caseload and uniqueness

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\* To be incapable of all but whispered speech.

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of the symptoms necessitated the establishment of separate neurological hospitals. The first British special hospital was established at Maghull early 1915.<sup>35</sup> The other Dominions of the Empire soon followed the British lead and the Canadians established two special hospitals in England in 1915-16 at Granville and Buxton with the New Zealanders doing the same at Brockenhurst in early 1917.<sup>36</sup> At these special hospitals, patients were given what Sir Frederick Mott described as “common sense” treatments. Common sense for Mott was warm baths, isolation, a competent staff, and a relaxing atmosphere, all elements of the staple treatment regime for pre-war neurotics: the “rest cure”.<sup>37</sup>

The rest cure had been developed by American doctor Silas Weir Mitchell after the American Civil War to treat veterans suffering the effects of nostalgia. It became famous when it was found that it was also efficacious in alleviating the symptoms of Beard’s neurotic patients. The rest cure consisted mainly of a combination of isolation, physical rest, a special diet, electrotherapy, massage and a relaxing environment staffed with doctors and nurses. It built on the existing middle-class proclivity for spa treatments and in the later half of the 19<sup>th</sup> Century, and hundreds of resort-spas sprung up in the United States, Great Britain and the rest of the western world. While Mitchell’s original cure had called for complete bed rest and virtual isolation, soon the treatment regime loosened up as other doctors put their own spin on his original idea and included baths, peat packs, hydrotherapy, electrotherapy, and exercise, all of which were intended to reinvigorate the nerves and help to revitalize the patient’s nerve force. The Canadian special hospitals at Granville and Buxton provide insight into the inner working of the war-time version of the rest cure.<sup>38</sup>

Both Granville and Buxton were established in existing resort spa hotels that before the war had offered the rest cure to wealthy British customers. A Canadian doctor described why the Peak Hotel – the location chosen for Buxton hospital – made an excellent choice for a shell shock hospital:

the hospital [is] situated in a place which is considered the most picturesque spot in the Midland Counties of England [ . . . ] the special treatment from which the Hospital receives its designation ‘Special’ includes swimming baths, warm mineral baths, UC douches, vapour baths, Scotch douches, whirl baths, peat packs; all varieties of massage, mechanical vibration, high frequency apparatus radiant heat, cataphoresis electric cautery together with the drinking of the water from St. Ann’s Well which is noted throughout the country and which has made Buxton so famous as a recuperating, and holiday resort. The ailments for which this ‘Special’ treatment is most beneficial are as follows, Rheumatic Fever, Myalgia, Neurasthenia, Neuritis, Ostitis, Insomnia, Arthritis, Nephritis, functional diseases of the heart,

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neuralgia, certain cases of gout and especially shell shock to which this, the 'special' treatment has proved markedly effective.

Despite the fact that medicine in both Canada and Great Britain was class-ridden, the exigencies of military service demanded that soldiers be made better – so that they could again wield a rifle or to remove their need for a pension – which meant that these hospitals were not reserved for officers but almost exclusively treated enlisted men.<sup>39</sup>

For example, William Leach, a private from the 21st Canadian Infantry Battalion and a general labourer before the war, arrived at Buxton hospital on 26 July 1916. According to his records on 8 April 1916 he had been “blown up” by a shell and rendered unconscious after which he stammered, trembled, was nervous, had a headache, generalized pains, difficulty sleeping, and had lost weight. For his condition, the doctors prescribed a variety of treatments. Leach was given pure rainwater baths, heated to a temperature of 99 degrees Fahrenheit followed by general massage and rub down. Next he was given cataphoresis, a type of mild electrotherapy designed to “realign” the ions in the patient’s nervous system. Later in the treatment process, Leach was sent for a daily Scotch douche, a jet of water directed at the spine which alternated between hot and cold.<sup>40</sup>

For Richard Haggins, a miner in civilian life, the treatment regime was similar at Granville. Diagnosed with shell shock on arrival at hospital on 15 November 1916, doctors described his symptoms as nervousness, generalized pain, “a continuous jerking of the head,” stuttering speech, headache, and problems with eyesight. The doctors immediately put him on a course of electric water baths, a spa like contraption that used a combination of soothing jets and mild electrical fields to reinvigorate the patient’s nerves. A few days later he was given general massage and the laying on of hot packs was also added to the course of therapy.<sup>41</sup>

For psychological or physiological reasons, the rest cure proved effective for soldiers just as it had for civilian neurasthenics...but it took time. Time, however, was not a luxury that the military or the overwhelmed doctors could afford. It was not that the rest cure failed, it was that it took too long.<sup>42</sup>

During the summer of 1916 shell shock grew to epidemic proportions. The horrendous casualties of 1 July, the first day of the Battle of the Somme, were followed by a steady stream of shell-shocked soldiers, some of whom showed visible signs of having broken under pressure while others simply wanted out of the madness. While the more severe cases were still evacuated to England for treatment in the special hospitals – none of which were ever starved of patients – regimental medical officers, field ambulances, casualty clearing stations, and stationary hospitals began to play an increasingly important role in providing

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a modified version of the rest cure closer to the front. In 1916, Canadian doctors treated soldiers 24-48 hours after leaving the battlefield, many of them at Number 3 Canadian Stationary Hospital at Doullens. During the Battle of the Somme, the Australians also set up one of the first so-called rest stations at the corps level, close to the front line, where walking wounded and soldiers exhibiting the more minor symptoms of shell shock could be treated with rest, a bath, a hot meal, and a chance to talk, all without being admitted to hospital.<sup>43</sup>

These modified versions of the rest cure did not spring up because there was a change in outlook at the top of the medical profession, but instead came about through a process of trial and error by doctors at the sharp end. Major H.L. Woolard, the Regimental Medical Officer of the 48th Australian Infantry Battalion described how he stumbled upon his own method of forward psychiatric treatment in August 1916:

With our reduced numbers we had the same extent of ground to defend and the question of evacuating for shell-shock became of paramount importance. I decided to treat each case, and only in the last extremity to evacuate them and then not to the ambulance but to Major Imlay of [the] 48th Battalion who was in charge of the [supply] dump. There they could get rest and food, be worked, and returned to the line. When men reported to me saying they were shocked, I made a comfortable rest for them and endeavoured to reassure them [with small doses of morphine and other drugs]. I repeated this in half an hour. At about the end of three-quarters of an hour I was able to rouse them, and the men would volunteer [that] they felt better and would return to the line.<sup>44</sup>

Woolard reported his findings to the head medical officer within his division and with an influx of similar reports, the military-medical authorities quickly seized on the idea. While doctors were meeting with success in treating patients, they were unable to differentiate between the legitimately wounded and the malingerers. As casualties mounted, some in the military began to question doctor's understanding of shell shock and began to wonder if cowards were being allowed to flee into the hospital.<sup>45</sup>

Just as in the Civil War, many officers saw shell shock as dangerous because it appeared to give enlisted men the opportunity to escape the horror of life in the trenches. To keep the men at the front – to keep them fighting and dying – soldiers could not be allowed to choose between life and death. Indeed those that chose to flee the field potentially faced a firing squad. For the command structure, shell shock thus fell into a grey area between a breach of military law and a genuine injury due to the action of the enemy. As in the 1860s, the military

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turned to its doctors to help them sort out the shirkers from the heroes. Just as before, medical science offered up few hard answers.<sup>46</sup>

As with “traumatic neurosis,” the diagnosis of “shell shock” created an imprecise catch-all category, encompassing any conceivable variety of nervous or apparently mental symptoms. As Geary Grant had observed with railway cases before the war, it was often next to impossible for doctors to single out the malingerers from the legitimate cases. Some doctors began to wonder whether “nerves” had outlived its usefulness. “If individuals complaining of symptoms which are characteristic of hysteria, neurasthenia, or malingering would be so accommodating as to keep within the limits precisely laid down for each of these conditions in our good text-books,” wrote British doctor Thomas Lumsden as the last Canadian assault was taking place on the Somme, “the task of the physician dealing with them would be comparatively simple. The fact is, however, that almost invariably the three states mentioned are combined one with another in differing degrees, so that a patient originally hysterical may become neurasthenic, and may also mangle for sympathy or for gains of a more sordid nature.”<sup>47</sup> But the military authorities were growing impatient and did not have time for linguistic games. They wanted certain, definitive answers and they demanded that doctors put their expertise to good use.

By the end of 1915 many doctors had already started to differentiate between soldiers who could trace their symptoms to some external, physical source and those who broke down over time, just as they might have done between cases of traumatic neurosis and neurasthenia before the war. In 1916, the British military authorities decided to codify the practice and ordered that shell shock patients be labelled either “shell shock – wounded” or “shell shock – sick”. Those patients labelled “wounded” usually had to have a traumatic, exciting factor in their recent past, such as a close call with a shell, and an acute onset of symptoms while those labelled “sick” were defined as those who broke down gradually over time. This arrangement at least narrowed down the pool of potential malingerers to those who were not “shell shock – wounded”. Yet what was the point in labelling such patients with shell shock at all? Some doctors had also begun to wonder.<sup>48</sup>

Colin Russel, who became a well-known neurologist after the war, realised that many patients who were diagnosed with shell shock had never actually been to the front:

As many of these cases have come in diagnosed as shellshock [sic], one is driven to the conclusion that this is scarcely the main factor although it may be the immediately exciting one. Many of the individuals suffering from these symptoms had not been exposed to the action of shell fire, never having been to France, and in many who have been

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and who, when asked what they complain of give the self sufficient answer shell shock, it is learned on close questioning that there has been no actual personal contact with the effects of shell explosions.<sup>49</sup>

Russel recognised that the concept of shell shock had taken on a life of its own and had become a pseudonym for all types of illness from dementia praecox to epilepsy. The military's new consultant neurologist, Gordon Holmes agreed. Unlike his predecessor C.S. Myers, Holmes was more willing to address the military's need to close this loophole in military discipline and was a staunch advocate of returning men to the front as quickly as possible. As the British army prepared to fight another great battle at Passchendaele in the summer of 1917, the military authorities took the matter of diagnosis into their own hands. In an attempt to solve the problem once and for all, on 17 June 1917 the Commander of the British Army Sir Douglas Haig decreed "In no circumstances whatever will the expression 'shell shock' be made use of verbally or be recorded in any regimental or other casualty report, or in any hospital or other medical document except in cases so classified by the order of the Officer Commanding the Special Hospital." Instead, doctors were ordered to enter a diagnosis of "Not Yet Diagnosed - Nervous (NYDN)" which removed a soldier's ability to self-identify and served to officially de-legitimize all forms of shell shock. Although special treatment centres for these "undiagnosed" casualties were opened in each British Army's area, many doctors continued to employ the term "shell shock" long after it was erased from the official lexicon.<sup>50</sup>

This move to regulate doctor's diagnoses coincided with increased support for shell-shocked soldiers among the general public. Newspapers on both sides of the Atlantic had been fascinated with the concept since 1914 and by 1917 had created the expectation that shell shock was a normal and even natural part of war. Even small town newspapers weighed in with editorials that legitimized shell shock and made it difficult for doctors or the military to impose sanctions on those who wrapped themselves in the term. "The mule is the only living creature that frequents the war zone without succumbing to shell shock," read an editorial entitled *The War Hero* in the *Renfrew Mercury*, "The horse weakens under the strain of the continuous noise of exploding projectiles the same as man does. It must have frequent rests in quiet pastures in the rear or it becomes useless at the front. The mule flops its ears and moves along indifferently to all the noise of a world conflict that is raging on every side."<sup>51</sup> Here the noble horse naturally succumbs to shell shock while only the ignoble ass seems immune to the violence of modern conflict. The old idea that modernity was naturally traumatic had clearly gained salience and public acceptance. By the autumn of 1917, stories about the ill-treatment of soldiers with shell shock pensions were a regular staple in the London papers just as were questions about shell-shocked draftees and executions. At the same time, pressure groups such as

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the Ex-Services Welfare Society in Great Britain and the Army and Navy Veterans and Great War Veterans Association in Canada began to lobby in favour of pensions for shell-shocked soldiers, arguing openly with doctors over what constituted legitimate injury.<sup>52</sup>

Shell shock was a powerful term precisely because it was ill-defined. The change in nomenclature to “Not Yet Diagnosed – Nervous” underlined both the medical community’s inability to reach consensus on the issue and the willingness of the military to extend its authority into areas that had traditionally been governed by doctors. At the same time, public interest in the concept had undermined medicine’s traditional monopoly in such matters and threatened to undercut the authority that doctors had built up in the courts, asylums, and arena of public policy. Doctors quickly regrouped to re-establish their supremacy.

In 1917-18, doctors were confronted with many unanswered questions and unexplained contradictions. To begin with, the trauma of war did not affect everyone in the same way. While the idea that every person had a different level of nerve force explained this to a degree, the majority of people never broke down. If recognition of this fact led one to believe that it was instead the concussive force of a bursting shell which shocked the soldier’s nervous system into neurosis, why then could two soldiers be “blown-up” and one develop a neurosis and not the other? Those who lamented that it was all simply malingering and cowardice also had to contend with soldiers such as Thomas Owen who, under the direction of a doctor, applied extraordinarily painful faradic shocks to their own legs in an attempt to alleviate their hysterical paralysis. Treatments seemed to be effective, but doctors were no closer to agreeing on what caused shell shock or to separating the malingerers from the legitimate wounded.

Many doctors posed answers and suggested everything from poor intellect to bacterial poisoning to explain the phenomenon and offer the military some means of detection or screening. Thanks to the books of Pat Barker and Sigfried Sassoon, in the public’s mind the answer that has been most often associated with the Great War is psychoanalysis. While it was the most romantic and popular (at least within literary circles), it had fewer followers than its place in history would suggest.

During the Great War, psychoanalysis was a young discipline. Its founder Sigmund Freud had first explored hysteria in 1895 and ever since his ideas had been gaining in popularity, especially in the United States. Yet he had won comparatively few converts in the British medical system. Psychoanalysis was regarded as radical because it all but ignored the biological aspect of mental illness and suggested instead that all the symptoms of mental disorders could be explained as the externalizations of internal, psychic conflict. To put it crudely, Freud



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believed that the individual's repressed ideas and desires – especially those of a sexual nature – which created emotional conflict and that this act of repression caused the individual to externalize the conflict in unusual ways. The patient who found himself paralysed was acting out the emotional conflict between his desire to do his duty and “go up the line” or to turn and run. The patient who could no longer hear was externalizing his desire to no longer obey the orders which put his life in danger. Being caught between duty and fear created emotional conflict between the conscious and instinct, a conflict which manifested itself in a myriad of ways as the symptoms of shell shock. While these ideas proved popular in some circles, the problem was that Freud advocated an explanation for mental illness which ran counter to decades of British clinical, anatomical medicine. Repression, the unconscious, and subconscious all seemed too close to the type of mystical or semi-magical explanations of biological illness which the medical profession had worked so hard to erase in the latter half of the 19<sup>th</sup> Century. Instead the explanation which gained the most salience in both medical and military circles went back to era of the American Civil War and drew more on old stereotypes and conceptions of mental illness than on new innovative theories.

The logistics of separating soldiers who were “shell shocked – sick” from those who were “shell shocked – wounded” had placed a new emphasis on the personal case history. To determine the diagnosis, doctors had to look back into the patient's experience overseas, and sometimes beyond, to try to discern the origin of the symptoms. In conducting their search for shell explosions or traumatic events in their patient's pasts, doctors found that many patients had family histories of mental disease and that many in fact had actually been committed to asylums before the war. In a study of 100 patients at the 4th London General Hospital, Julian Wolfsohn found that “The vast majority of the psychoneurotic cases studied were among soldiers who had a neuropathic or psychopathic soil. In 74 per cent of these cases a family history of neurotic or psychotic stigmata, including insanity, epilepsy, alcoholism, and nervousness, was obtained, whilst a previous neuropathic constitution in the patient himself was present in 72 per cent.”<sup>53</sup> A committee of inquiry reporting in 1922 and headed up by Lord Southborough reported “Authorities are agreed that in the majority of cases of war neuroses, there already existed a congenital or acquired predisposition to pathological reaction in the individual concerned, and that this constitutional characteristic was of vast importance.” Even Dr. Frederick Mott eventually agreed. At a special clinical meeting of the British Medical Association on War Neurosis in April 1919, Mott maintained that shell shock was caused by physical injury to the nervous system, but now suggested that the likelihood of breakdown was contingent on biological predisposition.<sup>54</sup>

Predisposition explained why some people broke down and why others did not and why the nervous system of every soldier was not susceptible to shock. This

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new idea also reinforced existing class structures. If there was no family history of mental illness, or immoral personal conduct, then physical exhaustion of the nerves – although rare – was the likely culprit.<sup>55</sup> Thus the breakdown of an upper class soldier, whom of course had no traceable family history of mental illness before the war and also came from a “good” family, could still be explained without stigmatizing his relations.

Predisposition also served to re-establish medical authority. Only trained doctors, with a knowledge of the telltale signs in a patient’s case history could differentiate between the acquired cases and the hereditary patients. At the same time this explanation built on pre-war knowledge and did not suggest that nerves had been an altogether insufficient explanation. In the new analysis, neurasthenics were people who had acquired their conditions while hysterics had inherited a weakness of character or breached moral convention. Traumatic illnesses, however, could now be more skillfully handled. Some victims of railway or industrial accidents were legitimate victims, while dormant congenital conditions had merely been awakened in others. New terminology replaced old, but “commotional disturbance” and “emotional disturbance” were really only euphemisms for traumatic neurosis on the one hand and neurasthenia and hysteria on the other. The Southborough report concluded:

It was apparent that there were bodily and nervous conditions which in a longer or shorter time might have led to a breakdown and the appearance of the symptoms of emotional ‘shell shock’ but for the effect of shell explosion. In a soldier, who was in fair health and condition, and who had no predisposing weakness or inheritance, the bursting shell might have had little or no effect. In the cases referred to, the explosion of a shell acted as a push would do to a man of unstable equilibrium, they lost their balance and their previously exhausted nervous system prevented them from recovering it and cast them among the number of emotionally ‘shell shocked’.<sup>56</sup>

The victims of shell shock thus had what had once been called “neurasthenic tendencies.” For some a shell explosion acted in a similar way to a rail accident, suddenly and completely draining their reserve of nervous energy. Yet the shell explosion is seen in this analysis as insignificant, as it merely hastened an inevitable process of depletion and eventual breakdown. As the report went on to point out, this realisation that shell shocked soldiers were predisposed to breakdown meant that in future doctors could *screen out* neurasthenic personalities during the recruiting phase thus avoiding the problem. As historians Edgar Jones and Simon Wessely point out, “the report sidestepped the contentious issue of causation by proposing a series of recommendations that were designed to prevent a reoccurrence of the shell shock epidemic.”<sup>57</sup>

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Doctors and the military had come full circle. In the wake of the American Civil War, doctors avoided questions of diagnosis and treatment by focusing on selection and reconciling the questions raised by nostalgia with contemporary medical knowledge. Between 1865 and 1914, doctors on both sides of the Atlantic focused on modernity as the cause of the nervous disorders, which not only explained nostalgia and soldier's heart but also met with public acceptance. Even in civilian medicine, however, some doctors wondered how doctors were supposed to tell the difference between legitimate and feigned illness, a question that arose most often in connection with post-accident litigation. When war came in 1914, doctors deployed this rubric of nerves to the battlefield. Their tried and tested treatment methods proved successful and other new and innovative therapies also seemed to work. Yet doctors were unable to answer basic military questions about the origins of shell shock or to separate malingerers from the wounded. Faced with a growing threat to medical authority, doctors adopted the doctrine of predisposition to explain origin and offer a solution for the future. Yet despite new terminology and alternative explanations, doctors had few hard answers. As we shall see in the next chapter, as the urgency of military necessity faded, so too did interest in shell shock. Doctors' understanding of war-related mental illness satisfied the requirements of peacetime medicine, government and the military, but their ultimate lack of understanding eventually came back to haunt them.

## NOTES

1. Dean A. Worcester, "Shell Shock in the Battle of Marathon," *Science* L, 1488 (1919): 230; George Rosen, "Nostalgia: a 'Forgotten' Psychological Disorder," *Psychological Medicine* 5 (1975): 344.
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## Appendix 1

### THE MANAGEMENT OF PSYCHO-NEUROSES IN THE CANADIAN ARMY

Colin Russel

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*"The Management of Psycho-Neuroses in the Canadian Army", Journal of Abnormal Psychology 14 no. 1-2 (April-June 1919): 27-33.*

*A student of William Osler, Colin Russel became head of neurology at the Royal Victoria Hospital in Montreal in 1910. At war's outbreak, he served in Canada as part of the Canadian Army Medical Corps and later went to England to become head of the neuropsychiatric ward of the Granville Canadian Special Hospital, Ramsgate. At Granville, Russel treated shell-shock patients with a variety of therapies ranging from the typical rest-cure of the pre-war neurasthenic spas to more extreme electro-shock faradic treatments. Russel wrote extensively on shell shock during and after the war, publishing in Canada, Great Britain, and the United States. Unlike many of the other Great War shell-shock doctors, he again went overseas in 1939 to treat cases of what would be termed battle exhaustion in that conflict. As one of his colleagues, Dr. F. L. McNaughton, remarked on his death, "It is interesting to find, on re-reading [his work on First World War shell shock], what little change was necessary in his basic concepts to fit the experiences of the Second World War." The selection reprinted here provides not only a summary of how shell shock was handled in the Canadian Expeditionary Force during the Great War, but also a good overview of doctors' attempts at effecting a cure. Russel makes it clear that while the logistical problems of evacuation and patient care had largely been solved, the debates surrounding diagnosis and treatment were far from over.*

The management of the Psycho-Neuroses by the Canadian Army Medical Service, begins really in England and is carried on in Canada. In order to discuss the management of these conditions in the Canadian Army, however, it is necessary to consider the whole system that was in vogue under the Royal Army Medical Service in France. The Canadian Army Medical Service, as well as all parts of the Canadian Army in France, were an integral part of the British Army, and as such came directly under that organization.

It is not my intention to consider in detail the clinical form of the Psycho-Neuroses, but as is well known, these conditions, under the term "Shell-shock," quite early in the War became a very serious medico-military problem in the British Army as well as in the Armies of all the Allies—to say nothing of the armies of our enemy.

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Owing chiefly to the fact that these conditions were not fully recognized in the beginning, many cases were evacuated to England which would not otherwise have been, and the depletion of manpower in the front line from this cause became a very serious item. Some confusion was, I think, also caused by the result of anatomical investigations carried out by Major Mott, who showed that in soldiers killed as result of explosions without showing external wounds, minute hemorrhages and multiple cell changes in the nervous system showed the effects of concussion and that the cause of death was in the nervous system. This condition, which was really shell concussion, was very soon confused with the clinical condition which received the apt term of "shell-shock," but which on closer examination was shown to be rather a physiological or psychological condition without any organic anatomical lesions. The first really systematic effort to handle this problem in France was the establishment of special neurological hospitals in the casualty clearing line and the issuance in the summer of 1917 of the Army Form W-3436, and the instructions to Medical Officers which accompanied it. This refers to officers and other ranks who without any physical wound became non-effective from physical conditions claimed or presumed to have originated from the effects of British or enemy weapons in action. The medical officer who in the first instance dealt with such a case, where it was necessary to transfer him to the special hospital which had been organized in the casualty clearing line, was instructed not to record any diagnosis, but to enter on the field medical card the letters NYDN (not yet diagnosed nervous). The field ambulance through which this individual was evacuated was responsible for bringing him to the special hospital. These hospitals very soon got the name of "Shell-shock Hospitals." If any case inadvertently arrived at the Base without having passed through the special hospital, the officer commanding the base hospital had to retain that case and notify the local administrator of medical services of the army concerned.

The expression "shell-shock" under no circumstances was allowed to be made use of verbally, or be recorded in any regimental or casualty report, or in any hospital or any medical document, except in cases so classified by the order of the officer commanding the special hospital.

In all these cases admitted to the special hospitals and in those who through inadvertence slipped through to the Base hospitals, the Army form W-3436 had to be made out. This form after giving the man's name, number, rank and unit, stated that the individual had been admitted to the special hospital on such and such a date, through such and such a field ambulance. A description of his condition on admission followed, with a copy of the man's statement as to how he came by that condition. This was sent immediately to the officer commanding the man's unit, who, after looking into the case gave a written statement

whether or not, in his opinion, the man had been under exceptional exposure (that is, exposure of a specific nature more intense or prolonged than that in which others in the same area operations endured without being similarly affected thereby), specifying briefly the nature of that exposure. In the case where this exposure was regarded as not exceptional, this form W-3436 was sent by the O. C. of the unit directly to the "A" (Adjutant's) Branch the division, and it then became a matter for Army Headquarters investigation. If the exposure was regarded as exceptional, the form was returned by the O. C. of the unit to the O. C. of the special hospital, who was then responsible for ascertaining that any points which appeared to require investigation were brought to the notice of the Army Headquarters before the case was disposed of. It was his duty also to notify the D. A. G. of the 3rd. Echelon General Headquarters of the classification and final disposition of each case.

The work done in these special hospitals was wonderfully effective. The following is a report for the month of August from No. 3 Canadian Stationary Hospital, where the special Neurological work was being done by Captains F. Dillon and Lawson—both the R. A. M. C.

<i>Number of Cases admitted during August, 1917: 132</i>	
<i>Relative proportions of Cases Admitted:</i>	
Shell Shock Wound:	75 or 56.8%
Neurasthenia Sick:	57 or 43.2%

<i>Disposal of Shell Shock Wound Cases:</i>	
To Duty:	64 or 85.3%
To Base:	11 or 14.7%

<i>Disposal of Neurasthenia Cases:</i>	
To Duty:	32 or 56.9%
To Base:	25 or 43.1%

<i>Disposal of Both Classes of Cases Combined:</i>	
To Duty:	96 or 72.7%
To Base:	36 or 27.3%



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TOTALS FOR FOUR MONTHS: April, May, June, July, 1917, before the introduction of Army Form W-3436.	
Admissions:	1341
Discharged from Hospitals:	1173
To Duty:	938 or 79%
To Base:	235 or 21%
“Return” Cases:	44 or 4.6%

It will be seen from the above analysis that 43% of the cases of admitted into the “Shell-shock” Special Hospital are cases of Neurasthenia, that is, not caused by exceptional exposure but individuals presumably showing relative impairment of power of endurance in the ordinary strain of war. Of these, 56% were sufficiently restored by treatment to be sent back to duty.

The remaining 57% of admissions are cases of shell-shock wounds. These are the ordinary type of individual who have been subjected to exceptional exposure. In these you will see the prognosis is very much more hopeful, 85% being ultimately capable of being returned to duty. Of both classes combined, (the shell-shock wound and Neurasthenia) about 72 to 79% of admissions into the shell-shock division were made fit by treatment to return to duty. The remaining 20% to 30% were transferred to special hospitals at the base. About 50% of these were returned to some sort of duty in France. The remaining 50%, that is, 10% or 15% of the total, were evacuated to England. For a long time these went to the ordinary general hospitals. In the organic cases which required specialist’s attention, such as Orthopaedic cases or wounds of the brain, the sorting out was done in France and the cases were transferred directly to special hospital in England. It was a very long time indeed before the same recognition was given to the psycho-neuroses. The result was that they were passed from one general hospital to another, and by the time they did reach a Specialist, their condition was very firmly fixed and difficult to influence.

The Canadian Army Medical Service has, I believe, the honour of being the first to organize a Special Hospital for the treatment of these cases. This was established at Ramsgate in November, 1915 and was designed to treat both Orthopaedic and Neurological cases. The Granville Hotel was taken over and turned into a hospital. Its special facilities in the way of hot air baths, electrical baths, Turkish and Russian baths and large plunge already established in time of peace, made an excellent basis from which to develop a mechanical therapy. We shortly added to this as an annex the Chatham School with its technical workshops, its grounds and gardens, all of which were used and developed for occupational therapy. Instructors in all lines of occupation, from motor-mechanics

to cigarette-rolling, we picked out from among the wounded patients, and a very active occupational therapy was instituted. The beneficial result was most evident from the start. The Commanding Officer's Orderly Room almost went out of business. Breaches of discipline became very infrequent, and the morale among the patients was very much improved. Besides this all the splints and mechanical apparatus needed in the hospital were made by the patients. In fact operating room furniture was made for other hospitals as well as our own and our surgeons had any special instruments made on the spot.

In the early days of this hospital, owing to its unique character and the fact that these patients suffering from functional disturbances of the nervous system had been so long in other hospitals where conditions were not understood, the clinical material was very extraordinary and the results obtained by treatment most striking.

In my opinion, it would have been advisable in the Canadian Medical Service in England, to have developed this one, or possibly two, Special Neurological Hospitals, and to have had all suitable cases segregated. However, in spite of my recommendations, the authorities did not consider this advisable, and the result was several smaller Neurological Clinics developed in general hospitals wherever there happened to be a medical officer with Neuro-Psychiatric training or inclinations. As far as the treatment of the men was concerned, this did not make any material difference, but owing to the relatively small size of the majority of these clinics it was not possible to use them to any extent as schools of instruction for medical officers in this line of work. This has recently, I believe, been remedied by sending Canadian Medical Officers for course of instruction to some of the British Special Hospitals.

To the number of War Neurotics that were evacuated to England; from the Special Hospitals in France, there were always added a certain number who developed in England either previous to their going to France or on recovery from wounds or exposure to gas, and these were admitted to the Special Hospitals in England. It is impossible to form an estimate of what percentage were returned to duty from these Special Hospitals owing to the constantly varying conditions. In the early part of 1917, from the Granville Canadian Hospital, upwards of 60% of the patients who were admitted were returned to the front. With the establishment and proper organization of the Special Hospitals in France, this percentage was much diminished at a later period, as only the least hopeful cases ever reached England.

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# THE MANAGEMENT OF THE WAR NEUROSES IN CANADA

Major General Fotheringham, the Director General of Medical Services in Canada, who before the war was Associate Professor in Medicine at Toronto University, has shown the greatest appreciation of the importance of this work and the difficulties to be met with in this department of the Medical Service, and has given us at all times his utmost support.

The principles underlying the treatment of these patients in Canada may be summarized as follows:

1. The direct transference of all patients of this type coming from Overseas into Special Neurological Hospitals.
2. The segregation of patients of this type who had already returned to Canada for the purpose of treatment into these Special Hospitals, under the care of specially trained Medical Officers.
3. The retention of these patients in these hospitals until:
  - (a) They are fit for some form of Military duty.
  - (b) They are fit to pass under their own control.
  - (c) They are discharged as having come to a termination of treatment.
4. At the termination of treatment, these patients appear before a standing Medical Board composed of Medical Officers of the Special Neurological Institution, and its decision is final in regard to:
  - (a) Either return to duty and re-classification.
  - (b) Or discharge from service.

The re-classification of the soldier returned to duty from a Neurological hospital may not be altered except on the recommendation of the standing of the Medical Board of that Hospital, or of one of the other Neurological Hospitals.

5. In the case of a man discharged from a Neurological Centre to his own control, whose disability later recurs, we have arranged with the Department of Soldiers' Civil Re-Establishment that he be returned to the Special Neurological Hospital for treatment. There is thus established a continuity of treatment and supervision which has been found most effective.

6. On discharge, the pensionable disability, if any exists, estimated by the Special Medical Officers who have had this patient under observation, who thus act as advisors to the Pension Commissioners in these cases.

Special Neurological Centres have been established in connection with the Military Hospital at Montreal, Toronto, Winnipeg and Vancouver. A fifth one is in the process of being opened at Halifax. These Centres serve their surrounding districts.

It is taken as an axiom that all functional nervous disorders are curable—provided that the desire for cure is present in the patient. It is, therefore, ordered that no soldier suffering from a gross objective functional disability shall be discharged from the Army. All such cases which continue obstinately resistant to treatment shall be sent to the Dominion Neurological Centre at Montreal for observation and final disposal. Hysterical conditions in patients warrant no pension or gratuity. Where hysterical disability is associated with lesions due to organic diseases, the hysterical manifestations are not to be taken in account in estimating the amount of pension. Well marked Neurasthenic conditions—even without objective disturbances—may receive a small gratuity, but the feeling is that it is not wise to give such cases a pension.

These special centres are located in specially planned pavillions which are a part of the General Military Hospital, so that we have available all laboratory assistance. Consultation with Orthopoedic Surgeons or any of the other Specialists is convenient, and the physiotherapeutic department with its baths, massage, electrical treatment and gymnasium are at our disposal.

The work that is being done by the Medical Officers in these Special Hospitals has been very satisfactory, and one can say that in this class of patient, which is probably the most difficult to deal with, they are turning these men out fit for civil life.



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## Appendix 2

### THE CANADIAN SOLDIER AND SHELL SHOCK

Campbell Meyers

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"The Canadian Soldier and Shell Shock," LAC, RG 24, vol. 4268, file MD2-15-2-35.

*Before the Great War, Campbell Meyers was a well-known alienist\* and director of the Toronto Hospital for the Insane. In Toronto, Myers' practice centred on the care of neurasthenics who were variably directed to private or public asylums depending on their ability to pay and the severity of their illness. As the shell shock problem became a matter of public discourse in 1916, Myers published an article in Hospital World which was reproduced as a military pamphlet by the Director General of Medical Services in Ottawa. Aimed at the young doctor without experience in psychiatric medicine, it serves as an excellent primer on how shell shock was understood and constructed by civilian doctors. To Myers, the link between pre-war neurasthenia and the new battlefield cases is clear and his advice on treatment applies the lessons of the pre-war asylum to combat medicine. It is important to note that many of these lessons were readily adopted by the army: the timely evacuation of the patient, isolation, and the importance of quick treatment to ultimate recovery. Myers' critique of the treatment system also foreshadows the later public debate about postwar reconstruction. Myers understood that failure to adequately deal with the problem in war time would leave it to the postwar public asylums. Myers' pamphlet should thus be read as a statement on both military medicine and public policy. While he agrees with Russel on many points, it is clear that alienists and neurologists disagreed on many points. It reminds us that public policy is never the product of a single discourse, but is a process of negotiation between competing ideas.*

**I**n this terrible war the Army Medical Corps has had no more distressing class of patients to treat than those suffering from nervous disorders, due to shell shock and general nervous strain. To those accustomed to the horrors of active campaigns, the sight of an able-bodied soldier, whose bravery and courage are undoubted, suddenly bursting into tears on being asked for a match or some other simple question, is more appalling than the physical wounds produced by the mechanical action of the shells. In no previous war have the functional nervous disturbances compared in frequency or intensity with those of the present war in Europe, the difference being chiefly due to the increased calibre of the artillery and the unprecedented number of shells

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\* Alienist is a term formerly used for psychiatrist.

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fired. Naturally, therefore, the treatment of these functional nervous disturbances is of the highest importance, and merits the most careful study.

It would be well, at the outset, to bear in mind that so-called shell shock, in its neurological aspect, is a functional neurosis which has its prototype in private practice in the traumatic neuroses, especially in the forms of neurasthenia and hysteria, the difference in the intensity of the exciting cause being responsible for the severity of the symptoms. In ordinary life, a danger is usually unexpected and quickly passed, and the patient is consequently restored at once to complete physical safety with freedom from further anxiety from the cause of his trouble, whereas in the present war the intense anxiety has been continuous—often for weeks or months, and even after the final lesion the anxiety is still greater before safe surroundings in the rear are reached. Hence arises not only the greater severity of the symptoms, but also their greater persistence than is usually met with in ordinary practice. The great diversity of the symptoms would also be explained by the stress of the circumstances under which the trouble developed.

The first element of treatment is to place the patient in suitable surroundings with as little delay and as little further nervous strain as possible, as all are united in the opinion that early treatment affords vastly better results than when this is delayed; moreover, many of the less severe cases are enabled to return to duty in a very short period if suitable treatment is at once commenced.

The system followed by the R.A.M.C. has, as its basis, the investigation of the soldier's condition on his arrival at one of the British Base Hospitals in France, by a special medical officer, to decide the nature of the condition and to separate *as early as possible*, the cases of functional neuroses from those suffering from insanity, the patients being at once sent to different sections of the hospital, according as the symptoms are of a neurological or mental character. After brief temporary treatment and observation here, the patients are labelled as rapidly as is expedient, for transference to one of the clearing hospitals in England—if neurological, to the 4th London Territorial General Hospital, if mental, to D Block, Netley, or to corresponding institutions, bearing always in mind the necessity of separation of these two types as definitely as possible. Much assistance has also been given by the establishment of neurological wards in all Territorial General Hospitals, which wards are officered, as far as possible, by physicians especially versed in nervous diseases. Here the nervous cases are sent, while the insane are treated in mental hospitals specially devoted to that purpose, the object being to place, as far as practicable, in separate surroundings and in different institutions, the two classes of patients, in order to obtain the best results from treatment. As one who has advocated for many years, in Canada, the separation of the nervous

from the insane, with different surroundings for their effective treatment, as well as the establishment of neurological wards in all the General Hospitals of our country, the method pursued in England since the opening of the war has been of especial interest to me. May I be permitted to quote from a paper which I had the honor of reading at the Annual Meeting of the American Medico-Psychological Association in 1908, as follows:

The influence of suggestion induced by the presence of the insane in the same building, is most harmful, in view of the importance of the psychic treatment of these cases, many of whom fear they will themselves become insane, and this fear would thus be kept constantly before them. Any attempt, therefore, to treat functional nervous disease in the same department of a hospital as the insane will, I am assured, result practically in failure.

In view of the above facts, and of the methods of treatment followed by the British medical authorities, the question naturally arises: What is proposed for the treatment of our Canadian soldiers who are suffering from shell shock and allied conditions? These remarks are written with reference to Canada, and in this regard two points in connection with their treatment are especially open to discussion, it is officially stated (1) That the nervous cases are being sent to Canada for treatment; (2) That nervous cases are to be treated in Cobourg under the same supervision and in the same surroundings as the insane. In regard to (1), the necessity of early treatment, to be commenced as soon as the patient can be placed under it, and with as little excitement and additional strain as possible, is emphasized by all conversant with the treatment of these cases. Hence, to subject such patients, at once, to a long sea voyage (and the majority are unaccustomed to ocean travel) with the danger of the ship being torpedoed, etc., would be most harmful to them. Not only this, but in many cases it is impossible to foretell in the early stage, and without adequate observation, how soon recovery may take place, and often recovery will follow from prompt treatment in a very short time. No adequate treatment could be undertaken on shipboard, and consequently the most favorable time to promote recovery would be lost. It may safely be stated that at least 50 per cent, less recoveries will follow if treatment in the early stages is postponed until the patient reaches Canada. If, on the other hand, suitable treatment is at once commenced in the Motherland, and, when necessary, carried on there for a sufficient length of time to observe fully the results, the patient could then, if desirable, be given the ocean voyage out to Canada with benefit to himself and advantage to the service.

In regard to (2), the matter is even more serious. This hospital is under the charge of an alienist, and the nursing is done by nurses trained in Hospitals for



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the Insane. The insane cases treated here will undoubtedly receive the best care and attention possible, and the authorities are to be congratulated in placing this group of cases in such efficient and worthy hands. But for the nervous cases the situation is entirely different. The procedure of the R.A.M.C. should surely serve as some guide after its experience to date, and this clearly indicates the absolute necessity of a separation of the neurological cases from those with pronounced mental symptoms *at as early a date as possible*. Moreover, a medical experience confined to Hospitals for the Insane, in which the patients are almost exclusively certified insane before admission, does not comprise much contact with non-insane cases, especially of the neurological type under consideration. Next only in importance to the medical superintendent is the nursing staff, for experience has shown that mechanical contrivances, no matter how varied or costly, play a very minor part to efficient nursing in promoting the recovery of these nervous cases. Where then does the nurse, trained only in the Hospital for the Insane, obtain the necessary experience to properly nurse these non-insane patients? Moreover, the proximity of the insane, as intimated earlier, is a most serious objection in the treatment of these nervous cases.

Again, the somatic lesions which may arise from the same exciting causes, further accentuate the difficulties of treating nervous cases under such conditions as these, I would refer here to only one, *viz.*, the soldiers' irritable heart, or D.A.H., so frequently encountered at the Front, and which, as has been shown by Colonel Rudolf and others, is essentially a form of neurasthenia.

What then is to be done for the neurological cases in this war due to shell shock and allied causes? Are we to treat our own Canadian boys with a care equal to that which the British Tommy has constantly received? If so, either neurological wards must be established in General Military Hospitals under the charge of medical men who are, as far as possible, specially qualified to treat nervous diseases, or separate institutions devoted exclusively to their care must be established, with a neurologist in charge of each.

There is to-day no more serious question before those responsible for the methods of treatment of our injured soldiers, and unless this method of treatment is now wisely decided upon and carefully carried out, Canada will be flooded for years to come with men who, though often in appearance of fair general health, will be found incapable of any prolonged or continuous effort to earn a living, and for whom the State will, justly, be obliged to provide.

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## Appendix 3

### ON THE TREATMENT OF SOLDIERS SUFFERING FROM WAR NEUROSIS

H. Goodman

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*"On the Treatment of Soldiers suffering from War Neurosis," South African Medical Journal, xiv (1918-1919): 450-455.*

*Dr. Goodman's paper from the South African Medical Journal is unique in that it is the only publication on the South African experience of shell shock. At the same time it offers a good general overview how war neurosis – as Goodman prefers to call it – was understood at the end of the conflict as well as the different treatment options that had become available. What is clear from the article is that shell shock was a universally perplexing problem. As Goodman notes, the physical diseases which killed so many soldiers during the Boer War failed to materialise during the Great War; yet shell shock appeared to pose just as significant a threat to combat efficiency as had the camp diseases in previous wars. His assertion that shell shock was non-existent during the Boer War is false, but indicates that the problem was viewed by many non-specialists as a new phenomenon unique to the modern battlefield. That he too touches on the debate about public policy and state responsibility for shell-shocked soldiers indicates the interconnectedness of British Empire medicine and the universality of the shell shock problem.*

At the present time when our young men are returning in large numbers from active service overseas, and when so many of them are unfortunately incapable of earning their living owing to war neurosis (or what used to be called shell-shock), I make no apology for bringing the question of their treatment before the medical men of South Africa. It is one of the strange—but I suppose fortunate—inconsistencies of human nature that while practically all the civilised peoples of the world have, for the past five years and more, been straining all their resources—physical, financial, and intellectual—in order to destroy as many of each other as possible, they have at the same time, and as a natural result, been developing and improving with almost equal energy the arts of preventing and curing those injuries and ailments which are produced by their efforts at destruction.

Owing to the work of the bacteriologist and the physician, those dreadful enemies of the Boer War days—enteric fever and dysentery—have ceased to decimate, as they used to do, the ranks of the fighters on both sides. By the skill of the surgeon the shattered limbs of the maimed have been set right, the

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disfigured bodies of the injured have been repaired, and their paralysed muscles have been restored to usefulness.

But there still remain, unfortunately, thousands and thousands of our sick soldiers for whom comparatively little has really been done. I refer to those unfortunate men, who, as a result—in great part if not entirely—of the stress of the war, have had their nerves shattered or their minds deranged. It is pitiful, but it is true nevertheless, that the hospitals and the asylums in the Old Country are still crowded with these patients, and it looks, unhappily, as if many of them are likely to remain so for a very long time.

We are all full of sympathy for those, who have been maimed and disfigured as a result of the war, but I maintain that those others who are mentally deranged are entitled to our sympathy, and more especially to our help even more. After all, the man who is maimed or disfigured carries about with him his infirmity in an obvious form, and is always, therefore, receiving the public sympathy, and, in addition, he is able very likely, in spite of his physical injury, to do some kind of work to occupy his time and to render him more or less independent and happy; but the man who is suffering from war neurosis with its acute depression and mental helplessness is one of the most unhappy men in the world. The problem of what to do with the large number of these fellows who are now coming back to South Africa in this condition is one of the most difficult questions before the medical advisers of the Government.

War neurosis (or what used to be loosely and inaccurately called shell-shock) is not really a new disease: it is an old disease in a new form; it is a form of hysteria or psychasthenia induced by the acute shock of war conditions on a sensitive, nervous system. In some cases it is doubtless due wholly and entirely to the stress of the war, but in the great majority of cases there have been other factors or there has been some predisposition to nervous or mental instability, and the war strain has only been the determining factor. Even so, however, the war *has been* the *determining* factor, and the responsibility of the Government to do everything possible for those men is just as great and just as definite as if their sickness had been due to the war and nothing else.

It is quite obvious without argument that had there been no war and had these men not been on active service, there would not have been such an epidemic of thousands and thousands of cases of neurosis among our young men, who before the war were normal and healthy.

War neurosis is not by any means a clearly defined disease with definite symptoms. Most of the men affected suffer from a varying number of various symptoms, the chief being anxiety and fear, exhaustion, insomnia, night-terrors,

uncontrollable emotions, epileptiform fits, tremors of the limbs, paralysis of limbs, stammering, deafness, dumbness, blindness, depression and loss of memory. They are unable to concentrate their attention on one subject for any length of time; they are easily startled by sudden noises; they are nervous in traffic and in company of strangers; they take little or no interest in anything but their own symptoms and grievances, and they feel themselves helpless. They are, for the most part, very unhappy, and their condition is pitiable in the extreme.

This is a very formidable list of symptoms; happily no single patient—or married one either! suffers from all of them; they usually suffer from a group of them, and, of course, in varying degrees. Their symptoms are not unlike those of the many neurasthenics whom one comes across in everyday practice, and they vary even more.

In many cases, where they have been taken in hand early, their symptoms have responded readily enough to treatment by suggestion and hypnotism, but if they receive, no active treatment of this kind, and especially if they are allowed to mingle with others similarly afflicted, they tend to become chronic invalids. As long ago as April, 1916, Professor Elliot Smith said, in the *Lancet*, “Much more might be done for patients suffering from shock. ....Some of them may recover by themselves, but a large number tend to get worse, and if they are left without attention their symptoms are apt to become stereotyped into definite delusions and hallucinations.”

It is very unfortunate that the number of cases occurring during the war was so vast that to give them any form of suitable active treatment was almost impossible, with the inevitable result that they had to be sent to special convalescent camps, nerve hospitals and asylums to await—more or less patiently—their gradual recovery—or the other thing.

Although, as I have already indicated, not in reality a new disease, war-neurosis was practically new as far as the Army was concerned. In the Boer War we had no cases of war-shock as such. Certainly in this huge epidemic form it was quite new, and naturally, there was no clear conception at first either of the symptoms, or the cause, or the best methods of treatment. It was very soon understood that the trouble was not an organic one, but purely what we have always called functional. In some few—unfortunately very few—of the hospitals in France and England, which are devoted to such cases, treatment by hypnotism and suggestion and such methods was adopted, with very gratifying results indeed.

There has always existed, however, in England great prejudice among the mem-

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bers of our profession against hypnotism and psychic treatment generally, and there were very few medical men in England who knew anything about these forms of treatment, so that it was very unpopular at first, and no definite line of treatment was advised or generally adopted.

The method which was most generally followed was what was called treatment upon rational lines—a name which was certainly not justified by its results. It was a policy of hopeful expectancy or otherwise of fatal inertia. The result of this passive; and expectant treatment was that the number of the cases increased with such startling rapidity that the field hospitals and the base hospitals were soon overloaded with them, and then they were sent back to England to be congregated together in special nerve hospitals and asylums and in nursing homes and private houses and institutions which were specially taken over for them.

People not only in this country but in the United Kingdom, and, indeed, in all countries who sent their sons to fight in the various theatres of war, have been complaining bitterly, and not unjustly, about the apathy and helplessness of the Government in dealing with these cases. But we must not forget that just as the newer methods of warfare were quite unforeseen, so were naturally the results; and the Army Medical Authorities can hardly be blamed for being unable to foresee and to adequately tackle at its inception a situation so unprecedented and unexpected. Indeed, it is probable that little else could have been done in the early stages of the campaign under the circumstances, owing to the unforeseen character of the epidemic and the impossibility of securing adequate accommodation and providing suitable treatment.

Many lessons had to be learned about this new disease, many experiences had to be gained, and no doubt many mistakes had to be made.

One of the most important lessons learned, to my mind, was that war-neurosis is a highly infectious disease. At the recent dinner of the British Medical Association in London, Colonel Emerson, of the U.S.A. Medical Corps, said that “one war experience which had been learned was the need to put nervous disorders (war-neurosis) in the class of communicable diseases.” It was so treated, he said, in the American forces on the advice of the psychiatrists and neurologists, with the result that only 1 per cent, of all the cases that presented themselves at the clearing stations had been returned to the United States as incapable of military service.

This was a most gratifying result, due to the prompt and suitable treatment, but, of course, we must remember that America, in this matter, as in so many others in the war, had the advantage of all the bitter and costly experience of Great Britain and the other Allies.

The symptoms of war-neurosis vary very greatly, as I said at the beginning of my paper. I don't suppose one finds any two cases exactly alike; and yet they have, for the most part, many symptoms in common. Like many cases of hysteria and neurasthenia, they have nothing organically wrong with them apparently, and yet they are always ill—always complaining of one thing or another, always unhappy.

As in cases of neurasthenia it is a mistake to draw general conclusions too readily, for although most cases have some symptoms in common with others, each has peculiar traits of his own, and each requires very patient and tactful treatment adapted to his particular temperament.

[...]

In many cases hypnotic suggestion by itself is sufficient to temporarily strengthen the patient's weakened will-power and put him on the road to recovery, especially if those suggestions are based on a knowledge of the particular mental mechanism which has produced the symptoms. This knowledge can often be obtained by a brief psycho-analysis. Very often, however, as I have indicated, a much longer course of psycho-analysis is required. Psychiatry is without doubt the method of selection in war-neurosis and has practically superseded the many other methods which were tried from time to time.

Colonel Mott used at first to advocate the treatment on common-sense or rational lines, *i.e.*, by rest quiet, sleep, agreeable surroundings, good food, etc. All of these may be very desirable when associated with proper active treatment by psychotherapy, but are of secondary importance by themselves and may very easily be overdone; they may sometimes do more harm than good. Dr. Eder, who was in charge of the psycho-neurological department of the Malta Hospital, writes in his book: "War-shock requires vigorous treatment and return to active life as soon, as possible. The reckless way in which a rest cure and over-feeding are ordered indiscriminately for all persons suffering from any form of psycho-neurosis reveals lamentable ignorance. It is the very reverse of rational treatment."

The various other treatments which were used at different times like hydrotherapy, electro-therapy, massage, etc., are sometimes helpful, but they act in any case chiefly by suggestion. All these methods have now been practically abandoned in favour of psychiatry which remains the method of choice.

It may be necessary to continue treatment in some cases by psycho-analysis for several months, which involves the expenditure of time and patience and therefore of money, but I maintain that three months' treatment or even six months' treatment by psycho-analysis, with the prospect of complete recovery, is prefer-

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able to 2½ or 3 years of expectant treatment with the prospect of permanent mental derangement or helplessness.

As for the expense, the treatment is not more expensive than a serious operation, and in any case I maintain that the men who suffer from war-neurosis are entitled to the best treatment obtainable.

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## Appendix 4

### WAR NEUROSIS: A COMPARISON OF EARLY CASES SEEN IN THE FIELD WITH THOSE SEEN AT THE BASE

William Brown

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*"War Neurosis: A Comparison of Early Cases Seen in the Field with Those Seen at the Base," Lancet 1 (17 May 1919).*

*William Brown was a schoolmaster before going back to the University of London in 1906 to study psychology. After graduating as the John Locke scholar in mental philosophy, he completed his medical education at King's College in 1914 where he subsequently became reader in psychology. During the first half of the war he was consulting neurologist to the Fourth and Fifth Armies and was on the Somme front at the height of the 1916 battle. Later he returned to the United Kingdom to head the Craiglockhart War Hospital for Neurasthenic Officers in Edinburgh, Scotland where Siegfried Sassoon and Wilfred Owen were treated. He thus had the experience in treating patients close to the front as well as those who were evacuated to treatment centres in England. It is significant that Brown viewed these two types of cases as different, arguing that as time passed symptoms worsened to the point that entrenched cases of shell shock became almost different disorders than those witnessed soon after battle. Unlike Russel or Myers, Brown also viewed shell shock as an illness of the mind which could be treated most successfully with "talk-therapy" and hypnosis. Here we see soldier's symptoms being attributed to repressed memory. According to Brown, if these traumatic memories could be accessed and brought into the open through talk or hypnosis, the patient's functional symptoms would disappear. It is important to note, though, that this is less a Freudian interpretation of shell shock than it is an application of Charcot's ideas on hysteria.*

**I**n a previous communication to the *Lancet* I have indicated the principal methods of treatment which I found useful in dealing with early cases of war neurosis while acting as neurological specialist to the Army of the Somme front. In the great majority of these acute cases the method of rational persuasion sufficed to produce a cure if preceded by a thorough physical examination and supported by the arousal of feelings of confidence and enthusiastic expectation of a favourable result. Where earlier emotional shocks and mental conflicts had already weakened the patient's powers of resistance to the stress and strain of war the method of mental analysis was found helpful. Finally, in cases showing extensive amnesia, involving dissociation of intensely emotional psychic states, the method of light hypnosis, under adequate safeguards, was invariably successful in restoring the lost memories and freeing the patient from subconscious emotional obsession.



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My experience with more chronic cases in neurological hospitals in Great Britain has impressed me with the great difference produced by lapse of time in these functional nervous disorders and in their reaction to different forms of treatment. Several of my officer patients in France were again my patients at Craiglockhart, and notes on the further history of many other of my patients of the Somme have come into my hands. It seems, therefore, worth while to attempt a comparison of these earlier and later cases. Their differences help somewhat to explain the differences of opinion held by equally competent observers on diagnosis and treatment.

### RETURNS TO DUTY IN THE FIELD

As regards the cases seen in the field the percentage of returns to duty varied, as might naturally be expected, according to the nature of the fighting. It was at the time of a push that this percentage became highest. Thus, whereas my average percentage returns over a period of 16 months was 70, at the time of the Cambrai push in November and December, 1917, I was able to return 91 per cent to duty. This was due to the number of exceptionally light cases that are sent down at the time of a push, to be out of the way. Neurologists in other armies have no doubt obtained equally high percentages.

But these percentage returns to duty are of no help in deciding the relative merits of different methods of treatment, for the simple reason that the same method, apparently, was used by all of us with these lighter case viz., the method of persuasion. For my own part, at any rate, I reserved the other therapeutic methods mentioned above, almost without exception, for cases whom I intended to send down the line. It is a study of these cases which is the more helpful in contributing to a scientific knowledge of our subject. But first let us consider the various types of psychoneurosis as they arrive in an advanced neurological centre at the time of a push.

### NEUROLOGICAL CASES DURING A PUSH

The majority of the nerve cases that came down during the first 48 hours after our tanks and infantry went over at Cambrai in November, 1917, were very light. They were either old cases of "shell shock" who had lost their nerve again at the prospect of being heavily shelled, or else men constitutionally weak of nerve and lacking the power to pull themselves together in the face of an emergency. They came down in lorries as walking cases, and made a sorry show in the reception-room, with their hanging heads and furtive looks. They gave the

impression of men who had, at least temporarily, lost their self-respect. Many of them were keeping up, with obvious effort, rhythmical tremors which had no doubt been involuntary and irrepressible some hours before, but were now within the field of voluntary control. By distracting these cases with a rapid sequence of questions as to the origin of their disability, I was able to bring the tremors to an end, and by treatment during the next few days made the cure, a permanent one. These men returned to the line, within a week. Others suffered also from tachycardia and genuine headache and vertigo, and needed a more prolonged rest in hospital.

On the following days more serious cases began to arrive, many of them stretcher cases. These had been concussed or buried by the explosion of shells quite close to them, and some of them had been rendered unconscious for a longer or shorter period of time. A few were still apparently unconscious of their surroundings, although their minds were probably in a dream state rather than an absolute blank.

[...]

Treatment, in the form of vigorous counter-suggestion and rational persuasion, was given to all these patients immediately upon their arrival in hospital, and was continued unceasingly during their stay, with the aid of the sister in-charge. Consequently, in the majority of cases the functional symptoms disappeared or became gradually of less severity right from the beginning. But in a few of the more resistant cases I was able to observe the tendency for more severe symptoms to make their appearance after a "period of meditation," as Charcot called it, and many of the other cases seem to have shown the same "incubation process" during their passage from the line to the neurological centre. It is particularly noticeable in the case of motor symptoms such as paraplegia, hemiplegia, and loss of speech, and these are just the symptoms whose onset seems, at least on a superficial view, to be completely explicable in terms of Babinski's theory of suggestion. The idea of loss of power has been implanted in the patient's mind at the moment of mental confusion and loss of emotional control produced by the shock of the shell explosion, and gradually realises itself during the following few hours or days.

But, as Myers has pointed out, this theory cannot explain the loss of memory which is so frequent a symptom in the war neuroses. Nor does it explain the sudden or gradual onset of vaso-motor and secretory symptoms which unless treated, and too often in spite of treatment, persist for long periods, although there is often no wound present to give one the excuse of classifying them under the heading "reflex nervous disorder." And there is now a large and growing body of scientific opinion which regards these "reflex nervous disorders" as entirely functional in nature and curable by psycho-therapy.

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As regards loss of memory, it is a remarkable fact that Babinski does not once mention this symptom in his recent book on hysteria. Had he devoted more attention to it and to other outstanding Psychological characteristics of functional nervous disorders, his final theory might possibly have been less clear-cut but surely more intellectually satisfying.

Viewed from the psychological point of view, hysterical disorders all fall under one heading, as examples of dissociation of psycho-physical functions (walking, speaking, hearing, remembering certain experiences, etc.) following upon a diminution or loss of higher mental control. One school of thought would explain this dissociation as the result of conflict between opposing and incompatible emotional tendencies and as characterised by repression of one of these tendencies. Others consider that a strong emotional shock is capable of bringing it about in those who are hereditarily predisposed, and may even produce it in a normal individual, if sufficiently intense. On the other hand, Babinski holds that "hysterical symptoms and violent emotions are incompatible." It is perfectly true that an intense emotion, such as anger, may overcome a functional dissociation. I have made a functional paraplegic walk by the simple expedient of inducing him to lose his temper with me. But this fact is in no real contradiction with the theory of the emotional origin of the disease, especially if the originating emotion was of such intensity as to produce a state of stupor—a result often observed in this war.

[...]

The general conclusion which I would draw from these cases, and from a few others whom I have myself treated at Craiglockhart after having previously had them as my patients in France, is that the early recall of submerged emotional memories by my method of modified light hypnosis not only removes the accompanying functional symptoms without danger of consequent relapse, but also greatly shortens the period of convalescence which these severe cases need before final discharge from hospital. If again subjected to great strain, no doubt these patients would succumb more quickly than they would have done had they not experienced their original shock. But this holds good of all methods. One does not need to work long in the field to discover this fact. 21 per cent of my Cambrai cases had been in neurological hospitals (not my own) before. It should not be brought forward as a criticism of any method where severe nervous disorders are concerned.

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## Appendix 5

### AN ADDRESS ON THE PSYCHOPATHOLOGY OF THE WAR NEUROSES

M.D. Eder

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An Address on the Psychopathology of the War Neuroses, Delivered at the Malta Medical Conference, 9 April 1916.

*Montague David Eder was a controversial British psychoanalyst and is sometimes described as the father of Freudian psychoanalysis in Great Britain. He had an eclectic career as a military surgeon in the Bolivian army, a pediatrician, and as a public health advocate before turning to psychoanalysis in the years prior to the Great War. Eder translated the works of Carl Jung and Sigmund Freud into English and published on subjects ranging from the psychology of “primitive” religions to artistic creation. He was a well-known Zionist who travelled in literary circles with the likes of D.H. Lawrence, Bernard Shaw, and H.G. Wells. During the war he was head of the Psycho-Neurological Department of Malta and later produced a book titled War-Shock: The Psycho-neuroses in War—Psychology and Treatment from his experiences. Like Brown, Eder took a psychological approach to shell shock arguing that it was a physical manifestation of a subconscious process. Unlike his colleague in Scotland, Eder used Freudian terms to suggest that it was fear and pent-up emotion that explained a soldier’s symptoms. Using cases of several Australian, English and Irish soldiers from the fighting at Gallipoli and Salonika, he made four propositions to his audience as to the nature of the war neuroses:*

[...]

(1) That the psychoneuroses among soldiers are capable of understanding in psychological terms; (2) that the symptom is a symbolic (disguised) expression of an unconscious mental process; (3) that the mental process may be the resultant of a conflict between two divergent impulses – the egocentric and the soldier’s instinct; (4) that morbid fright is due to pent-up emotions – stored-up fears – that have not been acknowledged or actually worked off.

[...]

*Based on these premises, Eder then turned to a discussion of treatment. Unlike Brown, Eder dismissed psychoanalysis or talk-therapy as being too intellectually demanding for the common man. In its place he advocated hypnosis, which he argued played to the common soldier’s susceptibility to suggestion. As with most*

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*shell shock treatments, Eder relied on the power of suggestion and the patient's faith in his physician to effect a cure.*

[...]

By psycho-analysis the patient must reach out to a realisation of his weaknesses, his limitations, his vocation. Effort of will is demanded to make the synthesis which is disclosed as his. In suggestive therapy the will power is employed to overcome a difficulty or a symptom without any bitter self-realisation of the meaning of that symptom.

Hypnotism has been most successfully applied in the treatment of our soldiers, because in most cases the neurosis has arisen under the strain of quite extraordinary conditions. I would remind you that our Army is not composed of fighting men in the technical sense. The men came from the mill, the mine, the farm, the counting-house, the country house; every trade was represented and every class. Thus, the man brought up to a quite other avocation was suddenly, with scant training, called upon to make a new adaptation. In the stress and strain of their normal life they would have probably been equal to any emergency. But for some – among the very best – the new condition called out to them to strain themselves to the utmost, and this was just a little too much.

A word as to treatment. Major F. W. Mott in his Lettsomian lectures says: "I do not find hypnosis or psycho-analysis necessary or even desirable; only common sense and interest in the welfare and amusement of these neurotic patients are necessary for their recovery." This contrast between common sense on the one hand and hypnosis and psycho-analysis on the other betrays, I fear, a survival of the mediaeval fear of witchcraft. It reminds me of one of my patients, a mute.

This soldier was in a mine accident eight years ago when his brother was killed and he lost his speech, which recovered spontaneously after 18 months. Following a shell explosion in Gallipoli he was again stricken speechless and deaf; he came six weeks later under me and objected (in writing) to treatment, saying that he believed in Nature's methods. God had taken his voice away before and had restored it. I replied (in writing), rather irreverently, that God had taken 18 months; I could do it in, a few minutes. He afterwards relented, and speech and hearing were duly restored in the time promised. To his expression of thanks I replied, now more reverently, that I was merely the instrument of Providence.

There is no such antithesis as Major Mott supposes. Whether the patient gets better by a dose of Major Mott's common sense, or spontaneously recovers, or recovers, by suggestion in the waking state or under hypnosis, the effect on the patient is just the same. The patient has not learnt, although he may obtain

intellectual apprehension, the significance of his illness. I employ the method that seems best adapted to bring about a speedy cure; sometimes suggestion in the waking state, sometimes under hypnosis, with such other aids as we can obtain for our patients including the invaluable assistance of the sisters and orderlies.

I have explained why, in my opinion; hypnotism works so satisfactorily among soldiers, and on the same grounds it seems to me quite safe. We have a neurosis arising under exceptionable conditions, a neurosis not likely to recur when the patient returns to his normal life. Hypnosis is easily induced among soldiers. Out of 78 cases, only three could not be hypnotised at the first attempt; of these three, one was hypnotised later, another practised auto-suggestion, and the third was refractory. (Hypnosis, of course, does not spell cure). Of another 27 patients, some were treated by rest in bed and others are cases of various psychoses; only 5 patients were treated therapeutically by psycho-analysis. When a pre-war neurosis exists, such as the case I have briefly described; there is no substitute so far as I can see. Psycho-analysis was, of course, used for purposes of diagnosis or with a view to helpful suggestion in most cases; but, used in this way, the patient learns nothing, of course, about himself. He is simply got into a communicative mood about himself. You let him gabble on, giving his dreams, etc., and pick out the golden threads for your own purposes.

[...]



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## Appendix 6

### SHELL SHOCK

Sir Andrew Macphail

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*Shell Shock,* from *Official History of the Canadian Forces in the Great War, 1914-19: the Medical Services* (Ottawa: Queen's Printer, 1925), 276-278.

*Sir Andrew Macphail was a Prince Edward Island-born physician, writer, and professor. He was an editor of the Canadian Medical Association Journal, the Montreal Medical Journal, and University Magazine. In April 1916 he enlisted as a Lieutenant in No. 6 Canadian Field Ambulance and served close behind the front lines in the autumn battles on the Somme, at Vimy Ridge, and at Passchendaele. A prolific popular and academic writer, the Department of National Defence asked him to produce the medical volume of the Canadian official history of the Great War. This 1925 book has achieved a certain degree of infamy amongst historians. As Tim Cook writes, "it was uneven in coverage and polemical in tone. Alternating between a narrative of military operations and thematic medical sections, and indiscriminately sliding from a service history to the national war effort, the book made for a poor and confusing read." Macphail's few words on shell shock are reproduced here and suggest that some doctors regarded shell shock as a problem of masculinity and heterosexual normativity rather than of mental illness and trauma. While certainly out of line with earlier excerpts, Macphail's views represent the ordinary non-specialist physician as well as the frontline soldier. To Macphail, shell shock was not a problem to be coddled but one that had to be eradicated because it endangered the lives of men in the line. The difference between cowardice and mental illness was irrelevant in the trenches because it was the actual exhibition of fear and the process of psychological breakdown that threatened unit cohesion, morale, and individual safety. Here the tension between the medical and military outlooks is most visible.*

Shell shock was a term used in the early days to describe a variety of conditions ranging from cowardice to maniacal insanity. After endless discussion the physicians and metaphysicians, the psychologists, physiologists, and neurologists invented a series of names which did not leave the matter much clearer than it was when they found it. "The war produced no new nervous disease; it was the same hysteria and neurasthenia neurologists knew before the war," but it produced many new names and theories. The condition was well known to the Duke of Wellington, and he had a routine method of treatment.

The War Office went so far as to recognize three forms of neurosis or psychoneurosis, namely, shell shock, hysteria, and neurasthenia. Sir Frederick Mott observed, however, that all persons so affected "had an inborn or acquired dis-



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position to emotivity.” A similar observation was frequently made by experienced corporals, but they did not record their “findings” in quite those terms. Soldiers who developed these manifestations in the stress of war would have presented a similar spectacle in corresponding circumstances in civil life. The Americans were so informed. They refused to enlist men who were mentally unstable. From one division alone in progress of formation they eliminated 400 men, and sent 500 more to non-combatant units, with the result that of those who did develop a neurosis only one per cent required to be evacuated.

The medical officer at the front had no knowledge of the jargon in which the problem was being discussed. He could not distinguish hypo-emotive from hyper-emotive, or commotio cerebri from emotio cerebri; he could not tell who was right about certain symptoms,—Babinski, Claude, or Roussy, with their respective reflexes, dynamogenic, and dysocinetic explanations. “Rheumatism” he knew, a slacker he was pretty sure of after consultation with the sergeant-major. All violent cases he classified in his own mind as “crazy,” and sent them to a “special centre,” as “not yet diagnosed.”

They alone jest at scars, who never felt a wound. The best of soldiers after several years service had moments of misgiving, lest in some supreme trial they might behave themselves unseemly—“anxiety neurosis,” it was called. At such times were born those most intimate confidences of the war; and there are many who will always remember a firm and friendly word of assurance, and possibly a draught of rum, from an experienced medical officer whose own hour of “fear-emotion” had passed.

Under cover of these vague and mysterious symptoms the malingerer found refuge, and impressed a stigma upon those who were suffering from a real malady. The medical officer was bewildered in his attempt to hold the balance between injustice to the individual and disregard for the needs of the service. Especially was he haunted with a dreadful fear when he was called upon to certify that a man was “fit” to undergo punishment for a “crime,” and most especially when it was his duty to be present alone with minister or priest to certify that the award of a court-martial for cowardice in the face of the enemy, confirmed by the Commander, had been finally bestowed. This attendance at executions was the most painful duty of the medical officers’ many unpleasant duties.

The general statement is probably correct, that in the early days of the war too lenient a treatment was accorded to soldiers suffering, thinking they suffered, or pretending to suffer, from concussion or fright neurosis, from hysteria, neurasthenia, psychasthenia, reflex paralysis, katatonic stupor, or combination and subdivision thereof; and that up to the end it was not sufficiently realized that men who were liable to such condition were not fit for the hard business of

war. In the summer of 1915, and even of 1916, it was a common spectacle—a soldier with no apparent wound or scar, sitting in the shade of an English tree with his pipe and paper, contemplating his misery and reflecting aloud upon his prowess.

What was once a disease had in 1917 become a stigma, and yet, as one nail drives out one nail and one fire one fire, so fear of the ostracism of contempt for weakness at best and cowardice at worst did much to counteract the emotion of fear of the enemy. “In no circumstances whatever,” the order ran, “will the expression ‘shell shock’ be made use of verbally or be recorded in any regimental or other casualty report, or in any hospital or other medical document except in cases so classified by the order of the officer commanding the special hospital for such cases.”

The treatment of these cases by suggestion, hypnotism, and “analysis” was sometimes brilliant, but the results were often short-lived, and the patients soon sought centres for a fresh cure. Dr. L. R. Yealland whose advice was often sought by the Canadian service treated many cases with amazing success at Queen Square Hospital. Hysteria is the most epidemical of all diseases, and too obvious special facilities for treatment encouraged its development. “Shell shock” is a manifestation of childishness and femininity. Against such there is no remedy.



# Chapter 1

## Appendix 7

### THE TREATMENT OF SOME COMMON WAR NEUROSES

E.D. Adrian and L.R. Yealland

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*"The Treatment of some Common War Neuroses," Lancet (9 June 1917): 867-872.*

*In 1917, Edgar Douglas Adrian was a young medical graduate student, having only passed the entrance examination to the Royal College of Physicians the previous year. Lewis R. Yealland had also been recently trained in neurology at the University of Western Ontario and had moved to England before the war to continue his studies. During the Great War, both men worked at the Hospital for Nervous Diseases, Queen Square in London where they treated patients admitted with shell shock and other neurological conditions. In studying severe cases, Adrian focused more on the physical neurological aspects and Yealland on the patient's hysterical or psychological symptoms. Yealland was certainly the more radical of the two doctors, advocating punitive therapies of various types aimed at shaming mute, paralysed, or tremulous patients into recovery. He ultimately became the champion of "persuasion by faradism" which he wrote about in a postwar book titled Hysterical Disorders of Warfare. His dispassionate and impersonal prose and predilection for seemingly sadistic treatments provided a model for Pat Barker's character of the same name in her fictional Regeneration trilogy. While Yealland declined into relative obscurity after the war, Adrian's career took off. In 1932 he won the Nobel Prize in physiology and medicine for his research into the neuromuscular coordination and was chancellor of Cambridge University from 1968 to 1975.*

*In this article we see both doctors arguing that while shell shock was undoubtedly psychological, the physical symptoms were very real and went beyond normal hysteria. For Adrian and Yealland, successful treatment was based on the power of suggestion and the patient's faith in the physician. In this way they acknowledged the usefulness of a number of types of treatment including hypnosis, faradism, and isolation, but rejected the specific claims of each (psychoanalysis was all but dismissed out of hand). They theorized that the actual peculiar mechanism of treatment was relatively unimportant, as long as it convinced the patient that his symptoms were no longer beneficial and were actually less preferable than returning to duty. In this analysis, treatments are placed on an continuum between forced bedrest and painful electric shocks, all of which persuade the patient to abandon their symptoms as unproductive.*

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The war neuroses with which we are concerned are those in which the patient suffers from some objective disorder such as paralysis, loss of speech, etc., without showing any signs of organic change in the central nervous system. These disorders often occur as the result of mental and physical exhaustion, violent explosions, etc., and they often constitute a very serious disability. They form a well-defined group which is readily distinguished from the neurasthenic and psychasthenic conditions where the patients have subjective complaints, headaches, feelings of exhaustion and depression, and very little in the way of physical signs ; at the same time it is a difficult matter to find a suitable name for them. Were it not for the stigma attaching to the word, one would not hesitate to class them as hysterical. However, a diagnosis of hysteria is often held to mean that the patient has nothing the matter with him and requires no treatment. This is manifestly absurd in the case of a man who has been stone deaf for months; his disability is real enough and is in urgent need of treatment. As a rule the difficulty can be overcome by speaking of the disorder as functional rather than hysterical. However, the objection to the term functional is that it covers too wide a field. It applies to any condition which has no demonstrable organic basis, and it would include such disorders as neurasthenia and even epilepsy. We need some name for the neurosis which results in the production of objective signs simulating those due to organic disease, and for the present hysteria is the only term we can use. Babinski has coined a word, pithiatism\*, to take its place, but the word has not yet won acceptance and for the present we have been forced to adhere to the term hysteria in spite of its manifest disadvantages.

The object of this paper is to describe a method which we have found to be extremely useful in dealing with this type of war neurosis. It has been applied in upwards of 250 cases which have included all the most common types of hysterical disorder ; we have records of 82 cases of mutism, 34 of deafness, 18 of aphonia, 37 of monoplegia of the arm or leg, 46 of paraplegia, 16 of hemiplegia, and 18 of disordered gaits not associated with organic change. The majority of the cases have been of several months' standing, but in spite of this the treatment has been almost immediately successful in at least 95 per cent of the cases in which it has been applied.

The method is certainly not new, indeed it is probably employed in some measure by all who have had much to do with functional disorders, and recently several French neurologists have called attention to its value in the treatment of military cases.<sup>1</sup> However, very little reference has been made to it in recent English literature, and it is not easy to find any comprehensive account of the treatment of disorders of the hysterical type in the average text-book of medicine or even of neurology. At most we find a few lines devoted to the subject of

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\* Pithiatism was a term applied by Babinski to hysteria cases that were curable and not organic.

treatment, and we are left with the impression that our task is at an end when we have succeeded in establishing the diagnosis. In war-time this is obviously not enough: adequate treatment is essential, and it will make all the difference between a useless burden to the State and a useful civilian or even a useful soldier.

It is quite true that a correct (or rather a confident) diagnosis is the first step. Indeed, the most important part in the treatment of a functional case consists in making up one's mind that the case is functional. To do this presupposes a knowledge of the signs of organic nervous disease and the points of distinction between function and organic disorders. However, these have been described often enough, and it is our impression that failure in dealing with these cases is as often due to inadequate treatment as to incorrect diagnosis. For this reason we have dealt with the subject of treatment in some detail and have not attempted to discuss points of diagnosis.

The method to be discussed has the advantage that it does not require any special experience (other than that needed to establish the diagnosis), and only demands a certain degree of confidence on the part of the operator. When properly carried out it is extremely rapid and almost invariably successful, even in cases which have been treated by other methods for months or years without result. The method has its limitations, and in particular it does not apply to the exhausted, neurasthenic type of patient who complains of headache, insomnia, etc., and has no physical symptoms, but only to that type of neurosis where the disability is some objective symptom, paralysis, loss of speech, etc.

## THE AIMS OF TREATMENT

The different forms of treatment in vogue can be best understood by considering the mental characteristics of patients suffering from this form of neurosis. Though it may seem unjustified to make a psychiatric grouping of these cases, yet there are certain mental abnormalities which are present to some extent in nearly every patient. Indeed, anyone visiting hospital wards where functional and organic cases are treated together cannot fail to be struck by the great difference in the mental outlook of the two classes. The chief phenomena underlying the hysterical type of mind are weakness of the will and of the intellect, hypersuggestibility and negativism. The majority of patients are below the average normal intelligence as judged by the Binet-Simon scale, and others who are more highly equipped prove to have an unstable history either personally or in the family. Their hypersuggestibility is shown by the mode of production of their symptoms and by the ease with which the physician can suggest such conditions as anesthesia, contraction of the visual fields, etc. At the same time there is a pronounced element of negativism which may amount to a mere inertia or

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to an active, but not necessarily a conscious, resistance to the idea of recovery. Conditions of negativism are often seen on attempts at movement when the antagonistic muscles overact, when the patient moves backwards when he is told to move forwards, etc. The unconscious resistance is often well marked and must be broken down before any results can be obtained. A combination of hypersuggestibility and negativism may seem to imply a contradiction, but the two are not difficult to reconcile. The patient has a fixed idea that he is dumb or paralysed and he resists all criticism of this idea, but outside this he responds to external suggestions much more readily than a normal person. Indeed, the fixed idea is developed as the result of auto-suggestions acting on a mind enfeebled by fear and emotional tension and this autosuggestion becomes so strong that the patient resists all attempts to undermine his fixed belief.

These facts are important because they show that we must take into account two distinct conditions in considering treatment and prognosis. These are (a) the fixed idea which is giving rise to the functional symptom, paralysis, loss of speech, and so forth, and (b) the state of mind which has allowed this fixed idea to develop. The fixed idea can be treated successfully by suggestive methods and the patient can be restored to apparent health, but there is no reason to suppose that his mental instability will vanish. He will always be liable to develop hysterical troubles in moments of emotional stress and exhaustion, just as a man with a malformed chest will be liable to attacks of bronchitis. As Pitres said: "En réalité on nait hystérique, on ne le devient pas."\*

## PSYCHO-ANALYSIS

There is, however, one method of treatment which lays claim to the power of curing not only the hysterical symptoms but also the hysterical mentality. This is the method of psycho-analysis which is based on the idea that the hysterical type of mind is the result of a buried and unfulfilled wish dating from early infancy and concerned with some fundamental sexual longing. The idea was suppressed because it came into conflict with accepted notions of morality and conduct and its repression has led to a permanent state of tension and unconscious mental conflict. The hysterical symptom is supposed to be simply the emotional expression of the repressed desire or of some secondary conflict due to this desire. When the original infantile desire has been unearthed and explained to the patient, the repressed conflict will vanish and with it not only the hysterical symptom but also the state of mind which made this symptom possible.

It is difficult to avoid the belief that suggestion must play a large part in the cure of those cases where the treatment is successful, but it is not easy to judge of the

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\* "We are born hysterical, it is not something we become."

merits of psycho-analysis because its tenets seem to call either for whole-hearted approval or else for whole-hearted abuse, and the middle course is deplored by both parties. However, the method has certain obvious disadvantages, even though we accept everything which has been said in its favour. It entails a considerable degree of training on the part of the operator, and a considerable degree of intelligence on the part of the patient, and it is a process which demands a great deal of time and individual attention. Indeed, the course of treatment may run into years if a serious attempt is made to cure the hysterical mind by purging it of all the accumulated filth of a lifetime; and if the analysis is not carried through as thoroughly as this the state of tension will remain in some degree and the treatment will have little advantage over the much more rapid methods which are concerned only with the alleviation of the immediate symptoms. Whether the result would justify a lengthy psycho-analysis is another matter, but in any case the time at our disposal is not unlimited, and for this reason alone the treatment is best left to special hospitals dealing with specially selected cases.

## TREATMENT OF SYMPTOMS

We may pass on, then, to consider those methods of treatment which aim only at relieving the functional symptoms and do not profess to give the patient a new mind. There are three principles involved in all these methods—namely, (1) suggestion, (2) re-education, and (3) discipline. The aim of suggestion is to make the patient believe he will be cured, and to lead him on from this to the belief that he is cured. Re-education brings the disordered function back to the normal by directing it until the bad habit is lost, and disciplinary treatment breaks down the unconscious resistance of the patient to the idea of recovery.

One might add a fourth line of treatment, which consists in adopting the attitude of Mr. Micawber and waiting for something to turn up. Probably this course is often adopted because there is some doubt as to the diagnosis. When it is uncertain whether a paralysis is functional or organic it is perhaps natural enough to leave it alone in the hope that time will show the difference. Fortunately, a certain number of functional cases do recover when left to themselves, but a large number do not, and expectant treatment may keep a patient for six months in hospital when more vigorous measures would have removed his symptoms in a week. Moreover, the atmosphere of a hospital is distinctly enervating and a functional case is rarely the better for a prolonged stay in the wards even though the symptoms may have improved.



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### HYPNOTISM

As an example of a process which aims at curing by pure suggestion we may instance treatment by hypnotism. The treatment consists in reducing the patient to a state of mind in which his critical faculties are in abeyance and then suggesting verbally that his disability no longer exists. Most hysterical patients, being hypersuggestible, are very easy to hypnotise lightly. They will readily accept the idea that they cannot open their eyes or move their limbs and they will comply with any suggestion which does not relate to their disability. Unfortunately they are not nearly so tolerant when the suggestion touches their fixed belief that they cannot speak or that their legs are paralysed, and it requires a far greater ascendancy on the part of the operator before they will agree to suggestions which are curative and not merely ornamental. One has only to be hypnotised to realise this state of mind. Unimportant suggestions are readily accepted, but anything which runs counter to one's favourite prejudices is simply dismissed as absurd. With a patient who is intelligent and anxious to get well hypnotism may be extremely successful, and it is certainly of great value in the treatment of subjective troubles such as insomnia, fighting dreams, &c.,<sup>2</sup> which can scarcely be classed as hysterical. However, in the majority of functional cases where the resistance is at all marked our limited experience of the method has led us to believe that it is slow and uncertain in comparison with vigorous suggestive treatment and re-education.

### ISOLATION

As an example of treatment in which the disciplinary element is very much to the fore we may instance the use of strict isolation in hysterical cases. This supplies the needful stimulus to recovery by making the patient's illness a dreary and unprofitable business instead of a source of pride and satisfaction. For this reason it is extremely useful in cases of functional tremors and pseudo-chorea where the patient becomes quiet as soon as he is deprived of his audience. It is not suggested that isolation acts in this way in every functional disorder. The frightened, exhausted neurasthenic is often much happier when left to himself with nothing to disturb him, and it would be absurd to regard isolation as a disciplinary measure in such cases. But in those cases where disciplinary measures seem to be indicated we doubt if isolation is an advisable form of treatment. It may eventually force a patient to release his claim to a supposed disorder, but the process may take some time and is rarely as effective as a little plain speaking accompanied by a strong faradic current. Moreover, eight hours' rest out of the 24 is, to our mind, quite sufficient, and extension of that time in one who has no indication of physical illness is more liable to do harm than good. The disciplinary element may be assumed to enter into any form of painful suggestive

treatment; it is often unnecessary, particularly in those cases where the disability is irksome enough by itself and the patient is anxious to get well; but in many cases it is a very important part of the treatment since it is the only certain means of breaking down the patient's resistance to the idea of recovery.

## **PERSUASION**

Under the heading of re-education we might include the method of simple persuasion in which the patient is convinced by logical argument that his condition is not so serious as he supposes.<sup>3</sup> The difficulty with this form of treatment lies in the fact that a patient of average intelligence does not easily realise that his physical disability is due to a mental and not to a physical disorder. If an attempt is made to explain the real state of affairs to him he is generally left with the impression that he is suspected of malingering. It seems only natural to him that his cure should be brought about by some physical means, and therefore he will respond to some simple suggestive measure when persuasion or re-education would leave him untouched. In certain cases, notably in mutism and aphonia and in the spastic type of paraplegia, a rapid re-education is often quite enough by itself, but as a rule the patient will have greater confidence if he has received some preliminary suggestive treatment.

## **SUGGESTIVE TREATMENT AND RE-EDUCATION**

For this reason the method which we have finally adopted consists in a very brief suggestive treatment followed by rapid re-education, which is continued, if possible, without a pause until the normal function is entirely regained. The details will be discussed in dealing with the different functional manifestations, but there are certain general considerations which hold good in every case.

The suggestive treatment may take any form, but it is essential that the patient should be convinced that it will produce an immediate recovery. In untreated cases there is rarely any difficulty in this, and the conviction can be strengthened by using a form of treatment which will be capable by itself of evoking some part of the function which is temporarily in abeyance. For instance, a case of mutism may be cured by tickling the back of the mouth so as to induce reflex phonation. The patient is compelled to make a noise, and the fact that he has done so will convince him that the treatment will be effective. In the same way a strong electric stimulus will produce a sensation and motion in a limb which is supposed to be anaesthetic and paralysed, and this in itself will be enough to convince the patient that he is on the road to recovery. Occasionally this form of treatment has been tried before and has failed because the operator had not enough confidence in the method. In this case it is, of course, useless to repeat

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the same procedure, and we must fall back on some other form of treatment in which the patient will have greater faith.

The simplest form of suggestive treatment to apply is the faradic current. The therapeutic uses of electricity are still mysterious enough to the layman, and nearly every patient is willing to accept the suggestion that some form of electricity will cure him. The current can be made extremely painful if it is necessary to supply the disciplinary element which must be invoked if the patient is one of those who prefer not to recover, and it can be made strong enough to break down the unconscious barriers to sensation in the most profound functional anaesthesia. The only difficulty arises when the patient has already been subjected to a long course of electrical treatment without result. It often happens that a patient, either from mistaken diagnosis or mistaken ideas of treatment, has been given daily applications of some innocuous form of electricity in the belief that the electricity by itself will do all that is necessary. Such treatment, unaccompanied by the necessary suggestions, is generally quite useless in a functional case, and, as a rule, the only result is to accustom the patient to electrical stimuli and to foster the idea that his case is hopeless. It is easy to satisfy one's self that in these cases the sole value of electrical treatment lies in the suggestive effect it can be made to produce. We have watched a nurse administering the treatment to a paralysed limb, rolling the electrode up and down, sometimes with eyes shut and sometimes with eyes open, to say nothing of an occasional yawn. Needless to say, the patient remained paralysed, and the only result was so much current wasted. On the other hand, the same patient given exactly the same form of electricity with persuasion recovered completely in a few minutes.

When the patient tells us that he has already been treated by electricity it is as well to find out whether the treatment was painful or not. If it was not, the patient will generally yield at once to painful faradisation with a wire brush after he has been informed that this kind of electricity is far more potent than any he has had previously. If this, too, has been tried before, the suggestive treatment must take an entirely different form. As an instance of this we may quote the case, recently treated by one of us, of an officer who had a functional paralysis of the arm which had persisted for two years in spite of prolonged treatment by hypnotism, psycho-analysis, rest, massage, anaesthesia with ether, and electrical treatment which had included several extremely painful applications of electricity to the arm. He knew something of the functions of the brain and took a great interest in his condition, which he was prepared to discuss exhaustively. He was told that he had come to be cured, and that for the present he must be content with this; the nature of the cure would be explained to him afterwards. Without any further discussion the motor areas of the cortex were

mapped out roughly, the measurements being repeated aloud to impress and mystify the patient. He was told that as soon as the shoulder area of the cortex was stimulated by faradism he would be able to raise his shoulder and that the rest of the arm would recover in the same way. A very mild faradic current was applied for a few seconds to the scalp, and he was then ordered to move his shoulder. He did so at once, and in a few minutes the whole of the paralysis had disappeared and he could raise 30 pounds. We believe that the success in this case was due in a large measure to the fact that the patient was not allowed to discuss his case or to criticise the proposed treatment. The value of this will be pointed out immediately.

Whatever form of treatment is employed, the patient must be convinced that the physician understands his case and is able to cure him. This idea should be fostered from the moment the patient enters the ward. The case is investigated as briefly as possible, and each physical sign is accepted as perfectly normal in the circumstances, and not as in any way interesting or obscure. The best attitude to adopt is one of mild boredom bred of perfect familiarity with the patient's disorder, and if the case has to be exhibited to anyone else it is shown not as anything unusual, but as a perfect example of the type of case which is cured in five minutes by appropriate treatment. After the examination the patient is met with the absolute assurance that he will be cured as soon as the physician can find the time to treat him. He is told that he will not need to stay in hospital for more than a few days, and that he can write and inform his friends of this. It is usually necessary to find out what treatment the patient has had before to avoid the risk of repeating a procedure which has already been tried and found wanting, but apart from this it is better to avoid discussing the case and the methods which will be adopted to cure it. The barest statement should suffice, and the patient should be silenced at once if he attempts to air his own views on the subject. An argument in which the physician does not seem perfectly sure of his ground is likely to weaken his authority at the moment when it should be absolutely unquestioned, and an air of complete assurance is far more convincing than the most elaborate reasoning.

The treatment is best carried out in a special room set apart for the purpose, where there will be nothing to distract the patient's attention. As soon as the least sign of recovery has appeared the re-education is begun. The patient is given no time to collect his thoughts, but is hurried along by a mixture of persuasion and command until the disordered function has completely recovered. The patient is never allowed any say in the matter. He is not asked whether he can raise his paralysed arm or not; he is ordered to raise it, and told that he can do it perfectly if he tries. Rapidity and an authoritative manner are the chief factors in the re-educative process, and in every case an effort should be made

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to produce complete recovery before the patient goes back to the ward. If the treatment has to be discontinued before recovery is complete the patient should be assured that he will be quite well in 24 hours and the re-education should be continued as soon as possible.

There are many details which are best considered in connexion with particular hysterical symptoms, and therefore we shall describe the most common affections in which the suggestive method is pre-eminently successful. The most common disorder is the complete or partial loss of a normal function, and the most common functions to be lost are those concerned with hearing and speaking and with the sensation and motion of the limbs.

### DEAFNESS

As a rule, the patient is stone-deaf and often dumb as well and there may be associated symptoms, such as loss of vibration sense in the bones of the skull. The patient is told in writing that he will be cured in five minutes by electricity. The suggestive effect may be enhanced by the use of a darkened room, a head mirror, and so forth, but the essential treatment consists in applying a strong faradic current to the side of the head or to the external auditory meatus. The patient is informed that as the feeling comes back the current will appear more and more painful, and that in a very short time he will be able to hear the tick of a watch pressed against his ear. The current is applied for a few seconds at a time and increased in strength between each application. When the patient begins to show signs that the current is painful he is told that the feeling is returning and that he will soon hear perfectly. A watch (or a tuning-fork) is pressed closely against his ear between each application of the current and in less than five minutes he will begin to hear it. After a few more applications of the current he will be able to hear the watch at a distance of a foot or more. Sometimes he is able to hear the ticking of a watch, but is unable to interpret what is said to him. He is then re-educated, beginning with the vowel sounds, then with words of one syllable, then two, and so on, until he can hear perfectly.

If the other ear has not recovered at the same time it is a simple process to restore the hearing to it in the same way. The cure is usually complete in less than ten minutes, though it may take longer in patients who have been stone deaf for a year or more. In a series of 34 cases we have had only one failure. This was in a patient who had been deaf for over a year in spite of every kind of treatment. We saw him for a few minutes only and had no opportunity of continuing the treatment.

We have yet to observe any of the unpleasant after-effects which are said to arise from faradism in the region of the ear. It may produce a transient vertigo, and if

it is to be effective it must be strong enough to be painful. The patient may object to this at first, but when the hearing has been restored to one ear he is always perfectly ready to have the same process applied to the ear which is still deaf.

One has sometimes to deal with cases where faradism has failed to produce a cure, the failure is due to lack of determination on the part of the operator; he is either ignorant of the fact that the condition is one which always responds to suggestive measures, or he becomes too easily fatigued to see the thing through to a successful issue. In such cases some other suggestive measure must be adopted; for instance, the application of tuning-forks of different sizes, beginning with those in which the vibrations are slow enough to be felt rather than heard, and reducing the size gradually until the fork can be heard rather than felt. The re-education can then be completed by shouting down a stethoscope. However, in untreated cases we have found the electrical method to be invariably successful in a few minutes.

## MUTISM

When this is complicated by deafness it is, of course, natural to treat the deafness first, as this makes communication with the patient so much easier. As soon as he can hear the patient is told that his speech will be restored in the same way. A long pharyngeal electrode is used, and he is told to sound the vowel "ah" as soon as he feels the current. The soft palate and pillars of the fauces are stimulated, and as a rule he phonates loudly as soon as the electrode is applied; he is then told to repeat the other vowels, the letters of the alphabet, numbers, days of the week, etc., and he is soon able to enter into a conversation.

When mutism has existed alone it is often unnecessary to do anything more than tickling the back of the patient's mouth with a mirror or tongue depressor. This evokes some reflex phonation in the form of gurgling or retching, and the patient is then told to say "ah." The process is repeated until he can do this naturally, and it is then a simple matter to make him sound the other vowels and to repeat the whole alphabet in an audible voice. In still milder cases the patient will phonate loudly when he coughs or gargles, and he can then be made to sound "ah" by gradually eliminating the explosive element of the cough. In some cases the soft palate appears to be anesthetic, and the patient does not phonate when his throat is tickled. This difficulty can be overcome by applying a faradic current to the back of the throat. In a case which has been previously treated with electricity in this way some new form of treatment must be devised and every effort must be made to strengthen the suggestive effect. However, the condition is one which tends to clear up spontaneously, and most cases respond at once to the simplest suggestions.

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The first signs of voluntary phonation must be followed up immediately, and the patient must be given no respite until he can speak perfectly. He is, of course, instructed beforehand that the treatment will effect a complete cure, and he must not be allowed to go back to the ward whispering or stammering, even though he may regard this as an immense improvement on his former state.

### **APHONIA**

The patient is able to whisper, but cannot phonate properly. This may exist as a stage in the spontaneous recovery of a mute, but it is most often an after-effect of laryngitis. The patient can be made to phonate by tickling his throat or by coughing or gargling, and the whole process is simply one of re-education, which is usually complete in a minute or less. It is rarely necessary to use electricity.

### **STAMMERING**

A tendency to stammer sometimes shows itself during the re-education of a mute. It can be checked at once by re-education and simple suggestive measures, such as faradism applied to the back of the neck, but if it is not checked as soon as it appears it may become much more intractable. For this reason patients who have been allowed to recover their voice spontaneously may develop a bad stammer which takes some time to clear up.

### **BLINDNESS**

We have no direct experience of hysterical blindness in both eyes in military cases. Cases of monocular blindness or of defective vision, with no refractive error and no changes in the retina, are probably more often the result of malingering than of hysteria. Treatment by strong faradism in the region of the supra- or infra-orbital nerves is successful in either case, but it is generally found that the alleged defect can be remedied by a little plain speaking.

Hysterical affections of the other special senses and of the cranial nerves are relatively unimportant, and there is usually no difficulty in devising a suitable form of suggestive treatment.

### **PARALYSIS OF THE UPPER LIMBS**

Cases of paralysis of one arm are very common and very easily curable. As a rule they occur after some slight wound or bruise which has necessitated the use of a splint. The treatment can best be described by considering a typical

case. The patient has received a slight wound of the forearm some months ago, and ever since his whole arm has been useless. He can move it slightly at the shoulder by exerting what appears to be a superhuman effort, and he can occasionally flex the fingers through a small angle. There is complete anaesthesia of the hand and arm, ending in a line drawn horizontally round the elbow. The patient does not necessarily complain of this anaesthesia and there may be no sign of its existence until it is suggested to him by the physician, but it is often useful to elicit it in view of the subsequent treatment. The diagnosis is obvious at once from the absence of wasting, the distribution of the sensory loss, and the involvement of the whole arm after an injury which could not possibly have affected the upper arm and shoulder.

The patient is told that he is very lucky to have come off with such a slight injury, and that his arm will be set right in five minutes by the application of a special form of electricity. He is made to sit on a large pad electrode connected with an induction coil, the other terminal being connected with a wire brush. He is informed that the first effect of the current will be to bring back the feeling in the forearm, and that as the feeling returns the power will return with it. A fairly strong current is turned on, and the wire brush is drawn downwards over the forearm from the elbow to the wrist. After a few applications the patient is told that he can now feel as far down as the wrist, and he is tested with a pin to convince him of the truth of this. If he cannot feel the pin-prick, the current is increased in strength until he can do so. The same process is applied to the hand until this, too, ceases to be anaesthetic. The improvement is pointed out to the patient and he is told that as the feeling has now returned to his arm it will be a very simple matter to restore the power of movement.<sup>4</sup> After a few touches with the electrode designed to produce contraction in the muscles he is told to move the arm. He will do so at first in a hesitating manner with every appearance of great effort, but this will be quite enough to convince him that the power is really returning. The rapid re-education follows at once.

He is given no time to think, but urged to move the arm more and more strongly, to grip the physician's hand, to flex and extend the elbow, etc., and the pressure is not relaxed until the whole limb has returned to its normal vigour. If the improvement comes to a standstill before recovery is complete, the faradisation is repeated with stronger and stronger currents. Rapidity and an air of authority which will brook no denial are usually quite enough without this, and if once the recovery is complete there will be little fear of a relapse. If the patient's manner suggests that he is likely to relapse as soon as he leaves the hospital, he is told that this is very unlikely, but that if it should occur he should report sick at once and come back for treatment with a current far stronger than that already used. Needless to say it is rarely necessary to carry out this proposal.



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In untreated cases a very mild current is all that is required, but if, as often happens, the patient has been treated before with some form of electricity without suggestion it is better to begin with a current strong enough to be painful. If this has already been tried without success, it is better to adopt some entirely different line of treatment, as in the case of the officer already quoted.

### PARALYSIS OF THE LOWER LIMBS

Cases of monoplegia are treated in the same way as paralysis of one arm. In paraplegia the treatment depends to some extent on the type of paralysis. As a rule, a recent case of paraplegia due to "shell shock" or burial belongs to the flaccid type without exaggerated reflexes. If this is allowed to recover slowly it merges into the spastic variety with pseudo-clonus, exaggerated knee-jerks, and rigidity. Passive movements are resisted strongly, and when the patient attempts to put the flexor group of muscles into action the extensor group contracts at the same time and a condition of increased tone and clonus is set up. The condition is, of course, due to a disordered mental process and not to organic diseases in the central nervous system, and we may regard it as akin to the states of negativism which occur in dementia praecox. Whatever the explanation may be, the fact remains that this condition is very often seen in cases which have been badly treated, and in such cases it is often difficult to eradicate completely in a short time. The spastic condition often occurs during the re-educative treatment of a case of flaccid paraplegia, but it is then of little consequence, as the patient is allowed no time to acquire the habit.

In cases of flaccid paraplegia it is as well to restore sensation and movement to the limbs by treatment with faradism before the re-education is attempted. Otherwise the patient will simply collapse when set on his feet. In the spastic type it is often better to hold the suggestive treatment in reserve and to do as much as possible by re-education alone. The patient is told that all he needs is a little confidence in his legs, and he is then set on his feet and induced to walk. At first the greater part of his weight is taken by the physician, but in a few minutes he is made to bear his own weight and to walk with less and less assistance and more and more rapidly.

Certain details in the treatment deserve mention. It is perhaps unnecessary to insist that slippers without heels are not the ideal form of footwear when the patient is learning to walk. They encourage a shuffling gait, and frequent halts are necessary to readjust them. Indeed, the use of slippers and a stick would perpetuate a limp in any patient who had the least tendency to a neurosis. The re-educative treatment of a patient who cannot walk properly is best carried out in a large empty room, a corridor, or out of doors. He will not feel unduly

self-conscious as he would do in a ward full of patients, and he will have nothing to hold on to. If there is no alternative between walking and falling down the patient will usually find himself able to walk (once he has passed the earliest stages in re-education), but if a middle course is offered in the shape of a chair or a bed to which he can cling he will at once seek safety in this, and the more he is allowed to use his hands to support himself the less likely will he be to trust to his legs. At first the patient will seem to be continually on the verge of losing his balance, but, as a rule, there is little fear of this, and the idea should not be encouraged by supporting him whenever he seems in the slightest danger of falling. It is best to allow him as little assistance as possible. To begin with he should walk arm-in-arm with the physician, then facing him and holding his hands, then holding one hand only, and finally with no support at all. A fall should be avoided as far as possible, but it is of no great consequence if it does occur, for the patient will not be taken unawares, and will be unlikely to hurt himself. A fall should on no account be taken as an excuse for resting; it should be treated as a matter of course, and the patient should be made to continue his efforts until he can walk without falling.

If possible the patient should not be returned to the ward until he can walk without assistance of any kind, and on no account should he be allowed to use sticks or crutches, even though he has been paraplegic for six months. Until he has recovered completely he should not be allowed to walk except under the direct supervision of the physician; otherwise he will be liable to develop a functional gait or a limp, and a further re-education will be necessary. As in every functional disorder, it is extremely important to produce a rapid improvement during the first treatment and to continue this at the earliest possible moment until recovery is complete.

Precisely the same form of treatment applies to the patient with functional rheumatism, who walks with bent and trembling knees and a couple of sticks, functional hemiplegia, functional sciatica, and functional gaits of all kinds. As a rule it is found that the more serious the disability the easier will it be to cure; a case of complete flaccid paraplegia will often walk perfectly after an hour's treatment, whereas a man with a slight functional limp will need a re-education lasting for days or even weeks.

## **TREMORS, FITS, ETC.**

We have given a detailed account of the treatment of deafness, mutism, and paralysis because these cases are so easily curable with rapid suggestive and re-educative measures. They are all due to the absence or diminished activity of a

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normal function, and the treatment has only to recall this function to the patient's consciousness. Fortunately these cases form a large percentage of the hysterical war neuroses. There is, however, a group of cases in which the treatment is often successful, but by no means invariably. These cases depend not so much on the absence of a normal function as on its excessive and disordered activity. Functional tremors and incoordination, choreiform movements, and tic-like spasms are examples of this class, and we might include hysterical fits and even the stammering and explosive type of speech. Functional tremors are sometimes very easily cured by a little suggestive faradism, and fits may be stopped temporarily at least by suggestive measures. The patient is induced to have a fit by assuring him that he will do so when an electric current is applied to his forehead, and the fit is checked by supraorbital pressure or faradism to some other part of the body. The patient is then told that his fits are not epileptic and that they have been cured. As a rule he will have no more fits as long as he is in hospital, but he may relapse outside, and we know of several cases where this has happened. Indeed, the method is probably more valuable as an aid to diagnosis than to treatment.

Involuntary movements and hysterical chorea may yield to rapid suggestive methods, but isolation is a more reliable form of treatment, although it is at the best a slow process.

Functional contractures deserve a place by themselves. When they are truly hysterical they will usually yield at once to suggestive faradism with a moderately strong current. But it is sometimes extremely difficult to make certain that the condition has not some organic basis. Babinski and Froment have collected a number of cases described as reflex nervous disorders and having an organic origin, although they show a superficial resemblance to the hysterical contractures.<sup>5</sup> These cases are generally intractable, and so far no line of treatment has been found to have much effect on them. We have seen four or five cases which could be included in this category, and in them suggestive treatment was certainly quite ineffective.

For the sake of completeness we should mention a method of suggestion which is often employed with good results. This consists in anaesthetising the patient and making the necessary suggestions to him as he is going under or coming round from the anaesthetic. To a certain extent the process may be compared with hypnotism in that the suggestions are made at a time when the critical faculties of the patient are dulled; but the main advantage of the method lies in the fact that in the stage of excitement the patient will struggle, cry out, etc., and that he will often regain consciousness whilst he is in the act of moving the arm which was formerly paralysed or using the voice which was formerly dumb. The method demands an anaesthetist who will be able to produce a long excitement stage, and the results are to some extent a matter of luck. This furnishes the

chief objection to the method, for if it fails the patient will have some excuse for taking a gloomy view of his case, and he will be naturally skeptical of less heroic methods. However, we have little direct experience of the method, as we have not found it necessary to employ it.

## PROGNOSIS AND AFTER-TREATMENT

The treatment of a functional case does not end at the moment when the disability has been cured, and we have always to determine how much the patient may be safely called upon to do without fear of a relapse. This will depend on how far the underlying mental condition is a permanent state and how great a strain was necessary to lead to the development of the symptoms. If the patient gives a history showing pronounced mental instability or previous functional troubles before the war, and if he has lost the use of his legs after a few days in the trenches, it is clear that he will never be of the least value at the front, and he is probably best employed in a labour unit at home or on sedentary work. If he has served several months in the fighting line, and has then lost his voice after a week without sleep and a severe bombardment, he will often be perfectly fit again after a short rest, and he will show only the slightest signs of the hysterical temperament. He may relapse under an equally severe strain, but if his cure has been rapid and complete on the first occasion he will have less reason to fear a relapse and to regard a temporary loss of speech as a serious and intractable condition. It is another matter if he has been allowed to remain dumb for six months in hospital, for in this case he will have every reason to regard himself as the victim of a severe form of "shell shock," and he will probably be quite unfit for service in the fighting line.

In all cases a thorough examination of the past history and mental condition must be made before we can decide what form of service will be most advantageous to the patient and to the nation. In the more intractable conditions—tics, convulsions, &c.—the patient may be able to do some useful work with a labour unit, but it is often better for all concerned to return him to civilian life.

In conclusion, we wish to express our thanks to the medical and surgical staff of the National Hospital, Queen Square, and to Lieutenant-Colonel W. Turner, officer in charge of the Connaught Hospital, Aldershot, for permission to publish these notes.

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### NOTES

1. Vincent : *Le Traitement des Phénomènes Hystériques par la Ré-éducation Intensive*, Tours, 1916. Babinski et Froment : *Hystérie-Pithiatisme, &c.*, Paris, 1917. Rosanoff-Saloff : *Considérations Générales sur la Camptocormie*, Nouvelle Iconographie de la Salpêtrière, 1916-1917.
2. Cf. Hurst: *Medical Diseases of the War*, 1916.
3. Dubois: *Psychic Treatment of Nervous Disorders*.
4. The layman seems to consider that loss of power and loss of feeling are inseparably connected. One of us asked 100 persons of average intelligence whether they would lose the sensation in their hand if for any reason it became paralysed. Due care was taken to avoid suggesting the answer, but in every case they replied in the affirmative. This idea may account for the development of anaesthesia in functional paralysis, and it is easy to see that a patient will accept the suggestion that his paralysis will recover when his anaesthesia has been cleared up by electricity.
5. Babinski et Froment : *Hystérie-Pithiatisme et Troubles Nerveux d'Ordre Réflexe*. Masson et Cie. 1917.

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## Appendix 8

### REMARKS ON SOME NEUROSES AND PSYCHOSES IN WAR

A.W. Campbell

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*"Remarks on some Neuroses and Psychoses in War," The Medical Journal of Australia, 1, 16 (15 April 1916): 319-323.*

*Alfred Walter Campbell was born in New South Wales, Australia in 1868. He attended medical school at the University of Edinburgh and worked in several British mental hospitals including the National Hospital at Queen's Square. In England he performed pioneering research into the cytoarchitectonics of the primate cerebral cortex and produced an influential book length study titled Historical Studies on the Localisation of Cerebral Function.\* He returned to private practice in Australia in 1905 and after the outbreak of war in 1914 enlisted in Number 2 Australian General Hospital, working at the hospital in Egypt. Campbell's description of the shell shock cases he treated there, which were largely evacuated from Gallipoli and Salonika, are similar to those from the Western Front. Like Russel and Myers, Campbell drew links between civilian cases of hysteria and neurasthenia – especially the traumatic neuroses and cases of the "litigious neuroses" described by Osler – and those observed in the trauma wards of military hospitals. While his description of symptoms and treatment are relatively straightforward, he posits that most cases are the result of a hereditary "neuropathic or psychopathic infirmity" which was "the fundamental cause of [the patient's] downfall." This link between shell shock and a patient's family history – that individuals were either predisposed or immune from the possibility of breakdown – put the burden of disease firmly on the patient's shoulders. It foreshadows the postwar conclusions of the pension granting bodies and the public health officials responsible for overseeing veterans' return to civilian life.*

**D**uring a year of service with No. 2 Australian General Hospital, comprising the time that operations were proceeding at the Dardanelles, it was vividly demonstrated to my fellow-officers and my self that neuroses and psychoses contributed to modern war casualty lists more heavily than we had previously supposed. There were times when the wards allotted to my charge were almost monopolized by such cases. Probably hospitals stationed at Cairo, as ours was, received an extra influx of these men, because in the process of filtration from firing-line to base they would pass through before the fevered sick and seriously wounded. Be this as it may, it was manifest that these conditions among Australian troops were frequent; and their importance, both from medical and

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\* M.J. Eadie, "A.W. Campbell's Australian Career: 1905–1937," *Journal of Clinical Neuroscience* 8, no. 6 (November 2001): 514–519.

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military points of view, may justify these lines, written as an addendum to observations made in other fields.

### CLASSIFICATION

To find a continent classification is not easy, because there is so much overlapping, but for descriptive convenience the conditions may be divided into:

- (1) Neuroses involving the motor apparatus and common sensibility.
- (2) Neuroses involving the special senses and the faculty of speech.
- (3) Neurasthenia and other conditions, including “trench spine”.
- (4) Psychoses.
  - a. Minor
  - b. Mental Stupor
  - c. Insanity

### 1. NEUROSES INVOLVING THE MOTOR APPARATUS AND COMMON SENSIBILITY

This heading embraces cases of hemiplegia and other paralyzes and pareses and contractures and spasms, with or without disturbance of common sensibility.

The conditions were often reminiscent of what the civil practitioner knows so well as resulting from railway and tramway accidents, and would present as much difficulty in diagnosis and treatment; some few cases would have passed as candidates for the “litigious neurosis.”

Just as the disability assumed diverse forms, too numerous to specify, so they affected younger and older men indiscriminately, and so likely the cause varied. For example, a sergeant wearing the South African ribbon states that he was buried with earth from a percussion shell explosion, and that, on regaining consciousness after 48 hours, he had excruciating pains in the loins and head and a powerless right leg, which had persisted. Though from the beginning we suspected a neurosis, we did not feel sure of our position until one of our surgeons and our radiographer had contributed their opinions. Another, an artist by profession, and highly strung, was grazed on the arm by a falling shell-case, lost his balance, and went over a rocky slope. Stretcher-bearers

found him complaining of great pain and inability to move limbs or trunk, He came to us with exquisite spinal rigidity, unable even to turn in bed, and with his arms in splints, and though of fracture there was none (X-ray) it took some days to convince ourselves and some weeks to convince him that his trouble had no organic basis. Again, in two instructive cases of hemiplegia with hemianaesthesia the responsible cause was a shell-burst close at hand; one man lost consciousness, the other did not. And again, in others, we would find a neuropathic spasm, contracture or paralysis grafted upon a wound.

On carefully examining such cases, we seldom failed to find positive indications that the affection was a neurosis. Thus, in a paralysis of the leg the loss of movement would be exaggerated, in some way different from an organic paralysis and would have its nature revealed by one of the various tests to distinguish organic from functional lesions. Tapping the patellar tendon might evoke a movement violent as it was unreal, and a second tap on the head of the tibia, normally resultless, might bring forth a movement even more violent; moreover, neither quadriceps nor ankle clonus, nor the extensor plantar reflect of Babinski would be present.

Similarly, the contractures and spasms were often peculiar, first, in selecting unusual muscles or groups of muscles, for instance, the *trapezium*, the *quadriceps femoris* or the *erector spinae*; and, secondly, in being unattended by the concomitant phenomena to be looked for in cases having an organic basis, such as alteration of the reflexes, tender nerve points, definable sensory change, etc., pointing, it might be, to a focal source of irritation in the spinal cord or nerves, or to an inhibitory defect in higher centres.

Likewise, the anaesthesia was anomalous, its distribution would not fit in with a lesion of brain, cord or peripheral nerves. Moreover, anaesthesia to light touch and pin-prick might be complete over a certain area, but would not be associated with loss of deep sensibility. And, again, different kinds of anaesthesia might be suggested by the examiner.

Turning to those having wounds, apart from cases of temporary wrist-and foot-drop, without territorial sensory loss, proving nerve lesion, of which every medical officer saw examples, there were puzzling cases of paralysis or paresis of muscles or limbs, in which there would be no evidence of nerve injury, no interference with galvanic or faradic excitability, and no vasomotor or tropic change, and in which X-ray examination might show no sign of bone injury. In attempting to explain these we thought of several psychic possibilities: (1) That an emotional subject, with a limb fixed in an abnormal attitude by apparatus or by contraction of antagonistic muscles, would be unduly apprehensive of the pain which movement might induce, just as in the child suffering from infantile



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paralysis, memory of the agonizing pain felt in earlier stages will long prevent movement of the affected limb and obscure the real degree of paralysis; or (2) that from long disuse, loss of mental representation of the movements and of the muscle sense and the sense of posture had occurred; or (3) that the patient had a fixed idea of the incurability of his injury; or (4) that contractures which might be present were hysterical. And, regarding hysteria, I may here mention a case of hysterical hemiplegia occurring homolaterally to a trivial wound of the head, and one of hysterical monoplegia and anaesthesia of the arm, referable to a severe injury sustained nine years previously, an injury which had left scarring of the forearm and stiffness to the index finger.

From the foregoing, it is evidence that there is no end to the variety of these so-called functional affections of the motor apparatus and common sensibility, and that to secure effective treatment one must be constantly on guard to detect the real nature of the condition. I need only add that in virtually all the case we saw there were concurrent individuals of nervous instability and psychic shock, such as tachycardia, epigastric pulsation, tremor, sighing, hyperidrosis, polyuria, insomnia, night terrors, hyperemotivity and anxiety.

## 2. NEUROSES AFFECTING THE SPECIAL SENSES AND SPEECH

Of this group of disorders, we saw numerous examples. Almost without exception the subjects were young and obviously neurotic; many had a tainted family history, and in most the cause was a severe shock, such as a shell explosion close at hand, lifting them in the air and burying them with debris, and perhaps, but not necessarily, rendering them unconscious.

Cases of speech affection, aphonia, anarthria or mutism, or stammering, were most frequent. After the early August fighting at Anzac we received five from one convoy.

The mutism might be absolute, the attempt to speak completely futile, or indicated only be a feeble movement of the lips and a faint expiratory puffing murmur or by the repetition of a sound like "gar, gar, gar." One bugler boy, with a gesture of annoyance, said in writing, "I can speak if the listener will be patient." On exercising the called-for-patience the listener heard a faint and slow but intelligible whisper. In others, speech, though possible, was laboured, scanning and low pitched, and others exhibited a decided stammer.

It was our practice in the case of patients admitted with neuroses to request them to write their own histories. These were often interesting, and from the cases under discussion we gathered that they complained of nothing but the

disorder of speech. On analysis the more severe and typical causes we found that they would not bear comparison with the cases of organic aphasia, in particular because they showed integrity of the higher factors concerned in speech. Thus, on the positive side, they were perceptually and intellectually perfect, their thought processes seemed to be normal, they could enjoy readings, and they could propositionize in writing clearly and fluently (hence they were not wordless); also emotionally they would react to remarks made to evoke surprise, joy, disappointment, etc. Whereas, on the negative side, they merely exhibited loss of articular power, associated sometimes with loss of power to protrude the tongue and shape the lips, and sometimes with the loss of volitional control of the respiratory mechanism. Essentially, therefore, they differed from cases of classical aphasia, and, for this reason, as a designation, the term mutism is preferable. And, since all of the higher factors concerned in speech were intact, it would appear, as surmised by Mott, that we had to deal simply with a temporary inability of volitional control of centres governing the regulating of the respiratory and muscular apparatus of the speech mechanism.

Though the duration of the disability varied, perfect recovery as regards the proximal affection was the rule. Hence, from the beginning, encouraging and hopeful suggestions could be thrown out. Commonly, after allowing them a day or two in which to settle down, we would suggest that at our next visit they would be able to whisper, the suggestion usually took effect, and ordinary speech soon followed. One mute man was heard talking in his sleep, and so gave us a useful psycho-therapeutic lever. The kink in the mechanism was occasionally undone by a sudden and unexpected surprise. A “whisperer” who had resisted suggestion for a fort-night, and who stated that he used to “take fits” when a boy, loosened his tongue with an outburst of profanity after a fall downstairs. In this connexion, one is reminded of Dr. Hughlings Jackson’s story of the jibbing “bus hose,” which stubbornly refused to respond to the blandishments of the drivers, but moved on when the conductor slammed the backdoor of the vehicle, the customary starting signal and stimulus. This animal could not exercise its will to move, so likely these mute men could not exercise their will to speak.

Blindness – Causes of blindness due to psychic shock, inaptly called “shell blindness” were in our experience infrequent. One boy was struck blind within a few minutes of the landing at Anzac on April 25, 1915. He was invalided to a hospital in Egypt, made a rapid recovery, and was unadvisedly returned to the front, where the first exploding shell brought a recurrence to his affection.

As in the mute cases, so in these; beyond the mere loss of vision and the emotional disturbance following shock, there was no ailment or noteworthy change. The patients would lie in bed with staring eyes and dilated pupils, declaring

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that they could not distinguish light from darkness. Examination would show neither abnormality of the external parts of the eye nor the fundus; the pupils would react to light, and there would be no nystagmus nor oculo-motor paresis.

In treatment, suggestion was again a valuable aid. They could be coaxed to recovery day by day, first to distinguish light from darkness, and subsequently to recognize form, colours and letters.

Deafness – Instances of psychic deafness were still less common; but we have notes of several cases in which the defect was unilateral, and complete alike to air and bone conduction, and in which there was no positive evidence of trauma, in the shape of haemorrhage from the ear or rupture of the tympanum, and no sign of labyrinthine disturbance.

In one remarkable case there existed the triad of left-sided deafness, left-sided hemianopia and aphonia. The subject was a hysterical youth, who soon shed his disabilities.

In summary form it may be said with truth that all these neuroses that involve the faculty of speech and special sense carried a suggestion of exaggerated hysteria. Also, the immediate causal factor in all was alike; emotional shock contributed to in varying measure by physical fatigue and mental strain. Some, perhaps, were paralyzed by fear; but not all; the courage of some was unequivocal; one mute boy had fought well for three successive days and taken part in a heroic rescue of one of his officers before being stunned by a mine explosion, as was corroborated by one of his company sergeants, who happened to be lying in the next bed.

Finally, to speculate concerning the localization of the disturbance is, in my opinion, fruitless. Having regard to the complex nature of the speech functions, the statement made by some that in cases of mutism the frontal lobe must be functionally damaged is absurd. Also, in cases of blindness and deafness, it is impossible to show on what part of the apparatus the abrogation of function specifically falls, whether on the periphery, or on centres where the impressions impinge, or on higher centres, where the impressions are interpreted.

### 3. NEURASTHENIA AND OTHER NEUROSES

Among other neuroses brought out by the strain of firing-line conditions we observed various degrees of what is denominated neurasthenia, but this was not so frequent as we anticipated. Prolongation of the strain, however, may add to the number.

As a rarer condition, we saw an excellent case of hemichorea\*, with movements of face, trunk and limbs on one side so violent that the subject was unable to walk, use a bed-pan or take food unassisted; his speech also was jerky. This was the outcome of trench fighting, but he had had a similar attack four years previously, and, what is more important, his mother and sister had suffered in a similar way, so that it may be regarded as of the nature of a mimetic affect or tic.

Another remarkable case was one of acute and most severe exophthalmic goiter\*\* developing almost immediately after a period of unconsciousness due to a shell explosion. This man was 35 years of age, and presented a pulsatile enlarged thyroid, manifest exophthalmos, von Graefe's sign (slightly), some general muscular rigidity, very active tendon reflexes, coarse tremor of the hands, incoordination of the arms, tremor of the tongue, ataxic speech and profound cardiac arrhythmia, causing critical fainting attacks.

"Trench Spine," Spinal Concussion or Shock. – "Trench Spine" is supposed to be akin to railway spine, but usually the subjects are not inherently neurotic, nor are the clinical phenomena suggestive of simple "functional" disorder, hence it is very doubtful whether the condition should be included among the neuroses. I write of it only because in the minds of some further observations are needed.

We saw twelve cases; therefore, the condition is not infrequent.

In regard to the cause, the histories varied. Some were knocked down by the "windage" of a shell exploding behind them, one "was buried up to the neck in a trench by the explosion of an 8-inch shell," another sitting in a "dug-out" was covered with earth by a percussion shell, one was "blown up by a mine," and so on. Since consciousness was invariably obliterated by the explosion, none of these patients could give one an exact idea as to the part a crush or fall or other factor over and above the "windage" place in the production of the disability. It is probably, however, that the sudden atmospheric rarefaction was the essential cause.

According to their statements, on regaining consciousness they had general pain, more intense across the small of the back than elsewhere, and they were unable to move one of their legs or more often both; the majority had retention of urine, lasting up to 48 hours, some had haematuria, and some vomited blood more than once.

On admission to No. 2 General Hospital, some five days later, the condition would be considerably ameliorated. The paralysis would be less; the patients might even be attempting to walk. There would be no spasticity, and the knee

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\* Hemichorea refers to an abnormal involuntary movement disorder that occurs on one side of the body.

\*\* Exophthalmic goiter refers to hyperthyroidism, including thyroid enlargement, and protrusion of the eyeball.

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jerks would be absent or exaggerated (probably in the early stages they would be absent). They would still suffer from lumbar pain, and the lower lumbar vertebrae would be tender on percussion, and movement in bed or an attempt to walk would aggravate the trouble.

Frequently we found an interesting disturbance of sensibility, which, so far as we are aware, has not been mentioned by other observers. In the lumbo-sacral region, over a sharply defined area, varying in extent, by approximately corresponding with the distribution of two or more sacral roots, usually the third and fourth, there was anaesthesia to light touch and pain, or hyperaesthesia to pain, which preservation of the tactical sense, or slight tactile loss.

It is singular that in all these cases the concussion effects were confined to the lower end of the cord; we saw none involving the cervical region, although we believe that this does occur. Also, it is remarkable that in none where there signs of permanent abrogation of function. While recovery was delayed, and for several weeks after rising from their beds they would walk with bent spine, they ultimately left hospital with promise of recovery.

On the pathology of the condition a chapter has to be written. For the present, we can only speculate, thinking of an initial displacement of cerebrospinal fluid of substance operating with transitory effect on the whole nervous system, and of a residual disturbance of the lower spinal segments, consisting of air formation in capillaries, emboli, minute softenings and haemorrhages, and oedema in the substance of the cord, resembling what has been found in caisson disease. The paralysis of movement, sensibility and bladder point to some such change, super imposed upon local bruising.

## 4. PSYCHOSES

(a) **Minor Conditions** – Men unable to withstand fire, “gun shy” men, constituted a considerable group, which may be briefly considered. These were not necessarily wanting in courage, many of them, possibly self-goaded, continued on duty for weeks before parading sick. Some were finally knocked out, but not wounded by an explosion of some kind. Some had an overwhelming dread of aeroplane bombs only; some, having previously received a slight wound of the head, had been invalided back and not given way until their return to the firing line.

Such cases would be admitted with various benign diagnoses, “mental or nervous chock or strain,” “shell-shock,” “stupor,” “loss of memory,” etc., and on admission the patients might appear to be in normal health. Future observation, however, always showed signs of psychic disturbances, such as restless, nervous

demeanour, easy excitation, insomnia and disturbing dreams. Those acquainted with and willing to give their family history might reveal a psychopathic tendency. Others might refer their failing to some incidence of boyhood. Thus one had been morbidly “impressed by a street fight, and thereafter could not bear the sight of blood”; another had been terrified by tales of a hairy man. Again, cases were provided by professional men and skilled artisans with abnormally active and inventive brains, whose fibres were ever at high tension. Others again had the seeds of their collapse sown during the period of training, with its attendant anxiety and excitement.

All of these men could give a harrowing account of their mental suffering and of the paralyzing effect of battle incidents. Their statements and some written description were not only impressive but instructive in showing that the fundamental process was one of psychic shock, exhibited by a temporary paralysis of action, or a confusional fugue, or transitory obsessions and fears that something dreadful was about to happen, not necessarily to themselves, possibly to their comrades. In this state, an officer could be as incapable of giving orders as a man would be of obeying them, either would be impelled to lay prone in his “dug-out” or any cover, trembling and in a cold seat, suffering an agonizing paroxysm of what Janet would call “psycholepsy.”

To these might be added the group of men given to psychasthenia, hypochondriasis and introspection, who had experienced some previous illness, or operation, or slight wound or fracture, or who had slight varicocele or varicose veins, or some similar affections, upon which their minds were anchored and which a normal subject would disregard. Such cases swelled the admission lists, and were a source of trouble to medical boards. Commonly, they were credited with malingering, perhaps unjustly, because the inherent psychopathic basis was the true cause. Be this as it may from the service point of view, they were a useless load.

**(b) Mental Stupor** – We also saw a few examples of transient mental stupor, anergia or acute dementia. In the more severely affected there might be complete unconsciousness, general muscular rigidity and impairment of papillary light reflexes, while the milder cases might merely exhibit degrees of dullness, hesitancy and apathy, indifference to surroundings, sluggishness of movement and a dazed appearance and demeanour, suggesting recovery from some terrifying experience. A young New Zealander, whose two brothers had been killed beside him, showed a portion of his hair turned grey by the shock.

All these cases occurred in young men who would be called nervously unstable. Sudden onset of shock symptoms and temporary loss of memory for subsequent events were the rule. Unconsciousness, if present, was usually

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regained suddenly, and its duration could be measured in days. Similarly, in all cases the restful environment, attentive nursing and abundant diet of hospital life soon brought relief of symptoms.

(c) **Insanity** – Finally we come to cases of actual insanity, that is, cases which in civil practice one would not hesitate to certify for treatment under restraint, and which, by request of the House of Commons, were humanely indicated by the non-committal designation “nerve strain.”

From the small number of admissions to No. 2 Australian General Hospital, we received the impression, contrary to expectation, that attacks of definite insanity were little, if at all, more frequent among out troops than they would be in a similar body of men under peace conditions. At no time did we have more than half a dozen cases under treatment. Nor was the Gallipoli landing or subsequent occupation followed by a special influx. Of course, some went to other general hospitals, and a certain number to the State Mental Hospital at Cairo, but from enquiries made, we gathered that we received a full share.

In these cases, as might be expected, the delirium, the delusions and the hallucinations had a war colouring; illustrated by the officer who, in spite of a good fighting record, was acutely melancholic under the delusion that he was regarded as a coward, and who imagined that he heard men in the next room talking to this effect; and by the man so mentally confused as to mistake a “medical board” for a court martial, and at every visit ask when he was to be shot; and the maniac who psychically substituted pillows and barred windows for hand grenades and Turks.

But, taken as a whole, the types of insanity did not differ from those seen in civil practice, and forces one to conclude that the active service produced no special nosological disorder of mind.

## GENERAL CONSIDERATIONS

**Aetiology** – It has been incidentally mentioned, in describing the neuroses, that they commonly followed on periods of unconsciousness or on emotional shock, and phases of intervening mediation, and the effects of physical fatigue and mental strain have been alluded to, but, as a causal factor standing over and above all these, we wish to emphasize the importance of predisposition. Time after time, on going into the family and personal histories of such cases, we found evidence of neuropathic or psychopathic infirmity, and this was the fundamental cause of their downfall.

**Prognosis and Treatment** – Concerning the neuroses, recovery from the proximal and immediate disability could be expected, and many subjects later might prove useful and efficient on lines of communication, or at a base depot; but, as regards further fighting, all, which one stroke of the pen, might be crossed out as “permanently unfit,” and in doing this, a pang of regret would be felt that their primal weakness was such as to defy detection prior to enlistment.

Treatment, as in all ideo-obsessive states, called for care and judgment. To gain the confidence of the patient and place him under tactful nurses were essential preliminaries, prior to attack with all the psycho-therapeutic measures under command.

For affections of the motor apparatus, massage proved very useful.

Without being malingerers, these men generally exaggerated their disability, and, as carriers of psychic contagion were a source of danger in a war, therefore we always endeavoured as far as possible to isolate them. From each other they received no sympathy. Further, it should be prerecognized that to save resistive cases from acquiring the invalid habit, the shorter their stay in hospital and the sooner they resume civilian garb the better. Also, it cannot be too plainly indicated regarding men who have to be returned to Australia that stringent measures should be formulated and forewarnings given for dealing with them on the transport, and on disembarkation and prior to discharge. This is a continuous critical period, during which they must be guarded with the utmost tact and circumspection against themselves and their friends and a grateful country.

The treatment of mental disorders in general hospitals like those in Egypt is liable to be unsatisfactory, because, to obtain isolated and suitable rooms and exercising grounds is difficult, also, skilled orderlies of a sufficiency are not always on hand. Later, when amelioration in a case prompts removal, one thinks of a recurrence and a disaster on the transport. These difficulties, however, are not insurmountable. Either a small special hospital could be established, and from its staff details drawn for transport duties, or a medical officer and a sufficiency of orderlies or nurses, skilled in the management of mental cases, and, at the same time, able to perform ordinary duties if needed, could be attached to each general hospital.





# Chapter 2

## **MALINGERERS, IMBECILES, AND HONOURABLE WOUNDED: THE PENSION QUESTION AND POST-TRAUMATIC ILLNESS, 1918-1939**

“**W**ith the passage of almost eight years since the end of the Great War the problem of the shell-shocked soldier still remains,” read a 1927 editorial in the *Lancet*, “The question of the war neuroses has proved to be not merely a medical one, but a social one also. Why do the shell-shock cases still remain? Is the war neurosis a specific nervous disorder arising out of very definite conditions? What can society do with those whose power of adaptation seems to have been destroyed beyond repair?”<sup>1</sup> Although the guns had fallen silent, for many patients and their doctors the war lingered on.

Nineteen-hundred and eighteen marked the end of the war, but not the shell shock debate. In the interwar period, old issues about malingering and legitimacy continued to dominate the medical discourse. With the fighting over, the most important question was who deserved a pension and who did not and politicians turned to medical science to help guard the public purse. At the same time, doctors were eager to reassert their expertise and to recover professional authority following a trying war that produced more questions than answers. In the 1920s, they publicly compromised and used the doctrine of predisposition to weed out the deserving ex-soldiers from the undeserving and thus continued the wartime policy of differentiating between “shell shock – wounded” and “shell shock – sick.” The medical knowledge they used was more successful at protecting the public purse and medical reputations than at treating traumatized soldiers. By the end of the 1930s, doctors understood shell shock little better than they had in 1914.

When the war ended, Great Britain and the Empire were faced with the reality that thousands of soldiers had to be brought home and reintegrated into society. Re-establishment, reconstruction, or repatriation was a complex process that involved pensions, training, employment, medical care, and the allotment of land. The First World War really had been a life and death struggle and, as Desmond Morton and Glenn Wright point out, soldiers had entered into a covenant with their governments.<sup>2</sup> They had agreed to put their lives and bodies in harm’s way to ensure the survival of the nation, and they consequently believed that the state had a reciprocal obligation. The governments in London, Ottawa and Canberra did not necessarily disagree, but the war had left them owing billions and the cost of civil re-establishment would have to be limited as much as possible.

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Military pensions were not new in 1918 and had existed in Great Britain in one form or another since the mid 1700s.<sup>3</sup> In Canada, veterans of the War of 1812, the Northwest Rebellion, and the South African War had benefited from some form of soldier land grants and, in the case of disability, a meager pension.<sup>4</sup> In the past, the size of a soldier's pension depended more on his rank than his injury. In 1905, for example, a Canadian Colonel who was fully incapacitated was allowed a maximum of \$1,800 per year while a private could expect only \$220.<sup>5</sup> In Great Britain, state payout to soldiers had been historically supplemented by a web of charity organizations such as the Royal Patriotic Fund and the Soldiers' Help Society which supported veterans and tried to ease their transition to civilian society.<sup>6</sup> Generally speaking, however, the wars of the British Empire had been small-scale affairs compared to the Great War, fought mostly by professional soldiers rather than citizen armies. In an era when employers disputed their obligation to pay for workplace injuries, the burden placed on the public purse by ex-professional soldiers was limited. In Australia it was non-existent.<sup>7</sup> The mass citizen armies of 1914-18 raised new problems and there were few modern precedents to follow. One thing was certain, Great Britain and her Dominions were anxious to avoid the "pension evil" that had dominated American politics after the Civil War.

Following Appomattox, the American government instituted a broad program of pensions for veterans. Loopholes in the legislation, proactive pressure groups, and a penchant for litigation meant that the government paid out billions in pension dollars to its former soldiers, healthy or otherwise, and sometimes to "deathbed brides." From the outset of the Great War the British, Canadian and Australian governments were determined to avoid a similar calamity and doctors and politicians set about creating what they hoped would be a foolproof system to save the public purse from financial ruin.

In the Empire, pensions were administered by national governments. In Great Britain the Minister of Pensions presided over a number of medical boards, special committees, and councils all tasked with evaluating, adjudicating, and paying out pensions. The situation in Australia was similar in the Repatriation Department; in Canada, the responsible body was the Department of Soldiers' Civil Re-Establishment, later called the Department of Pensions and National Health. The procedures for determining a pension – and thus completing the process of demobilization – were also alike.

At demobilization, soldiers in all three countries appeared before a medical board composed usually of general practitioners which determined whether the patient required further treatment or whether he could be discharged. If further treatment was required, he was forwarded to a government-run or -funded facility. Often "treatment" consisted of re-training and re-education

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designed to teach the soldier skills that would lessen the impact of any war injuries and thus decrease the state's obligation to compensate him for lost income. This was the essence of the pensions system throughout the Empire: a pension was to be awarded not for the injury itself, but for the damage that the wound caused to a soldier's livelihood and normal abilities. "A man is not pensioned because he has lost his eyes, but because, having lost his eyes, he cannot see," wrote Lt. Colonel J.L. Biggar of the Canadian Army Medical Corps, "He is not pensioned for a wounded shoulder, but because he had lost his full ability to use his arm. In other words he is pensioned for the loss, partial or complete, of a normal ability; which, in fine, is the exact meaning of the word disability."<sup>8</sup>

In all three countries, securing a pension was contingent on the soldier's ability to demonstrate that this "disability" was directly related to war service.<sup>9</sup> The operative principle was "attributability": an injury had to be shown to have occurred in the line of duty or that it had been aggravated by military service.<sup>10</sup> For amputees and gunshot wound victims this was a relatively straightforward process. For many, though, the link between their war service and their disability was more tenuous. Was a soldier who was gassed in 1916 but recovered entitled to a pension when diagnosed with tuberculosis a decade later? What about soldiers who contracted consumption while still in uniform?<sup>11</sup> The most difficult pension cases to prove, however, were cases of shell shock.

The pension issue made sure that the debate over the aetiology of shell shock remained at the front and centre of the discourse. After all, if shell shock was due to bursting shells or noxious gases, surely a soldier's disability was attributable to war. If it were due to some innate weakness of character or defect in biology, on the other hand, the state would be spared a significant burden. As we saw at the end of the last chapter, following the armistice, doctors generally agreed that shell-shocked soldiers were predisposed to breakdown. But predisposition did not answer every question and it was left to Lord Southborough and his committee of inquiry to sort out the details. As we shall see, Southborough's findings changed the terminology of shell shock, but little else. His report was indicative of the limits of medical knowledge rather than the march of medicine.

The War Office Committee of Inquiry into Shell Shock reported in 1922 that shell shock had really been a euphemism for one of two things: commotional disturbance or emotional disturbance. "Commotional shock," as it was also called, resulted from microscopic lesions to the central nervous system following exposure to the powerful, concussive forces of shell explosions. Commotional shock was relatively uncommon (doctors estimated between ten and 20 percent of all cases) and doctors believed that a physiological test could be developed to single out such cases. While no test had been proven doctors remained hopeful: "most of the medical witnesses agreed that changes in the

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cerebro-spinal fluid would probably enable a differential diagnosis to be made between emotional and commotional shock.<sup>12</sup> It was, after all, most important that these commotional cases be separated from the cases with an emotional origin.

Emotional shock accounted for almost 80 per cent of shell shock cases and was not necessarily attributable to the battlefield. Most often, the report argued, emotionally shocked soldiers had some innate characteristic or pathology that explained their symptoms. "The predisposing causes in the individual are numerous," read Southborough's report, "and include such as previous mental or nervous breakdown, inebriety, the drug habit, sexual excesses; a frequent predisposing cause during the war was concussion, which might have been sustained many years before the war."<sup>13</sup> Commotional shock and emotional shock thus had common symptoms, but as with hysteria, neurasthenia and traumatic neurosis before the war, the main means of differential diagnosis was to be an assessment the patient's culpability.

The patient diagnosed with commotional shock, which bore a striking similarity to railway spine and traumatic neurosis, could not be held responsible for their injuries. The report reminded the reader that "no human being, however constituted, however free from inherent weakness, however highly trained to meet the stress and strain and the wear and tear of modern warfare, can resist the direct effect of the bursting of high-explosive shells. The delicate mechanism of the Nervous System, like all the other tissues of the body, is liable to be temporarily, or more or less permanently affected, and it has frequently been observed that this affection of the Nervous System is often most severe when there is no external wound..."<sup>14</sup> Man's nervous system was inherently weak in comparison to the forces of the modern battlefield and exposure to those forces had definite physiological, nervous consequences. The emphasis placed on the traumatic event alleviated any doubts about a soldier's personal responsibility. That is, unless he had a personal or family history of mental illness, vice, or degeneracy.

Emotional shock was, according to Southborough, "a term which has been found of convenience. As its name implies, it is assumed that the exciting cause or causes have been of an emotional nature."<sup>15</sup> Quite simply it was a weasel word that allowed doctors to make differential diagnoses based on notions of class and morality more than objective science. If a soldier was found to harbour any number of predisposing factors, his illness was attributable to his own weakness of character or genetics instead of the intractable forces of modernity: "In the large majority of persons showing emotional 'shell shock,' there was present in the family history or in the personal history, evidence of weakness, instability or defect of the nervous system."<sup>16</sup> Most "emotional" patients were degenerates as evidenced by the fact that they exhibited the well-known "stigmata of

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degeneration” such as habitual nail-biting, malformed ear lobes, and a higher than normal palate.<sup>17</sup> Doctors did recognise that men could breakdown away from the field of battle but still be without any predisposing factors in their case histories.<sup>18</sup> Although such cases were rare, they were attributable to overtaxed nerves and exhaustion rather than personal defect. The unspoken assumption was that members of the lower classes, through bad breeding and their penchant for vice, would form the largest proportion of cases of emotional shock. Doctors had returned to familiar ground and a system of knowledge that reinforced existing class relationships and power structures.

This delineation of shell shock into two categories based on personal culpability harkened back to late 19<sup>th</sup> century definitions of hysteria, neurasthenia, and traumatic neurosis. The legacy of hysteria was reflected in the fact that most sufferers of emotional shock were thought to be in some way culpable for their condition. The remaining cases, where there was no evidence of predisposition, were similar to neurasthenia. The commotional cases, on the other hand, were akin to cases of railway spine or traumatic neurosis: their condition was due to an external stimuli, not predisposition. The chief difference, however, was that now culpability was not the only consideration. With the requirement that a disability be attributable to war service, only the commotional cases were eligible for a pension, leaving neurasthenics and hysterics in the same category at least as far as pensionability was concerned.

This emphasis on predisposition and the examination of case histories made doctors indispensable to the pension boards of the Empire. Suddenly there was a new market and a new demand for their expertise and authority as there had been in cases of accident litigation before the war. Just as “nerves” provided a linguistic cloak that allowed doctors and patients to skirt tough questions that challenged class relations and medical science’s claims to authority, so too did predisposition serve a similar broad purpose. The emphasis on predisposition took the focus away from medicine’s inability to explain shell shock as a biological, psychological, or social phenomenon. Shell shock was no longer symptomatic of doctor’s failure, but stood now to confirm broader fears about degeneracy and mental hygiene that began to sweep across the western world in the wake of the Great War. Everywhere doctors and eugenicists were able to find indications that the white race was in dire trouble. The link between shell shock and predisposition confirmed these fears. Shell shock had become a problem only because degenerate recruits had been allowed into the army.

Recruiting practices had been such, doctors argued, that many mentally ill and generally unfit soldiers had slipped into the service and that these same soldiers had later succumbed to shell shock. Even the doctors responsible for examining recruits agreed:

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Everyone with a large experience of recruiting knows how difficult it is in the time available, even in peace, to make an exhaustive examination, to reach an unchallengeable opinion upon a candidate. What with his denying he ever had fits when he had, what with his friend who brought him concealing the defects he has by lauding his undoubted merits, and so on, not perhaps until the figure begins to work, until he is put on duty, can all the defects of the mechanism be properly appreciated, so a recruit can be discharged inside three months very easily. The regulations permit that. In wartime, with thousands of recruits, the condition was accentuated, and more who were unfit slipped by.<sup>19</sup>

Poor recruiting practices explained the prevalence of shell shock. Pension boards were now free to dole out pensions to those who had been legitimately wounded while turning down applications from ex-soldiers who had merely hoodwinked the recruiting officer.

The policy of labelling soldiers as “shell shock – wounded” and “shell shock – sick” was thus continued after the war. Those soldiers with a wound stripe – now considered to be suffering from commotional shock – were entitled to compensation. It is difficult to determine the number of British veterans who received a pension for shell shock as many such veterans had also been physically wounded. Nevertheless, around 120,000 pensioners had some history of mental disorders related to their war service – with or without other injuries. Throughout the Empire, pensions were awarded based on a percentage system that aimed to measure the severity of a soldier’s disability and were allotted according to whether a board decided that the disability was temporary or permanent. In Canada, for example, a disability of 20 per cent could be caused by the loss of one thumb or damage to the elbow, knee, shoulder or wrist. A disability of 40 per cent might be attributable to the loss of a single eye, one foot, or both thumbs. 60 per cent included the loss of a hand, the leg above the knee, or the tongue; 80 per cent the loss of a hand and foot, both feet or amputation of one leg at the hip; finally 100 per cent disability included the loss of both eyes, both hands, both legs, or insanity.<sup>20</sup> As Peter Leese argues, the criteria for assessing mental injuries was hardly compatible with a scheme designed to measure physical disability.<sup>21</sup> Insanity warranted full disability but also required committal to a state asylum (if the patient was cured and left the asylum he also lost his pension). How then were cases of shell shock assessed?

According to Peter Leese, such cases accounted for about 6 per cent of pension applicants with the majority having been awarded a pension based on “20 per cent disability” or 5s. 6d. per week for a private. There were cases of shell-shocked soldiers being awarded 50, 80 or even 100 per cent disability, but this

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was far less common. In Canada the numbers are not so clear, but pensions for injuries to the “nervous system” were far more likely to be temporary than permanent: in 1934, for example, there were 4,021 temporary pensions for nervous injuries and only 155 permanent pensions (likely meaning that the latter had been committed to the state asylum).<sup>22</sup>

The numbers appear to be similar in Australia where about five percent of all pensions were awarded to shell shock victims.<sup>23</sup> Stephen Garton claims that Australia was more generous than Canada or Great Britain in awarding pensions to soldiers with mental difficulties, however Australian pensions were similarly tied to the principle of attributability. In any event, as in Great Britain, it was a willingness among doctors to chalk-up mental breakdowns to hereditary traits and personal defects rather than to combat stress that limited state benevolence.

In Canada, a totally disabled private was entitled to \$720 per year, about the equivalent of a general labourer’s yearly income.<sup>24</sup> As in Great Britain and Australia, Canadian doctors argued that shell shock was more a product of inferior character or breeding than war service, which led them to question the actual impact of their injury on employability, even in cases of commotional shock.<sup>25</sup> “The bulk of soldiers presenting a psychic disturbance have been observed to be individuals of mediocre mentality and have thus engaged, prior to their military careers in occupations requiring little skill. Hence such men have little difficulty in resuming their former employments such as labouring, farming, or occupations of a menial nature,” wrote Dr. Dover, the head of the medical board at Canada’s main psychiatric hospital for insane soldiers. Yet doctors did recognise that some ex-soldiers could never return to civilian life as they knew it. Even if mentally ill British, Australian, and Canadian soldiers were not afforded generous pensions, provisions were made for their medical treatment and care.

Canadian soldiers deemed incurable on demobilization usually found themselves in Coburg, Ontario in the Ontario Hospital for the Insane under the care of Dr. Dover and his colleagues. There, depending on the nature of their symptoms, they were usually relabelled with dementia praecox, mental stupor, imbecility or a variety of other chronic, incurable mental diseases instead of shell shock. From there they were shipped around the country to hospitals in Ste. Anne de Bellevue, Halifax, Toronto, London, Winnipeg, Calgary, Vancouver, and Saint John. These hospitals were operated or partially funded first by the Department of Soldiers’ Civil Re-Establishment and later the Department of Pensions and National Health and were the main psychiatric institutions housing those shell shock patients that remained after the armistice. In Great Britain and Australia, shell shocked soldiers were farmed out to public asylums in a similar way. In all three countries, the problem continued to grow rather than diminish as the years passed.



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In 1925, the Department of Soldiers' Civil Re-Establishment listed 1,033 "mental" ex-soldiers under its care among a total patient population of 3,529.<sup>26</sup> By 1929 the number of "mental" patients had grown to 1,121 while the overall patient population had decreased 2,973.<sup>27</sup> Between 1931 and 1939 the numbers of Canadians with a shell shock pension increased again from 3,618 to 5,957.<sup>28</sup> In Australia too the number of ex-soldier psychiatric patients also increased. Between 1924 and 1940, the number of ex-soldiers who received a pension for shell shock rose 27 per cent compared to an increase of only five per cent among other categories of war pensioners.<sup>29</sup> In Great Britain, 40,000 pension claims were filed for mental disorders after the end of the war alone.<sup>30</sup>

Little has been written on post-traumatic disorders in the interwar period, likely because the subject was hardly touched in the medical journals. Nevertheless, evidence suggests that the number of cases was not insignificant. Writing in 1931, Eric Coplans described his experience as a doctor with the Ex-Services Welfare Society that exclusively treated cases of shell shock and neurasthenia. Of the 527 men who passed through his care, most had no pension at all. Their symptoms were far less pronounced than had been the case with the shaking, stuttering soldiers that he had observed during the war. The most common symptoms included "Inability to master a task, however simple; actual weakness and fatigue; inability to concentrate; ill-temper and quarrels with anybody and everybody...tremors of hands, tongue, and eyelids; increased knee-jerk; clammy moist hands; tachycardia."<sup>31</sup> For Coplans this was a new breed of victim: soldiers for whom the war had not ended. Left without pensions, charitable organizations were forced to deal with these unfortunate souls. Coplans' was not an isolated experience and at least one other doctor wrote to the *Lancet* to testify that he too had witnessed this postwar version of shell shock.<sup>32</sup>

Cases of what today might be termed PTSD are impossible to identify retrospectively, but many soldiers did have a difficult time readjusting to civilian life. For some like Private W. Pulling their symptoms reoccurred as they experienced a personal economic downturn.<sup>33</sup> Others like J.A. Sheldrick drifted from job to job, unable to form long-term attachments to people or places.<sup>34</sup> Some like Henry James Duffin developed the symptoms of chronic mental illnesses such as dementia praecox – what would today be called schizophrenia – in the years following the war.<sup>35</sup> In such cases, ex-soldiers were often denied pensions on the grounds that they were simply seeking money and that their symptoms were not real: "It is our belief that [William Pulling] is an opinionated self-seeking, rather dishonest fellow, who has had recourse to symptoms, and signs, of nervousness, known to him, as a response to economic stress," wrote Dr. George Boyer, a former shell shock doctor in the special hospitals in England

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and a pension investigator for the Canadian government, “Such reoccurrences after long intervals, should not be pensionable.”<sup>36</sup> For Boyer, Pulling was a malingerer. He was akin to the victims of railway accidents whose symptom disappeared upon successful litigation. Malingering was, as always, difficult to prove and most claims were denied on the grounds that soldiers were predisposed either through some pre-existing mental disease or a degenerate personality.

In an interterm report on S.J. Sheldrick George Boyer provides an example typical of doctor’s reasoning. “This case illustrates a lifelong unsuccessful adaptation to conditions of life. In my opinion he is an inadequate personality, who, under stress, shows neurotic responses. He undoubtedly has been given numerous suggestions, for attributing his condition to service, namely – long hospitalization in Canada, with such diagnoses as: Hypochondriasis, fear neurosis, DAH, neurasthenia...he got fifty percent pension for neurasthenia...and this constitutes sufficient suggestion.” Here the pension and diagnosis themselves are said to sustain the patient’s symptoms, but the difficult issue of malingering was sidestepped because the real underlying cause was degeneracy. “We are of the opinion that this man is an individual with intellectual deficiency and a personality inadequate to meet the stresses of life,” intoned Boyer and his associate Dr. A.T. Matheres, “Under difficult environments, he shows neurotic responses. In our opinion, it is impossible that service has altered the general conduct of his life.” The reasoning was clear: soldiers broke down but most would have broken down anyway. This belief in predisposition proved to be a powerful obstacle for soldiers and pressure groups to overcome in the interwar years although some did try.<sup>37</sup>

Speaking for veterans at a sitting of the Special Committee on Pension and Returned Soldiers Problems in 1930, Sir Arthur Currie, the former commanding officer of the Canadian Corps, lent his voice to the cause. Citing the case of an unnamed officer, Currie described how he had suffered hardship at the front throughout the war but had refused to leave the field even when ordered to rest. After the war “this man suffered pains and extreme nervousness. He became so bad that on the advice of his doctor he went to California. He had already spent all his money and made application for pension through the efforts of the American Legion. ...[he] was granted a pension dating from October 1924 at \$11 a month.” Eventually, however, his pension was cut off because his condition could not be attributed to military service and the former officer was “left to starve in a strange country,” falling repeatedly into convulsive fits.<sup>38</sup> Currie’s goal at the hearing was to challenge the principle of attributability as he argued that it was impossible to know for certain what was related to war service and what was not. In cases that were unclear, Currie wanted veterans to be given the benefit of the doubt as Garton argues was the case in Australia. Even for Currie, a popular public figure and advocate for the rights of veterans, there were limits

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to who should be pensioned. Another aspect of Currie's testimony speaks to the dichotomy that was at the heart of both the pension question and attitudes to war neurosis in the interwar period.

While championing the case of the nervous officer who had remained at the front despite his worsening health, Currie made an explicit point of ensuring that his testimony was not interpreted as advocacy for malingerers. In the first minutes of his opening statement Currie stated:

I wish to emphasize the fact that I am not here to plead for those who at the front were technically known as 'malingerers,' a term applied to the relatively few who by one subtle method or another tried to evade their tasks or to secure immunity from performance of duty or obtain special concessions which were undeserved. I do not think that anybody in the Canadian Corps was more severe on the 'skrimshanker' than I was and I would be just as severe to-day with any man who would attempt to claim pension to which he was not entitled.<sup>39</sup>

Currie did not elaborate on what exactly constituted malingering and skrimshanking, but the old question of legitimate illness versus dereliction of duty was clearly at the forefront of his mind.

To many doctors and officers, the malingering lurked in every hospital ward and every corps rest station. Despite changes in terminology and diagnostic techniques, separating the malingeringer from the neurasthenic remained next to impossible. Three weeks after the outbreak of the Second World War Frederick Dillon, who had served at one of the advanced treatment centres in France in the Great War, warned of the dangers of the malingeringer. According to Dillon, soldiers simulated illness or exaggerated their symptoms sometimes consciously, but often without realising that they were doing so. This left the doctor with a serious problem. "It is essential that medical officers at advanced centres should bear the question of malingering constantly in mind," wrote Dillon, "At the same time, even in spite of psychiatric experience, the diagnosis may be extremely difficult, as has been shown above. If injustices are to be avoided, and unnecessary compensation and pensions saved, it is essential not only that diagnostic psychiatrists should be available, but also that facilities for observation, as long as may be necessary, should be at hand."<sup>40</sup> For Dillon, the old questions were new again.

George Boyer, who we met earlier, agreed with Dillon: malingering was a serious issue. Writing just after the fall of France in 1940, he lamented the difficulty of detecting the malingeringer but also reminded doctors that it was their duty to seek him out wherever he hid. But Boyer had a far more important insight for

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his readers. Reflecting back on 25 years of study in the area of shell shock, Boyer concluded that many of the problems with shell shock – in war or peace – were due to imprecision and confusion on the part of doctors:

In my opinion, the view held by laity, law, and political influences is to a great extent due to medical creations as a result of diverse opinions often arbitrarily expressed, especially in courts of law and tribunals, wherein functional disease is wrongly related to a single incident or environment and not sufficiently correlated with the intricacies of personality, and often regarded as beyond influence on the part of the patient himself. Terms that suggest no appeal to the conscious should be discouraged and abandoned and, for this reason, shell-shock, which was based on the presence of organic changes, is a term greatly to be regretted and to be avoided.<sup>41</sup>

Boyer's reflections indicate that he sensed a lack of progression between 1914 and 1939 and suggest trepidation about the future treatment of shell shock rather than confidence.

In the aftermath of the Great War doctors had generally come to agree that those who broke down in combat were predisposed to mental illness or had some underlying defect that made them susceptible to shell shock. This consensus served a practical purpose and made doctors and their expertise useful to a government eager to limit expenditures. Yet it was also a safe compromise because it was impossible to test the hypothesis in peacetime. This explains why so few doctors pursued any practical system of personnel screening or selection as it was much easier to retroactively find signs of impending breakdown. At the same time the problem of shell shocked veterans grew in size, if not in importance. As the years passed, more and more developed problems that could be classified as a form of post-traumatic illness. While veterans groups advocated for their interests, they largely suffered in silence, confined to public asylums where they blended in with the other mental patients.

As a new war broke out, doctors realised that many of the old questions which had defined the debate between 1914 and 1918 remained unanswered. As they had done before and during the First World War, doctors formed a position in the interwar period that was tied less to an objective understanding of mental illness than it was to political and economic necessities. Medical acceptance of predisposition had solved many political and medical problems in the interwar years, but it brought doctors no closer to understanding shell shock – or battle exhaustion as it came to be called – between 1939 and 1945.

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### NOTES

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## Appendix 1

### MEDICAL BOARD WORK ON PSYCHIATRIC CASES

H. Dover

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"Medical Board Work on Psychiatric Cases," *Canadian Medical Association Journal* 10, no. 6 (June 1920): 543–547.

*The Cobourg Military Hospital was the only hospital in Canada specifically dedicated to treating psychologically traumatised soldiers after the First World War. With 425 beds in various wards, the hospital provided care for all types of patients. The hospital was to cure shell shock patients before returning them to civilian life. While the intention was to treat patients as former soldiers, not as inmates in a provincial lunatic asylum, they were nevertheless "committed" to the hospital until they were released by the local medical board. Here power was clearly vested in the medical establishment, not in the patient – a system the mirrored both wartime relations between officers and men and the medical relationship between doctors and patients. In this article, Dr. H. Dover, the president of the medical board, describes diagnosis, treatment, and the board's definition of a successful patient outcome. In his definition of "cure" the emphasis is on the patient's self-sufficiency rather than recovery from the effects of war trauma.*

The work of a psychiatric medical board charged with the duty of making recommendations and decisions is very exacting. Its function consists not only of accurately describing cases for the purpose of permitting an estimate of the pensionable disability, but also determining the candidate's civil rights and freedom, a power comparable to that of a court of law. The many and varied problems of such a tribunal also involve the recommendation for the disposal of patients and the prescribing of treatment.

Since the opinions expressed are so important and far-reaching, observations are carried out over a period of three to six months. Few cases are disposed of before the expiration of this term. During such an interval, not only are many physical disabilities cleared or corrected, but mental derangements, if at all amenable to treatment, are frequently improved and in many cases cured. At irregular intervals, to avoid any reparation for examination or excitement by the patient, he is summoned before the board, his progress noted and if the individual is not ready for disposal, one or more of the various forms of treatment is prescribed.

It is a significant fact that of more than fifteen hundred cases that have passed through this institution, prolonged observation has reduced to almost nil the



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number of cases with an unsuitable recommendation for the mode of disposal. No serious incidents have come to light in the after history of ex-patients that have in any way tended to reflect discredit on the decisions made. That a careful decision must be made in each individual case will be recognized when it is recalled that approximately fifty-five per cent of the cases that have passed through this institution were discharged to civil life and the remaining forty-five per cent to custodial care.

When the treatment has reached finality, the condition stationary, or the means of disposal decided, the patient's condition is described on the well-known Militia Form B. 227. In a detailed consideration of the answers to questions on this form, it will be obvious that they differ materially from those referring to a case simply having a physical disability. Thus in the study of "the original disease", the board frequently find that a retro-diagnosis has to be made. This is not in any sense derogatory to a previous medical board's opinion. Though many of these diagnoses, hastily made overseas amid the rush and turmoil of war, have been confirmed here, in most cases they have had to be revised. Such revisions, of course, were made only after prolonged observation, which was not possible nor convenient overseas. The other factor, prominent as a cause for the change of diagnosis, is the English classification of mental diseases. Such terms as confusional insanity and delusional insanity found no place in the Kraepelin classification, which is the classification most commonly used on this continent and in use throughout the C.A.M.C. Though the Clouston terminology has long been obsolete in this country, it is still in use by the R.A.M.C.

The determination of the cause of the disease in mental cases is a question which is not so easily or definitely answered as in physical disabilities. It is a significant fact, however, that exceedingly few psychoses are directly attributable to the war. The majority of psychic diseases observed in returned soldiers have been of a constitutional origin. Frequently, we have been able to obtain from relatives or friends the statements that the patient was always "peculiar" or exhibited definite psychological disturbances. In fact, in a fairly good percentage of cases, a definite asylum admission history was obtained. In others, the period of origin of the disturbance had to be based on the history of the man's progress in the army or on the clinical picture, and general demeanor presented at the time of examination. As in ordinary civil life, heredity, toxamias and alcoholism played an important part as causative factors. The psychoses of the war did not add anything new to the types of mental diseases known, and practically all cases have fallen into the ante-bellum classifications.

The resumption of the former trade or occupation by the men returning to civil life is in the majority of cases an easy matter to settle. Those requiring custodial

care give little concern about their former work, for they are obviously unfit. The bulk of soldiers presenting a psychic disturbance have been observed to be individuals of mediocre mentality and have thus engaged, prior to their military careers in occupations requiring little skill. Thence, such men have little difficulty in resuming their former employments such as labouring, farming, or occupations of a menial nature. Of course, one cannot overlook a certain percentage of intelligent men who have recovered from a psychosis in the army. On account of the thorough training and proficiency exhibited by such convalescents prior to their army life, they also have little difficulty in returning to their former vocations.

Having considered all of the foregoing factors, the board still finds that the proper disposal of a patient is most difficult to decide. The usual recommendations for discharge in cases of physical disability such as “on demobilization as medically unfit”, or “medically unfit” are in these cases of psychiatric diseases entirely insufficient. The decision as to the manner of a patient’s disposal must be based on the consideration of the following questions:

- First-Is the man fit to be at large and self-supporting?
- Second-Is the man fit to be at large and only partially self-supporting?
- Third-Is the man mentally unfit to be at large, dangerous to himself or others?

Such questions have evolved a systematic method of recommending disposal of mental cases. Those in the first category are discharged to *civil life under their own control*, whilst those in the second are discharged to *their own control with supervision by the Department of Soldiers’ Civil Re-establishment*. This latter recommendation is made in the case of an individual, who with a little help or advice from a social service worker, assisting him in finding employment or enabling him to decide some of his problems of re-establishment, can be self-supporting. Men coming under the third category are discharged to asylums for *custodial care under the Department of Soldiers’ Civil Re-establishment*. Under this heading are included certain men who, prior to civil life, presented a definite psychosis, which was not aggravated on service. Such men could have been weeded out only by a competent military psychiatric service. This recommendation, to confine a man to an asylum who previously had his freedom, without his disease having become worse, seems at first rather striking. These individuals, however, were really never efficient in private life, and were always either actually or potentially a source of crime and delinquency. During peace, there was no method whereby such cases could be brought to examination in large numbers and committed to institutions.

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The United States, during their recruiting, rejected approximately fifty-five thousand men as mentally unfit. This of course meant an enormous saving to their country. Steps, however, were not taken to observe or commit many of these men who should have been segregated. Though the Canadian army, on account of the urgent demands for fighting divisions, could not require a mental examination of every individual, and had to admit many that could otherwise have been rejected, the expense was not in vain, for Canada benefited by having its civilian population improved through the large number of insane committed to asylums. Such commitments were possible only after observation, which was easily carried out during their army life. Frequently, latent psychopathic tendencies were not manifested until the change from civilian to military life occurred. Careful study of many cases of pre-enlistment psychosis has proved conclusively that these men, though on discharge fit only for custodial care, have really not suffered any aggravation during service and have therefore no pensionable disability. Such decisions have aroused some criticism from friends and relatives, especially those seeking a pension. Nevertheless, a review of one or two cases will serve to prove the justice of the opinion held by the board.

1. Private L. H. S., age thirty-three, labourer, was admitted to Cobourg Military Hospital, October 29th, 1918, from H.M.S. Araguaya. Overseas documents stated, "He was throughout very irresponsible wandering about without object, and repeatedly asking for transfer to different units. Showed lack of appreciation of discipline and was a general nuisance. Was continually under arrest for his irresponsible acts and breaches of discipline." On admission was found to be physically fit. Mentally, he showed defective orientation for time. His judgment and intelligence were of an exceedingly low standard. His mental age was estimated between eight and nine (Princeton scale). On December 21st, 1918, he was transferred to an asylum for custodial care.
2. Private X. L., age thirty-seven, labourer, was admitted January 12th, 1919. He was a draftee under the military service act, April 24th, 1919, and after several months in England was found mentally unfit for the army. On examination, he showed no physical disability, but numerous stigmata of degeneracy, viz.: high arched palate, deformed ears and a heavy massive expression with low receding forehead. He was totally illiterate, simple and childish. His mental age was between six and seven (Princeton scale). During his stay at Cobourg he was frequently the subject of periods of imbecile excitement. He also showed a psychopathic heredity, having two insane relatives. He was discharged July 21st, 1919, to custodial care.

It is obvious that in both cases there existed no military liability, as the disease, congenital in origin, was one of feeble-mindedness. Apart from the temporary

excitement that existed whilst in the ranks, for such men were always the “goats” of the unit, there remained no aggravation of their psychoses. Nevertheless, the relatives of both these soldiers, though granting that the present diagnosis was correct, maintained that the patient’s disease was greatly intensified on service and that they were entitled to a pension. To safeguard the interests of the public and do justice to the men who have served their country, are the aims always uppermost in the mind of the psychiatric board.



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## Appendix 2

### MENTAL DISEASE IN EX-SERVICE MEN: WORK OF THE MINISTRY OF PENSIONS

Anonymous

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*"Mental Disease in Ex-Service Men: Work of the Ministry of Pensions," Lancet (31 December 1921): 1388-1390.*

*This article from the Lancet summarizes how the British Ministry of Pensions cared for ex-servicemen suffering from mental illnesses from the end of the First World War to the middle of 1921. It lays out the formation of a system of military hospital wards, the normal treatment regime, and the pensionability of "insane" soldiers. The article concludes by suggesting that ex-soldiers committed to postwar military hospitals were no different than their civilian counterparts in terms of symptoms, disorders, or prognosis. In this analysis, veterans were not suffering from war-related injuries, but rather from the same conditions as civilian lunatics. The clear implication is that mental illness amongst soldiers had little to do with wartime psychological trauma.*

The care of soldiers and sailors who took part in the war and whose minds became affected during their service has been one of the most anxious tasks committed to the Ministry of Pensions, and one that has brought it into a cross-fire of criticism from many directions. We summarised recently (THE LANCET, Dec. 10th, p. 1232) some of the searching questions asked in the House of Commons upon the subject, briefly commenting upon the official answers and what lay behind them, and we are now in a position to state with official authority the provision for these unfortunate cases as it exists at the present moment. Separate provision is made for (a) cases of neurasthenia; (b) cases of severe neurasthenia, the so-called "borderline" cases; and (c) the certified insane.

#### CASES OF NEURASTHENIA

In the early days of the Ministry of Pensions, before the re-organisation of the medical services, the victims of war neuroses, so-called shell-shock and kindred ailments, were treated either in the special neurological hospitals of the army and navy or in hospitals managed by Local War Pensions Committees and Joint Disablement Committees acting as agents of the Pensions Minister. A small number of "Homes of Recovery" directly controlled by the Ministry also accommodated a certain number of pensioners suffering from neurasthenia.

With the creation of the regional organisation of the Ministry, however, special neurological hospitals and wards of hospitals were established in each region.

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Hospital after hospital was taken over from the army and from public bodies, and to-day the Ministry possesses accommodation in its neurological hospitals and wards for 167 officers and nurses and 3,450 other ranks.

At the beginning much difficulty was experienced in securing the services of medical men specially qualified and experienced in modern methods of treatment of functional nervous diseases for the war created a mass of neurasthenics quite out of proportion to the number of available experts in functional disorders; but by establishing a training school at Tooting for medical men interested in, and possessing some experience of, functional nervous diseases under the able direction of Dr. R.G. Rows, late *c/o* of the Military Hospital at Maghull, this difficulty was overcome. At Tooting some 68 men received systematic instruction in modern psycho-therapy. The neurological hospitals are now efficiently equipped and staffed; they possess ample garden space and in many cases farm lands, and there the treatment is directed, firstly, to curing the psycho-neuroses; and, secondly, by occupation selected after consultation between the medical officer, the chief training officer, and the patient himself, to preparing the latter for his return to outside conditions.

The usual occupations, each under expert instruction, include gardening, pig-keeping, poultry-farming, carpentering and cabinet-making, metal work, leather work, and boot-repairing. The proportion of patients usefully and happily employed for part of each day in the workshops and gardens of the neurological hospitals ranges from 30 to 40 per cent to as much as 60 to 70 per cent of the total number of patients. Accommodation is generally from 10 to 20 per cent in excess of the number of beds occupied. During the three months ended Sept. 30th, 1921, there were 399 discharged as recovered and 1003 discharged as relieved from Ministry neurological hospitals, giving a recovery and relieved rate calculated on the number admitted during the three months (2128) of 65.9 per cent; or, calculated on the total number treated during the three months (5670), of 24.7 per cent. The out-patients treated at Ministry institutions during the same period gave a recovery and relieved rate of 63.8 per cent calculated on the number admitted (3890); or, calculated on the total number of out-patients treated (11,576), of 21.5 per cent. The combined recovery and relieved rates for these three months were, therefore, 64.6 per cent calculated on the admissions; or 22.5 per cent calculated on the total numbers under treatment.

## BORDERLINE CASES

The cases of officers and men suffering from psychoses attributable to, or aggravated by, war service and in whom the question of certification as insane arises, or may arise in the future, have always been regarded by the Minister with grave anxiety and concern. It has been therefore, a cardinal principle to concentrate

on these cases the medical resources of the Ministry in the hope of restoring health and averting certification, which latter is kept as a last resort. The Minister, as the law stands to-day, has, of course, no authority to treat officers or men properly certifiable as insane in any of his institutions, and the failure must be remembered of all attempts made to permit, with proper safeguards, the detention of mental cases likely to recover within a short time but requiring supervision, detention, and control. Clause 10 of the Miscellaneous Provisions Bill introduced last year by the Minister of Health was defeated.

For some time at the Maudsley Hospital and now at Ewell, in the case of other ranks, and also at Latchmere, in the case of officers, provision is made for the borderline class of case. These institutions are well equipped and staffed, and coupled with the neurological hospitals of the Ministry are ample for present needs. In addition to the in-patient accommodation referred to above, there are 56 neurological clinics, which, together with the out-patient departments of the neurological hospitals, afford treatment at the present time to 7664 out-patients.

## **INSANE EX-SERVICE MEN**

Following conferences between the Statutory War Pensions Committee, the Asylum Authorities, the Board of Control, and the Ministry of Pensions, insane ex-service men whose mental disorder is accepted by the ministry as due to, or aggravated by, war service are admitted to and treated in the ordinary mental institutions of the country - i.e., the county and borough asylums. No other course could have been followed and no other is even now advisable. The service patients, however, are placed on the legal footing of private patients at the cost of the Ministry of Pensions, and they are afforded certain other privileges (clothing of superior quality and 2s. 6d. a week for extra comforts). Further, by arrangement with the Board of Control the patients are visited by medical inspectors from the Ministry headquarters; and each man is interviewed and reported upon by these inspectors. In all other respects the service patients, other than ex-officers, are treated in exactly the same way as the ordinary inmates of these institutions. From the reports of the inspectors who have now interviewed over 5,438 patients in 120 asylums, the Minister is satisfied that the service patients are well cared for.

Numerous attempts have been made to discredit the conditions in the county and borough asylums, and by frequent reference to the "herding" of service patients with "pauper lunatics" to cast an unmerited stigma both on these excellent institutions and their inmates. It has even been stated that large numbers of men who are bereft of reason by their fighting service are "held in bondage" and their recovery prevented by being immured in asylums in which they should never have been placed. Such statements, whose only result can be to cause



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needless distress to the unfortunate relatives of service patients, are devoid of truth. The Minister's inspectors report that not one man has been interviewed who has been improperly certified as insane, and that the overwhelming majority is composed of cases of unfavourable character and prognosis, cases of original congenital defect, general paralysis, and dementia. Nevertheless, in a minority recovery, and in a larger number improvement permitting of discharge, is effected, averaging some 26.47 per cent. (recovered 17.41 per cent. plus relieved 9.04 per cent.). Prior to the war every million of male population between the ages of 20 and 44 years in England and Wales furnished 750 insane to institutions each year.

During the war, when so many millions of men were serving in the forces, there was a steady fall in admission to asylums, which immediately after the armistice began again to ascend, as shown by the following figures given by the Lunacy Commissioners:

Year	Number	Year	Number
1915	53,446	1919	41,727
1916	51,840	1920	42,428
1917	50,382	1921	44,004
1918	46,025		

Notwithstanding the obvious inference from these figures, and notwithstanding the opinions of medical superintendents of asylums, as, for example, that published by Dr. W. Robinson, of the West Riding Asylum, showing that only 44 per cent of the service patients in that asylum had served overseas in the firing line, and that "the service patients, as a class, would, as regards the majority, have been patients in mental hospitals sooner or later had there been no war," the Minister has extended the provisions of the Royal Warrants to practically every case of insanity arising during service or within a limited period after discharge, thus giving the ex-service man the benefit of any doubt that may exist. The popular conception that all ex-service men in asylums are the victims of "shell-shock" is quite erroneous. This in no way, however, lessens the sympathy with which each service patient is regarded, or diminishes the Minister's anxiety that the patient should receive the utmost care and most skilful treatment.

The proposal that special asylums should be created solely for ex-service men has been much discussed.

The general public, unversed in such matters, unaware that the first necessity for proper treatment is proper classification and segregation according to behaviour, conduct, and medical category, and that, therefore, treatment can only be properly carried out in institutions of sufficient size to permit separate wards according to classification, naturally fails to appreciate the necessity for institutions of considerable size and accommodation. Of this necessity, however, medical men are well aware. It would, therefore, be necessary, if popular demands are to be met, to create some 12 or more institutions for service patients placed at convenient centres.

Bearing in mind the indisputable fact that the service patients do not differ in medical category and conduct from the ordinary patients of asylums, and that as regards the great majority the prognosis is no more favourable than in their unfortunate fellow patients, the accommodation provided should be as complete in every detail as that provided for civil patients. The county and borough asylums with their separate wards varying in number from 8 to 20 on the male side; special electrical and X ray plants; isolation rooms and safety appliances; separate exercise courts according to class of case; laundry and workshops; garden and farm lands and buildings would all be required for a class of patient whose numbers should now be at their maximum and will necessarily steadily decline to zero in, say, 30 to 40 years' time. No one even superficially acquainted with the subject would propose temporary accommodation of the camp or huttet type as suitable for such cases. What, however, has been seriously proposed is the setting apart of selected county and borough asylums for service patients only. This proposal is not without its merits, but has the great disadvantage that it would necessarily, in a large proportion, probably the majority, of the patients, remove the patient so far from his relatives and friends that he and they would be deprived of one of their greatest solaces, the frequent and periodic visitation and intercourse. Intermediate between these two proposals the setting apart of special blocks of existing asylums for service patients who no longer require strict supervision and who may enjoy and benefit by a greater degree of freedom, a more domestic type of surroundings and occupational treatment, and even vocational training, in fact a half-way house between the asylum and ordinary civil life, though remaining within the general asylum administration, has been under consideration for some time following the recommendations of the Departmental Committee of Enquiry into the Ministry of Pensions administration.



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### Appendix 3

#### PSYCHOPATHIC DISORDERS AMONG EX-SERVICE MEN

R.H. Angrove

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"Psychopathic Disorders Among Ex-Service Men," *Canadian Medical Association Journal* 22, 4 (April 1930): 515-517; Paper read at the Sixtieth Annual Meeting, Canadian Medical Association, Montreal, June 19, 1929.

*St. Anne's Hospital was originally built in 1917 on property leased from McGill University. In 1920 it took over responsibility for cases of insanity and nervousness from the Cobourg Military Hospital. This article by R.H. Angrove, one of the hospital's psychiatrists, provides one of the few glimpses into the care and treatment of more or less permanent cases of shell shock in the interwar period. Emphasis is again on treatments that will ultimately lead to employability and thus the reduction of federal expenditures. Echoing many of his colleagues in the interwar period, Angrove ultimately concludes that the psychological afflictions of ex-service men differ little from those found amongst civilian patients in hospitals for the insane. The implication is that shell shocked soldiers were predestined to breakdown – that the war was not usually the only factor in the onset of their symptoms.*

**I**n presenting this brief summary of psychopathic disorders among ex-service men, the observations are confined to the type of case in the neuropsychiatric service at St. Anne's Hospital.

This service was instituted some nine years ago, and, with a psychiatric population averaging more than three hundred, it may serve as representative of the disorder of this nature throughout Canada. Much has been said of the conditions of active warfare, its stresses, shocks, wounds and disease, and one cannot doubt as to their effect on human beings, generally, and that, moreover, these trying conditions were the activating, if not the direct, causes of mental upsets, there is also little doubt.

The great majority of psychiatric patients under our care suffered their original upset while serving with the Canadian Expeditionary Force during or immediately following active service. In a very small percentage there was a history of some similar upset prior to enlistment, with war conditions undoubtedly activating a latent imbalance. A much larger percentage showed no evidence of mental disturbance until after demobilization, when there was a general relaxation; the emotional tensions which had carried many through most trying experiences held throughout the stress, only to break down later. The legislature has been generous with this latter type, in that the Department of Pensions and National Health, under which we at present operate, has accepted responsibility

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for most of these cases, often with full compensation for both the patient and his dependents. For instance, a man who had had a reasonable length of service in France, and who suffered a so-called shell shock, neurasthenia, a psychotic episode or similar upset, which condition subsequently cleared up, but which years after demobilization recurred through causes other than vice or misconduct, would even at this late date be entitled to hospitalization for observation and investigation, and if such investigation excluded vice, misconduct and venereal disease as exciting factors in the recurrence of his unbalance, he would be eligible for treatment to a finality, with a living allowance for his dependents and a small monthly allowance for himself, so long as hospital treatment was necessary. If recovery is complete he is returned to civil life, but if there still remains an industrial handicap his case is then considered for compensation by the Board of Pension Commissioner's.

A good portion of enlisted men were subjected to abnormal stresses prior to or just before entering manhood, and now, ten years later, are typically of praecox type, though at the time of the original disorder they were classed variously as shell shock, neurasthenia, confusional insanity, environmental psychotic episode, etc. Glancing over our clinical records, it is found that dementia praecox constitutes more than two-thirds of our neuro-psychiatric strength. Many of these were doubtless constitutionally predisposed, but others have, after careful investigation, shown no trace of such predisposition. With the comparatively early enlistment age, it was inevitable that there should be a large percentage of this type of psychosis, the normal number being probably augmented by the subjecting of immature emotional balance to abnormal stresses. The remaining one-third is composed of psychoses and neuroses in about the same percentages as are found in civilian institutions. Manic depressive insanity, toxic psychoses, primary mental defect, psychotic episodes occurring on a deficiency basis, epilepsy (traumatic and idiopathic), cerebro-spinal disease, alcoholism, drug addiction, and a small number of cases grouped under the psycho-neuroses are found.

The re-establishment of the defective group, particularly those with recurring psychotic episodes has been found difficult of solution. The chief difficulty is not because of the mental level but rather the lack of social adjustment. Many of this group would probably be self-supporting to-day were it not for this lack of adjustment. If those of minor intellectual equipment are allowed a life undisturbed, a mechanical routine existence, the likelihood is that they may continue so indefinitely. Take the same potentially unstable individual from this routine and he will usually find difficulty in resuming his normal life; put him in uniform for three or four years, with, perhaps, front line experiences, and his readjustment to his former station becomes increasingly difficult, and in some few cases impossible.

Military service carried with it an existence more or less carefree, and with but little personal responsibility. So long as the man remained in uniform he was assured of a living and provision for his family. The man became dependent. Intensifying this dependence some men have greater obligations than formerly, with growing families, and find themselves unable to cope with the added responsibilities. In some few cases a socialistic attitude has become prominent, some men, fortunately few in number, trying to capitalize their military service, assuming the viewpoint that "we sacrificed our positions, risked our lives, and injured our health for the country, and now the country should look after us." Thus the compensation handicap to recovery in these few cases presents a problem in itself. By far the larger number, however, have risen superior to their disabilities, as a result of natural adaptability, special training, experience, business relations, etc.

Contrary to general belief we find less than 4 per cent of our cases classed as cerebro-spinal disease, the impression of the laity being that a much larger number of our patients suffer from this type of disorder. Treatment of these cases with malarial inoculation and tryparsamide has shown satisfactory results. Of the 10 cases so treated, 2 have recovered and resumed their places in society; 6 have definitely improved; 1 has retrogressed; and 1 advanced case died before the onset of rigors.

The hospital is adequately equipped with up-to-date apparatus. Fourteen continuous baths are found on our wards, and a physiotherapy section, with complete hydropathic system and electrical appliances, including galvanism, faradism, diathermy, and the sun-lamp. Our x-ray department has recently been renovated and obsolete equipment replaced by modern. Operating theatres for general and special work, a clinical laboratory, and a dental clinic are provided.

Coming to our staff, there are three resident full-time physicians in charge of the neuro-psychiatric patients, also a resident chest specialist whose services are always available, and a dental surgeon who makes periodical surveys of all cases. The consulting staff is composed of outstanding specialists; two alienists, a neurologist, pathologist, an eye, ear, nose and throat specialist, and a Roentgenologist make regular and frequent visits, their advice and recommendations for treatment, and disposal being of inestimable value. In addition, the services of physicians in other special branches is available; in all our consulting staff comprises thirteen specialists.

Female graduate nurses, all with psychiatric training, are in charge of our wards, irrespective of the type or severity of the patients' disorders, and to these nurses the mental attendants are directly responsible for the actual care of the patients and the supervision of the ward. These attendants are all ex-service

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men, and, having experienced war conditions like their less fortunate charges, are better able to understand the whims and eccentricities originally born of military affairs. The "brothers-in-arms" sentiments exist and there is a sympathetic relationship between patients and staff to perhaps an unusual degree. Many of these patients have retained a portion of their military discipline, and the modified use of this facilitates the handling of large groups. There is no intimation of resentment in the use of these measures, and provided the discipline is not too rigid the benefits more than offset the disadvantages.

Ward occupational therapy is carried on extensively under the direction of six specially trained ward aides, and through a generous and sympathetic public most completed articles find a ready market. The use of occupational therapy has done much to restore, or at least retain, faculties which would otherwise degenerate.

A social service department is maintained to investigate cases influenced by difficult domestic complications, and also to secure follow-up reports of patients discharged. In addition, the department has established and has in successful operation Vetcraft Shops in different centres of the Dominion, where employment is provided for those industrially handicapped either physically or mentally, where a living wage is provided, and where eccentricities are tolerated to the last extreme. It is interesting to note that these shops, now operating on a wholesale production basis, are practically self-supporting. Outdoor occupation provides a means of employment during favourable weather for about 3.5 per cent of the patients, and the improved appearance of our grounds during the past few years serves as a stimulus to further effort in this direction. We started with a very barren piece of land and now have attractive grounds with still room for much improvement and unlimited occupation for our patients. They take a genuine interest in the general appearances of their surroundings, and are undoubtedly benefited thereby. Other features of our establishment which cannot be overlooked are the green house and gardens furnishing healthful and interesting occupation for about forty patients, and from which incidentally flowers and ferns for the wards are supplied throughout the year.

In concluding, a general survey of our cases suggests that the psychopathic disorders among ex-service men show but little deviation in type from the psychopathies ordinarily encountered among civilian population. The delusions and hallucinations of the acutely psychotic types appear in some cases to be punctuated with disturbances referable to war experiences, but, generally speaking, one is impressed with the similarity of the disorders and how nearly the percentages of each group conforms with the records of psychopathic hospitals other than those for ex-soldiers.

The Federal government has been justly generous with the returned men, by providing practically unlimited facilities for the treatment of those physically and mentally afflicted. From a total enlisted strength of some half million men, there are at present just over one thousand psychopathic cases receiving hospital treatment, a comparatively small percentage, and Canada may well congratulate herself on this evidence of the stability of her manhood.





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# Appendix 4

### SOME OBSERVATIONS ON NEURASTHENIA AND SHELL-SHOCK

Eric Coplans

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"Some Observations on Neurasthenia and Shell-Shock," *Lancet* (31 October 1931): 960.

*The Ex-Services Mental Welfare Society, as it is now known, was a British organization established in 1919 to provide charity for soldiers returning from combat who exhibited the lingering symptoms of trauma and were without means of support. Coplans' article is one of the earliest descriptions of the symptoms now associated with Post Traumatic Stress Disorder, specifically listlessness, weakness and fatigue, lack of concentration, poor emotional control, substance abuse, and the inability to form lasting relationships. Even at a civilian advocacy society, the emphasis was on retraining individuals to be self-supporting wherever possible. Assistance was occasionally provided to secure pensions, but these cases were the exception rather than the rule. In the end, Coplan's argues that those soldiers who suffered most from the wartime effects of trauma were drawn from the working classes, that they lacked skilled trades. It is important to keep in mind that the Ex-Services Mental Welfare Society was a charitable organization that would have been most likely to see only those who had nowhere else to turn. He does not dwell on the question of whether it was the trauma itself that prevented ex-soldiers from seeking meaningful, gainful employment.*

From 1926 to 1930 I was in medical charge of the London patients of the Ex-Services Welfare Society, a war charity which receives only cases of neurasthenia and so-called shell-shock attributable to war service, Dr. E. Mather being consulting physician to the Society. During this time there passed through my hands 527 of these ex-servicemen, their periods of stay in the home averaging about three months. In addition I interviewed and examined a large number of applicants whom it was impossible to admit to the Society's various homes.

Coming as they did to me at least eight years after the armistice, they afforded an interesting opportunity of studying the persistence of post-war neuroses, and I was able to form certain conclusions as to the prolonged effects, sociological and physical, of war suffering upon the civilian soldier. At the very outset it was impossible not to be impressed by the fact that fully 80 per cent. of the cases that came under survey were unskilled men of the labourer type with no trade to their hands. It was rare indeed to have to deal with an artisan or craftsman – a fact that, as will be seen later, considerably influenced the treatment.

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The post-war history of these cases showed but little variation. Returning from military service to some sort of occupation, the applicant tells the story of periodic breakdowns at his work. These were found to be referable to any or all of the following causes:

- Inability to master a task, however simple.
- Actual weakness and fatigue.
- Inability to concentrate.
- Ill-temper and quarrels with anybody and everybody, including the “boss.”

Many of these men had no pension whatever. There was no wound to show, no loss of eye or limb, and to the ordinary observer they presented in some cases a picture of health. It was the mind that had been wounded, and only their families and intimate associates have the least idea of their sufferings. They live on the frontiers of fear, their days are a torture, and often through the night they endure again the horrors of war. It is not unusual to be called to such a man sitting trembling with ashen face on the side of his bed, refusing to sleep, since sleep brings no peace but lifts a curtain on the fearful drama of the past.

- Clinically they usually presented this picture:
- Tremors of hands, tongue, and eyelids.
- Increased knee-jerk.
- Clammy moist hands.
- Tachycardia.

In reference to the last sign, I recall that we dealt at Mount Vernon Military Heart Hospital with a large number of tachycardias, which were labeled D.A.H. In the light of subsequent experience, I have formed the opinion that these cases were not D.A.H. at all. They were neurasthenia and shell-shock, although in some cases the “shell” was an irate sergeant-major in the home counties.

The mental attitude varied. There was the truculent type, from whom it was difficult to elicit any information at all and who seemed to be at war with the world. It is not surprising that there turned up from time to time among the patients a genuine honest-to-god paranoia. And of course there were not a few malingerers. Some of these had learned a few tricks at the famous Ministry nerve hospital at Orpington, a favourite one being “chucking a dummy” – i.e. fit. We used to call these “blufforpingtons.” But chiefly it was the anxiety type

that one encountered: fear of mankind, fear of traffic, fear of himself. And it was this type that proved most amenable to treatment.

I have no desire to quarrel with the psychoanalyst, but when a man comes to you broken in mind and fortune, it seems useless to question him for days, and then hope to cure him by pointing out that the cause of his trouble is something that happened on the Menin Road some years ago. The men that came to the Society were in every sense broken, mentally bankrupt and often without means of support. Usually there was a wife and family and some raging creditors in the background. The Society realised from the start that it was idle to attempt to cure a man while his wife and family were starving; so they adopted the whole bunch, man, family, and very often the creditors.

After a period of observation and building up, the man was sent down to an industrial training centre, where under sympathetic but firm tutelage he was taught, by very gradual stages, to become self-supporting. He had nothing to worry about. His wife and family received an allowance, and his creditors were pacified. If it was felt he was entitled to a pension the issue was opened with the Ministry, whose sympathetic cooperation with the Society's expert resulted in the granting of pensions running into many thousands of pounds.

By such means these war derelicts, their self-confidence restored, were enabled once again to face the battle of life as useful citizens.



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# Appendix 5

### SIMULATED MENTAL DISORDERS AMONG SOLDIERS IN THE LATE WAR

Frederick Dillon

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"Special Articles: Simulated Mental Disorders Among Soldiers in the Late War," *Lancet*, (23 September 1939): 706-709; Based on a thesis presented for the M.D. at Edinburgh University.

*During the First World War, Frederick Dillon served with Number 3 Canadian Stationary Hospital and later became Third British Army's neurologist. There he commanded Third Army's NYDN centre and gained experience in treating shell-shocked soldiers close to the front line. After the war he was the superintendent of the Northumberland House Mental Hospital and in 1946 became a lecturer in mental diseases at University College Hospital Medical School. He was a prolific author and a recognised expert in shell shock. While Dillon remained convinced that "malingerers" were the minority of patients during the war, it was nevertheless a problem of immediate concern when the Second World War erupted in September 1939. Dillon's analysis not only betrays the postwar obsession with preventing the "injustice" of "unnecessary compensation and pensions," but also doctors' latent fears that shell shock really was cowardice and malingering masquerading as mental illness. It also highlights the fact that the lessons of the first war were directly applicable to the second, even though many of the old conundrums remained unsolved.*

The diagnosis of malingering is often very difficult and any attempt to estimate the extent to which it took place among soldiers in the late war would be an almost impossible task. Conditions of life on the front were such that they provided the strongest motives for getting out of the fighting line, yet those with experience will, I believe, agree that few men attempted to do so by means of simulated illness. It was interesting to see how naturally the process of adaptation took place to the fear- and horror-producing situations which constitute the psychological essence of war in the trenches. This adaptation remained even in the last years of the war when the intensity of shell-fire became very great. Sometimes the adaptation mechanism did give way, either as the result of too long continued strain or a sudden shock such as being blown-up or buried. Some were unfitted by temperament for the life from the start and were never able to adapt successfully. But it was an impressive fact that the ordinary man, coming from a peaceful occupation amid peaceful surroundings, rapidly and spontaneously accustomed himself to such an abnormal existence and settled down cheerfully to it.

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The constant strain of this strange life became clearer to the individual in perspective when, on account of sickness or wounds, he was sent away from his unit and his friends out of the fighting area. He would have been more than human if he had not appreciated the relief, especially if the sickness or injury did not happen to be serious. Among the war neuroses seen at an advanced centre in France, malingering showed itself mainly as a tendency to perpetuate the existence of symptoms which would otherwise have passed away in due course, and to exaggerate the severity of those which were present (Dillon, 1939). Other cases, however, also appeared from time to time in which purely or largely artificial states were developed often of considerable complexity. It is with these that this article is concerned. The cases described include only those in whom evidence of malingering was considered to be conclusive.

Simulated symptoms are generally considered to express a conscious and deliberate intention on the part of the individual, whereas those of the neuroses are looked upon as results of unconscious motivation. The distinction between the two, however, is by no means sharply delineated. Conscious and unconscious motives may be combined and it is quite common for a malingerer, if he has undertaken to imitate an easily sustained disability, to become in the end persuaded of its reality—in much the same way as the man who recounts often enough an exaggerated story of his prowess comes in the end to believe it.

### CASE 1

A private in an infantry regiment, aged 28, was admitted to hospital in March, 1917, with a note from the regimental medical officer saying that he considered the man was unfit for duty in the trenches and should not have been sent back after a previous attack of shell-shock. When seen shortly after admission, the patient was in an intensely restless, excited state. He appeared to be constantly overcome by terror, acting as though he heard shells coming towards him. Every sound seemed to send him into an extreme state of apprehension. He was apparently unaware of the nature of his environment, and took no notice of questions addressed to him. He frequently went through an elaborate pantomime in which he would stare in terrified fashion in front of him, suddenly point ahead, utter some disconnected remarks such as “Germans!” or “over the top!” then cover his face with his hands and fall back on the bed, or suddenly dive under the bed-clothes. The condition appeared to be a confusional psychosis with vivid auditory and visual hallucinations. He was given gr. 1/75 of hyoscine and quieted down at once.

The theatricality of the performance was impressive from the outset. For three days the condition was kept up, and it was noted that the crises occurred

particularly when he was under observation. When he considered himself unobserved the confusion and terror seemed to disappear, but recurred at once if he was approached. Suspicions had by this time been aroused as to the genuineness of the condition. He was taken into the medical officer's room and, under careful questioning, information was obtained from him which could not possibly have been given if he had been in the condition of confusion his pantomime indicated. Confronted with the situation, he broke down and confessed that on being sent back to the trenches after treatment for a previous attack of shell-shock in another hospital, he could not stand the sound of the guns, but relapsed on the first day, began to shake all over and was again sent down sick. He had two-and-a-half years' service in the army and had been in France for six months. He described how about six weeks previously, while with his battalion, he had been sent out on patrol with a party in no-man's land. The enemy's artillery opened fire and the party were forced to lie on the ground with the shells bursting round them for about twenty minutes. The patient stated that he did not remember any more until he woke up in a shell-shock hospital, very nervous and jumpy. After about five weeks' treatment he was sent back to duty, but on the first day with his regiment broke down, as described above, and decided to simulate a condition which he hoped would bring about his transfer to England. The patient stated that he had been recommended for a decoration for bravery in the field, and had in his possession a white divisional card for good conduct. He expressed his regret and put forward a request to be sent back to his battalion in the effort to make good.

## CASE 2

A private soldier, aged 20, was admitted into hospital in July, 1917, and remained for about three weeks in a state of apparent delirium. He sat up in bed most of the day staring fixedly in front of him, to all appearance oblivious of his surroundings and failing to understand what was said to him. He muttered continuously and unintelligibly, the only word which could be distinguished being "mother" There was no sign of disorder of any of the systems and physically he was robust. He could do practically nothing for himself, had to be led about, required to be spoon fed and obtained a good deal of attention from the ward sister. It was noticed that when approached by the medical officer the rate of his pulse went up, his breathing increased considerably, he perspired freely and swallowed frequently.

These signs, combined with the unusual nature of the condition, aroused certain misgivings. One day, he was sitting in a chair and being fed by the ward orderly, I stood in front of him and carefully watched the proceedings. After



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some time his breathing became more rapid, his pulse-rate increased, he began to show signs of agitation, and his face flushed. It was a reaction difficult if not impossible to reconcile with a genuine condition. He was taken into the medical officer's room, soon broke down under examination, and confessed that he had become increasingly nervous in the line and had assumed a fictitious condition as a means of getting out of it. He was overcome with shame at the failure of his deception. He covered his face with his hands and said: "What will the Sister think of me!" This difficulty was smoothed over for him, but it created a sensation in the ward when he walked out of the room a normal man again, and aroused no little bewilderment in the orderly who had been feeding him but a short while before.

[...]

The main difficulty at our advanced centre was the lack of psychiatrically trained medical staff. A further drawback was that in the different phases of the war the numbers of patients varied considerably; during a push we were often swamped with new cases. At these rush times, it is probable that a number of malingerers escaped our vigilance and were evacuated to the Base along with the severe cases. It is essential that medical officers at advanced centres should bear the question of malingering constantly in mind. At the same time, even in spite of psychiatric experience, the diagnosis may be extremely difficult, as has been shown above. If injustices are to be avoided, and unnecessary compensation and pensions saved, it is essential not only that diagnostic psychiatrists should be available, but also that facilities for observation, as long as may be necessary, should be at hand.

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## Appendix 6

### THE PSYCHONEUROSES OF WAR

George F. Boyer

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*"The Psychoneuroses of War," Canadian Medical Association Journal 43, 1 (July 1940): 53-59.*

*George F. Boyer was a neurologist and specialist in internal medicine from Kincardine, Ontario who started his career at the Hospital for Sick Children in 1912. In March of 1915 he joined Number 4 General Field Hospital and served in Canada, England, and Salonika. For a time, Boyer also served at the Granville Special Hospital in Ramsgate and gained much experience in working with neuropsychiatric patients at both hospitals. Soon after the outbreak of the second war in 1939, like Dillon he reflected on his experience during the first. He warned physicians against the view that shell shock had a single cause or could be cured with a magic bullet. For Boyer, shell shock resulted from the interplay of two variables: the environment and the individual. Psychological breakdown, he suggests, begins with exhaustion and fatigue which wears away at the fear instinct. Fear of death is, after all natural, and the mind must work against that instinct. Psychological breakdown occurs when the instinct to give into fear overwhelms the soldier's efforts to control their fear. In this analysis, says Boyer, terms like hysteria, neurasthenia, functional neurosis, and conversion disorder have little real meaning. Breakdown is a process which might, he implies, even be natural.*

The calamitous state of war calls for the service of soldiers who are but personalities with different degrees of complexity of intellect and motive. It requires cohesion by the most practical time-tried methods. In the later stages the individual's intellect and motives are sorely strained in his efforts to control his own sense of right of self-determination, his own ideas of social freedom and justice, and to suppress disturbances of emotional conflict. Expediency calls forth the finest co-ordination with discipline and all those standards of life which are individual and essentially expressions of freedom. The objectives of service are personal, but, when dictated by correct motive, they will achieve the end of maximum efficiency. Perhaps when Cromwell chose a soldier who "knows what he fights for and loves what he knows" he expressed all we can today. He is said to have "winnowed" his "Ironsides" and after the winnowing, discipline and morale carried on.

Functional disease does not lend itself well to the concrete. In medicine it is much more of the stuff that art is made of, when contrasted with organic abnormalities, which are more of the exact sciences. When the latter precede or

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are complicated by functional disease the state becomes more complex. Unfortunately, and greatly to our discomfiture, slight organic disease, or injury, is too often followed by protracted functional disease. Skill in recognition and control of a psychoneurosis is the result largely, if not solely, of patient practice, directing energies towards a definite, useful, or ethical end. This all features the abstract and immaterial and is in sharp contrast with the systematic arrangement of demonstrable facts present so much more constantly in organic changes. Therefore the field of functional disease lends itself much more to the tests of experience than of reason and deduction, and this explains in part why functional neurological disease is so varied in nomenclature and opinion as to cause and treatment. We see this confusion in courts of law and in many phases of reestablishment towards human usefulness in or after war, in industrial accidents in civil life, and in states of disturbance in domestic life.

Simple brief definitions are best for states as complex as the psychoneuroses but they do not fulfill all the essentials. The psychoneuroses have wide limits, ranging in degree of reactions of intolerance and escape. [...] My conception of a psychoneurosis is fulfilled by describing it as a state of partial mental or bodily disturbance without demonstrable organic cause, present in an individual to whom the symptoms are real, occurring without his full knowledge as to cause, due to his reaction to an intolerable environment and to which he is without full power to adjust himself without the assistance of external forces. The two essentials of such states are, namely, the personality and the environment. The former concerns the complexities of mental make-up, comprising as it does, instinctive, emotional and intellectual essentials; and the latter, the real situations of life under conditions of stress in which the ordinary circumstances of the individual will be at great variance to repellent or alarming influences.

Under such circumstances it is no wonder that different minds develop, as it were, "temporary connections", which, if repeated often enough and long enough, produce states of cerebral conditioning reflexes, the inhibition of which may sometimes be prolonged and difficult. Instinctive fear is, as it were, the unconditioning essential of the reflex, while war produces the conditioning of the reflex, the inhibition of which depends upon many features, important among which are discipline, moral fibre, rest, time, and morale. The environment brings into close conflict, ideals and the instinct of self-preservation. In the perfect soldier his efforts and success in controlling the effects of the conflict will be in direct relation to his habit of reacting to an ideal in meeting his ways of daily life. Many influences augment ideals in army life and many annoy and suppress them (morals as to service, discipline, comradeship, adventure, revenge, justice, self-aggrandizement, *vs.* sublimation of self, discomfort, social and political inequality and privilege, disgust, physical fear, etc.). The soldier, just as the man, exists perhaps in his highest form as the one who is willing

and who can suffer for an ideal. This is largely a matter of training and depends upon the individual's acquired control of emotional turmoil by intellect or sentiments. With this control he may carry on for long periods of time. This is borne out by the frequent instances of control of functional disease in war as shown to be in direct relation to regimental discipline, morale, tradition, esprit de corps, etc. "The occasion" of the final break towards invalidism often depends upon the collapse of this mechanism incidental with an otherwise unimportant event such as slight gassing or the proximity of shelling, slight injury, or nothing of actual importance. Fatigue and exhausting conditions may add significantly to the final precipitation of the collapse. In my opinion libidinous impulses play a small part in the soldier's breakdown. No good end is served by elaborate classification of nervous disorders in military service and the general conception of the term *environmental* psychoneurosis or neurosis should be more generally accepted. This would be a great improvement over the use of such too often indiscriminate terms as neurasthenia, anxiety neurosis, traumatic neurosis, traumatic syndrome, psychasthenia, hysteria, conversion hysteria, compulsion neurosis, apprehension neurosis, shell-shock, khaki shock, obsessive compulsions, gastric, cardiac, and other types of qualifying neuroses. This is especially true in all forward or battle areas where forbidding and formidable diagnoses should be omitted in favour of a general term such as nervousness or "environmental" psychoneurosis or "environmental" neurosis. N.Y.D.N. is acceptable under conditions of regimental, ambulance and casualty clearing station work. These states should in the eyes of all be regarded in the essential light of environmental reactions. The more exact diagnosis should be left for locations where more detailed study can be made of individual cases, as at base hospitals or under hospital conditions prior to discharge, far from the scene of battle and only when and where all documentation is available in each case.

[...]

The treatment of psychoneuroses in war cannot be summarized in an arbitrary of concrete manner because the time and location of incidence are matters which entirely change treatment and disposal. Under conditions of mobilization and training, field and battle, hospitalization, demobilization and rehabilitation, the handling of cases is entirely different. What is indicated, should functional disease be developed in training, will not and cannot be recommended under states of battle or later hospitalization. The possibilities of diagnosis, observation, study, and disposal are entirely different under these various situations.

[...]

I have expressed the opinion that we, as a profession, have allowed the concept of psychoneurosis to assume a status and a roll of a disease entity that is

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detrimental to its control by the patient and his physician. The states become too diversified and complex in our own nomenclature; the state of psychoneurosis has become too serviceable to its host. It matters little whether physicians agree with regard to the individual patient being tainted by conscious motive or not, but what is significant is the fact that the latter's correct thinking can and will control his health and actions as long as a doctrine of stimulation and leadership is accepted and as long as the environment and the discipline of the herd is correct. In my opinion, the view held by laity, law, and political influences is to a great extent due to medical creations as a result of diverse opinions often arbitrarily expressed, especially in courts of law and tribunals, wherein functional disease is wrongly related to a single incident or environment and not sufficiently correlated with the intricacies of personality, and often regarded as beyond influence on the part of the patient himself. Terms that suggest no appeal to the conscious should be discouraged and abandoned and, for this reason, shell-shock, which was based on the presence of organic changes, is a term greatly to be regretted and to be avoided.

# Chapter 3

## **BATTLE EXHAUSTION AND FORWARD PSYCHIATRY IN THE SECOND WORLD WAR, 1939-1945**

The mobilization of the military forces of the Commonwealth nations in 1939 took place without reference to any of the apparent lessons of the First World War. Neither conscripts nor volunteers were seriously screened for mental illness and in many cases men with serious physical disabilities were enlisted. Criticism of the army's methods of examining volunteers came from all directions and, before the end of 1939, a re-examination of all recruits was ordered. It was to include a chest x-ray, chemical urinalysis, and a more detailed physical. Psychological testing for the selection and classification of army personnel was also considered. A conference on "The Use of Psychological Methods in Wartime" held in Ottawa on 2 October 1939 concluded that "it would be advisable to introduce into the recruiting examinations, intelligence and aptitude tests."<sup>1</sup>

The chairman of the conference was Canada's most distinguished scientist, Sir Frederick Banting, the co-discoverer of insulin. Prominent among the advocates of testing at the meeting was Major-General A.L.G. McNaughton, President of the National Research Council. McNaughton had been Chief of the General Staff from 1929 until 1935 and in early October he was anxiously awaiting the call to return to the colours. When the call came it was to the post of Inspector-General of the units of the 1st Canadian Division with a view to commanding the Division when it was sent overseas, not to the post of Chief of the General Staff.

Without McNaughton's direct involvement psychological testing stood little chance of being accepted. Indeed, a meeting of psychiatrists called to discuss approaches to psychiatric problems in the army was flatly told that "there would be no testing and no psychiatric screen at enlistment."<sup>2</sup> The examining boards were to "reject obvious misfits, and refer difficult cases to regional consultants for disposal."<sup>3</sup> When new instructions to medical boards were issued in early 1940 doctors were told to establish "that the recruit is sufficiently intelligent" by questioning him. Obvious misfits were defined as those "with a history of nervous breakdown... residence in an institution... drug addiction... or a family history indicating nervous instability such as migraine, eccentricity etc."<sup>4</sup>

The lack of concern for intelligence testing, not to mention any form of personality evaluation, reflected the attitude of the Canadian medical profession

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toward psychology and psychiatry. The overwhelming majority of doctors inside or outside the army sincerely believed that well-trained physicians, particularly those who had served as medical officers in the First World War, could evaluate an individual's ability or stability as well as any psychiatrist and better than any psychologist. If the medical board had any doubts about an individual's mental fitness its job was to reject not diagnose or treat him.

A similar approach prevailed in Britain. Despite the recommendations of the Southborough Committee, attempts to introduce personnel selection were rejected by the three services. The decision to double the size of the Territorial Army, March 1939, and introduce conscription in April, meant that more than one million men were called up in a six-month period. Only the crudest selection methods were possible. There is, as we will see, a good case to be made for a system that deselects through observation in training but this approach did not explain a situation where throughout 1940 more than 1000 men a month were discharged as "psycho-neurotic."<sup>5</sup>

The selection of recruits in New Zealand proceeded without any emphasis on "mental instability." When reports came back from the expeditionary force (2NZEF) that men who had been mental hospital patients were overseas it was then decided to check for evidence of hospitalization but "no provision was made for the psychiatric examination of recruits."<sup>6</sup> The Australian army followed a similar approach.

The attitude of the Commonwealth forces to "scientific personnel selection was clear enough but what did the military propose to do about psychiatric casualties among apparently normal personalities produced by the stress of war? The BEF had gone to France in 1939 with a clear set of assumptions about this problem. The experience of the last phase of the First World War led most medical officers to believe that in a well-trained unit there would be few breakdowns, except after prolonged combat. Soldiers who exhibited nervousness or more extreme symptoms in these circumstances would be treated with rest, reassurance, and firmness.\* This therapeutic regime would be carried out as far forward as possible, at a Field Ambulance or Casualty Clearing Station (CCS). No specialist would be needed at these advanced posts. Psychiatrists would be available to treat serious cases at a neuropsychiatric centre attached to a general hospital.

The events of May and June 1940 prevented the testing of these assumptions. As the BEF retreated to Dunkirk very large numbers of acute anxiety neuroses de-

\* British medical authorities preferred to avoid the World War I term "shell shock." The official preference was that forward medical officers use NYD (N), for Not Yet Diagnosed, (Nervous). In practice a wide variety of terms including psychoneurosis, anxiety neurosis, battle neurosis, shock, exhaustion, and battle stress, were used by doctors until the terms "battle exhaustion" or simply "exhaustion" took hold.

veloped and all that could be done was to evacuate them to England. The British Army at home had made no provision for such casualties,<sup>7</sup> and it was decided to send them to the Emergency Medical Services (EMS) neurosis centres originally set up to deal with the civilian psychiatric casualties expected from air raids.

Sutton, a sub-unit of the Maudsley Hospital, was the main EMS centre receiving military patients from the BEF. Here, William Sargant and Elliot Slater led a team of psychiatrists and neurologists who were firmly committed to a physiological approach to psychiatric research. Their first major report, published in *The Lancet* on 6 July 1940<sup>8</sup> began by distinguishing between the cases “of acute *shell shock*” seen after Dunkirk and the neurotic disorders treated during the “Phoney War.” The latter group exhibited “personality deviations, constitutional instability and lack of stamina which could be readily established from their past history.” The acute cases of war neurosis from France, on the other hand, demonstrated that “men of reasonably sound personality may break down if the strain is severe enough.”

Sargant and Slater noted that “compared to the average population” there was probably a greater proportion of men who “had suffered from nervous troubles in earlier life” among the acute cases, but they were struck by the number of individual histories showing good adaptation to army life, with “normal intelligence, personality and work record.” Such men had broken down under the stress of the withdrawal to, and evacuation from, Dunkirk. “It was an accumulation of strains, both physical and mental, of great intensity – bodily danger, continuous physical exertion, loss of sleep, insufficiency and irregularity of meals, intermittent but perpetually recurrent bombardment and the sight of comrades and civilian refugees being killed around them... the necessity of continued withdrawal from the enemy, the impossibility of striking back produced a sense of frustration that contributed to a disastrous effect on the mind.” Their patients’ symptoms were “remarkably uniform: thin, fallen-in faces, pallid or sallow complexions, the whole expression of the body was one either of tension and anxiety or of a listless apathy... The patients complained of the usual symptoms of the acute anxiety state: sleepiness, terrifying bad dreams, a feeling of inner unrest and a tendency to be startled at the least noise.”

If the manifestations of anxiety were intense, they were also of short duration “even with a minimum of treatment.” Some who had difficulty in staying asleep were given sedatives while the more severe cases were given a course of continuous narcosis, inducing sleep for the greater part of every twenty-four hours over a period of several days to a week. The doctors believed that “the longer the symptoms are allowed to last, with knowledge of the patient the more deeply they will be ingrained and the more likely they will be to recur as future behaviour patterns.”



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Sargant and Slater also believed that “both for the patient and the doctor it is necessary to know the proximate cause of the breakdown.” If required, hypnosis was to be employed to accomplish this. Sodium amytal, the most common sedative, produced an “easily controlled hypnoid state,” which could be used “for the recovery of amnesia, for the reinforcement of suggestion and for the relief of hysterical symptoms.” The prognosis for the recovery of these men was uncertain but the severity of their experience had convinced many of them that they would not return to battle without breaking down. The authors were initially reluctant to accept this suggestion, arguing that “only a history of previous neurotic illness or symptoms in civil life should exclude the patient... from front line... service.”

Six months later a report was published on 1,500 cases seen by Sargant’s group at Sutton Emergency Hospital.<sup>9</sup> It began with a firm statement that “it is impossible, by psychotherapy to reconstitute the make-up of a personality... the neurotic cannot be freed of his neurotic tendencies.” In military life, where the curing of symptoms results not in return to full activity as a civilian but to renewed service in the army, “treatment encounters the same difficulties but does not offer the same reward.” The correct policy, Sargant and Slater now argued, was to return the neurotic who had broken down to civilian life where the best chance of readjustment lay. Sargant recalled this period in his 1967 publication, *The Unquiet Mind*: “Our experiences of Dunkirk taught us the folly of trying to patch up soldiers and expect them to face again the stresses that caused their breakdown... In World War I Neurotics had as a result, been kept with the Colours until they broke down completely. Some were shot for cowardice; but the example did the others no good... under strong or continuous stresses no threats of exemplary punishment can prevent breakdowns.”<sup>10</sup>

The Sutton Hospital team also came to believe that “the most important lesson” of Dunkirk and the Battle of Britain was the need to prevent “a neurotic pattern of thought or behaviour from remaining fixed in the patient’s brain for a minute longer than necessary.”<sup>11</sup> The nervous system was to be protected from further stress by immediate sedation with sodium amytal or other barbiturates. Sargant noted that success in relieving acute symptoms only worked well when the patient was treated early enough and this led him to advocate the use of sedatives as far forward as possible. This treatment or even rest alone would lead to the disappearance of acute symptoms, since there was “a considerable tendency to spontaneous recovery.” Even so the patient must be forced to “re-experience the violent emotions that the battle scenes have aroused.” According to Sargant “this process – abreaction – has a prophylactic, as well as an immediate therapeutic effect.”<sup>12</sup>

Sargant also reported on a new form of physical treatment that became known as insulin subcoma or modified insulin treatment: “In addition to sleep therapy, a

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modified form of insulin treatment is useful in some cases for breaking down the vicious circle of anxiety and loss of weight. Increasing doses of insulin are given in the mornings up to a maximum insufficient to produce coma or hypoglycemic excitement, followed three hours later by 12 oz. of potatoes or 7 oz. of sugar. The treatment is without any risks associated with insulin coma and generally produces a rapid gain in weight and improvement in physical condition.”<sup>13</sup>

The work of William Sargant was to have a profound effect upon Allied policy towards the battle neuroses but that impact was delayed by the unusual pattern of warfare that developed in the Middle East and North Africa where “shell shock” casualties labeled N.Y.D. (Nervous) were not a significant medical or manpower problem. Admissions for injuries, enemy action, accounted for less than twentieth of the hospital case load in the Mediterranean theatre. In 1942 there were 670 admissions to hospital per 1000 men strength in the Middle East but only 40.35 per 1000 were due to enemy action. Injuries not from enemy action accounted for 51.42 cases per thousand. “Mental Disease” including psychoses and psychoneuroses were responsible for 20.03 admissions per 1000 troops. From an overall medical or manpower point of view, dysentery, infections, hepatitis, malaria, sandly fever, and venereal disease (39.7 per 1000) were more important problems than casualties, never mind battle-induced neuroses.<sup>14</sup>

The Official Medical History, relying on notes by Brigadier G.W.B. James, the Consultant Psychiatrist, reports that the campaign against the Italians (December 1940 – March 1941) produced few acute cases – “less than 200 for all services.”<sup>15</sup> Even the battles in Greece and Crete with the difficult evacuations of troops under air attack, are described as having caused “a very small number of battle neuroses.”<sup>16</sup> Since James’ own figures indicate that during 1941 one in every six battle casualties was psychiatric,<sup>17</sup> it is clear that the army was ignoring a problem which would become important once large-scale fighting began.

The battles of the spring and summer of 1942 and especially the withdrawal to the El Alamein line forced acknowledgement of large numbers of cases that seemed to be associated with fatigue and nervous exhaustion. This led James to using the term “exhaustion” rather than anxiety neurosis for breakdowns occurring in combat. He also began using the term “campaign neurosis” to describe veteran soldiers who had broken down. “Men,” he wrote, “can probably do two years after which there is an increasing risk of nervous breakdown.”<sup>18</sup> For the second battle of El Alamein and the pursuit to Tunisia, a psychiatrist was attached to a mobile general hospital in the hope of saving a higher percentage of exhaustion cases, but the Eighth Army went into the difficult battles in Tunisia without a system of forward psychiatry and doctors evacuated most patients to Tripoli without attempting forward treatment.

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The Australian and New Zealand forces in the desert did not share the British Army's reluctance to institutionalize forward psychiatry. In May 1941 the Australian division besieged in the tiny port of Tobruk established a war neurosis clinic that treated 207 men over a three-month period. The forward clinic was in a bomb-proof underground shelter under an anti-aircraft gun and close to a heavy anti-aircraft battery. Dr. A.J. Sinclair reported that "treatment, in so far as it could be carried out, consisted primarily in the provision of adequate rest, if necessary, with the use of soporifics. Thereafter, there was a frank discussion of the nature of the patient's fear and of the distinction between fear and cowardice. If the personality of the patient was good enough attempts were made to teach the patient to discipline his fear and to prove to him he was still capable of first class work while still afraid."<sup>19</sup>

The psychiatrist diagnosed 62 of the men as suffering from "simple fear states," which he did not consider to be a neurosis. He was able to return 33 of these men to their unit and all but 5 were able to stick it out for some time. A further 70 men were classified as suffering from "anxiety neurosis." Rest and sedatives seemed to work equally well with this group and he returned half to their units. Sinclair concluded that "anxiety neurosis in soldiers has a relatively good prognosis if treated early." Case histories were not particularly revealing. Half the patients reported some family history of "neurosis," half did not. 61 per cent were judged to have a "poor personality" but Dr. Sinclair did not elaborate.<sup>20</sup>

A second Australian psychiatrist, Dr. H.R. Love, reported on a group of 174 men treated in a tented Field Ambulance. His methods and salvage rate were similar to Sinclair's. Love's report, published in *The Medical Journal of Australia* in August 1942,<sup>21</sup> showed a broad familiarity with the research literature on anxiety neuroses and a remarkable degree of certainty about their prevention and care. He concluded that "with proper handling the number of men who require to be sent out of the unit lines may be reduced to a negligible figure. It requires confidence in diagnosis, prompt action as to treatment and a certain hardness of heart."<sup>22</sup> Their experience in Tobruk convinced the Australians "that the acute nervous disorders of war are best treated near the front line"<sup>23</sup> and the Australian 9th Division, which remained in North Africa as part of the Eighth Army, assigned a psychiatrist to one of the division's clearing stations.<sup>24</sup>

The 9th Division's medical services continued to develop their own approach to forward treatment in 1942: "Soldiers arriving at the CCS were examined and asked almost at once to contribute a pint or so of their blood for the blood bank. Liberal fluid was then given and the patient was fed and put to bed with a generous sedative. As soon as he was rested and the symptoms relieved, the soldier was got up and took part forthwith in the work of the desert station... The contribution of the whole blood by psychiatric casualties was found to be a sound

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psychological aid to treatment. It gave the soldier the feeling that he was doing something for his comrades, that by voluntary sacrifice of blood he 'atoned' for his breakdown and was made to feel that he remained a useful member of the group by which he feared he might be regarded as an outcast."<sup>25</sup>

The New Zealand Expeditionary Force did not develop forward treatment until the summer of 1942, when it set aside a divisional Field Ambulance as a rest centre. This proved so successful that the New Zealanders never developed special exhaustion units. Either a man was able to return to his unit after four or five days of sedatives and rest or he was evacuated to base. The force's adviser in psychiatry, Lieutenant-Colonel John Russell was quite matter of fact about exhaustion and "a considerable percentage, probably the majority" of cases were "referred to Base for grading and then placed in some suitable occupation." The Maori battalion pioneered a system of "battle friends" who lived and fought with a new replacement or anxious veteran but this approach to limiting psychiatric casualties seems to have been unique.<sup>26</sup> The early development of forward psychiatry in the Australian and New Zealand contingents provided a model for other Allied armies, but the British medical system for the evacuation and treatment of "battle exhaustion" remained unaffected by the Anzac example.

If forward psychiatry was relatively underdeveloped in the Eighth Army it was completely ignored in General Kenneth Anderson's First British Army, which took part in the Allied landings in North Africa. Both military commanders and medical administrators in the First Army were strongly opposed to the presence of psychiatrists and flatly refused to accept an adviser at army headquarters. Two psychiatrists did join the force in December 1942 and one of them was able to work in a forward area for a short time. At a base hospital in Algiers a second psychiatrist employed the full range of physical techniques in treating an "enormous number of neurosis cases." The First Army's failure to provide any form of forward treatment meant that virtually all acute cases were evacuated without sedation. By the time treatment was available the condition of many men had deteriorated and it was not possible to return more than a small number to their unit.<sup>27</sup>

The attitude towards combat stress reaction in First British Army was an inevitable result of developments in Britain where military and medical authorities believed they had solved the problem through better personnel selection. The divisions assigned to First Army for North Africa were "selected" and were therefore supposed to be relatively immune to psychiatric problems.

At the outbreak of war the Canadian and British Armies had rejected intelligence testing and psychiatric screening of recruits, but by the beginning of 1941 both armies believed they were facing a severe shortage of manpower,

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particularly of skilled tradesmen. The British had begun using a verbal intelligence test for new recruits in July 1940 but its main purpose was to isolate dull and backward men for referral to a psychiatrist. During 1941 a series of experimental studies led to the establishment of a British army directorate for the selection of personnel. By mid-1942 an army-wide program of intelligence and aptitude testing was underway.<sup>28</sup>

The British Army's personnel selection branch was created to implement the theories of those psychologists who believed that the occurrence of shell shock in the First World War was dependent on "previous psychoneurotic history an inherited predisposition, and inadequate examination and selection of soldiers fitted for the front line."<sup>29</sup> The psychologists not only claimed to understand the origins of the problem, they also were confident that the various intelligence and personality tests devised since the last war could select those who were fit for combat.<sup>30</sup>

The Canadian Army at home had started intelligence testing in 1940 but the experiments were not followed up until early 1941 when personnel of the Canadian Armoured Corps training centre at Camp Borden were examined. (Those with lower intelligence score were posted to the infantry.) The Minister of National Defence, J.L. Ralston, began to take an interest in the issue in April 1941 the National Research Council provided a grant of \$2,000 "to further its studies of intelligence and aptitude measurement."<sup>31</sup> E.A. Bott, professor of psychology at the University of Toronto, was sent to England to consult with the armed forces overseas and to find out what the British were doing. He was given the rank of Group Captain in the RCAF and most of his subsequent work was with the air force.

Bott was a major figure in the Canadian university community. He was chairman of the psychology department at the University of Toronto and president of the new (1938) Canadian Psychology Association (CPA). When war broke out Bott, along with other psychologists, had volunteered his services to the country. Although psychologists received little encouragement the CPA developed a standard test, the M test, intended to determine "learning ability."<sup>32</sup>

This test drew heavily on the United States Army's Alpha and Beta test, which had been developed during the First World War. The original tests had created a ferocious controversy in the United States when the Army Report on the wartime testing program was published. The editor, Robert M. Yerkes, claimed that the tests, which had been administered to 1.7 million American soldiers, successfully measured "inborn intelligence." This "native intellectual capacity" could, he argued, be expressed by assigning a mental age to each soldier. The testers had determined that the average white draftee had a mental age of 13 and from this they inferred that anyone with a mental age of between 7 and 12 years

was a “moron” with very limited potential. This produced the absurd claim that 30.3 per cent of all whites and 79 per cent of all blacks were “morons.”<sup>33</sup>

The methodology, assumptions, and values of the testers were sharply attacked by many commentators including Walter Lippman, who ridiculed the entire concept of mental age.<sup>34</sup> Psychologists did not remain on the defensive for long – too much depended on public acceptance of the validity of their tests. By 1938 they had developed a variety of more sophisticated IQ tests. Few psychometricians still claimed that 30 to 40 per cent of the population was ineducable,<sup>35</sup> but psychologists as a group continued to believe that a very large percentage of the population had limited abilities. Bott and his colleagues in Britain and Canada shared these assumptions.<sup>36</sup> When this bias was combined with the commonplace view that modern war would be fought with complex machines requiring users with above average intelligence, the scene was set for large-scale rejections of suspect volunteers and draftees.

While in England Bott had a chance to administer the M test\* to a number of groups and to consult with British and Canadian psychiatrists. Those in charge of army psychiatry in Britain, were very supportive of Bott's ideas. The Canadians were much less enthusiastic. Colin Russel was flatly opposed. He argued that well-trained medical officers, NCOs and officers should select men as “precisely” as a psychological test could. Moreover, he wrote, “psychological group tests cannot be expected to pick out the recovered psychotic, the psychopath, the temperamentally unstable or the man who is going to lose his will to carry on.”<sup>37</sup>

Brigadier J.A. Linton, the Director of Medical Services (DMS) for the newly established 1 Canadian Corps, strongly supported testing although he had no clear idea of what the available tests measured. He had chaired the committee examining the question in Canada and had become convinced that in a large organization like the army “we are bound to have square pegs and round holes. If we can prevent them from coming together... we should save an enormous amount of time and effort.” In addition, the number of functional diseases could be decreased, he believed, “if any simple procedure [for early diagnosis] can be adopted.” The problem, according to Linton, was “how mental inertia can be overcome in those who for various reasons cannot or will not correlate military problems with the present century.”<sup>38</sup>

Neuropsychiatrists were not the only ones to express their reservations about the advent of personnel selection. The staff officers at Canadian Military

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\* The M test, which could be administered to large groups, was made up of eight short sub-tests. The first three were non-language picture tests designed to be understood by illiterates, 4 and 5 dealt with knowledge of tools and basic mechanical aptitudes, 6, 7, and 8 were conventional arithmetic, vocabulary, and relationship tests.

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Headquarters (CMHQ) were concerned that intelligence tests would be used to eliminate “mental defectives who are well-behaved and amenable to discipline.” Both the British and Canadian Armies had long experience in utilizing men of below average intelligence and there was a strong belief that such men could “make useful soldiers providing their limitations are appreciated.”<sup>39</sup> Those who could not find any niche in existing military units were surely so limited as to require discharge.

Brigadier Linton did not accept this view. In the fall of 1941 he began a campaign to establish “labour battalions.” He argued that there were people in every unit “unfitted for the duties a soldier must perform in the modern army.” Commanding officers were too often guilty of placing such people in jobs where their deficiencies were not readily apparent. This, according to Linton, was dangerous because they would break down under the pressure of battle. To illustrate his argument Linton described four privates finally brought forward for medical reclassification: “One man is a driver and is defeated by every roundabout. Under ordinary conditions he is a fairly good driver but he usually leaves the roundabout on the same road by which he entered... [The others] have been tried in every position in the unit, even as batmen. In their desire to do a good job they polish the inside of Sam Brown belts with disastrous effect on clothing.”<sup>40</sup>

The British Army had created an Auxiliary Military Pioneer Corps to employ “dull and backward” soldiers as unskilled labourers. During the retreat to Dunkirk several companies in the Corps had been given arms and had fought with determination.<sup>41</sup> After Dunkirk all companies in the renamed Pioneer Corps were either armed or at least trained to use arms, until it was decided that many men could not absorb the training. Unarmed labour battalions were reconstituted within the Pioneer Corps. Such units were at first differentiated from the armed companies by the designation “Q” [Queer]. When Jack Rees, the consulting psychiatrist, pointed out the obvious connotations of Q, the terminology was changed to “unarmed” for the remainder of the war.<sup>42</sup>

Linton was determined to develop a similar system in the Canadian Army. His efforts to promote psychological testing and labour battalions were strongly supported by General MacNaughton and even by National Defence Headquarters in Ottawa. There had been a palace revolution in Ottawa – the new chief of staff, Harry Crerar, and his vice-chief, Kenneth Stuart, had informed the adjutant-general that a special directorate of personnel selection was to be established under Colonel G.B. Chisholm, who would be assisted by a civilian advisory commission.<sup>43</sup> The new directorate was to develop a systematic program of personnel selection, ultimately classifying all men in the army, and seeking to identify potential officers, men of high intelligence, men suitable for trade training, men showing neurotic reactions, and men of low intelligence.<sup>44</sup>

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This program was much more ambitious than the one developed for Canadian troops in Britain, its comprehensive aims clearly reflecting the attitudes and ambitions of Canadian psychologists.

The new director, Brock Chisholm, was to become one of the leading public figures in Canada after the war. Now best remembered for his attack on the myth of Santa Claus as damaging to children, his service as Deputy Minister of Health and President of the World Health Organization is largely forgotten. Chisholm was a remarkable man by any standard. He had fought as an infantryman in the First World War, winning a Military Cross. After earning his MD at the University of Toronto, he studied at the Tavistock and other hospitals in London. He later lectured at the Yale Institute of Human Relations before returning to England for further experience in psychiatry. In 1934 he set up practice in Toronto as a psychiatrist, becoming the first such private practitioner in Canada.<sup>45</sup>

Chisholm had never lost his interest in the military and by the outbreak of the war was a militia brigadier. Placed on active service with the rank of colonel, he commanded part of a military district in Northern Ontario for two years. During this period Chisholm produced a widely distributed pamphlet, *A Platoon Leader's Responsibility for the Morale of His Men*, which contained in six pages nearly all there is to say about management of men in the army. The pamphlet explained the role of good morale in preventing anxiety states and insisted that such morale could only be produced by building a group, "a mutually protective entity which is more than the sum of its units."<sup>46</sup>

A man of enormous energy and charm, Chisholm had a wide circle of friends and admirers. One friend, Harry Leston, was Deputy Adjutant-General, and it was he who had persuaded Ken Stuart (then Deputy Chief of Staff) to bring Chisholm to Ottawa to advise on training. Leston and Stuart were rising powers at NDHQ, soon to become heads of the two key branches of army administration.<sup>47</sup> On 4 August 1941 Stuart called a meeting to set forth the need for an organization to "classify officer and other rank personnel."<sup>48</sup> Both Chisholm and Bott were present to explain the details of an organization that would soon become the largest psychological testing enterprise in the country's history.

While Chisholm was getting things organized in Canada, Major J.W. Howard,<sup>49</sup> a professional psychologist, was sent to England to begin "sifting" the Canadians overseas. In December 1941 seventy-five officers were recruited from various units in Britain and, after a one-week course, they were officially designated Selection of Personnel Officers (SPOs) and sent off to test and interview the army.<sup>50</sup> One week's training was deemed sufficient to equip an officer to administer the M test and to conduct a brief interview. It was the



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neuropsychiatric division of the RCAMC that was to provide qualified psychiatrists to examine the misfits and doubtfuls uncovered by the tests or by the psychological interview.<sup>51</sup>

Russel, in his last months as Consulting Neuropsychiatrist, was still fighting a rearguard action against the whole scheme. Early results indicated that as many as 6,000 soldiers would be referred for psychiatric examination. Russel noted that this “seems a great number.” He thought the psychologists should stick to identifying and reassigning people who were being misused by the army, “for example, good mechanics working as kitchen help.” The mentally backward could be sent to a labour battalion by the RMO if there was no place for “hewers of wood and drawers of water” in the battalion. “as for the prepsychotics,” Russel wrote, “I do not believe special treatment beyond the understanding care of the RMO is indicated. If they get beyond this ability they should be sent to the Neurological Hospital.” Russel was equally certain that the “prophylaxis of the anxiety neurosis also rests with the Regimental Medical Officer”<sup>52</sup> and that nothing would be gained and much lost by attempting to identify potential neurotics.

CMHQ was too strongly committed to psychological testing to accept this advice and in the summer of 1942, the Consulting Neuropsychiatrist, Colonel F.H. Van Nostrand, was informed that additional staff would be made available and that full cooperation with the personnel selection branch was essential. Van Nostrand, who shared Russel’s disdain for the psychologists, nevertheless asked for a rapid increase in the number of neuropsychiatrists. “It is estimated,” he wrote, “that one per division will be required plus at least two for Canadian Reinforcement Units... and one for each large body of troops which is geographically isolated.”<sup>53</sup>

The DMS now hoped he had a system in place for the “diagnosis and disposal” of the army’s personnel problems. In March 1942 No. 1 Canadian General Pioneer Company was created “to employ illiterates and men with low mental standard who were unable to absorb training.”<sup>54</sup> This meant that “mental deficiency” could be swiftly dealt with by the personnel selection branch and neuropsychiatrists could concentrate on functional nervous disorders, which in 1942 were rising to a much higher level “than during the worst of the blitz period.”<sup>55</sup> During the first eighteen months of its operation, September 1941 to April 1942, Basingstoke had admitted 1,171 psychiatric cases. Although Basingstoke was now receiving only the most serious cases, the next eighteen months saw a further 2,427 admissions.<sup>56</sup>

Some increase in functional nervous diseases because of “the prolonged sojourn of the Canadian Army in Britain” and the cumulative stress of “boredom, separation from families, inactivity and indefinite waiting”<sup>57</sup> was to be

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expected but the numbers seemed unaccountably high. The disastrous Dieppe raid of August 1942, another possible factor, made only a small contribution to the increase. Of the slightly more than 2,000 Canadians who returned to England (out of 5,577 who embarked for Dieppe) 586 were wounded and a large number were “exhaustion” cases who were treated with rest and sedation. By mid-September, just eight men from among the survivors had been admitted to Basingstoke.<sup>58</sup> The remainder had returned to full duty.

Since neither combat nor boredom is a sufficient explanation, it seems likely that the rise of psychiatric casualties in the Canadian Army may have been a by-product of the introduction of psychological testing. Van Nostrand had warned the DMS that “it is unwise to suggest to a borderline individual, who has not yet become a problem, that he is mentally different from his fellows, and as such, requires special consideration.”<sup>59</sup> The DMS was not influenced by this advice and instead urged “close cooperation of unit commanders, RMOs, neuropsychiatrists and the Personnel Selection Board.<sup>60</sup> Personnel selection officers were to conduct a psychological examination, including a psychiatric history covering family, school and employment records, as well as personal history covering religious problems, sexual adjustment, police record, and alcohol or drug addiction. “Psychopathic trends,” the instructions stated, “are frequently indicated by difficulties or unusual attitudes towards religion or sex; or by chronic trouble with the law.” The instruction did caution that “great care should be exercised... to avoid suggesting symptoms or disabilities,”<sup>61</sup> but Van Nostrand had little confidence that this would happen.

During 1943 personnel selection officers concentrated on a program to re-examine and reclassify the entire Canadian Army overseas, according to the criteria of the PUHLEMS\* system. This ambitious scheme foundered when the 1st Division left for the Mediterranean and other combatant units were caught up in the intensified training for Overlord. A second scheme was proposed to develop job descriptions for each position in the army and then reassign those who had too much or too little intelligence for the particular job. The British Army had just completed a similar program and was in the midst of transferring surplus “high grade” personnel to units that were short of such types.

General McNaughton fully supported this proposal in a letter written to commanders of all formations and units in England: “I fully appreciate that this policy will to a degree cut across the lines of individual preference and will affect to some extent the control that an officer... has over personnel of his Corps

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\* PUHLEMS: P for physique; U for upper and L for lower and locomotion; H for hearing and ears; E for eyes; M for mental capacity; S for stability. Grade 1 represents fitness for service anywhere; 2 fitness for service anywhere but front line combat; 3 fitness for lone of communication duties; 4 fitness for Canadian service only; 5 unfit. It is important, if tautological, to point out that those battle exhaustion cases which had been graded were rated 1.

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or unit. It is inevitable that it will result in the removal of men whose loss will be felt. Notwithstanding these disadvantages, however, I am convinced that the action is necessary for the well-being of the Army as a whole, and I therefore asked all Commanders loyally to accept my decision.<sup>62</sup>

The commanders of the 2nd, 3rd, and 4th Divisions objected strenuously. The Canadian Army was modeled on the British system of distinct regiments, raised in specific areas of the country. While functionally much the same, each Canadian infantry or tank battalion was the active component of a regiment with a treasured historical tradition and battle honours dating back to at least the First World War. Each regiment treasured its distinctive dress and customs and its regimental lore. The army sports program, a vital part of training began with competition among the companies or squadrons, but the best men competed for the regiment and became local heroes. Group identity and loyalty were based on these traditions.<sup>63</sup>

McNaughton's readiness to disturb the hard-won cohesion of combat units for "the well-being of the army as a whole" alarmed Lieutenant-General Harry Crerar, the Corps Commander. Crerar, who would succeed McNaughton as army commander in 1944, had surveyed his units to assess the effects of the scheme. He told McNaughton that reallocation was threatening the territorial identification of some units. CMHQ was, Crerar wrote:

[M]aking the fundamental error of judging efficiency... required towards winning the war by the technical efficiency of an administrative system... this is a fundamental error because, whether we like it or not the average man is not a 'scientific animal' and he reacts more importantly to emotion than to logic. An administrative system which fails to take this situation into full account will not produce successful military results.

The same observation applies to a unit. If the officers and men which it comprises are imbued with mutual regard and confidence, and a desire to maintain... the reputation of the regiment... then that unit will most certainly do what is required towards winning the war, whether or not it produces desired answers to certain administrative questions.<sup>64</sup>

Experienced officers were not the only ones who challenged the selection and reallocation system. Dr. Burdett McNeel, then the psychiatrist attached to the Canadian detention barracks, was struck by the high percentage of the 1,600 detainees who were from holding units where the reallocated were sent while awaiting new postings. He wrote:

Whatever the practical advantages may be of having an army flexible to the degree that any man may be transferred anywhere at any time there is a decided disadvantage in its effects on morale as a great many of these men, particularly those of low intelligence level, become strongly attached to, and well incorporated in a unit only to be transferred to a strange unit where they have neither interest or security. It still appears true that no high degree of stability can be achieved in a unit without it being more or less a family group or a group of families. It is our opinion, that transfers, reinforcements, etc., would be better in units about section strength with their own NCOs, if not officers, attached. It is bad enough for a simple man to have to face the unknown fortunes of war without having to face the unknown in the organization which is supposed to give him support. It may also be stated that many a simple man has become confused by ruthless transplantation on the basis of a set of figures on his documents who could have given service in a unit where his capacities were known and utilized.<sup>65</sup>

On the eve of the invasion of Sicily, Canadian army psychiatry was in a state of transition – the neuropsychiatry branch of the RCAMC had been a reluctant and cautious participant in the various attempts to classify and reclassify Canadian soldiers but like all organizations, it had embraced the opportunity to increase its own ranks. By the spring of 1943 there were more than a dozen psychiatrists at work in England. Inevitably they began to function more as a part of personnel selection than as a separate medical specialty.

One of the many consequences of the focus on testing and reclassifying was the development of a new diagnostic category for soldiers who presented behaviour problems, but could not be labeled as suffering from a psychoneurosis. The term used, “psychopathic personality, inadequate,” was most unfortunate and afterwards army psychiatrists were deeply embarrassed by it.<sup>66</sup> They had sought to find a term to describe the soldier who had failed to become an efficient and useful member of his unit. “Inadequate,” they insisted, meant *inadequate for the army*. “Psychopathic personality” simply indicated that the behaviour that was seen to cause the problem arose from the basic personality of the individual, not from a neurosis.

The invention of this category meant that large numbers of soldiers who may have simply required a new posting or a more sympathetic officer, who had read Chisholm’s advice on man-management, were given a pseudo-scientific psychiatric label. This procedure was carried over into preparations for battle-field psychiatry, where terms like “grossly inadequate personality” were used to describe men who became unfit for fighting service without suffering from any

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significant acute neurosis. The categories “inadequate with added battle neurosis” and “adequate with battle neurosis” were also used.<sup>67</sup>

These three terms were thought to cover all types of breakdowns the psychiatrist or RMO would be likely to see in combat. There was no agreement about what proportion of psychiatric casualties would occur in each category, and no consensus about symptoms. The specific diagnostic decision, with its important implications for treatment, prognosis for return to duty, and future pension rights was left up to the individual psychiatrist. The Canadians also decided to accept the new British terminology for forward diagnosis of psychiatric casualties<sup>68</sup> gradually developing the term “Battle Exhaustion.” The Americans, also influenced by James, used “Combat Exhaustion.”

The expansion of the Canadian army neuropsychiatry in response to the demands of personnel selection had drawn attention away from the original purpose of the branch – the treatment of stress-related neuroses. Since no Canadian army units were in continuous combat before July 1943, the priority attached to personnel selection seemed logical. The whole Canadian Army appeared to have settled in for a protracted stay in England and most psychiatrists came to share the general preoccupation with classification.

Richardson and Van Nostrand were also anxious to train psychiatrists, regimental medical officers, and infantry commanders in the prevention and treatment of psychiatric casualties on the battlefield.<sup>69</sup> When the 1st Canadian Division was selected to participate in the invasion of Sicily, Van Nostrand was able to persuade McNaughton to authorize the immediate appointment of a divisional psychiatrist. He selected Dr. Arthur Manning Doyle.

Doyle was able to gain practical field experience before joining the 1st Division. Exercise Spartan, the First Canadian Army’s massive field exercise in March 1943, was especially useful. During this exercise he treated 121 patients. By his estimate 12 per cent of these were “basically psychiatric problems.”<sup>70</sup> As a result of the experience, Doyle developed his ideas on handling neuropsychiatric cases in a paper for Colonel Van Nostrand.<sup>71</sup>

Doyle’s paper codified many aspects of the continuing debate between those involved in personnel selection and those concerned with providing care for acute cases of psychiatric dysfunction on the battlefield. He identified both stages of the overall problem: the preparatory training period and actual combat.

Doyle had already experienced the training phase and it left impressions that he retained throughout the remainder of the war. They were reinforced when he

joined the 1st Division in Scotland for amphibious landing training before the division embarked for the Mediterranean. His chief concern was to weed out the weak, as he wrote later:

During the waiting and equipping period in May and June 1943, in the concentration area in Scotland, there was ample opportunity to visit at least all medical and infantry units, and to assist the Medical Officers in culling out obvious psychiatric misfits. The units most conscious of the need for good personnel management made considerable use of this opportunity, but others unfortunately neglected an opportunity or did not see the need to weed out their ranks. Incidentally the psychiatrist can become aware of those units who do not have work for him in quiet times. They may be extremely good units; more likely they are the lesser prepared who are unaware or neglectful of their personnel problems and will provide him with much trouble when the test of action comes.<sup>72</sup>

This culling of obvious misfits was not the same thing as a general screening. Doyle dealt with men referred to him by unit officers, providing an on-the-spot mechanism for downgrading and reallocation to other duties. Doyle's enthusiasm for weeding the ranks of those who presented behaviour problems was in no way unique. Both the British and the Canadian psychiatric services were close to a consensus on this point, including those who were leery of mass psychiatric screening.

Doyle suggested a medical handling system based on two premises: that combat psychiatric illness was short-lived and that rapid forward treatment offered the best prognosis. It would be a grave error, Doyle concluded, to evacuate cases to general hospitals, delaying their return to their fighting units and wasting manpower, to say nothing of the incalculable effect on morale of both the casualties and other troops. Forward treatment facilities should be planned to provide rest, food, sedation, reassurance, and reasonable security for patients for up to seven days. The CCS was likely the best unit to handle cases, and the forward neuropsychiatrist and the commander of the station must work closely as a team. "It should be emphasized that the neuropsychiatrist cannot accomplish his task alone. His work is essentially Medical and he and the officer in charge of medicine at the CCS will have to be partners, a team assuming mutual responsibility for each other's duties where practicable so that a 24 hour service may be maintained. Unless this joint endeavour exists, the objectives of this plan will never be attained."<sup>73</sup>

The only physical requirements would be a few extra tents, stretchers, and nursing orderlies for the CCS. The patients themselves would do most of the regular

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work as part of their occupational therapy. “This project,” Doyle concluded, “is reminiscent of the corps or divisional rest stations well known in the last war and indeed should static conditions develop it is anticipated that divisional and corps Medical Units will again open their own rest stations while the CCS psychiatric centre will close and the psychiatrists assume the duties of consultant to the Medical Units in the area.”<sup>74</sup>

Doyle’s ideas were developed without contact with Commonwealth and American psychiatrists with actual experience in combat. The American forces had also arrived in North Africa without any preparation for psychiatric battle casualties. Most of the US Army Medical Corps had forgotten its work with “shell shock” in the First World War and as one senior medical officer put it,

I think that none of us had any appreciation of the magnitude of psychiatric problems that would occur in the combat zone. I must acknowledge that early in the war I was to a great extent influenced by our long time practice, in the peacetime army, of thinking in terms of schizophrenia and major depression... None of us realized the great number of acute anxiety states and other acute conditions that would need immediate psychiatric help in the combat zone until after the invasion of North Africa.<sup>75</sup>

In both the United Kingdom and the United States some American medical officers were, in fact, trying to establish a psychiatric service geared to combat. Fred Hanson, who had begun as a psychiatrist in the Canadian Army, was serving as a consultant in neuropsychiatry to the American forces marshalling in Northern Ireland. Hanson had absorbed all of Sargant’s ideas and was anxious to put forward psychiatry into practice, but the senior medical officer for the United States invasion forces decided to wait and see if there was any need for such a program in North Africa.<sup>76</sup> Meanwhile the Surgeon-General’s office in Washington had decided to act on its own initiative and sent Roy R. Grinker to Algeria. Grinker became one of the leading figures in American psychiatry and his book *Men Under Stress* which was based on his experience with Army Air Force pilots in North Africa, remains one of the classics of modern military psychiatry.<sup>77</sup>

Grinker arrived in North Africa lacking any authority to establish a psychiatric service and at first he simply treated American psychiatric casualties at a British hospital in Algiers. Here British doctors were experimenting with sodium pentothal as a method of inducing abreaction in patients evacuated from the fighting in Tunisia. For Grinker this experience was seminal in the development of his theory of narcosynthesis, which he later applied to the treatment of combat stress among pilots.<sup>78</sup> Grinker switched his work to the Army Air Force when Fred Hanson took over army psychiatry.

Hanson first reached Tunisia as one of two psychiatrists attached to the US II Corps. He arrived in the aftermath of the disastrous battle of Kasserine Pass which had humiliated the Americans and brought Major-General George Patton to the temporary command of II Corps. Given Patton's subsequent notoriety for slapping neuropsychiatry casualties in Sicily, it is ironic that Hanson and his associate, Louis Turien, began to establish the prototype for American forward psychiatry while working under Patton's command. Establishing himself at a casualty clearing station, Hanson used immediate sedation, rest and abreaction, returning 30 per cent of acute casualties of combat duty within thirty hours.<sup>79</sup> In April 1943 the new Corps Commander, Major-General Omar Bradley, approved the first directive on army psychiatry in a combat zone. It established the term "exhaustion" as "the initial diagnosis for all combat psychiatric cases"<sup>80</sup> and required the use of sedation both at battalion aid stations and during the evacuation of psychiatric casualties. Hanson's success in organizing an effective treatment program led to his appointment as Consultant in Neuropsychiatry for the North African theatre. Shortly thereafter Circular Letter No. 17 "Neuropsychiatric Treatment in the Combat Zone"<sup>81</sup> established the principles of forward psychiatry and the Americans went into Sicily with the capacity to treat and monitor what they called combat exhaustion or combat fatigue.

In contrast, the Eighth Army medical plan for the invasion of Sicily called for the evacuation of psychiatric casualties to Malta or North Africa and made no special provision for forward treatment. However in May of 1943, Lt. Col. S.A. MacKeith had been appointed Advisor in Psychiatry and by September of 1943, in preparation for the invasion of the Italian mainland, he won agreement for the appointment of Corps Psychiatrists. One of these, Major A.D. Hunter with 10 Corps, opened a psychiatric centre at a Casualty Clearing Station in the Salerno beach-head and applied immediate sedation techniques with apparent effectiveness.<sup>82</sup>

By 1944, the British had about 20 psychiatrists in Italy. Their four-level handling system began with RMOs who sorted, sedated, labelled, and evacuated cases to a Corps psychiatric centre. Those with favourable prognosis, on average about one-third, were held there for up to five days and returned to their units. The rest were evacuated further to an advance psychiatric centre. A minority of these patients including "all the psychotics, the gross psychopaths, and those neurosis cases likely to be sent home to England," were directed to base hospitals with psychiatric wards. The majority of men stayed for secondary treatment at the advance psychiatric centre and were then channelled to a rehabilitation camp for reallocation in the advance centres where psychiatrists employed "abreaction, prolonged narcosis, modified insulin, and a few psychiatric interviews for each patient." Otherwise patients were kept busy with physical training, games, and hospital work. MacKeith was pleased with the result. "The



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contrast between our clinical findings there, and our findings at Algiers during the North African campaign, was immense. Thanks to earlier evacuation, sedation for their journey, and contact with a psychiatrist (in the corps exhaustion centre) at an early stage, practically none of the patients were severely regressed.”<sup>83</sup>

The New Zealand forces did not establish a parallel system. Instead psychiatric casualties were treated with sedation and rest at a designated Field Ambulance where “the essential preliminary treatment was rest... ensured by adequate doses of sedatives.” A regime of nourishing food, hot showers and enemas (as constipation was common) was followed by an interview with a medical officer. The official history notes that no records were kept of the numbers returned to units and no follow up studies were completed so we are left with impressionistic evidence that between 40 and 50 per cent were returned to unit from the Field Ambulance while few of the majority evacuated to base hospitals ever returned to combat.<sup>84</sup>

The Canadians, like the New Zealanders, attempted to maintain their own approach to the treatment of combat stress. This proved to be impossible in Sicily where Canadian casualties were evacuated along with other 8th Army cases. After the invasion of the mainland was underway, a neuropsychiatric ward was established at No. 9 Canadian Field Ambulance when a number of men evacuated as psychiatric cases proved to be suffering from malaria. Major Doyle reported that he returned 82 of 167 cases to their original unit and expressed confidence in the system he established.<sup>85</sup>

The events of December 1943 transformed the 1st Division’s experience of battle and Doyle’s view on the nature of combat stress reaction. The severe fighting at the Moro River and Ortona produced more than 550 psychiatric casualties. Doyle recalled that, “In one week 226 casualties of this type occurred, a figure that was 25 percent of total battle casualties. In one memorable twenty-four hour period he examined 57 patients and still did not keep abreast of the deluge.”<sup>86</sup>

Doyle came to the startling conclusion that the battles of December 1943 had produced “a good and overdue house-cleaning of the division.” It is not easy to understand how, given the number of casualties he had to treat that Doyle was able to conclude that “84 percent of all cases were considered chronic, ie. That they were suffering from some form of psychiatric disorder prior to military service”<sup>87</sup> but he was to maintain this view throughout the Italian campaign. Doyle, accepted the treatment mantra of proximity, immediacy and expectancy but he expected his patients to reveal a pre-enlistment history of neurosis and most of them obliged. As a consequence the Canadian neuropsychiatric ratio in Italy, NP casualties to wounded, was exceptionally high and the return to unit figures exceptionally low.<sup>88</sup>

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Doyle's approach to combat stress reaction was questioned by both his medical colleagues and operational commanders. During the Liri Valley battles in May 1944 Regimental Medical Officers were ordered to hold exhaustion cases until the individual was examined by a designated physician. Doyle was placed at a corps exhaustion centre to deal with those who had to be evacuated. The results were mixed. According to Doyle the divisional NP ratio remained constant but since mild cases were held forward and sent back into action, the overall NP ratio must have been much higher by the standards used in December 1943. Despite the severity of the battle for the Gothic Line the NP ratio declined and the percentage returned to unit improved significantly<sup>89</sup> raising further questions about the validity of the reported numbers and the procedures for diagnosis and treatment.

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Resistance to all forms of psychiatry was strongly entrenched in 21 Army group where General Bernard Montgomery's staff, including the Director of Medical Services, were convinced that psychiatry was a "new form of witchcraft." The low priority assigned to battlefield psychiatry was also influenced by the views of the Psychiatric Advisor, Lieutenant-Colonel Tom Main, who was a firm proponent of the personnel selection model and held the view that a carefully screened division would develop few psychiatric casualties. He seems to have encouraged the prevailing notion that battle exhaustion would not be a major problem in the British Liberation Army.<sup>90</sup>

The system proposed for North West Europe placed great pressure on the Regimental Aid Post. RMOs were told that during battle acute cases were to be treated with, "i) Sound sleep under general sedation; ii) Restoration of an individual sense of security; iii) Reintegration with their original fighting group."<sup>91</sup> During quiet periods RMOs were to ensure that men and especially officers got enough rest. The assumption was based on the belief that such casualties would be on a small scale. This optimistic approach was in sharp contrast to American ideas about the possible incidence of psychiatric casualties in Tunisia, Sicily and Italy and discovered that approximately 16 per cent of all their non-fatal battle casualties were due to neuropsychiatric disability. This percentage rose to as much as 35 per cent during intense fighting. It was further shown that battle experience "provided no prophylaxis against breakdown."<sup>92</sup> Indeed, it was in Sicily that veteran troops had shown the highest rates of combat exhaustion. The United States Army would provide quick treatment of such casualties resulting in a high rate of return to combat. In Normandy, each American division was to have a psychiatrist on staff and medical officers were to be thoroughly trained in prevention and forward treatment of neuropsychiatric casualties.

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Experience in other campaigns had suggested that battle exhaustion casualties would be quite low in the initial days of fighting and this proved to be the case.<sup>93</sup> Psychiatrists had been forced to note this fact, but they had great difficulty in explaining it. The most common assumption about battle exhaustion – predisposition – provided little insight into this situation. Some psychiatrists suggested that individuals with a poor history were able to keep their anxiety under control for a short time through an effort of will, and assumed that a rise in exhaustion casualties would begin after such individuals had been exposed to a longer period of stress.<sup>94</sup>

The initial bridgehead battles were over by June 11th. The British-Canadian forces spent the next two weeks holding the perimeter under continuous shelling and mortaring. Offensive operations were confined to relatively minor probing attacks designed to hold the Germans on the eastern flank. Battle exhaustion casualties remained well below the percentages reported in Italy. On the American front, where the priority assigned to the capture of Cherbourg required continuous attacks, exhaustion ratios were similarly about half the number indicated by the experience of heavy fighting in Italy.<sup>95</sup> Differences in diagnosis and reporting made all these psychiatric numbers doubtful, but everyone in the bridgehead agreed with Major D.J. Watterson, 2nd British Army's psychiatrist, when on June 24th he described the "ratio of exhaustion as lower than expected, probably 10% or a little more"<sup>96</sup> Watterson reported that the initial psychiatric casualties included large numbers of men who were "unfit for front line duty" and who had been weeded out by "a process of natural selection." This factor, as well as the high rate of breakdowns among "unit residues,"<sup>97</sup> brought over as immediate reinforcements, would, he believed, begin to diminish in importance leaving only the true battle exhaustion cases for psychiatrists to deal with.

True battle exhaustion cases, according to Watterson, were those which occurred among men of normal personality who broke down when their personal morale failed. This, Watterson maintained, was usually the result of a collapse in unit morale. He noted that the importance of good leadership in limiting psychiatric casualties "had been brought out clear again and again" during the June battles. The cause of a rise in the NP rate, he wrote, could only be understood in the context of the battalion:

Is the unit well led? Are its welfare needs attended to? Is the post coming up to scratch? Do the men know the latest German weapons? Does the unit need resting?<sup>98</sup>

These and other similar questions had to be answered if battle exhaustion was to be understood.

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Canadian medical officers agreed with Watterson. Dr. Robert Gregory was confident that everything was under control. He reported that the low incidence of exhaustion in the 3rd Canadian Division was evidence of the successful “weeding” of the division while the 200-odd breakdowns were proof “that a division cannot be completely weeded.” He added that “the numbers and percentage of NP casualties bears no relation to the daily total casualties but bears the usual relation to the conditions of troops (fatigue etc.), the tactical situation and the stiffness of resistance e.g. the greatest number of NP casualties occurred when the troops were very tired, very static, dug-in and under heavy counter-attack. Fully 80 per cent of the NP casualties complained bitterly of mortar fire and 88mm. artillery”<sup>99</sup>

At 21 Army Group headquarters, the 10 to 15 per cent battle exhaustion rate was viewed very differently. Almost all exhaustion casualties were being evacuated to England under a blanket rule that, because of the narrowness of the bridgehead, all those likely to be incapacitated for three or more days had to be sent to England. This meant that hundreds of exhaustion casualties who seemed quite fit when interviewed in English hospitals were being lost to battle.

Major-General Philips, the Director of Medical Services for 21 Army Group, went to Normandy in early July to find out what was happening. “Psychiatry” he reported “is getting out of hand.” Second Army needed a “Senior Consultant Psychiatrist” to come to Normandy “with a view to tightening it up.”<sup>100</sup> In fact a good deal had been done to try and stop the flow of psychiatric cases to the UK. British 30 Corps\* had opened its exhaustion centre on June 14th and was able to keep a small number of promising cases for further treatment.<sup>101</sup> On June 25th the 200 bed advance section of No. 32 Psychiatric Hospital opened on “Harley Street” near Bayeux.<sup>102</sup> By July 4th, a rest centre for psychiatric and medical cases in need of further treatment (up to 14 days) had been established.<sup>103</sup> All of these measures, some planned, some improvised, were intended to tackle the problem of the low return to duty rate experienced during the June battles. No one was anticipating the enormous increase in exhaustion casualties which occurred in July.

On June 24th General Montgomery launched the first of a series of major offensive operations designed to capture the City of Caen and break-out into the open country to the south. By mid-July the small infantry component of 21 Army Group, less than 15 per cent of the total manpower in the bridgehead, had suffered enormous casualties. On average one in every four of these casualties was due to battle exhaustion.<sup>104</sup> On the western flank, the U.S. Army pressing toward St. Lo, in the difficult bocage country, was experiencing even heavier

\* 2nd British Army was composed of 30 Corps, 7 Corps, 12 Corps and 1 Corps. 1 Corps became part of 1st Canadian Army in July.

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total casualties with a similar NP rate.<sup>105</sup> In retrospect, it is possible to argue that the battles of late June and July wore down the German defenders and precipitated a major collapse of enemy morale, but this was not apparent to anyone at the time. During July, the Allied armies were too concerned about their own crisis in troop morale to wonder about the enemy's problems.

The battle exhaustion crisis began to appear during Operation Epsom, General Montgomery's first all-out offensive since the landings. Troops of 51st (Highland) Division, veterans of the 8th Army in North Africa and Sicily, launched a preliminary attack on June 23rd which met fierce resistance and then a sharp counterattack from a German Panzer Division (21st). Exhaustion casualties accounted for 30 per cent of their losses.<sup>106</sup> The 51st Division had been engaged in unspectacular but intense "contact with the enemy" since D-1. Regimental War Diaries for June record a steady stream of casualties largely from mortaring.<sup>107</sup> Their lack of success in the attempt to hit back, may have had some impact on the numbers evacuated for exhaustion. The problems of 51st Division could be explained in terms of war weariness but at the other end of the British-Canadian zone, 49th (West Riding) Division, which had been carefully "selected," was experiencing the same problems. The 49th was a "green division" which had been in action for several weeks without signs of difficulty. In Epsom, more than 200 exhaustion cases appeared in the first two days; accounting for 30 per cent of the wounded. Exhaustion casualties continued to be a problem in 49th Division after Epsom accounting for 25 per cent of non-fatal casualties in July. At the end of the month the divisional commander instituted a Board of Enquiry to investigate the causes and to explain the widely varying figures between units.<sup>108</sup> In the same period, 3rd and 50th British divisions, the other British infantry divisions which had been in action throughout June, were also subject to rapidly rising exhaustion ratios, as was the infantry brigade of 7th Armoured Division.<sup>109</sup>

For 3rd British Division, another carefully screened formation, the battle that marked the turning point was Chateau de Le Londe, June 27th – 29th, an engagement which the British press described as the "Grimmest Mile in France."<sup>110</sup> Here battalions of the 3rd Division had fought for control of a two square mile area until most of the officers and NCOs were casualties and rifle companies reduced to skeletons of their former selves. After June 29th 3rd Division's NP rate skyrocketed and during July more than one in every three casualties were due to battle exhaustion. By the end of that month, 3rd (Br.) Division had treated almost a thousand men as psychiatric casualties.<sup>111</sup>

Not only veteran troops were caught up in the crisis of July 1944. On 12 July, the 3rd Canadian Division and 2 Armoured Brigade were joined in the bridgehead by the 2nd Canadian Division. This division had been to France once before

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when it had been launched against German defences at Dieppe in 1942. While every unit that had participated in that disastrous raid still including men who had been at Dieppe, the vast majority of officers and men in the rifle companies arriving in Normandy had never been in battle.

The division had undergone extensive retraining in 1943. During 1944, as Operation Overlord approached, planning had concentrated on the division's role in a breakout from the Normandy bridgehead. Particular emphasis was placed on preparing for an "assault crossing the tidal river" which, it was assumed, would take place after the Germans had retreated to the River Seine. Long practice in cross-country movement and wide-river crossing was, no doubt, of considerable general value, but the division was never given the opportunity to train with an armoured brigade and no special measures were taken to prepare the 2nd Division for the stalemated Normandy battlefield.<sup>112</sup>

On 25 July, one of the blackest days in the history of the Canadian Army, a disaster of near-Dieppe proportions struck the 2nd Division. By nightfall 450 men were dead and more than 1,000 wounded, missing, or taken prisoner. The Black Watch battalion had 121 killed, 119 wounded, and 82 taken prisoner. Battle exhaustion during and immediately after this trauma added several hundred more casualties to the toll.<sup>113</sup> The division, after only twelve days in battle, had produced almost as many serious exhaustion cases as the 3rd Division had suffered in six weeks.

The Canadian battle exhaustion problem was fairly typical of the overall Allied experience in Normandy. NP ratios were not uncommon in the battalions exposed to exceptionally adverse battle conditions. The average for the Allied armies was certainly in excess of one in every four non-fatal casualties during July. Of the three Allied armies in Normandy only the Americans were prepared to deal with thousands of exhaustion cases. Every American battalion aid station had been organized to provide primary treatment and every division had trained personnel on its medical staff. The 3rd Canadian Division had developed its psychiatry services along US lines and Gregory's divisional centre worked reasonable well. The 2nd Canadian Division and all British divisions found themselves ill-equipped to deal with the large numbers of psychiatry cases and were forced to improvise new approaches to forward psychiatry.

When the exhaustion crisis began in July, Major D.S. Watterson and his Corps psychiatrists were taken by surprise. However, Watterson, a man of considerable ability, responded quickly and efficiently. His actions during July reflect a coherent and consistent view of the problem and its resolution. He described the "General Trend" of the period in his monthly report for July written after the crisis was past.

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The high optimism of the troops who landed in the assault and early build up phases inevitably dwindled when the campaign for a few weeks appeared to have slowed down. Almost certainly the initial hopes and optimism were too high and the gradual realization that the 'walk-over' to Berlin had developed into an infantry slogging match caused an unspoken but clearly recognizable fall of morale. One sign of this was the increase in the incidence of psychiatric casualties arriving in a steady stream at Exhaustion Centres and reinforced by waves of beaten, exhausted men from each of the major battles. For every man breaking down there were certainly three or four ineffective men remaining with their units.

Swings of morale often tend to overshoot the mark and this happened during the first half of July. Thereafter men settled to their new appreciation of this War of Liberation, discarding their notions of marching through welcoming and gay French villages, replacing them by more realistic appraisals of a brave and skillful enemy, of battered towns and of necessary days, perhaps weeks, of grimly sitting down and holding on under mortar fire, cloudy skies, rain and mud.

Finally in the last week of the month a noticeable steadying and bracing of morale occurred so that the subsequent breakthrough south of Caumont by our own army, the long strides of the Americans into Brittany and the pursuit of the enemy by the Russians through Poland and the Baltic states caused no sudden inflation of false optimism but rather a sober satisfaction that the hard fighting ahead would bring its own similar rewards. With this background the incidence of exhaustion and neurotic breakdown in the army may be assumed to have reached and passed its peak.<sup>114</sup>

This interpretation of battle exhaustion, with its emphasis on the battlefield conditions and general morale, was accompanied by comments on the aetiology of exhaustion which pinpointed a high rate of breakdown among replacements.

One factor mentioned frequently by combatant officers and RMOs is the greater frequency with which reinforcements break down. Apart from the general quality of reinforcements, three points stand out. The first is that a unit that has suffered a very large number of casualties consists almost entirely of reinforcements and can hardly be considered a coherent body of men. For example, the 1st Hampshire battalion were visited on July 17th. They had lost 686 killed, wounded and missing since D-Day. Sixteen officers and two Commanding Officers had been killed, and the battalion was then waiting for its third

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CO. When such a battalion goes into action a very high breakdown rate must be expected, since the emotional ties among the men, and between the men and their officers (which is the single most potent factor in preventing breakdown), barely exist. Having reached this state a unit needs several weeks out of the line (at least two) to reform.

The second is that reinforcements should be integrated into their new units in sizeable bodies, sections at least, preferably platoons. The Reinforcement Group set up by 59 Div is a valuable step forward here in that it gives fresh reinforcements a few days to acquire a feeling of attachment for the formation they are going to.

The third point is that untrained reinforcements frequently become psychiatric casualties. Stories of clerks, cooks, storemen and the like being sent forward as rifleman reinforcements are all too frequent. Such men, apart from breaking down themselves, can be a real menace to their units.<sup>115</sup>

The arguments, which further emphasized the historical and situational basis of battle exhaustion, were paralleled in the comments of other psychiatrists.<sup>116</sup> For example a report from VIII Corps, dated 17 July 1944, focused on specific patterns among the 928 cases examined so far that month.

The general morale seen from cases from 43 Div was low. Very few indeed showed any desire to return to their units. This was quite in marked contrast to what occurred in units of 15 (S) Div. It was also apparent that, from the number of cases arriving in groups – from some companies, platoons or sections, often accompanied by NCOs or even officers, that not only had individual morale gone, but group morale as well. In 53 Div, most cases came from 115 Welsh; they were very poor personality types, chronic neurotics, men of low average intelligence, etc. These should obviously have been eliminated from the regiment long ago. An impression one gained, after chatting with a large number of men admitted to the Centre, is that they were not really in the picture from an operational standpoint. Their officers had not given them a clear idea of the plan or objective of the action in which they were participating. When this is the case morale is bound to crack easier, because the man feels insecure, becomes extremely anxious about all that is happening around him.

I have been very impressed by the large numbers of MOs – chiefly from 11 Armd Div & 15 (S) Div – who have visited the Centre to enquire about patients they have sent it. It is obvious that they are



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keenly interested and have been making every effort – even under difficult circumstances – to rest their men within their own battalion area. A number of FDS, too have been retaining men for periods 36-48 hrs rest in the divisional area.<sup>117</sup>

On the other side of the battlefield, the German Army was attempting to cope with its own exhaustion crisis by tightening the disciplinary screws. German military psychiatrists had long insisted that stress breakdowns were a leadership problem not a medical one.<sup>118</sup> In the early years of the war, with the Germans everywhere victorious, such casualties were few. It was satisfying to attribute this to the army's emphasis on group cohesion and the responsibility of junior officers and especially NCOs for the welfare of their men.<sup>119</sup> But even in the days of triumph, the new Nazi-inspired code of military law was dealing out death sentences and long terms of penal servitude, thus profoundly influencing military behaviour.

By 31 March 1943 more than 1,500 death sentences had been carried out, most of them for the crimes of desertion and “subverting the will of the people to fight.” (Only 48 German soldiers were executed in the First World War.) By mid-1944 107,000 German soldiers had been tried for absence without leave, 49,000 for disobedience, and 46,000 for contraventions against guard duty. The most serious crimes of desertion and subversion had led to between 13,000 and 15,000 cases each. More than 7,000 German soldiers had been executed for these crimes by June 1944.<sup>120</sup>

Battle exhaustion became a significant problem after the German Army was forced on to the defensive. Some psychiatrists tried to intervene, urging recognition of the psychogenic nature of stress reactions in battle. A script for a film about treating such casualties was completed and the office of the surgeon-general issued a statement advocating early forward treatment.<sup>121</sup> No doubt many German army units were already using short rest periods and “comradely comfort”<sup>122</sup> for stress casualties. The alternative was to allow soldiers to be caught up in a legal system that was “underpinned by its compliance with Nazi war aims and ideology.” With new crimes added almost monthly in 1944-45, “death sentences rained down faster and faster each year.”<sup>123</sup>

For most Allied soldiers in Normandy, battle stress symptoms that could not be relieved at regimental aid posts meant evacuation to the rear, medical treatment and reassignment away from combat if necessary. A diagnosis of battle exhaustion carried no stigma and held no threat of severe punishment. The German soldier breaking under severe pressure could hope for sympathy and protection from his comrades or he could allow himself to be captured. The Allied armies took more than 200,000 prisoners of war in Normandy. Many of them had sur-

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rendered in a condition suggesting complete physical exhaustion and serious nervous fatigue. McNeel, who saw many such prisoners in late July and August, was convinced that most remaining German soldiers were battle exhaustion cases by the end of the battle of the Falaise Gap.<sup>124</sup>

The British system for treating exhaustion had not been able to deal with the numbers created by the Normandy battlefield.<sup>125</sup> In mid-July two divisions, 50th (Northumbrian) and 49th (West Riding), had taken steps to improvise their own methods of coping. Field ambulances were set aside as divisional exhaustion centres and all cases were sent to these units. Watterson welcomed this initiative and moved to encourage divisional psychiatry, without psychiatrists, in all British Divisions. He explained that

The advantages of having Divisional Centres were considerable. First divisions were continually switching about between Corps so that the division was the only stable entity. Second, men treated at a divisional centre were still within the family, and intimate contact was still possible between the centre and RMOs of the division. Third, there was no doubt that treatment at a forward medical unit with the sound of battle was easier than at more rearward centres. Fourth, the number of casualties was such that Corps Centres alone were swamped.<sup>126</sup>

By late July, the system was in operation throughout 2nd Army. Watterson and his colleagues believed that its most important achievement was to reverse the practice of evacuating the majority of exhaustion cases to the UK. In June, 30 Corps had been able to return less than 15% of its NP casualties to full duty in their unit. This figure rose to almost 45% in July when divisional exhaustion centres were functioning.<sup>127</sup>

British army psychiatry emerged from the battlefields of Normandy with new confidence in the virtues of forward treatment of exhaustion. The introduction of divisional psychiatry was viewed primarily as a method of reversing the practice of mass evacuation of psychiatric casualties. Given the enormous manpower problems facing the British Army, the promise of salvaging large numbers of exhaustion cases won support from all elements of the army. Regrettably, no systematic follow-up studies of exhaustion cases returned to unit at the divisional level were undertaken. One Second Army study of “relapses reaching the hands of Corps Psychiatrists” suggested that only “10% of return to duty had relapsed after 6 or 7 weeks.” Although it was recognized that this method “was not reliable” because it only measure those who returned to the same Corps Exhaustion Unit, it served to encourage attempts to return a large percentage of NP casualties to their units.<sup>128</sup>

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By the end of the war British psychiatrists were less certain about their level of success in treating exhaustion. The official history, without citing any sources, offers this summary:

In spite of an appreciable relapse rate, it can be stated that over the entire campaign about one third of all exhaustion cases treated eventually remained at full duties. This represents just over 4,400 men saved for further battle at a time when the manpower situation was the most critical.<sup>129</sup>

The forward psychiatry system created by the British Army in Normandy fulfilled all the requirements of proximity, immediacy and expectancy. During the summer and fall of 1944 it may well have succeeded in accomplishing its purpose of a high return to duty rate but this is by no means certain. The rate of neuropsychiatric hospital admissions rose sharply in the last quarter of 1944 as did rates for other diseases which may have had psychological components,<sup>130</sup> raising questions of the success of the policy.<sup>131</sup>

The Canadians, because of their relatively small numbers and their insistence on a completely Canadian medical system, were able to analyse medical events more closely. By the fall of 1944, in both theatres of operation, Canadian neuropsychiatrists had convinced themselves and the senior commanders that battle exhaustion was inevitable and reasonably predictable. Rapid treatment as far forward as possible was the best way of preserving manpower for the battle, but it did not always work. A high return to unit rate was probably worth pursuing in military terms but many individuals would break down again. No one was confident that the ones who did not turn up again at exhaustion units were still effective with their units. Colonel Van Nostrand, the senior Canadian psychiatrist overseas, offered his view of the problem:

I am not convinced that psychiatry will ever solve the vast problem of the psychiatric breakdown of soldiers during war. It is my opinion that the methods now employed in the British, American and Canadian armies will not materially lower the incidence of psychiatric casualties in a fighting force. There are various reasons for these opinions but two of them are fundamental. First, there is direct conflict between the needs of the service and the needs of the individual soldier as assessed by his physician. Secondly the attitudes and behaviour of the successful soldier are contrary to most of his previous teaching. He must adopt a detached attitude toward the mass destruction of human life. Property ceases to have any value except in relation to his comfort and success as a soldier. He must not allow death or mutilation of his comrades to prevent him from reaching his

objective, and finally, he must pretend that he is glad to risk or lose his life for the cause.

The basic conflicts will always exist in armies such as ours which are composed largely of civilians who become soldiers, either voluntarily, or by compulsion for a short period. It is right that this should be so.

This is not a plea for sympathy for the inadequate soldier who is unable to stand the stresses of prolonged combat, nor is there any wish that discipline be relaxed or that any of the defections which fall under the heading of cowardice in the face of the enemy should be condoned. It is a plea for the adoption of realistic attitudes toward the reactions of normal men and women to the stresses of war.

We who formulate the medical policy should keep constantly before us certain premises which we believe to be true, but which we have ignored in practice –

1. An army's killing power is not necessarily proportionate to its numerical strength.
2. We fight our wars with human material we have and not with what we think we would like.
3. Although there are wide variations in the capacities of normal soldiers to withstand stress, every soldier has his breaking point, and if this is reached, he becomes a liability to his unit.<sup>132</sup>

Van Nostrand's summary of the Allied experience with personnel selection and forward psychiatry in the Second World War offers a comprehensive statement of what was known by 1945. Unfortunately, the lessons were soon forgotten.

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### NOTES

1. W.R. Feasby, *Clinical Subjects*, vol. 2, *Official History of the Canadian Medical Services 1939-45* (Ottawa, 1956): 100.
2. Dr. Jack Griffin, interview with Terry Copp, Toronto 25 Oct. 1982.
3. Feasby, vol. 2, *Clinical Subjects*, 56.
4. *General Instructions for the Medical Examination of Recruits for the CASF and NPAM* (Ottawa: King's Printer, 1940).
5. W.K. Hancock, *British War Economy* HMSO London 1949 p. 143-151.
6. T.D.M. Stout, *War Surgery and Medicine* (Wellington: War History Branch, Dept. Internal Affairs, 1954), Chapter 19.
7. Between the wars the RAMC employed a total of four "specialists in mental disease," two in England, two in India. Their basic function was the treatment and disposal of soldiers suffering from psychoses. See Alienist, "Some Recollections of Army Psychiatry," *Journal of the Royal Army Medical Corps* 84, no.2 (Feb. 1945): 47.
8. W. Sargant and E. Slater, "Acute War Neuroses," *Lancet* (6 July 1940): 6097. All quotations in the following paragraphs are from this article.
9. G. Debenham and others, "Treatment of War Neuroses," *Lancet* (25 Jan. 1941).
10. W. Sargant, *The Unquiet Mind* (London, 1967), 114. Sargant recalled this initial experience with acute cases in terms of some interest. He wrote: I shall never forget the arrival of these Dunkirk soldiers in their "tin hats" and filthy uniforms, some of them wounded, many in states of total and abject neurotic collapse, slouching along, mixed up with Belgian and French civilians who had scrambled aboard the boats at the last minute. What the papers termed a great British achievement seemed to us at the time nothing better than a defeated and defeatist route. Men swarmed into the hospital, some raging mutinously against their officers for having deserted them in a panic, others swearing that they would never fight again. So complete a loss of morale in some was scaring to witness. Most of them were half-trained Territorials who had joined their regiments only to get a free summer holiday or because patriotic employers had ordered them to join." 117.
11. *Ibid.*, 118.
12. Debenham, "War Neuroses," 108.
13. *Ibid.* See also Sargant's account of the accidental discovery of insulin sub-coma in *The Unquiet Mind*, 119-121.
14. F. Crew, ed., *History of the Second World War: United Kingdom Medical Services - Army Medical Services*, vol. 1 *Campaigns* (London 1957), 464.
15. *Ibid.*, 466.
16. *Ibid.*, 466.
17. *Ibid.*, 491 Table 5.
18. *Ibid.*, 512.
19. E.L. Cooper and A.J.M. Sinclair, "War Neuroses in Tobruk," *Medical Journal of Australia (MJA)* 2, no.5 (1 August 1942): 73.
20. *Ibid.*, 76.
21. H.R. Love, "Neurotic Casualties in the Field," *MJA* 2 no.6: 137. Dr. Love pays tribute to Dr. James, the British consultant in psychiatry, who visited the Australians in Tobruk.
22. *Ibid.*
23. A.J.M. Sinclair, "Psychiatric Aspects of the Present War," *MJA* 23: 501.
24. The Australian 9th Division suffered 2,089 battle casualties (wounded) 1 Sept. 1942 to Dec. 1942. Most casualties occurred in the El Alamein battle 23 Oct. - 7 Nov. The psychiatrist working at the Divisional Rest Station classified just 152 men as NYD (N) but large numbers were treated for sickness and physical exhaustion. Overall a 50 per cent return to unit rate was achieved. War Diary, ADMS, 9 Australian Division, wo 222 1606.
25. Crew, *Campaigns*, 447.
26. Stout, *War Surgery and Medicine*, chapter 19: and M.H. Aiken, "Psychoneuroses in the Second New Zealand Expeditionary Force," *New Zealand Medical Journal* 40 (1941): 345.

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27. R.H. Ahrenfeldt, *Psychiatry in the British Army in the Second World War* (London: Routledge and Keagan Paul, 1958) 36.
28. Ahrenfeldt, 184.
29. C.S. Meyers, *Shell Shock in France 1914-18* (Cambridge, 1940) cited in Ahrenfeldt, *Psychiatry in the British Army*, 14. The quotation continues “and on lack of proper discipline and esprit de corps” but these questions were not within the province of personnel selection.
30. P.E. Vernon and J.B. Parry, *Personnel Selection in the British Forces* (London, 1949), a history of British Army personnel selection.
31. J.M. Hitsman, *The Problem of Selection and Reallocation of Personnel in the Canadian Army Overseas*, Report No. 164, Historical Section CMHQ (London, 1946), 2.
32. See H.S.M. Carver, *Personnel Selection in the Canadian Army*, typescript (Ottawa, 1945), chapter 1, for an account of the development of the M test. For a brief but easily understandable summary of the progress of intelligence testing at the outbreak of the war see Robert Thompson, *The Pelican History of Psychology* (London 1968), chapter 18, “The Development of Tests 1918-40.” For a modern review of the issues see S.H. Irvine and S.E. Newstead, eds, *Intelligence and Cognition: Contemporary Frames of Reference*, NATO ASI Series (Dordrecht, 1987), and Stephen Jay Gould’s *The Mismeasure of Man* (New York, 1981).
33. N. Pasture, “The Army Intelligence Test and Walter Lippman,” *Journal of the History of the Behavioural Sciences* (1978).
34. Ibid.
35. J.R. Rees, “Three Years of Military Psychiatry,” *BMJ* (2 Jan 1943): 3. The senior British Army psychiatrist in England, Rees seems to have believed that a quarter of the population was dull, feeble-minded, or had a low capacity to learn. Dr. J.D. Griffin offered a similar estimate – Griffin interview.
36. See M.J. Wright and C.R. Myers, eds, *History of Academic Psychology in Canada* (Toronto, 1982) for background information on the Canadian Psychological Association.
37. Russel to DMS, 23 June 1941, Russel Papers, vol. 7. McGill University Ostler Library Archives.
38. J.A. Linton to DMS, 23 June 1941, LAC, RG 24, vol. 15, 650.
39. “Report on the Selection of Personnel and Mental Disease in the Canadian Army Overseas,” author unknown, 18 July 1941, LAC, RG 24, vol. 12, 620.
40. Linton to GOC II Cdn. Corps, 31 Oct. 1941, LAC, RG 24, vol. 12, 630.
41. Ahrenfeldt, *Psychiatry in the British Army*, 84.
42. Ibid., 86.
43. Hitsman, *Problem of Selection*, 5.
44. Ibid., 6, 7.
45. Obituaries, *Psychiatry* 34 (Aug. 1971): 330. Carver, *Personnel Selection*, 367.
46. G.B. Chilsom, *A Platoon Leader’s Responsibility for the Morale of His Men* (Ottawa: Department of National Defence, 1941), 2.
47. H.F.G. Letson became Adjutant-General effective 2 Feb. 1942. Lieutenant-General Kenneth Stuart became Chief of the General Staff, 24 Dec. 1941.
48. “Memorandum of Meeting of Selection of Personnel, Ottawa 4-8-51,” LAC, RG 24, vol. 13, 302, folder I.
49. Carver, *Personnel Selection*, 41. James Willis Howard had a “wide knowledge of both practical and theoretical psychological methods acquired through his study of psychology (PhD Cornell 1936) and experience in educational work in Belleville, Ontario.”
50. Hitsman, *Problem of Selection*, 6.
51. The fullest discussion of the surveying of the overseas army is in Carver, *Personnel Selection*, chapter 5.
52. Russel to DMS, 25 April 1942, Russel Papers, vol. 7, McGill University, Ostler Library Archives.
53. Van Nostrand to DMS, 7 July 1942, LAC, RG 24, vol. 12, 604.
54. DMS Circular Letter 61/42, 24 Aug. 1942, LAC, RG 24, vol. 12, 604.
55. Ibid.
56. Figures calculated from H.H. Hyland and J.C. Richardson, “Psychoneurosis in the Canadian Army Overseas,” *CMAJ* 47 (1942): 6. No figures of psychiatric illness per 1,000 of the army population

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are available and if they were such figures would be highly suspect since the system in place was intended to prevent "treatment" of psychoneurosis except in extreme cases.

57. Hyland and Richardson, "Psychoneurosis," I.
58. War Diary, DMS 20 Sept. 1942 LAC, RG 24, vol. 12, 604.
59. Van Nostrand to DMS 7 July 1942.
60. DMS Circular Letter 61/42.
61. DMS Circular Letter 57/42, 11 Aug. 1942, LAC, RG, col. 12, 604.
62. A. McNaughton. Circular Letter, June 1943.
63. There is an inherent tension between individualistic and collective values in an organic military unit like a battalion or a platoon. One psychiatrist in the field wrote: "Experience and skill in group activities and games is commonly low in men that come to this centre... One of the lessons that democratic powers have found hard to learn is the necessity for group experience as pre-combat training. It requires an adaptable personality to change from the competitive individualistic, civilian existence to the close, cooperative, self-sacrificing life at the front. Some men take longer to learn this lesson than others. Some men break down in combat before they learn the lesson. It is possible they may have sufficient personality resources to modify their point of view so that they can get along better at the front." Captain G.O. Watts, "Psychotherapy in a Psychiatric Convalescent Depot," NA, RG 24, vol. 12, 631.
64. Crerar to McNaughton, 25 September 1943, LAC, RG 24, vol. 10, 771.
65. Major B.H. McNeel, "Report of Survey of Soldiers Under Sentence at the Canadian Detention Barracks, November 1943 to April 1944," LAC, RG 24, vol. 12, 630.
66. Richardson, interview; Dr. Travis Dancey, interview with Terry Copp, Montreal, July 1983; Dr. Burdett McNeel, interview with Terry Copp, November 1982.
67. J.C. Richardson, "Neuropsychiatry with the Canadian Army in Western Europe," typescript, n.d., provided by Dr. Richardson. Copy in LAC, RG 24, vol. 12, 630.
68. Minutes of NP meeting, 26 Feb. 1943, LAC, RG 24, vol.12, 631.
69. Van Nostrand to Luton (DMS), 1 May 1942, LAC, RG 24, vol. 12, 604.
70. "Minutes, meeting of Basingstoke psychiatrists," 12 April 1943, LAC, RG 24, vol. 12, 631.
71. A.M. Doyle, "Plan for the Efficient Triage of Acute Neuropsychiatric Casualties," LAC, RG 24, vol. 12, 631.
72. A.M. Doyle. "The History and Development of Canadian Neuropsychiatric Service in the CMF," unpublished typescript, n.d., LAC, RG 24, vol. 12, 630. A much less detailed version of this paper was published in *CMAJ* (January 1944).
73. *Ibid.* "Plan for Triage."
74. *Ibid.*
75. Albert Glass (ed), *Neuropsychiatry: Overseas Theatres*, 2:5
76. *Ibid.*, 6.
77. Roy R. Ginker and John P. Spiegel, *Men Under Stress*, Philadelphia 1945.
78. Roy R. Ginker with John P. Spiegel *War Neurosis in North Africa: The Tunisian Campaign* (New York: 1943) and Melvin Sabshin, "Twenty-five Years After *Men Under Stress*" in D. Offer (ed) *Modern Psychiatry and Clinical Research* (New York: 1972).
79. Glass, 9.
80. *Ibid.*
81. *Ibid.*, 15-19.
82. Ahrenfeldt, 185-186.
83. MacKeith, "Lasting Lessons of Overseas Military Psychiatry." *Journal of Mental Sciences* 19 (1948): 542-550.
84. Stout, 649-650.
85. Doyle, 4.
86. Arthur Manning Doyle. *The History and Development of Canadian Neuropsychiatric Service in the CMF*. Typescript LAC RG 24 vol. 12, 583, 6.
87. *Ibid.*, 6.
88. For a full discussion of Doyle's method see Copp and McAndrew, Ch. 3, 4.
89. *Ibid.*, 17.

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90. Interview, Richardson.
91. "Handling of Psychiatric Battle Casualties" 19 May 1944, Draft version of Appendix B to Standing Orders, 21 Army Group, LAC, RG 24 vol. 15, 646.
92. School of Military Neuropsychiatry 312 Station Hospital (NP) US Army, *Combat Exhaustion* 18 LAC, RG 24 vol. 10, 066.
93. Glass 2: 279, First U.S. Army reported no psychiatric casualties on D-Day; 4 on D-Day + 1; 47 on D + 4; Ibid., 280 British and Canadian figures were similar.
94. See R. Grinker and John P. Spiegel *War Neuroses in North Africa*, (New York 1943), 29ff for an elaboration of this view.
95. Ibid., US casualties were higher than the British-Canadian figures as a result of offensive operations to capture Cherbourg but the battle exhaustion casualties were similar, about 11% of all non-fatal casualties. Glass, 293.
96. Weekly Report by Psychiatrist attached to Second Army for week ending Sat. 24 June 1944, PRO, WO 177/321.
97. Ibid.
98. Ibid.
99. Robert Gregory, "Divisional Neuropsychiatric Report," 27 June 1944, LAC, RG 24, volume 15, 611.
100. Medical Diaries DMS 21 Army Group, App. D 4 July 1944, WO 177/316.
101. War Diary DDMS XXX Corps July, 1944.
102. Monthly Report, Psychiatrist.....2nd Army June.
103. Ibid., July.
104. Ibid.
105. Glass, 292.
106. Major T.T. Ferguson, the "Specialist in Psychological Medicine" assigned to I British Corps thought that personnel selection was the key factor in battle exhaustion. He believed 51 (Highland) an "unselected" division had a higher exhaustion ratio than 3 (Br) Div., or 6 (Br) Airborne Division for this reason. In fact 3 (Br) Div., a highly selected division with "high morale" appears to have had the higher ratio. "Pshychiatric Report I Corps," 22 Nov. 1944 RG 24 vol. 12, 630. Battle exhaustion ratios from War Diaries ADMS 51 (H) Div and 3 Br. Div. PRO WO 177/405 and 177/377.
107. See for example "Summary of the month of June" War Diary 5/7 Gordon Highlanders PRO WO 171/1301.
108. The division NP ratio was 20 for June, at least 30 in the Epsom battle. War Diary ADMS 49 (WR) Div. PRO 177/399. 49 (WR) Division was transferred to 1st Canadian Army and an enquiry into battle exhaustion casualties was ordered. The division's reputation in the British army was also unfairly blemished by the collapse of one of its battalions. See Carlo D'Este *Decisions in Normandy* (London, 1983), 282. The 49 (WR) Division was in no worse shape than other divisions by mid-July.
109. Report by Psychiatrist Attached 2nd Army for month of July WO 177/321.
110. Quote is from *Sunday Pictorial* 2 July 1944, cited in War Diary 1st Bn. Suffolk Reg't June 1944 WO 177/1381. The regimental war diaries provide numerous first person accounts of battle.
111. War Diary ADMS 3 Br. Inf. Div. July 1944, App. E WO 177/377.
112. Training for Operation Axehead dominated the 2nd Division's preparations in 1944. See War Diary, 2nd Canadian Infantry Division, March-June 1944.
113. Casualty figures in Stacey, *The Victory Campaign*, 194. Battle exhaustion estimates from War Diary, I Cdn. Exhaustion Unit, July 1944 and "Quarterly Report I CEU, 1 July-30 Sept 44," LAC, RG 24, vol. 15, 569.
114. D.J. Watterson "Report of Psychiatrist Attached 2nd Army, July 1944," War Diary DDMS 2nd Army July 1944, WO 177/321.
115. Ibid.
116. Parts of the Medical War Diaries of I British Corps, which included the 3rd Canadian as well as 3rd (Br), 6th (Br) Airborne and 51 (Highland) divisions, were destroyed by fire. WO 177/335 contains no material related to psychiatry for June, July and August. A report written by T.T. Ferguson, the 1 Corps "Specialist in Psychological Medicine," was located in the files of the Directorate of History, NDHQ,



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Ottawa (147 .98009-D 4). This report dated 22 Nov 44 reviews the experience of I Corps in Normandy. WO 177/356 Medical War Diaries DDMS XXX British Corps contains good material for July. The June and August diaries are missing. WO 177/343 the diaries for DDMS VIII Corps are complete with excellent detail. WO 177/350 the diaries for XII Corps are very poor for all periods. The only British divisional medical war diary for Normandy that is fairly complete is that of 3 (Br) Division WO 177/377 though some material can be obtained from WO 177/405 51 (Highland), WO 177/409 53 (Welsh) and WO 177/399 49 (West Riding) divisions.

117. War Diary, DDMS VIII Corps July 1944 Annex ix.

118. See Robert Schneider, "Military Psychiatry in the German Army," in Richard A. Gabriel, ed., *Military Psychiatry: A Comparative Perspective* (New York: Greenwood Press, 1986). This article is the first attempt, in English, to write about stress reaction in the German Army on the basis of archival sources. Schneider has only been able to scratch the surface of the medical records available at the *Militär Archiv* in Freiburg, but this is more than can be said for other writers on the subject. Dr. Robert Vogel, Professor of History, McGill University, undertook a brief survey in this archive to determine what might be done with purely psychiatric records. "The files I looked at came under the acquisition list H20 and the files which dealt with psychiatry ran from 448 to 553... Each file ran to several hundred – sometimes thousand – pages." Clearly the history of battle exhaustion and of psychiatry in the German Army remains to be written. Letter, R.Vogel to T. Copp, October 1988.

119. This point is emphasized by most historians who write about the German Army. See especially M. Van Creveld, *Fighting Power: German and U.S. Army Performance 1939-1945* (Westport, Conn.: Greenwood Press, 1982). For a discussion of German military performance that integrated medical, disciplinary, and personnel records with combat see Omer Bartov, *The Eastern Front, 1941-1945, German Troops and the Barbarization of Warfare* (New York: St Martin's Press, 1986).

120. All of the statistics quoted here are from Manfred Messerschmidt, *Nazi Political Aims and German Military Law in World War II* (Royal Military College of Canada, 1981), 8-10.

121. Schneider, *Psychiatry in the German Army*, 136.

122. *Ibid.*, 136. Translation of term *Kameradschaftliche Zusprache*.

123. The phrases are from Messerschmidt, *Nazi Political Aims*, 18-19. He writes: "The exact figures for 1944-45 are unknown but one must expect these to be several thousands."

124. Dr. B. McNeel, interview.

125. The psychiatrists assigned to 50 FDS, one of Second Army's Exhaustion Centres, described the situation before the establishment of Divisional Psychiatry in these terms: "During rush periods, when as many as 50 a day supposedly AI men were being evacuated to the UK, a feeling of disquietude arose – was one becoming party to a racket? This apprehension became more marked when one was criticized by older officers – "we had nothing like this in the last war, they had to fight on frightened or not" – the loss of manpower was certainly staggering but I am convinced that few would have been of any use to their units in the near future, the facilities available at the time were such that we had no recourse save to send them home. The position is now improved. It was surprising how quickly the Field Dressing Station Medical Officers developed an aptitude for their work and their assistance was invaluable." "Psychiatry at 50 Field Dressing Station," 1 Aug 44 War Diary No. 50 FDS July 1944, Appx E WO 177/925.

126. Watterson, "Report for July." The War Diary ADMS 53 (Welsh) Division indicates that a divisional FDS began to function as an exhaustion centre at about the same time. A 53% RTU rate was claimed. War Diary ADMS 53 (Welsh) Div, Jly 1944 Annex Ia WO 177/487.

127. Second Army Medical Sitrep, 20 July 44 War Diary DDMS 2nd Army.

128. "Minutes of a Conference of 21 Army Group Psychiatrists, 13th, 14th June 1945..." LAC, RG 24, vol 12, 631.

129. F.A.E. Crew, *The Army Medical Services Campaigns Vol. IV North West Europe* (London: HMSO, 1962), 558.

130. There was, for example, a dramatic rise in the rates of hospital admissions for dermatitis among British troops. *Ibid.*, 194. This outbreak led Lt. Col. Watterson to invite the Advisor in Dermatology to address the psychiatrists of 21 Army Group in January of 1945. He noted that in the early days the man tended to draw attention to the last remaining spot, to see which a lens was needed." Minutes of a Conference of 21 Army Group Psychiatrists, June 13th, 14th 1945."

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131. See the exchange of letters between Terry Copp and Brigadier P.A. Abraham, FRC Psych, Director of (British) Army Psychiatry in the British Army Review #87 Dec 1987 for an indication of the problems of interpreting evidence on this controversial question. A careful search of the likely files in the PRO has failed to turn up any follow-up study, though there are references to the desirability of such research.

132. Van Nostrand, "Neuropsychiatry in the Canadian Army (Overseas)," RAMC. Paper given before the Inter Allied Conference on War Medicine at the Royal Society of Medicine, 9 July 1945. LAC, RG 24, vol 12, 631.



# Chapter 3

## Appendix 1

### WAR NEUROSES IN TOBRUK: A REPORT OF 207 PATIENTS FROM THE AUSTRALIAN IMPERIAL FORCE UNITS IN TOBRUK

E.L. Cooper and A.J.M. Sinclair

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*"War Neuroses in Tobruk: A Report of 207 Patients from the Australian Imperial Force Units in Tobruk," Medical Association Journal of Australia (1 August 1942).*

*The siege of Tobruk began on 10 April 1941 when the 9th Australian Division withdrew behind the defences of the small port on the North African coast. Surrounded by Italian and German troops, subjected to air attacks and engaged in constant night patrols, the Australians suffered some 3000 casualties including the 207 war neuroses cases reviewed in this article by two Australian military psychiatrists.*

At the beginning of May, 1941, a war neurosis clinic was established in an underground concrete shelter in Tobruk. Between May and August, 207 men from the Tobruk fortress area were examined in this clinic. The records of these men have been followed through British and Australian hospitals and convalescent depots and through the medical records section of the Second Echelon, Australian Imperial Force. Some of the men still in hospital have been re-examined and those men still in the war neurosis clinic at Number 1 Australian Convalescent Depot have been interviewed. While the records are not complete, sufficient information has been obtained to form the basis of this report. In Tobruk, detailed histories were recorded in the war neurosis ward. Although the shelter reverberated to shell fire and bombing, discussion with the patient could go on without the interruption of running to shelter. The capacity of the ward was 70 beds, and the patients could be retained in the war neurosis ward for a period of days or weeks. Prior to the opening of the war neurosis ward, both the hospital in Tobruk town and the section established on the beach had been repeatedly bombed. Patients were afraid to enter the hospital, as both patients and hospital personnel had been killed in various air raids. There was a tendency for men admitted to the wards suffering from medical or surgical conditions to develop a super-added neurosis in hospital. The opinion is expressed that a war neurosis treatment centre is necessary in the divisional area of operations. It should be stationed in a bomb-proof shelter and should have a capacity sufficient to hold patients for days or even a week or two. Its main function should be the classification of patients; this can be done only by medical officers experienced in this type of army medical work. No war neurosis patients should leave the divisional area except through the divisional neurosis clinic. One hundred and ten patients evacuated

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from Tobruk to the base have been traced. The records of these patients have been examined; they show that an appreciable delay arises between the patient's leaving the divisional area and his entering the war neurosis clinic which has been established at the Number 1 Australian Convalescent Depot. This delay in reaching the special treatment centre is to the disadvantage of the patient. Any treatment begun in the forward area is vitiated by delays in movement of patients. Treatment, to be of any use, must begin early and should be continuous, so far as this is possible. The movement of war neurosis patients, once they leave the forward area, has to be expedited through intermediate medical units so that the patient obtains early and continuous specialist treatment without delay. During a patient's stay in general hospital, new symptoms develop, old symptoms become fixed and repeated examinations by physicians and specialists establish in the mind of the patient an idea that he is suffering from obscure organic disease. Men with war neurosis which fails to respond to simple measures in the forward area must be treated in a special clinic, where the atmosphere should be more conducive to recovery. Occupational therapy, re-education, explanation and other measures can be satisfactorily applied only in a place where the patient has absolute confidence in his medical officers, where the irksome restrictions of military life are reduced to a minimum and where the man can yet be trained once more to become an efficient soldier.

Here, decisions can be reached as to the soldier's final classification as fit for front line service, for other duties, or for return to Australia.

Once a decision as to the further usefulness of the patient has been reached, there should be no delay in bringing him before a medical board. Once a man is "boarded", there should be no delay in his disposal.

The war neurosis clinic is firstly a unit for diagnosis and classification, and secondly a centre for the rehabilitation of those men who can be of further use in the army. Such a centre cannot be cluttered up with men "boarded" as unfit for further service; these should be held in camps well away from medical units.

The aim of treatment in the handling of war neurotics is threefold. The primary function of the medical services is the maintenance of the strength of the fighting force. No man should be evacuated from the divisional area who is capable of rendering further military service without adversely influencing his fellow soldiers. The second object is the rehabilitation of the subject as a soldier and as a man. If this rehabilitation can be carried out in the forward areas, so much the better. If the soldier has to return to the base for treatment in special clinics, this treatment must begin without delay. The third aim of treatment is to expedite the return of patients to civilian life when they can no longer serve as soldiers.

The majority of medical officers regard patients suffering from war neurosis as hopeless problems; the patient's condition is labelled "shell shock" or "bomb happy", and nothing is done to help him. Post-war pensions will be reduced if every officer takes an intelligent interest in the management of these patients.

The term "blackout", commonly used by war neurotics and medical officers to describe either anxiety attacks with dizziness or hysterically determined periods of stupor, is to be deprecated. The term bears a close resemblance to the "blackout" of high speed flying in aircraft and the tendency is for it to suggest physical disability in the face of physical stress. It is used complacently by hysterics as a rather distinguished badge of infirmity.

Of the 207 patients suffering from war neurosis treated in Tobruk, 79—that is, 38%—were returned to their units without leaving the fortress area. These men are still with their units at periods ranging from two to four months since their return to duty. An additional 48 men, after treatment at the base, have returned to duty with a classification of "A" (fit for front line service). From this it appears that 61% of patients with war neurosis admitted to hospital in Tobruk are now serving as fighting soldiers. An additional 48 men—that is, 23 % of the total 207—are classified as fit for base duties ("B"). From the above facts it would appear that four out of every five men who break down under the stress of modern warfare are capable of further useful service.

## **PSYCHOGENIC FACTORS IN PATIENTS FROM TOBRUK**

Many factors operate in the production of a neurosis in peace time, as in war. The pre-war personality of the soldier varies necessarily from one individual to another. The factors operating to provide a personality are constantly changing. Among the patients with a war neurosis seen in Tobruk, the psycho-biological make-up of every man was coloured for the time being by one dominating emotional reaction—fear. This fear was by most patients frankly appreciated and expressed.

In the majority of cases this reaction to fear was not permanent; it faded as soon as the massive stimulus producing fear was removed. In some cases there remained a morbid anticipation of bombing or shelling, which became a conditioned response. In others, fear laid the basis for the development of an anxiety neurosis. As a patient moved through medical units away from the battle area further down lines of communication to a place of relative security, other considerations coloured the original fear reaction. Somatic anxiety equivalents appeared in some instances. In other cases, in which fear remained prominent, the soldier attempted to make his fear seem more reasonable by a

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simple dramatization and embellishment of his original experiences into something more impressive than real. Emotional over-reaction and over-statement of facts became pronounced. In some patients incapacitating symptoms such as exhaustion on the least exertion, insomnia, headache, anorexia and vomiting appeared or increased in degree. Physical and mental activity became limited. Pre-war maladjustments were now readily elicited when the patient's history was taken; application for return to Australia on compassionate grounds was made for the first time many weeks after the soldier reached base areas.

All the foregoing symptoms may have been simple additions to the original picture. They may have been produced unconsciously or they may have consciously been directed to the avoidance of a repetition of the original stress. On the contrary, these symptoms may have resulted from a simple uncovering of the more complete content of a neurotic state, originally masked by the dominating feature fear. The anxiety and terror inevitably associated with modern warfare are the exciting causes of psychoneurosis in almost every man who breaks down under stress. Among those patients who were seen many months after they left Tobruk, frankly expressed fear was less common and was often lost in a complex and confused picture of an established neurosis.

In Tobruk the personal and family history of every patient was recorded in detail. In the majority of cases, a prolonged stay in hospital resulted in the recording of several clinical histories before the patient finally reached the war neurosis clinic. Examination of successive records shows a variation of the original story; new symptoms arise, new words are added to the vocabulary. A single word spoken carelessly by a medical officer is seized upon, a question is interpreted as an opinion, and the history recorded at the war neurosis clinic is often materially different from that obtained in the forward areas.

It would appear that, before expressing an opinion as to the treatment and disposal of a neurosis patient, the medical officers at the war neurosis clinic should have the full medical record of that patient.

The medical officer in the forward area should, in so far as it is possible, obtain from the regimental medical officer and the patient's platoon or company commander all information as to the soldier's previous record in the unit, his behaviour under fire and the degree of psychic and physical trauma to which he has been subjected.

As in the neurosis seen in the pre-war medical practice, the "previous personality" of the patient prior to the present stress was of considerable importance in the determination of the onset, the texture and the severity of the psychoneurosis. The personality of the patient was assessed after several interviews.

The patient's version was in nearly all cases the only one obtainable, and as such was often misleading. Of the patients seen in Tobruk, the personality was regarded as of inferior type in 58% of those examined.

A history of previous "nervous breakdown" was obtained from 23% of the patients and of severe head injury sufficient to cause loss of consciousness prior to enlistment from 17%. In the majority of these cases the previous medical history had been concealed at the time of enlistment and did not appear on his "A.A. Form D1". A family history of neurotic traits was obtained from 50% of these 207 patients. From the above it would appear that more care in the questioning of recruits might result in a reduction of the proportion of men who break down under the stress of war.

The general health of the soldier, the degree of bombing to which he is subjected and the physical effects of "blast" all play some part in determining the onset of war neurosis. In Tobruk, food was adequate and of high quality; vitamins B and C were added to the diet. However, the monotony of an entirely tinned ration and the limited amount of fresh water available inevitably produced some effect. Exhaustion, other than that due to lack of sleep because of nightly bombing raids, was not a large factor in the psychogenesis of the majority of war neuroses seen in Tobruk.

Some men evacuated from the fortress area after battle injuries later developed a neurosis. However, the combination of physical disability and psychoneurosis appears to be relatively uncommon, although no detailed figures for the Tobruk area have been obtained.

From the experience gained in Tobruk and the follow-up of patients suffering from war neurosis, certain opinions emerge. Accuracy and detail are essential in the recording of the history of the patient at all stages in his progress from his unit to the base. The whole medical record of a neurosis patient should be inspected before an opinion as to prognosis and treatment is expressed. While neurotic inheritance, previous breakdown, personality, exhaustion *et cetera* play some part, the main existing factor in the production of war neurosis is fear.

## **AN ANALYSIS OF 207 PATIENTS SEEN IN TOBRUK**

### **ANXIETY NEUROSIS**

The number of men suffering from anxiety and fear states exceeded those suffering from other forms of nervous disability. In all, 132 were regarded as



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suffering predominantly from anxiety states. The 70 men whose condition was labelled anxiety neurosis had the familiar somatic manifestations essentially similar to those seen in time of peace. In practically all these patients overt fear was present and the majority of them recognized that fear was the basis of their symptoms.

Patients presenting the picture of “effort syndrome” were not common. Their symptoms were uniform in character and differed from the other anxiety states. The impression formed was that of a physiological or pathological disorder which deviated from the orthodox conception of an anxiety state.

Under the title of fear states were placed those conditions in which bombing of no more than ordinary severity induced such a state of fear that either the soldier was incapable of continuing his duty or his influence was such as to be regarded as a menace by his officers. Sixty-two patients were labelled as suffering from fear states rather than neuroses because their fear was not unfounded. It was not dependent on past incidents so much as conditioned by rapidly recurring stimuli in the shape of continued bombing. There was ample evidence that their fears were based on reality, not on retrospective stimuli as in anxiety neurosis. There was an almost complete absence of the somatic manifestations of true anxiety neurosis.

At the first warning of an actual air raid, the patient with a fear state would run to cover. During the raid, these patients became pale; they had extreme, often audible, tachycardia, profuse sweating, pronounced tremor and, curiously enough, repeated yawning. A few patients showed motor restlessness, running from shelter to shelter. A desire to micturate was common; in some cases it was delayed until the raid had passed, in others involuntary micturition occurred.

These men, in a fear state, seemed to show an emotional disturbance which was no more than an exaggeration of the normal fear response. An undisciplined, animal-like fear occurred often in men with a poor personality or in patients suffering a concomitant physical illness such as dysentery.

Of the total 62 men suffering from fear states, 33 were sent back to their units in Tobruk, with a recommendation to the regimental medical officer that if they were unable to give satisfactory service somewhere in their unit, they should be returned to the base, but not through medical channels. All but five of these men are still serving as fighting soldiers. It would appear that 85% of men with simple fear states who are returned to their units after a week or two of rest in a war neurosis clinic within the divisional area, can be expected to give further service in the front line.

Of the 29 patients suffering from fear states who were evacuated to base hospitals, 19 had in addition some other physical or psychological effects, such as an old head injury, congenital mental defectiveness *et cetera*.

Of all the men whose conditions were labelled fear states (62 in number), 39 are now classified as fit for front line service—that is 63%.

Men with uncomplicated fear states were not evacuated to the base through medical channels. This was an attempt to prevent the easy escape from the fortress area of men who were merely frightened. As these men exhibited only extreme fear, it was considered desirable to label the field medical card (A.F. 3118) “fear state”, in the hope that this diagnosis would not be bandied about post-war parlours, consulting rooms or assessment tribunals as readily as “neurosis”, “blast” or “shell shock”.

The men suffering from fear states were not regarded as medical casualties; although they were unable to stand up to the stress of front line service, evacuation to the base through medical channels would lay open an avenue of escape that might be increasingly used in a beleaguered garrison, such as Tobruk. On the contrary, men suffering from anxiety neurosis in the majority of instances required specialist attention away from the fighting area. Forty-five were evacuated; 20 were returned to their units. Thirteen of the 20 who went to the base have, since treatment, been classified as “A” (fit for front line service). Three of those returned to their units in Tobruk have since broken down and have been reduced by medical boards to lower categories. In all, 35 out of a total of 70 men with anxiety neurosis have returned to front line duty. From the foregoing fact it appears that anxiety neurosis in soldiers has a relatively good prognosis if treated early: 73 men out of a total of 132 are classified “A” (55%) and 40 as “B” (30%).

Age is of importance in the prognosis of anxiety states; 90% of men with this condition who are under the age of thirty-five years should give further useful service in the army. Of the 132 men with anxiety states, 90 were under the age of thirty-five years; 55 of these are now serving with their original unit or are classified as “A” (61%), while 26 are classified as “B” (29%). On the contrary, of men aged over thirty-five years, 43% are classified as “A” and 33% as “B”. Of the 13 men returned to Australia classified as “D” (permanently unfit), several were over the age of thirty-five years.

Every man under the age of thirty-five years who was returned to Australia with an anxiety state had defects of personality and of family history or had other psychiatric abnormalities; all but one of these men had suffered a “nervous breakdown” prior to enlistment.

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Fear state, anxiety state and effort syndrome are sub-groups of the larger class of anxiety neurosis, in all of which the prognosis is relatively good.

In both fear and anxiety states the soldier often overstated his case. By hysterical or conscious overlay, he dramatized the emotional situation during which he suffered the psychic trauma under which he broke down. This exaggeration was consciously or unconsciously designed to sway the medical officer's opinion, so that the patient could avoid further danger.

### *CONVERSION HYSTERIA*

Conversion hysteria was relatively rare in Tobruk. Of 207 men seen in the neurosis ward, 34 were regarded as suffering from simple conversion hysteria (16%), while anxiety states reached 64% of the total psychic disorders. The condition of a number of men with other psychiatric or physical abnormalities had an added hysterical colouring. Conversion hysteria occurred almost entirely in young men. Twenty-six of the 34 men with conversion hysteria are now with their units or classified as "A" (fit for service with field formation)—that is, 77%. One-half of these men returned to their units without leaving the fortress area. The majority of these patients responded quickly to crude suggestion.

As only one man with hysteria has returned to Australia, and 77% are classified as "A" and 20% are classified as "B", it would appear that the immediate prognosis of conversion hysteria is good.

The possibility of relapse in patients with conversion hysteria is great; as a common manifestation of hysteria in the army is a "fugue", these patients may be a menace in a unit if amnesia or other abnormality of behaviour occurred while the man was on duty. For this reason many such patients were evacuated to the base and classified "B", although at the time of examination by the medical board there was no residual disability.

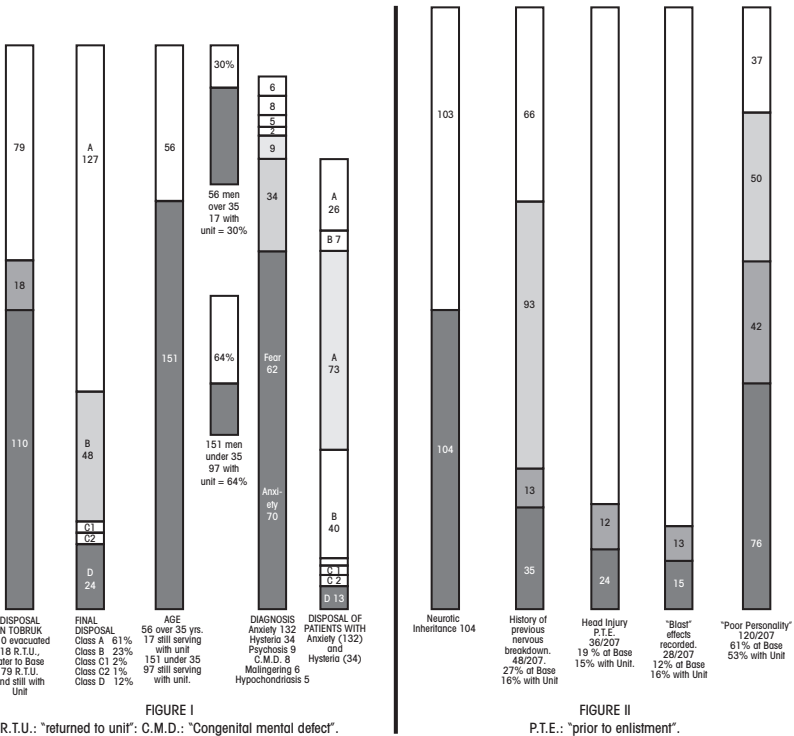
In many cases it was impossible to determine where hysteria ended and where the conscious overlay and mimicry of the malingerer began.

### *PSYCHIATRIC DISTURBANCES OTHER THAN ANXIETY STATES AND HYSTERIA*

Five men showed hypochondriasis; these were all over the age of thirty-five and their disorders were in no way different from the peace-time neurosis. There was the same inflexible insistence on the importance of symptoms and an unassailable preoccupation with visceral sensations. Other patients showed hypochondriacal additions to some other psychoneurosis; by the time these

men reached the war neurosis clinic their primary defect was often forgotten and their visceral symptoms became predominant.

Psychopathy was uncommon; in these patients the personality defect was extreme, and they had been unable to settle down to a hard life or to army discipline. They became still more unsatisfactory soldiers in the face of fear, being incapable of any duty entailing the taking of responsibility and often reacting to superior authority by aggressive behaviour.



Congenital mental defectiveness was obvious in only ten instances; it varied in degree. None of these men should have been enlisted; all have returned to Australia.

Only six men were returned to their units with a diagnosis of malingering. This reflects great credit on the regimental medical officers in the fortress area, who culled the malingerers from the sick before they entered the hospital, in other cases (seven) there was probably a conscious motivation of symptoms, and doubt still exists as to the diagnosis in some. Conscious overlay upon other psychoneuroses increased the further the patient travelled away from the front line.

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Remarkably few patients with frank psychosis were seen in Tobruk; only four cases of schizophrenia were seen among Australian Imperial Force patients, and there was one case of psychotic depression.

### *EXHAUSTION STATES*

Considerable difficulty was encountered in estimating how great a part exhaustion played in the development of neurosis in Tobruk. Only two Australian Imperial Force patients were regarded as suffering from true exhaustion states. These men had been subjected to stress in excess of the average. They both showed improvement in a relatively short time.

Physical exhaustion of severe grade was uncommon in Tobruk. There was little movement of troops, and food supplies were always good. With the exception of the men manning the anti-aircraft defences and operating the harbour facilities, the emotional and physical exhaustion involved in bombing and shelling was more or less common to all in the fortress area. Lack of sleep due to nightly raids was the largest factor in the production of exhaustion.

### *HEAD INJURIES*

A history of head injury prior to enlistment, of sufficient severity to render the patient unconscious, was elicited from 36 men (17% of the total 207 examined). By the large majority of these men this history had been concealed at the time of enlistment.

A soldier who had suffered a severe head injury did not stand up to the noise of shelling and bombing. These men developed headaches and other symptoms, and they were frequently admitted to hospital for investigations. In some cases there was a physical cause for the headaches; in others a psychoneurosis developed around the incident of the original injury. Many men unable to stand the strain of the front line used their previous injury as a means of escape from further service. A decision as to the nature of the headache is always a difficult one. No man should be accepted for service who has had a major head injury. Headache becomes more common as a symptom in base hospitals and at the war neurosis clinic. Vomiting was the most frequent symptom in Tobruk; headache is more common at Kfar Vitkin.

## TREATMENT OF PATIENTS

### *IN THE UNIT*

The regimental medical officer of a unit should be able to deal with the majority of men who are in the early stages of anxiety neurosis or fear states. He can suggest that certain men be given duties away from extreme stress; he can talk to individual patients and in many instances he can prevent the development of anxiety states. The regimental medical officer can do a great deal to keep up the morale of a unit.

### *IN TOBRUK GENERAL HOSPITAL*

When the psychiatric centre at Tobruk General Hospital was first opened, it was optimistically expected that the principle of treatment of early cases of war neurosis near the front line could be carried out in Tobruk. This was done so far as was possible, but as time went on it became more and more obvious that the psychiatric ward was, for the majority of patients a diagnostic centre.

The reasons for the failure of the ward to develop into a therapeutic centre were many. The ward was situated in a concrete shelter under an anti-aircraft gun and in the neighbourhood of a heavy anti-aircraft battery. The ward was therefore noisy, and there was difficulty in convincing a terrified patient that he was perfectly safe in the ward when the very sounds that conditioned the fear were, at times, more in evidence than in the front line.

The psychiatric ward was at first poorly lighted, by hurricane lamps for most of the period under review in this report. Recreational and occupational therapy was out of the question. There was bed room only, and the men slept in double-decker canvas barrack beds. Owing to the limited accommodation a prolonged stay in hospital was not possible; only men of good personality with hysterical states and fear states could be adequately treated in a few days or weeks. Finally, there was little opportunity to bring about gradual physical readjustment to conditions of warfare. Men on discharge from the hospital were required to return direct to their units or to a convalescent camp, which was often shelled or bombed.

Treatment, in so far as it could be carried out, consisted primarily in the production of adequate rest, if necessary, with the use of soporifics. Thereafter, there was a frank discussion of the nature of the patient's fear and of the distinction between fear and cowardice. If the personality of the patient was good enough, attempts were made to teach the patient to discipline his fear and to prove to him that he was capable of first-class work while still afraid.

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It is regretted that more treatment was not carried out in the fortress area and that so many patients were evacuated to base hospitals. Successful psychotherapy should be possible nearer to the front line than at base hospitals or special hospitals.

### *IN A WAR NEUROSIS CLINIC AT THE BASE*

A war neurosis clinic was established at Number 1 Australian Convalescent Depot by Major R. Whishaw. A detailed history can be recorded in such a clinic, pre-war defects can be discovered and a more accurate picture of the psychological make-up of the patient can be made. All previous army records of a patient's medical history are examined, and a decision is reached as to his future in the army or in a civilian sphere. Men "boarded" as unfit for further service are not retained in this clinic, but are returned to Australia, where they should receive vocational guidance as well as medical treatment.

Those men from whom further useful army service can be expected need re-education and guidance as well as rest. The military atmosphere must be reduced to a minimum; but discipline must be retained, as these men have finally to return to army units. A war neurosis clinic calls for a psychiatrist, a psychologist, a vocational guidance officer, an occupational therapist and an army officer of experience. These qualities can rarely if ever be combined in one individual officer, so a war neurosis clinic needs a carefully selected team. The patients must be classified, advised, taught occupational therapy and given sufficient physical exercise to keep them fit and sufficient training to ensure that they are still soldiers. They must have sufficient time for recreation, and this recreation should be largely the result of the efforts of patients themselves. A concert by the patients is better than a cinema.

The vocational officer at the war neurosis treatment centre must be in close touch with a vocational or amenities officer in the base area, where men are distributed to units once they have completed their treatment at the war neurosis clinic. The vocational officer at the base should attempt to place men in jobs for which they are best fitted by training and temperament. Medical boards and psychiatric officers should indicate on the patient's papers the particular occupation for which they think a man is fitted. By this practice trends of usefulness, either developed or exposed during observation, would be followed up. The placing of "square pegs in round holes" so characteristic of the army should be obviated by the above measures.

## CONCLUSION

The prognosis of war neurosis depends largely on accurate diagnosis and early treatment. To an equal extent the results of treatment depend on the cooperation of the soldier's unit and the whole of the army organization. The results obtained in Tobruk and Kfar Vitkin justify the statement that the prognosis of war neurosis is good. Sixty *per centum* of the men have returned to units as fit for front line service, and only 12% have returned to Australia permanently unfit.

*The Medical Journal of Australia*, Sydney, Saturday, August 1, 1942.





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## Appendix 2

### LASTING LESSONS OF OVERSEAS MILITARY PSYCHIATRY

S.A. MacKeith

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*"Lasting Lessons of Overseas Military Psychiatry," Journal of the Army Medical Corps (July 1946): 542-550.*

*This review of military psychiatry in North Africa and Italy was written by S.A. MacKeith who became Advisor in Psychiatry to the famous 8th Army. MacKeith wrote this survey after the war with an eye to lessons learned for civilian practice. MacKeith took a humanist rather than a scientific approach to psychiatry. Dr. MacKeith did not share the views of his Canadian counterpart A.M. Doyle. MacKeith and his fellow psychiatrists in 8th Army returned a much larger proportion of their patients to combat.*

Military psychiatry is a large subject with widespread ramifications. The general scope of the work at home has been well reviewed in J.R. Rees' paper, "Three Years of Military Psychiatry in the United Kingdom"; I need not, therefore, try to describe what he has described so well. Even in the overseas field, I must unwillingly avoid the fascinations of detailed discussion of the aetiology and treatment of "battle neurosis" in forward troops; there is already a wealth of papers on this subject, including the valuable symposium at the Section of Psychiatry of the Royal Society of Medicine last November, in which Palmer, Kenton, Craigie and Main took part. Kenton's contribution, being based on work in North Africa and Italy, outlines some of the experience on which my remarks to-day are based.

The overall incidence of psychiatric illness in the Army is possibly not very different from the incidence in civil life; but when we come to consider such things as the nature of the population at risk, the types of stress undergone, the priorities obtaining, and the administrative powers available, we find that almost everything is radically different from the conditions of peace-time civilian psychiatry; in fact so much so that it might well be thought that there could not possibly be any lessons for us to learn from military psychiatry!

It is important to enumerate some of the outstanding differences. Military psychiatry deals with a population which is predominantly male, and whose age-range is from 17 to, say, 50 or 55. And a fair proportion of the grosser mental defectives and the more severe chronic neurotics have been weeded out by the civilian medical boards.

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Among the special stresses of military life which are relevant to psychiatry may be mentioned lack of privacy, discomfort, a hustled and regimented life, boredom in leisure time, interruption of the chosen career, less congenial employment, and a mode of life which produces special strain in certain men with homosexual tendencies.

For the overseas soldier specially we must, of course, add to the list the tendency to "separation anxiety" and all the manifold stresses of battle. In this connection it is well to emphasize that, though the psychotherapists of 1914-18 bequeathed to us an important struggle more than half won and a valuable fund of understanding and experience, we found their concepts in a sense too simple for the purposes of this war and seemingly lopsided; human nature had not changed, but almost all the circumstances had!

Returning to our comparison between war-time military, and peace-time civilian, psychiatry, the next important difference to note is in the field of morale. In a force overseas the morale structure builds itself on clear-cut, traditional, hierarchical lines, affording, for short-term purposes, great internal strength, resiliency in the face of communal misfortune, and considerable support to the individual officers and men who make up the force. If it were not for the "immunizing effect" in the psychiatric field of this well-braced morale structure, half the expeditionary force would become psychiatric casualties, or desert, however harsh the disciplinary regime might be; and the psychiatrist's job would be impossible.

The values and policy priorities, too, of war-time military psychiatry differ radically from those of peace-time civilian psychiatry. The short-term view is dominant. As Main has said, "If a sergeant can recover his poise for one month, it can be regarded as a satisfactory therapeutic result in an army fighting for its very life, though such a result would not be worth having in civilian life." The overriding objective of battle-winning subordinates the individual's interests completely to those of the army as a whole. The soldier's reaction to, and effect on, the group of which he forms a part becomes a matter of primary importance.

If we turn now to the question of the administrative powers and resources of the psychiatrist, the difference from the conditions of civilian psychiatry is still immense. A soldier who seems to be concealing a serious neurosis can be ordered to attend a military psychiatric out-patient department. A psychotic soldier can, without certification, be taken to a military psychiatric hospital against his will. A man who does not realize that his psychiatric symptoms are mostly due to unsuitable army employment can be instructed to go to a personnel selection centre for testing and interview, and can then be posted summarily to the sort of job for which he has been found to be naturally suited.

Moreover, if the patient's psychiatric problem is insoluble, or not soluble within the short time-limits which the Army sets itself, the military psychiatrist can always produce his "trump card"—discharge from the Army for medical reasons. Although with all psychotics, and with many neurotics who are unfit for service, the Army does its best to give adequate treatment on modern lines before discharge, it yet remains true that this "trump card" relieves the military psychiatric machine of many very difficult cases, which sooner or later fall to the lot of the unfortunate civilian psychiatrist.

One other great advantage the war-time military psychiatrist has over his peace-time civilian colleague; the general urgency of fighting a war, and, in particular, the stringencies of man-power, enable him to exert on the army administrators an effective influence in the direction of necessary administrative and policy reforms. But for this fact, it would not have been possible to get the army to introduce even a quarter of the innovations which, in fact, it did carry out during the War.

Random examples of this which might be quoted include the formation of special companies of the Pioneer Corps, the introduction of intelligence-testing at recruiting centres, the starting of personnel selection, and the institution of the General Service Corps recruit intake procedure.

My own psychiatry has been considerably influenced and modified by my time in the R.A.M.C. – not just in spite of the differences which we have been discussing, but partly because of them. Standing back from one's painting for awhile, anyhow, often helps one to see one's picture with fresh eyes; and a period of work in a different medium can be very stimulating.

Moreover, for all the differences that we have been considering, military psychiatry can point to certain general principles and trends which its experience has revealed or emphasized, and which may serve to enrich in a direct way the main stream of peace-time civilian psychiatry.

In an expeditionary force, as in the Army at home, neurosis as a problem quite overshadows psychosis. When I went out to North Africa in May, 1943, I learnt that this had been the finding there. The medical authorities had made no psychiatric plan for the landing in North Africa, and had sent out no psychiatric hospitals. Throughout the North African campaign there had been no psychiatric adviser at medical headquarters, and the specialist resources of the force amounted to two psychiatrists, with two general duty officers whose help they had enlisted. Of these two psychiatrists, one, Wishart, did valuable experimental work in the forward areas—but largely in the teeth of opposition from a high medical quarter. The other, Kenton, with opportunism, skill and immense

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industry, built up an unofficial rear psychiatric centre at Algiers, where he did his best under difficult conditions to get the psychotics handled suitably, and, in the treatment of the enormous numbers of neurosis cases, brilliantly employed narcotic, abreactive and psychotherapeutic techniques.

Unfortunately, his work was greatly hampered by two factors. The first of these was the fact that his patients took a long time to reach him. They travelled, without sedation, by slow stages along the winding valley routes from the front. In turn they were bullied, ignored, and mollycoddled; only when they reached Kenton were they understood. Many of the cases, therefore, had become much more complicated, with emotional deterioration, fixation of their original symptoms, formation of new symptoms, and the development of much “secondary gain.” Some of them regressed to states of hysterical stupor very difficult to distinguish from psychosis. It will be understood that the duty to which he returned three-quarters of his cases was usually not a fighting role.

The other disadvantage under which he laboured was that, owing to ignorance at headquarters and the lack of personnel selection facilities, most of his well-considered recommendations for changes of employment were never carried out. Fortunately, when I arrived, as Psychiatric Adviser to Allied Headquarters, a personnel selection organizer arrived with me. Personnel selection centres were rapidly organized, and an efficient administrative procedure worked out; in particular, a special routine was devised for “translating” the psychiatric disabilities of a down-graded man into a form understandable by a layman, and expressed in terms of limitations of his military employability.

Meanwhile, proper rear psychiatric centres were set up, more specialists were obtained, and the out-patient services organized.

By the time that the campaign in Italy was under way, we had built up a pretty effective psychiatric organization. In the forward areas, regimental medical officers had been taught when to evacuate psychiatric cases, how to sedate them for their journey, and how to “label” them so as to ensure that they got to the corps psychiatrist at the corps exhaustion centre. At the corps exhaustion centre a third of the cases—those with a good quick prognosis—were held for a five-day period of simple treatment and then returned to their units, the remaining two-thirds of the cases being evacuated to the Advance Psychiatric Centre in the Lines of Communication Area behind Army Headquarters.

Of these cases, a small minority were sent on almost at once to a rear psychiatric centre at Naples or Bari in the base area; this minority included all the psychotics, the gross psychopaths, and those neurosis cases likely to need to be sent home to England, or, at least, to require a long period of treatment. The

remainder—rather more than half the total cases coming back from the forward area—were retained for treatment at the Advance Psychiatric Centre, our second treatment “level.” They were given, on an average, ten days of specialized hospital treatment, followed by some weeks of rehabilitation at a re-allocation camp. There most of them, having been medically downgraded, were tested and interviewed by the personnel selection staff, with a view to their prompt nomination for new and non-combatant duties in the Lines of Communication Area.

For a long period this Advance Psychiatric Centre functioned at Assisi. The contrast between our clinical findings there, and our findings at Algiers during the North African campaign, was immense. Thanks to earlier evacuation, sedation for their journey, and contact with a psychiatrist (in the corps exhaustion centre) at an early stage, practically none of the patients were severely “regressed.” The psychiatric syndromes they displayed were much milder and more “embryonic” in type; there was less fixation of symptoms, no new symptom formation, little general deterioration, and amazingly little “secondary gain.” Continuous narcosis was less frequently needed, and abreaction much less often employed. Treatment was, in general, much less specialized.

I have described the psychiatric syndromes seen at the Advance Psychiatric Centre at Assisi as being more “embryonic.” I mean that they were much simpler in psychopathological structure—and much more malleable by treatment. One seemed to be seeing in these patients the essence of the breakdown before there had been time, opportunity, or stimulus, for the nuclear disease-process to aggregate around itself the various specific psychopathological. Weaknesses of the individual soldier, and before there had formed the husk of “secondary gain.”

All this gave us a wonderful therapeutic opportunity, and we tried to take full advantage of it. To ensure that, during his brief ten days in hospital, the Advance Psychiatric Centre patient would get something like real intensive treatment, and a sense that his case was being well understood and swiftly and skilfully handled, I allotted to this one hospital unit far more than its numerically fair share of the twenty-odd psychiatrists in Italy. On this firm medical basis was built up a dynamic hospital routine, the patients being kept busy with physical training, games, competitions, and all kinds of recreation; they were also responsible for almost all the work of the hospital except treatment and nursing. Both in their work and in their play much use was made of a simple form of the “leaderless group” technique, the onus being thrown on to the patients themselves of choosing their leaders, of organizing themselves, and of seeking ways and means and supplies. At this Advance Psychiatric Centre hardly any occupational therapy in the ordinary sense was done. (With the psychotics at the rear psychiatric centres in the base area, the position was, of course, quite different.)

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The response to this general therapeutic plan was quite remarkable. “Secondary gain” hardly developed in the patients at all, even towards the end of their time in hospital; and their original psychiatric symptoms responded very well to treatment in a high proportion of the cases. Very few, of course, were returned from this “level” to combatant duty; most of them were destined for fresh employment in the lines of communication area. But their degree of mental recovery and general spirits were remarkable, and augured well for their keenness and effectiveness in their new Army jobs.

The results, then, achieved at this advance psychiatric centre seemed to me quite remarkable, even allowing for the fact that the cases were arriving there in much better shape. On the other hand, the psychiatrists working at the hospital, though very able, and possessed of special experience of work of this kind, were not using any dramatically new methods in their handling of individual cases; they were using abreaction, prolonged narcosis, modified insulin, and a few psychiatric interviews for each patient. It was therefore clear that the immense superiority of the results over those achieved at Algiers must be due to something in the setting, general atmosphere, and routine of the place. This beneficent general atmosphere one sensed at once as one went round the hospital. There was a general feeling in the air of optimism, liveliness, activity, interest and helpfulness—of “team spirit” in the best and widest sense. The whole hospital seemed like one big family, embracing the medical officers, the nursing sisters, the nursing orderlies, and the patients; even the Italians who were employed about the place on various menial duties seemed to “belong.” That this atmosphere should have grown to such a degree is a great tribute to Kenton and his colleagues.

They were, in fact, using group treatment. Now, group treatment in different hands has developed along very different lines. In their practice some workers emphasize exhortation, some the use of lectures about the patients’ symptoms, and some social clubs; all these fall into the “repressive inspirational—informative” class of the method.

At home, at Northfield Military Psychiatric Hospital, the trend of group treatment has been in the “dynamic—analytical” direction. There, as Torrie says, the therapist is passive and catalytic. The group lives, works, and abreacts as a family, and as a team. It displays a remarkable power of collective free association which eventually leads to a greater degree of insight. This particular method has been found immensely valuable in the handling of repatriated prisoners of war. The methods used at the Advance Psychiatric Centre at Assisi involved a mixture of both techniques.

This experiment at Assisi, though conducted, as we know, on psychiatric cases of a special type and in a special setting, may perhaps give us a few pointers

for our civilian practice. Perhaps, even in civilian life, if we established a better understanding with general practitioners (and the increasingly important industrial medical officers), and made it easier for them to give patients contact with a psychiatrist at a really early stage of their breakdown, we should get our neurosis cases for treatment in a milder, less complicated, and much more malleable form. To achieve this, however, we must do a lot of spade work. In particular, some of us must go out into factories and offices to learn what they are really like—the special stresses and the early signs of breakdown. Army experience suggests that one of the most profitable types of case to look for will be the “willing horse” who is beginning to break down—the man (often a foreman) whose integrity and conscientiousness have made him in the past one of the mainstays of his workshop, but who, more recently, has displayed a gradual deterioration in his spirits, his temper, and his efficiency. Such a man, when he finally breaks down, breaks down badly, developing, say, an involuntal melancholia or a severe anxiety state.

Another type of case which is likely to repay well our, so to speak, going to look for him, is the injured workman whose convalescent stage is going awry, and who stands in danger of developing a severe “compensation neurosis” with a general paranoid flavour.

In so far as the psychiatric organization in Italy was able to do an effective job, this depended, I am sure, in a considerable degree on the strict limitation of each of the three types (or “levels”) of psychiatric treatment unit (exhaustion centre, advanced psychiatric centre, and rear psychiatric centre) to a prognostically selected group of cases. This leads me to think that, in the different field of civilian psychiatry, specialization by the various psychiatric hospitals in a large centre of population may well be found to have overwhelming advantages—especially, of course, if we are seeking to create a strongly therapeutic group atmosphere. By the same token, I am not an enthusiast of psychiatric beds in general medical wards. One freely admits the advantages of easy consultation with surgeons and physicians, and the greater willingness of certain patients to come in; but, if we develop them on a large scale, we shall, I think, lose more by the unsuitable general hospital atmosphere than we gain in other ways.

When I turn my attention back to our experience in Italy during the war, and ponder the things which my colleagues and I learnt about the differential incidence of psychiatric casualties in different units, and about the general prophylaxis of psychiatric breakdown there it at once becomes clear that in these fields, which are fields of morale, the group is again of primary importance.

Different front-line battalions, made up, apparently, of similar human material, and fighting under similar conditions, produced startling differences in their



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numbers of psychiatric breakdowns, and parallel differences in the frequency among their soldiers of petty disciplinary troubles and of venereal disease. In almost every case of a contrast of this sort between two similar units we found, not a striking difference in the standard of physical fitness between the two lots of men, and not an obviously higher average degree of psychiatric instability among the men in the more troublesome unit, but some, or all, of the following poor leadership, poor team-spirit, and poor training in the past, with consequently a much less strong feeling of professional soldierly competence. To these were sometimes added a protracted experience of the passive role in warfare, or perhaps the recent memory of a sudden military disaster involving a large element of surprise.

As in the pathology, so in the prophylaxis of breakdown in all its forms, the positive factors of morale were of predominant importance. The negative use of discipline in the narrow sense could exert only a limited, and very short-term, effect.

When, in rare instances, individual officers tried to inculcate hate and blood-lust into their men, the attempts recoiled upon them, and the last state of morale was worse than the first. The effective ingredients of good morale were a high state of real battle-training, good leadership, good comradeship, some acquaintance (however slight) with the objects and progress of the engagement, and some conviction (however vague) of the rightness of the Allied cause.

Lest I should seem to be painting the British soldier, who, after all, was once an ordinary civilian, as too reasonable a being, I hasten to admit that many of his mental mechanisms were quite irrational. Though he maintained for the Germans opposite him a considerable professional admiration and not a little affection, he had a most intemperate bitterness about all "base-wallahs" such as myself, and about all civilians at home (except his own relatives) and the continuous good time that they were allegedly having.

In the field of morale, and of certain topics allied to it, it is specially tempting to draw from military experience tentative lessons for the peace-time civilian situation. Psychiatrists and sociologists in this country have as yet hardly started on the study of peace-time civilian morale, whether in its more general and its more specialized aspects. In Italy we derived considerable assistance, in our studies of the morale of the troops, from the services of a trained Opinion Survey team, led by a sociologist. That technique is, of course, only one of many methods available to the modern investigator. It might be illuminating, and even useful practically, if a serious attempt were made to study with these methods the history of the miners of Great Britain during the last fifty years, and the complicated structure and origins of their present frame of mind.

Other possibilities spring to one's mind. Even if we do not contemplate large-scale personnel selection throughout industry, might it not be worth while, on the basis of all the experience and research of the War Office Selection Boards for Officers, to devise some method of selecting our industrial leaders, likely to be less lop-sided in its effect than the system which now obtains? Could not similar methods be applied in the Civil Service, in the teaching profession and even in the choice of the psychiatrists of the future?

Under this same heading of morale many topics claim our attention. Why was the symptomatology of battle neurosis in this last war so different from that found in 1914-18? Was it a greater awareness, on the part of the doctors, of the importance of psychological factors, that made the incidence or (as we now call it) "effort syndrome," less heavy? Why were hysterical camptocormias\*, paralyses, and anaesthesias less common among British soldiers this time? Was it because of a higher average level of general education, or a better understanding of physiology, or a wider recognition of the nature of neurosis, or the growth of a system of moral values less simple and clear-cut? Why, incidentally, in Italy, did the South Africans and Poles produce a higher incidence of crude hysterical syndromes than the British; and the Indians a lower proportion of frank anxiety states, but a higher incidence of functional deafness and of self-inflicted injuries?

Time does not permit me to examine all these problems in detail and, if it did, you might not agree with my tentative interpretations. What I wish to emphasize at the moment is, that the issues raised by these war-time I questions are probably relevant to civilian problems too.

There is another question which, in my opinion, merits careful study by the members of this Association. To what extent, and in what manner, should modern personnel selection methods, worked out so thoroughly in the general service recruit intake procedure and other routines of the Army, be employed for peace-time civilian purposes in Britain?

As I mentioned earlier in this paper we found ourselves compelled considerably to modify and extend the concepts of the aetiology of "shellshock," which we had inherited from the psychotherapists of the 1914-18 war. One thing, for instance, which they hardly mentioned is the importance in the aetiology of "shellshock" of dullness and backwardness. Feeble-minded soldiers never last long in the combat zone; and even those who are merely dull are very much more liable to battle neurosis, which in them often takes a crudely hysterical form. Fortunately few of them get to the front line now.

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\* Camptocormia is a condition where the body is bent forward at the trunk.

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But, quite apart from the question of battle neurosis, the minor degrees of mental defect (backwardness, dullness, and feeble-mindedness) presented the Army in 1940 with a serious problem at home. Dull men had been uprooted from their civilian environment, where their relatives protected them and their employers and neighbours were sympathetic; they had been torn from the suitable peace-time jobs which they had with difficulty found and with difficulty learnt. In the Army they became bewildered and anxious, and less liable than ever to cope with their difficulties. Some reacted by constant invalidism with minor physical ailments, some developed frank neurosis, and some, through repeated absences without leave, or other offences, found their way to the military prison. In addition, these dull men were much more liable than the average soldier to get scabies or a venereal disease.

After 1940 the situation was gradually brought under control. Three effective steps were taken in turn. First, Army medical boards had to be persuaded by psychiatrists that a low-grade feeble-minded man, however well-built physically, is of no use to a modern Army and should be discharged without further ado.

Secondly, special companies of the Pioneer Corps were formed, so that dullards might do simple garrison duty, and selected high-grade feeble-minded soldiers do manual labour without ever using firearms. These companies were a great success. The men worked well at their allotted tasks. They became contented, self-respecting, and well-behaved; and the incidence among them of disciplinary troubles, neurosis, and sick parade attendance, fell dramatically.

Finally, in 1942, the general service recruit intake procedure was instituted, whereby every recruit during his first six weeks of training is tested, interviewed, and allotted a job really suitable for him. This system has prevented even slightly dull men from being assigned to work too difficult for them.

The Army's experience in this field gives us some useful pointers for the planning of the future attack on the vast and important problem of minor mental defect in this country. MacCalman, in an illuminating article in the *Practitioner* of July, 1942—an article to which not nearly enough attention has so far been given—stresses the enormous size of this problem (as compared with, say, that of imbecility and idiocy), stresses its immense social importance, and outlines the great opportunities it presents for an effective reduction of ill-health, delinquency, unemployment, and man-power wastage. Here, surely, is an aspect of social psychiatry to which the R.M.P.A. as a body might profitably devote its organized attention.

The experience of Army psychiatrists during the war has emphasized some administrative points which are very relevant at this time, when the National

Health Service is being planned. Every Command psychiatrist, for instance, found it essential to have direct access to the D.D.M.S. of the Command, and to make frequent use of that right; even the most able consulting general physician or deputy director of hygiene was unable completely to grasp the psychiatric problems in all their complexity, or adequately to plan the optimum line of attack on them. Clearly, in the new Health Service, psychiatry must be adequately represented at the higher administrative levels.

In the end, of course, a doctor's enjoyment of working in a service depends, not only on his formal rights and the nature of the administrative set-up, but also, and at least equally, on his relations with his colleagues and the general "atmosphere" of the service. In this respect, to work in Army psychiatry was a great pleasure. All the psychiatrists worked together as a band of brothers, with a strong team spirit, great enthusiasm, and a justifiable pride in the considerable achievements of their very happy family. This, like so much else in Army psychiatry, and in British psychiatry generally, we owe to the friendliness, vision, energy, and infectious enthusiasm of J.R. Rees. I do not think that the full magnitude of his work for the R.A.M.C.—and for the national war effort—has been fully realized.



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## Appendix 3:

### THE HISTORY AND DEVELOPMENT OF CANADIAN NEUROPSYCHIATRIC SERVICE IN THE C.M.F.

A.M. Doyle

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"The History and Development of Canadian Neuropsychiatry Service in the C.M.F.," file no.11/CONSULT NEURO/1, RG 24 volume 12,583, Library and Archives Canada.

*This detailed survey of Canadian military psychiatry in the Mediterranean theatre was written by Arthur Manning Doyle who served as a psychiatrist attached to the 1st Canadian Division and then the 1 Canadian Corps. Doyle's background as a mental hospital psychiatrist with limited experience did not prevent him from adopting firm views of the causes of neuro-psychiatric breakdowns. His belief that the vast majority of such cases occurred in individuals who were predisposed to neurosis was controversial.*

On 10 July 43, the 1st Canadian Division, flanked by British Divisions on the right and Americans on the left, invaded Sicily in the region of Pachino. The Divisions quickly went about making history, but were also unique in being the first Canadian field formation to go into battle with a Psychiatrist on strength. This was a definite break with tradition, for it had long been a pointed jest that the presence of Psychiatrists increases the number of psychiatric cases! Experiences of the last war and those of our British and American colleagues in this one had indicated that psychiatric services were needed in the field, and that such should be available as far forward as possible. We had yet to learn of just what these services should consist and now they should function. We did not know the answers to two questions - (1) What psychiatric casualties occur in a Canadian Division when it goes into action, and (2) What can be done to prevent such casualties, to treat them, and what is the final disposal of such casualties when they do occur? The answers to these questions were the objective in the mind of the Divisional Psychiatrist.

The Neuropsychiatry services of 1 Canadian Division when it went into action consisted of 1 Psychiatrist! For-six months prior to the invasion, he had handled the Neuropsychiatric work of the division and had participated in the training and practise schemes and landings on the beaches of the Clyde that were later to be reduplicated upon the Sicilian beaches to the dismay and defeat of the Italian and the Hun.

During the writing and equipping period in May and June 43, in the concentration areas in Scotland, there was ample opportunity to visit at least all medical and infantry units, and to assist the Medical Officers in culling out obvious psychiatric

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misfits. The units most conscious of the need for good personnel management made considerable use of this opportunity, but others unfortunately neglected an opportunity or did not see the need to weed out their ranks. Incidentally the Psychiatrist can beware of those units who do not have work for him in quiet times. They may be extremely good units; more likely they are the lesser prepared who are unaware or neglectful of their personnel problems and will provide him with much trouble when the test of action comes. From the foregoing, it is evident that the Psychiatrist, 1 Canadian Division, had a much needed opportunity to know his Division fairly well prior to going into action. This is essential.

The Psychiatrist was theoretically on strength of 1 Canadian Division HQ but was attached to a Field Ambulance and for the Invasion was attached to 5 Canadian Field Ambulance and on 16 June 43 went aboard ship as M.O. to the troops on one of the ships taking part in the landing. A pleasant voyage was interrupted on 4 and 5 July by the torpedoing of three of the ships in the convoy by submarine action. I think that at that time came the full realization to officers and men alike that we were really in the war at last. The scenes were sobering ones. The panic on board the ship on our starboard when she was hit in the second hold forward; men diving overboard; lifeboats overturned dangling from the ship's side by their bow or stern lines spewing their human contents into the sea. It was an object lesson of the need for discipline and calm confidence. She floated for two days. Casualties were due to panic rather than enemy action. Off our stern to starboard in broad daylight, another ship received a mortal blow in the engine room. We saw what happens when a cargo of ammo and petrol goes up. It was all over in seventeen minutes. But D-Day minus one, produced a sight that must have inspired every soldier as hundreds upon hundreds of ships of all sizes and kinds came over the horizon to join us. Motor torpedo boats to Battleships and monitors, small tankers to great liners appeared as we rounded Malta, feinted to the North, and then headed for Sicily. Late that afternoon, the Americans signalled "good luck" and disappeared off to port and by 3 a.m. on the 10th, the "success" flares proclaimed the establishment of a beachhead.

According to plan, the psychiatrist set up ashore with the beach dressing station operated by 5 Field Ambulance and functioned as a general M.O. taking his shifts in caring for the wounded. There were few psychiatric casualties. Two days later he was attached to 1 Canadian Field Dressing Station near Pachino and on D+4, according to prior plan, to #4 British Casualty Clearing Station. This unit finally set up at Caltigiorone and evacuated both British and Canadian casualties. Three routes of evacuation from 1 Canadian Division were then operating which made it impossible to be strategically placed so that all psychiatric casualties could be triaged at one spot. Accordingly with the aid of a scrounged motorcycle, the psychiatrist became a traveller, and from D+10 to the end of the Sicilian Campaign, went from one field ambulance to another in

the Division seeing as many of the Neuropsychiatric casualties as he could. Had the C.C.S. been strategically placed, it could have been excellent, but Canadians were being evacuated by at least two other C.C.S.'s and most of the work at 4 C.C.S. was with British troops from 231 Brigade.

Finally, toward the end of the few weeks long campaign, the Psychiatrists set up the 1 Canadian Division Rest Centre near Syracuse. While this was much too far from the front, it did at least receive all the Canadian Neuropsychiatric cases from that time forward, but also treated the slightly wounded and convalescents who required less than seven days to be fit for full duty. The Rest Centre was also thus placed to be near 5 Canadian General Hospital at Syracuse who were receiving all Canadians evacuated from the forward area.

The Rest Centre effectively stopped the evacuation from the Island of (1) all Neuropsychiatric cases, (2) mildly ill, slightly wounded and convalescents, and thus conserved reinforcements and eased the burden of evacuation facilities that were already overtaxed. The Rest Centre moved to Catania on 13 August at the same time as 5 Canadian General Hospital moved and there set up an excellent location in a German Rest Camp area on the beach.

Throughout the Sicilian Campaign, only 45 Canadian Neuropsychiatric casualties were treated and about half of these were returned to duty, probably another hundred were evacuated through British or American channels to North Africa where they finally ended up at 15 Canadian General Hospital who had a Neuropsychiatrist Maj. C.E.G. Gould, operating a Base Psychiatric Centre. Figures later reported by the Consultant Neuropsychiatrist, CMHQ indicated that the Neuropsychiatric casualties had been about 7% of Battle Casualties in Sicily.

The Unit was visited by Maj. F.H. Hanson, Consultant Neuropsychiatrist to the American Forces in BNAF, and mutual experience was exchanged. At this time, Hanson had about forty Neuropsychiatrists operating with the American Forces in Sicily and North Africa. This, of course, was much in excess of the number of Neuropsychiatrists available for British and Canadian troops.

While the Neuropsychiatrist had failed in his primary objective in Sicily, he had at least learned much which included:

1. Knowledge of how both medical and combatant units operate in the field.
2. Personal experience with wounded, sick, and Neuropsychiatric casualties.
3. The fact that a field ambulance M.D.S. or A.D.S. even within the sound of gunfire, is a perfectly adequate place to treat psychiatric casualties in the forward arc and probably the place where psychiatric triage and treatment should begin.



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4. How to set up a unit and manage its housekeeping without a War Establishment.
5. The need for careful records of all Neuropsychiatric cases.
6. That if ever the true psychiatric picture of a formation in action is to be known, two things must be achieved:
  - i. There must be routine orders to the effect that no Neuropsychiatric case will be evacuated from the formation unless this has been advised by the psychiatrist.
  - ii. The psychiatrist must get himself into a strategic position where all Neuropsychiatry cases from the formation can easily pass through his hands. He cannot expect normal channels of evacuation to be disrupted so that casualties can be diverted to him.
7. The psychiatrist must visit and live and work with forward units of his formation. Only when he is accepted as a “base wallah” will his opinions be desired or accepted, aside altogether from the fact that he cannot give sound advice unless he has thoroughly familiarised himself with the life and conditions under which forward units function.
8. Previous ideas of treatment of the psychiatric casualty were sound and the main features were:
  - i. Rest
  - ii. Sedation (at first)
  - iii. Reasonable freedom from danger of enemy action.
  - iv. Psychotherapy in the form of reassurance, explanation and persuasion with occasional use in suitable doses of pentothal abreaction and hypnosis.

Though he was dissatisfied with the Sicilian campaign these were important additions to the psychiatrist's training, and he felt that he had at least been “accepted” when he was given command of a company of #9 Canadian Field Ambulance to take them on the assault upon Italy at Reggio.

He left behind the Rest Centre which now looked after hundreds of convalescents. It was completely self-contained (by virtue of equipment and stores generously given by the British personnel from 4 Bn CBRD and from patients and other equipment “liberated” from Italian military stores). Soon after, in Sep 43,

the Rest Centre was given an Ad Hoc War Establishment under command of Maj. C. Pace, but it ceased to have any responsibility for Neuropsychiatry work.

In the Italian Campaign, plans were made with the ADMS, 1 Canadian Division, Col. C.H. Playfair. The Psychiatrist would operate henceforth from a Field Ambulance. It was planned that there would usually be a Field Ambulance in the Division, treating the mildly ill, and remaining open in one location for a week or more at a time. This was the spot for the Psychiatrist and #9 Canadian Field Ambulance to go in on the assault and settle down at Reggio in a holding role, while #5 Canadian Field Ambulance and Canadian Field Ambulance followed later and went on through.

The Italian landing was at dawn, and quite peaceful, and by evening of D-day, a Neuropsychiatry ward in a large school occupied by #9 Canadian Field Ambulance became a reality. Once again, Neuropsychiatry casualties were not heavy as the war became a chase. The Psychiatrist had a post graduate course in the treatment of malaria, hepatitis, dysentery and desert sores.

During the first week of Sep 43, the policy of sending out typed reports on Neuropsychiatric cases to the M.O. concerned was begun. Copies were sent also to the ADMS, 1 Canadian Division and to 2 Echelon. I think this practise was one of the things the Psychiatrist did that was most appreciated by M.O's of the Division. Often other officers, including the C.O's of units, became interested in the reports and some C.O's insisted on seeing them all. The effort succeeded beyond all anticipation in creating mutual confidence and cooperation between Psychiatrist and combatant units. The Psychiatrist had to do his own typing, but by the time the burden of the work became too great for him to continue as a clerk, the practise of sending out reports was considered, so highly by higher authority that clerical assistance was provided.

Canadian units now raced after the retreating Hun along the south coast of the toe of Italy to the heel and then cut north to Foggia with slight casualties until the approaches to Motta and later Campobasso were reached. There in late Sep and Oct, the fighting stiffened and hard fighting from one ridge of hills to another became the rule.

At Luccra, attached to #5 Canadian Field Ambulance, the next main stand of the 1 Division Neuropsychiatrist was made. Here in the first two weeks of October, Neuropsychiatric casualties became higher and a group of interesting cases of malaria evacuated as psychiatric cases was seen. Most of them showed general nervousness, dizziness, weakness and ready fatigue and were apathetic and indifferent. These features, plus the fact that they had happened to be febrile when seen by their M.O. accounted for the mistaken diagnosis.

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About 1 Oct, the ADMS 1 Canadian Division, acting on the advice of Neuropsychiatrist, issued a number of instructions to the Division.

1. Neuropsychiatric cases would henceforth be evacuated from the Division except on the advice of the Neuropsychiatrist.
2. All Neuropsychiatric cases until they had been seen by the Neuropsychiatrist would be labelled with the administrative diagnosis of "exhaustion." This had already been the practise of both British and American formations and the arguments in its favour were:
  - a) The diagnosis "Exhaustion" carried no stigma.
  - b) It was simple for the busy M.O. who had not time to leave his wounded to examine a Neuropsychiatric casualty carefully.
  - c) The term suggested an innocuous curable condition to the casualty himself rather than frightening him with psychiatric terminology or making him think he suffered from some mental illness of a serious and disabling nature.

At this stage liaison with the British Adviser in Psychiatry, Lieut. Col. S.A. MacKeith, was made, and four or five most profitable days spent with him when we "jeeped" around to various medical and combatant units of the Division seeing casualties of all kinds, including Neuropsychiatric ones, as they arrived at the R.A.P. The cordiality with which we were received in both our own medical units and in Infantry units impressed MacKeith, and he took a lively part in the discussions we had at the various units. He got a thrill the day we took a wrong turn and arrived at the Seaforth Highlanders in front of one of their companies, completely oblivious to our Situation, until shouted at by Lt. Col. Forin acting and later C.O. of the Regt who happened to be visiting his companies at the time. MacKeith examined a number of our casualties. It was reassuring to find that we generally agreed upon diagnosis, treatment and disposal.

Campobasso fell while the Psychiatrist was on a tour of the Division. He was in the town that day, and the next day, 17 Oct 43 attached himself to #9 Canadian Field Ambulance who were setting up a field hospital in a large school. Campobasso was "Maple Leaf City", and here the largest number of Neuropsychiatric casualties to date were seen in consultation or admitted for treatment. Here, too, owing to pressure of work the Psychiatrist, not without regret, had to give up all other work except his psychiatry.

On 15 Nov, a report of all psychiatric work in the Division from 10 Jul 43 was prepared. (Sec Appendix 1 attached).

Some 205 casualties were recorded, of whom about 50% had been returned to full duty. This was a high figure of returns to duty and about this time, it became obvious that too many were being sent back to duty rather than being evacuated. Units could not absorb soldiers who were not fit for first class combat duty, and the Psychiatrist by visits to units, became aware of the fact that he had been too optimistic in his hopes for some of his patients.

The problem of officers began to be notable, particularly reinforcement officers who had recently been passed through O.C.T.U. although they were obviously not suited by temperament and stability to lead men in action. Strong representations went back from the Division re: officer selection following some of the psychiatric reports. There were incidents, two in particular, where unstable officers had platoons under them panic in action. The men knew their officers were incapable and fled when serious trouble was afoot. These men had previously fought well under other leadership.

Later on when officer reinforcements had all passed through the Officer Selection Board, there was a noticeable change for the better in the calibre of reinforcement officers.

About this time, units began requesting visits from the Psychiatrist to discuss personnel problems with the officers of the Regt. This was informal without "speeches", and was felt to be very helpful to the Psychiatrist at least. He learned much about the units' special problems and became better acquainted with combatant officers.

Psychiatry in the 1 Canadian Division here received considerable publicity following the visit of several war correspondents. This was written up in the Canadian Press with headlines about "Hypnosis", for there had been some interesting cases of major hysteria relieved by this treatment. Some higher authorities were upset about this, but in retrospect, it is perhaps just as well that the public should be better informed about these matters and although the headlines were undesirable and misleading, the text of the articles appearing in the press were accurate representations of what the correspondents had seen and been told by the Psychiatrist. Naturally these correspondents made their visit with proper authority of Commander 1 Canadian Division and were seen by the Psychiatrist at the request of his A.D.M.S. and their articles passed through the normal channels of censorship.

At Campobasso, 1 Canadian Division was under 13 Corps, and liaison with the Psychiatrist 13 Corps, Maj. H.A.C. Mason, and with the Psychiatrist 5 Corps, Maj. Wishart, on our right was made. From both came valuable facts of their experience, and it seemed evident that Canadian experience in the Neuropsychiatry field, was not greatly different than that of our British colleagues. For a period of two weeks, the Neuropsychiatrist 1 Canadian Division acted as

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Psychiatrist 13 Corps. In this period, he saw a number of Neuropsychiatry casualties who had previously been psychiatric casualties in North Africa, it was obvious that they had always been very unstable men, and in each case, though they had been evacuated for the first time a year or more before, they had only recently got back to combat duty. It was evident that the glowing reports of high percentages of Neuropsychiatry casualties returned to full duty in North Africa had, at least to some extent, been accepted because the casualties never got back to fighting units for many months and were therefore thought to have been successfully returned to duty. The Neuropsychiatrist, 1 Canadian Division, was himself shortly to learn something about prognosis in connection with those Neuropsychiatry cases he thought he had successfully returned to full duty.

It had been thought that the Canadians were to winter in Campobasso, but about 1 Dec 43, they moved across Italy to the Sangro River on the Adriatic coast, and became part of 5 Corps. The battles of the Moro River and Ortona followed.

With #5 Canadian Field Ambulance at Rocca just above the Sangro River, the Neuropsychiatrist set up again with very limited accommodation of a poor sort in a small Italian town that had been considerably destroyed by our artillery. It was surrounded by our batteries and a day long barrage was going on almost constantly. Here we were visited by our Consultant in Psychiatry, CMHQ, Col. F.H. van Nostrand from 4 Dec to 7 Dec just as the Canadians were getting into position. The Neuropsychiatrist 1 Canadian Division, was complacent, felt that he knew the probabilities of Neuropsychiatric casualties from his past experience, but two weeks later realized that he had not before seen the effect of really severe fighting. In the two weeks 7 Dec - 21 Dec 43, about 300 psychiatric casualties in the Division and from 1 Canadian Army Tank Brigade were seen. In one week, 226 casualties of this type occurred, a figure that was 25% of total battle casualties. In one memorable twenty-four hour period, he examined 57 patients and still did not keep abreast of the deluge.

On 22 Dec 43 an urgent message was sent to Col. van Nostrand who was planning for a base Neuropsychiatric organization in Italy, so that he could be aware of the changed situation. He was warned that at least 300 psychiatric casualties would be evacuated to base within the month of December. For the first time here a definite Neuropsychiatric Centre was set up with personnel as staff loaned from 5 Canadian Field Ambulance, and recruited from the ranks of patients. Reports to M.O's had to be suspended for lack of clerical help and Christmas came with the Neuropsychiatrist still behind in his efforts to keep up with the stream of casualties. During this period, the Corps Commander, Lt. Gen. Allfrey, visited to enquire the Psychiatrist's opinion about the high number of psychiatric casualties. He was told that the Division had had a good and overdue "house-cleaning", and that the morale of the troops in general was

good. This opinion was based on the fact that we found 84% of our Neuro-psychiatric casualties to be chronic sufferers from Neuropsychiatric disorder. Many were soldiers who should have been weeded out as unfit for combat duty long before they got into action. Many of the Neuropsychiatry casualties who had previously been returned to duty “cracked up” again here, and the Psychiatrist learned what happens when the whole divisional area gets under either combat duty or shell fire and there is no place of complete safety for any one.

Here, too, units who had been accustomed to refuse to evacuate Neuro-psychiatric cases had their hand forced. Heretofore, men who could not carry on had often been sent back to echelons and rejoined their companies after things quieted down, but on the Moro river, the whole divisional area was under shell fire and the noise of our own guns was terrific and echelons were no longer places where demoralized soldiers could remain. The folly of trying to disguise a unit’s psychiatric status was well exhibited. One unit that had only evacuated four Neuropsychiatric cases since the landing in Sicily, was up in number of cases to the level of other good units within two weeks. It was well known, of course, that previously in action psychiatric cases were not recognized at the Regimental Aid Post (RAP) of this unit and that they hid in caves or led a nomadic existence between their companies and the R.A.P. until action was over. When there was a really severe test all subterfuge broke down and the M.O. was shown to have done his unit a disservice by keeping such men with the unit when they would not be of real service in action.

During the battles of the Moro and Ortona, the psychiatric care of casualties would have broken down entirely were it not for the Corps Exhaustion Centre of 5 Corps at Monte di Siro to which were evacuated all cases that appeared to be hopeful for eventual return to duty after up to seven days treatment. Some attempt was made to retain at the Divisional centre the cases of excellent prognosis who only needed a forty-eight hour period of rest or at most very little treatment. All others were patients who were considered unlikely ever to be fit for combat duty and were evacuated with a report and recommendation that they be reboarded and reallocated to other than combat duties.

The case material showed some interesting facts:

1. 84% of all cases were considered chronic, i.e. that they were suffering from some form of psychiatric disorder prior to military service. This included chronic neurotics, psychopathic personalities of the inadequate type and mental defectives.
2. During the two week period 7 Dec - 21 Dec 43, approximately 50% of the Neuropsychiatry casualties occurred in troops who had been with the

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Division less than eleven months. There were too many off casts from other divisions sent out as reinforcements, often inadequately trained, or people who had been at menial duties for months or years and were suddenly sent on draft because they happened to be category A.

3. Every sort of clinical picture was seen. - Gross hysterias with mutism, paralyses, aphonia. Gross ticquers were, common and the range went from these to the poor inadequate personality who showed little outward evidence of anxiety but said simply - "I can't take it".
4. It was found that only about 20 – 25% could be returned from either the divisional psychiatrist or the Corps Exhaustion Unit to full duty, and it was obvious that the previous rate of return had been too high.
5. At this time, the Division was badly in need of reinforcements, and when they arrived, there was no time for proper assimilation and it was the rule rather than the exception that a reinforcement found himself in the line or on a patrol the night he arrived. This was not good for morale. Units complained bitterly too about the lack of training shown by reinforcements. These considerations were factors in the breakdown of some.

Following Ortona on 2 January 44 the 1 Canadian Division Rest Centre moved to San Vito with #4 Canadian Field Ambulance and here, with the support of the ADMS 1 Canadian Division, a properly organised unit was formed. The personnel included - Psychiatrist, Administrative Officer, 2 N.C.O's Medical Nursing Orderlies, 4 Privates Medical Nursing Orderlies, a clerk and a batman. To this was added a PT Instructor and the help of the Auxiliary Services Officer was enlisted. There was accommodation for about 65 in a good building. A programme of drill, PT sports, lectures, movies, bath parades, etc. was organized for each week. When a patient was admitted, he was immediately taken on Q.N. parade and his deficiencies of kit made up. With this went a bath at a nearby mobile bath.

The Auxiliary Services took over a large room on the premises and made a recreation room and canteen of it which they operated entirely and provided excellent canteen facilities.

The improvement in general morale was great, almost invariably a patient admitted one day would be on parade at least two days later, often the next morning after admission. His muddy clothes were cleaned or replaced. He had had good sleep with or without sedative. He had toilet articles from the Red Cross bags, was shaved, bathed and rested, and was on parade with a rifle over his shoulder. Combatant N.C.O's from among the patients were selected, as instructors and carried on most satisfactorily for several months.

It was found that even in cases who showed marked objective signs of nervousness, the best treatment was to get them busy and the use of sedation dropped off remarkably. After about 48 hours, each patient had an interview with the Psychiatrist when it was decided whether he should be retained for further treatment or evacuated.

It should be mentioned that both at Rocca and San Vito, the unit was surrounded by our own artillery, an extremely noisy situation, upsetting many patients who often could not stay in bed during a barrage. This was, in a way, a help, for those who appeared likely to recover and go back to duty did so anyway.

Incidentally we were never shelled by the enemy, though within range. Generally speaking, if the noise of our own guns is the only disturbing thing, and a patient knowing he is in a place of safety cannot settle down and recover his composure, he is not likely to become fit for combat duty in a quiet place. The racket of our own guns helped in the matter of selection and we were not fooled by the casualty who settles down nicely in a quiet area but is a relapse as soon as he hears a gun.

Although the unit operated much more efficiently and happily with the programme as noted above, it is a fact that, in spite of retaining patients for several weeks, we were not able to return a higher percentage to active combat duty than had previously been the case.

In February 1944, the unit was strengthened by the arrival of another Psychiatrist, Maj. A.E. McKercher, a man of experience who was a most reliable and much appreciated colleague.

By January 1944, the Division had settled into a holding role from just above Ortona to Ville Grande, but they were still in the mud, and patrols were the rule. Shell fire continued and the psychiatric casualties still kept coming in at the rate of 30 or 35 per week. These were the men who had held on during the fight or who had been held at their own R.A.P. for rest and another trial, or new reinforcements who had broken down. Within the Division, there was complete co-operation and agreement about the handling of Neuropsychiatric cases, but it soon became apparent that outside the Division, there was widespread and unnecessary alarm over the number of Neuropsychiatric casualties we had sustained. This was particularly true at HQ 1 Canadian Corps, and throughout our base hospitals. The DDMS, 1 Canadian Corps, Brigadier E.A. McCusker, was particularly upset apparently believing that these casualties were wholly unnecessary and ascribing them to everything from poor leadership to the presence of a Psychiatrist. Three long interviews with him in which the Psy-



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chiatrist was ably assisted by the ADMS, 1 Canadian Division were held during which the DDMS went over records of patients and finally examined a freshly arrived group of patients himself. He seemed convinced and remarked "There's not one who could make a soldier; the Corps Commander must see these men so that he will understand". The Corps Commander never appeared.

Meanwhile at Canadian Section, 1 echelon, AAI, the Senior Officer and the ADMS were also much concerned over the Neuropsychiatric casualties. The truth is that at this time, most all Senior Canadian Officers outside the Division felt that these casualties were altogether too high. They also felt, and in this there was complete agreement on our part, that a tremendous waste of manpower was taking place for practically all the Neuropsychiatric casualties who were evacuated were in our opinion fit for non-combat duties, but in the meantime, they had piled up in holding units and were deteriorating in a life of idleness.

In December 1943, #14 Canadian General Hospital with a 200 bed base Neuropsychiatric Wing under Maj. C.E.G. Gould, was set up in Caserta, and by January 1944, the evacuated Neuropsychiatric casualties swamped this unit. They had been through British and Canadian hospitals on the way down. Maj. Gould advised the Senior Officer and ADMS 1 Echelon about these problems and on the request of 1 Canadian Corps, it was planned to set up a Pioneer Company with provision for two other companies if necessary, mainly for the purpose of absorbing Neuropsychiatric casualties. The ruling was made that no Neuropsychiatric casualties except psychotics would be evacuated, from the CMF without a medical board. In January 1944 too, the Pulhems system of regrading was introduced in the CMF and it was decided that only S4 and S5 personnel would be evacuated to UK. All others to be reboarded and reallocated to duties in the CMF.

One should here record that it was apparent that many Canadians in positions of responsibility felt that our Neuropsychiatric casualties had been rather shameful and that in comparison to others, we did not show up very well.

In February, the Psychiatrist, 1 Canadian Division received permission from ADMS 1 Division to make a liaison tour of Canadian Hospitals, British and American Psychiatric Centres and any other units that might be of interest for his purposes.

All the Canadian hospitals were visited and visits were made to British and American formations in 5th and 8th armies. The Psychiatrists in both forward and base areas of 5th and 8th armies were consulted, and their methods of operation, treatment, and their results studied. A very worthwhile time was

spent with the Adviser in Psychiatry (British) AFHQ, Lt. Col. MacKeith, and also with Lt. Col. F. Hansen the American Adviser in Psychiatry, AFHQ.

The first and most cheering result of this trip was to discover that in no way had Canadian experiences been worse than that of our colleagues. Indeed there had been times such as on the Garigliano with the British and on the Rapido near Cassino with the Americans when their Neuropsychiatric casualties had risen to a higher percentage of battle casualties than ever had been the case with the Canadian troops. By and large our experience and problems had been identical with our American and British friends. It was, therefore, a pleasure on the return trip in our base installations to dispel the pessimism that pervaded our own base units in regard to these cases.

Upon return to the Division, a very complete report of this situation and the findings was prepared for the DDMS 1 Canadian Corps (See Appendix No.2). In this report, it was carefully pointed out that there was no reason to doubt the stability of the Canadian soldier or be ashamed of our Neuropsychiatric status. It was pointed out too that with constructive effort, our Neuropsychiatric casualties could be reduced.

## **W.E. #1 CANADIAN DIVISION NEUROPSYCHIATRIC CENTRE.**

From our own experience, and having seen the Corps Exhaustion Units of the British and American Forces, it was now felt that we had a clear idea of what was necessary for the W.E. of a forward Neuropsychiatric Unit. In March 1944, a letter of recommendation for such an establishment was written to the DDMS, 1 Canadian Corps, enclosing a copy of the British Corps Exhaustion Unit's W.E. for comparison. The DDMS expressed himself as favourable to such an establishment, and on a number of occasions, stated that he had forwarded recommendations in this regard to higher authority, and expected action in the near future. It may be here stated that no recommendations for W.E. appear to have ever been sent to higher authority at this time, and this, in spite of the fact that we were assured by the DDMS 1 Canadian Corps on 1 April 1944, that the W.E. would be in effect within two weeks time.

### *SELF-INFLICTED WOUNDS.*

There had been considerable anxiety regarding the number of self-inflicted wounds. Actually these do not appear to have been great, but it had been the practise that the Psychiatrist 1 Canadian Division saw all cases of S.I.W. Of ap-

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proximately 50 cases examined, only 6 were found to suffer from a Neuropsychiatric disorder, and it is interesting that all these six admitted the deliberation of their act. Three of these were psychotic. It was evident that although it was impossible most of the time to prove that a wound was caused deliberately, nevertheless, if not deliberate, then great carelessness was shown by some troops in the handling of their arms. From 1 Mar on, all cases of S.I.W. had to undergo a Court of Inquiry and if there was not evidence of intention, the soldier usually found himself facing a charge of carelessness and was usually punished. There was a drop in S.I.W. cases immediately afterward, but it is quite evident that this was more due to the quiet static conditions which prevailed, rather than to the punitive measures.

### **1 CANADIAN DIVISION MEDICAL SOCIETY.**

The subject of Neuropsychiatric casualties was the topic at a meeting of the Medical Society 1 Canadian Division on 6 April 1944. The Neuropsychiatrist addressed the meeting and gave a summary of 1 Canadian Division psychiatric experience from the invasion of Sicily to date. This experience is outlined statistically in Appendix 3. Up until this time, there had been 1234 cases in the Division, of whom 61% had to be evacuated for reboard and reallocation. 31.9% had been returned to duty, and only 1.6% were considered unfit for any form of military duty. On an experimental basis, we had been transferring psychiatric casualties to other units, such as Workshops or Medical Units when the casualty appeared to be a likely subject for such work. All these transfers had turned out well up to date, but the number was small – 32. The meeting was very well attended, not only by M.O's, but by combatant officers of the Division, including two of the Brigadiers, and a lively discussion ensued. The large attendance and the discussion gave comforting evidence of a spirit of co-operation and mutual confidence between combatant officers and M.O's in the Division. There was a great deal of real interest, but no morbid anxiety about the psychiatric problems with which we were confronted.

#### *PREPARATIONS FOR THE HITLER LINE.*

On 24 April 1944, 1 Canadian Division Psychiatric Centre passed from Command 1 Canadian Division to command 1 Canadian Corps. At this time, plans for the move across to the Western side of Italy were under way, and it was found to our dismay that the DDMS had decided to attach the Psychiatric Unit to the Pioneer Company. After much discussion, he then desired to attach the unit to the 1 Canadian Reinforcement Unit, an equally undesirable situation. It was pointed out that the Psychiatric Centre was a medical unit

and that it could be of help to such a unit as a C.C.S. in action, and that the patients required treatment and care the same as any other type of casualty. Finally it was agreed that the unit should be attached to #8 Field Dressing Station, and this attachment prevailed throughout the concentration period. Unfortunately as soon as the action was begun and the excuse was available, the Psychiatric Unit was removed from the medical units and attached to 1 Canadian Corps Reinforcement Unit. It was immediately apparent also that we had been deluded in thinking that the DDMS 1 Canadian Corps had been convinced about the real nature of psychiatric casualties as reported earlier in this report. He appeared to believe that they could all be prevented by discipline; that they were due partly to bad leadership on the part of officers and partly to laxity on the part of M.O's. At this time a circular was sent to all C.O's of combatant units by the G.O.C. 1 Canadian Corps, which specifically mentioned Neuropsychiatric casualties, and suggested that they were the responsibility of combatant officers, and if they occurred in the coming action, it would be taken as a reflection upon the abilities of these officers. Widespread resentment was felt by combatant officers in both Divisions as a result of this letter. It was also learned that C.O's Field Ambulances and other medical units, as well as M.O's of combatant units, had been given very definite instructions about holding psychiatric casualties. The orders were that no psychiatric casualty was to be evacuated from a Field Ambulance unless examined by the CO of the Field Ambulance. The Neuropsychiatrist 1 Canadian Corps was not consulted about any of those details. Prior to the onset of the battle of the Gustav and Hitler Line, the Psychiatric Unit was visited by Majors Moll and Allan from the Base Psychiatric Centre.

The most interesting development of this time as regards Neuropsychiatric casualties, was the formation of #1 Canadian Pioneer Company. In respect of this unit, the following plans were made:

1. Any casualties considered suitable by the Corps Psychiatrist could be sent directly from the Psychiatric Unit to the Pioneer Company with a nominal roll, and L.O. 2 echelon would arrange posting.
2. Throughout the action, it was understood that the Pioneer Company HQ would be within easy distance of the Neuropsychiatric Centre.
3. The Psychiatrist 1 Canadian Corps was to keep in close liaison with the Pioneer Company.
4. It was understood that the Pioneer Company would load the ammunition and petrol for the Corps and carry out any other labouring duties required.

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5. No medical reboarding would be necessary for casualties sent to the Pioneer Company. It was planned medical boarding would be done later during a rest period.

The Pioneer Company at the beginning of the action had approximately a strength of 250. These were soldiers who had previously been evacuated, mostly for Neuropsychiatric disorder, and had been for long periods of time in Holding Units (H.U.'s). They were a very disgruntled lot. A good portion of them had already been onboard ship, ready to sail to England, when they were suddenly removed and sent up to the Pioneer Company. The C.O. 1 Canadian Pioneer Company, Major Richmond did a splendid job under very difficult circumstances. He had very little time in which to prepare, and at the outset, almost no equipment. The Pioneer Company was fortunate in having at this time a M.O. Capt. Vientrob who had previous experience in psychiatry and who was quite interested in his job.

The Pioneer Company did a splendid job throughout the action, and the following paragraph is taken from the report of the Neuropsychiatrist 1 Canadian Corps, following the battle:

The Pioneer Company loaded all of the petrol and ammunition for the Corps during the action and, according to the figures now available, they did an excellent job. The Neuropsychiatrist, 1 Canadian Corps, kept in close touch with the Pioneer Company throughout and there were very few relapses. The vast majority of the patients did very well indeed, although many of them suffered from rather severe nervous symptoms at the time they went to the Pioneer Company. The majority of the patients were able to leave the Neuropsychiatric Centre to be taken on strength the Pioneer Company within two or three days. It was noted, furthermore, that the arrival of these patients fresh from the battle, improved the morale in the Pioneer Company troops as it was first composed of about 250 soldiers, most of them previously Neuropsychiatric patients who had deteriorated during weeks or months of idleness in a Holding Unit.

### *GENERAL POLICIES.*

The general attitude and the decision to adopt disciplinary measures in regard to Neuropsychiatric casualties on the part of higher authority was very adamant. Among other things, the DDMS 1 Canadian Corps, instructed the Psychiatrist that all N.C.O.'s who became psychiatric casualties were to be stripped of their rank. After argument, he finally agreed that some discretionary power would remain in his hands and that N.C.O.'s who had previously done a good

job would not necessarily be stripped. The DDMS stated that he was acting on the instructions of the GOC 1 Canadian Corps who would take the steps indicated unless the N.C.O. reverted voluntarily.

It was also evident that the general attitude towards the Pioneer Company was that it should be a punitive type of unit. No provisions were made for Auxiliary Services, leaves and few of the other amenities commonly found in units. There was in addition, a general belief that many of the psychiatric casualties who were sent to the Pioneer Company would later become rehabilitated and later be fit for full combat duty. The DDMS 1 Canadian Corps the AQMG 1 Canadian Corps and the AAG 1 Echelon were told very specifically by the Psychiatrist, 1 Canadian Corps, that they should entertain no such expectations; that the vast majority of cases coming to the Pioneers were people who were suffering from chronic types of psychiatric disorder and would never be useful as combat soldiers.

#### *GOTHIC AND HITLER LINE ACTION.*

During the action, the Neuropsychiatric Centre was attached to the 1 Canadian Corps Reinforcement Unit in the Corps administrative area. The action was short, Canadian units participating from the 16-26 May. The Psychiatrist found himself at great tactical disadvantage at the Corps level. He was never able to make one trip to the front because of (1) several moves, (2) pressure of work and (3) the distances involved. It was impossible to keep in close touch with forward units as had been the case with the Division. Nevertheless, it was possible to discuss Neuropsychiatric aspects of the action with a fair number of combatant officers and Field Ambulance personnel. It became evident during the action that some units were being highly praised for having few psychiatric casualties and others were being severely criticised because they had a large number. Considerable resentment was felt about this aspect, especially in the 1 Canadian Division and the Neuropsychiatrist anticipating these difficulties checked very carefully with the Intelligence Branch and with operations and obtained a clear picture of the nature of the stress and action undergone by each unit. This is referred to in a later paragraph. It was also decided to arrive at some means of determining the stress undergone by each unit and to arrive at a neuropsychiatric ratio. It had long been regarded as obvious that the mere number of psychiatric casualties had little meaning unless the stress undergone by a unit were known, but it was decided to take battle casualties (wounded plus killed) as an indication of stress and the tables below indicate how this worked out for the 1 Canadian Division.

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### General statistics for the Hitler Line

Total Psychiatric Casualties	407
Returned to Duty	68 (16.7%)
Evacuated for Further Treatment or Disposal	90 (22.1%)
Transferred to Pioneer Company	249 (61.2%)

The striking effect of the Pioneer Company upon disposal of psychiatric casualties is here indicated, previously approximately 65% had to be evacuated through base hospitals, but during this action, they were at work within two or three days of becoming casualties and their performance has been referred to above in the paragraph referring to the Pioneer Company.

86% of the cases were diagnosed as chronic. At least half and probably more of these could have been recognised beforehand as unfit for combat duties, practically all of the patients sent to the Pioneer Company were of this chronic type and it was pointed out that it must not be expected that a period of work in the Pioneers would render chronic neurotic individuals fit for duty again.

### THE NEUROPSYCHIATRIC RATIO.

The tables below illustrate the neuropsychiatric ratio for the various infantry units of the 1 Canadian Division during two periods of similar duration in which important engagements took place. The neuropsychiatric ratio is expressed by the formula

$$\frac{\text{Neuropsychiatric Casualties} \times 100}{\text{Neuropsychiatric} + \text{Battle Casualties}} = \text{Neuropsychiatric Ratio.}$$

*Percentage of Neuropsychiatric Casualties in Relation to Total Battle Casualties for the Period 28 Nov to 12 Feb 1944, including Battles of Moro and Ortona.*

Unit	Battle Cas	NP Cas	Total	NP Ratio (%)
RCR	190	40	230	17.4
H&PER	227	90	317	28.4
48 Highrs	215	74	289	25.6
PPCLI	185	56	241	23.2
Seaforth	202	59	261	22.6
L Edm R	186	38	224	16.9
R 22e R	223	62	285	21.8
C&YR	215	51	266	19.2
WNSR	228	100	328	30.5
<b>Average</b>				<b>22.8</b>

*Percentage of Neuropsychiatry Casualties in Relation to Total Battle Casualties for the Period 25 Mar to 17 June 1944 including battles of Gustav and Adolph Hitler Lines.*

Unit	Battle Cas	NP Cas	Total	NP Ratio (%)
RCR	69	14	83	16.9
H&PER	82	25	107	23.4
48 Highrs	113	39	152	25.7
PPCLI	166	45	211	21.4
Seaforth	160	31	191	17.1
L Edm R	152	26	178	14.6
R 22e R	144	66	210	31.4
C&YR	152	65	217	30.0
WNSR	193	58	251	23.4
<b>Average</b>				<b>22.6</b>

A number of points are worth noting from the above tables. First of all, a Regiment that was complimented by higher authority for having low Neuropsychiatric casualties during the Hitler Line was the RCR. It is obvious from the figures that they had very low battle casualties and, therefore, low stress; indeed they were in reserve most of the time. Their Neuropsychiatric ratio, however, is 16.9 which is quite good, but not as low as another regiment in the Division who had much more severe battle casualties.

The Neuropsychiatry ratio for the 1 Canadian Division as a whole was 22.6 for the Hitler Line as against 22.8 for the battles of the Moro and Ortona. This is interesting in view of the fact that such a severe and disciplinary action was taken towards these casualties during the Hitler Line. It is obvious that such an attitude did not change the picture one bit. It is felt that the above method of reporting Neuropsychiatric casualties is the only fair one and that such a method should be consistently adopted in the future in discussing these casualties on unit basis. Much can be learned about units from the Neuropsychiatry ratio. In the above tables for example, the West Nova Scotia Regiment did very badly as far as Neuropsychiatry casualties were concerned at Ortona. Their ratio was 30.5. Following this action, the unit CO and MO paid a great deal of attention to personnel problems and weeded out a number of misfits including two or three officers. During the Hitler Line they suffered high battle casualties, the highest of any unit in the Division, but their Neuropsychiatry ratio dropped to 23.4. These results speak for themselves. On the other hand, two other units indicate that all is not well because of the high proportion of Neuropsychiatric casualties to battle casualties.



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#### *AMOUR - 5 CANADIAN ARMoured DIVISION.*

Neuropsychiatry casualties in armoured units, have, in the experience of the writer, been lower than in the infantry formations with their ancillary troops and services. The reasons for this are as follows:

1. Most important factor is that higher standards of intelligence and personality are required for recruits in armour. The high percentage of skilled tradesmen makes this fact obvious.
2. The fighting men in armoured units go into action with a degree of protection that the infantry does not have.
3. In static positions they are not so much subjected to the stress of shelling and mortaring over long periods.
4. The total number of men engaged in action in armoured units is considerably less (at least 25%) than the number engaged in infantry units.

It is obvious, therefore, that it would be completely erroneous to compare amour and infantry on a basis of Neuropsychiatric casualties.

Figures for 5 Canadian Armoured Division are only available, and at the same time fairly reliable, for the month of May. Totals are:

Battle Cas	NP Cas	Total	NP Ratio (%)
630	105	735	13.4

Figures for 11 Canadian Infantry Brigade for the month of May are:-

Regiment	Battle Cas	NP Cas	Total	NP Ratio (%)
CBH	93	13	106	12.3
Perth R	73	14	87	16.1
Irish R	94	19	113	16.8

These figures are very good but it must be cautioned that the period covered is short. The action was not too heavy, and it was quickly successful. Up to 21 March 1944, the Neuropsychiatric casualties in 11 Canadian Infantry Brigade had been as follows:

CB Highrs – 24

Perth Regt – 10

Irish Regt – 10

It is unnecessary to point out the importance of recognising inadequate and neurotic personnel in connection with armour, where the individuals so often fight in crews, each depending on the other for an essential job. Peculiarities in behaviour should be carefully checked. During a recent tank action, a tank driver was evacuated for becoming demoralized in action. The story was that ever since becoming a driver of a tank, he had been unable to do his job unless he had the hatch open. Whenever he attempted to close it he became panicky, shaky and became mentally confused. Even on schemes, where strict orders were given that hatches were to be closed, as in action, this driver's hatch remained open. Nevertheless, this driver was brought overseas and went into action. He was driving a tank for an officer for whom he had driven in England. It is obvious that this officer did not realize the significance of the symptoms of this driver which he had shown long before he went into action. When the test came, this driver was completely unable to carry out his duty and must have seriously handicapped the efforts of others and the whole performance of the tank. He could easily have been recognised long ago as one who was incapable of the job for which he was being trained.

In July 1944, the Pioneer Company, which in the meantime had grown to some 500 odd personnel, was reorganised. Three companies, Nos. 16, 17, and 18 were constituted and a HQ was formed. At this time it was decided also to change the name to "Special Deployment Company". During the rest period, Neuropsychiatric surveys of the personnel of these companies was carried out by Major A.E. Moll, Neuropsychiatrist, 1 Canadian Corps, and another excellent survey by Major B.M.E Allan, Psychiatrist, 2 Canadian Reallocation Centre and Major E.F. Burbank, P.S.O. As a result of the recommendations of these surveys, and as a result of the excellent work done by the Pioneer Companies during the Hitler Line, a conference was called at Canadian Section, GHQ, AAI, and the whole question of the Special Deployment Companies was discussed. This conference resulted in a number of progressive steps being taken.

1. #16 and #17 S.E.C. would operate in the forward area. #16 S.E.C. would act as a reception Company, and the Company to which soldiers likely to be rehabilitated for other than labouring duties would be retained. To #17 S.E.C. would be sent all those who were felt to be permanent S.E.C. personnel. #18 S.E.C. would operate at base in the area of the H.U's and to #18 S.E.C. would also be attached an N.C.O's School.
2. N.C.O. casualties, instead of being stripped in the forward area, were sent to the school at #18 S.E.C. and following observation there, the decision as to whether they were inefficient or not, would be reached.
3. The principle of medically boarding all S.E.C. personnel rather than leaving them in their original categories was accepted.

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4. The treatment of S.E.C. personnel would henceforth be on a same basis as any other soldier, and they would receive, all the amenities such as leave, Auxiliary Services, entertainments, &c. that were common to other units.

Throughout the remainder of the Italian Campaign, there was never a time when the S.E.C's were able to fulfil all the demands for their labour. Everywhere throughout the corps, they became highly thought of. Morale became high, disciplinary problems were extremely small, and their labour was preferred by the various services of the Corps to any other type of labour that had been used. They far outstripped the native Pioneer Battalions in the amount of work done per man.

The following paragraph is taken from the report of 1 Canadian Corps Neuropsychiatrist following the Hitler Line:

These figures indicate what has long been clinically believed by the writer, namely, that the most important factor resulting in Neuropsychiatric casualties is the presence in the unit of unstable people, most of whom could be recognized as unsuited to combat duties. It is unnecessary to say that excellent discipline and training are necessary to produce a good soldier out of a perfectly stable, normal man, but it is time for universal recognition of the fact that there are some human beings who will not become combatant soldiers however good their discipline and training and leadership may be. It is the belief of the writer that the units which have shown consistently high Neuropsychiatry ratios are those units who have had in their ranks too many inadequate, neurotic, or mentally defective personnel. This has been a far more important factor than variations in leadership and discipline as far as Neuropsychiatric casualties are concerned. It is well known, and we have seen actual instances where good soldiers failed and even fled when under poor leadership, but they did not become Neuropsychiatry casualties and they returned to fight well again under efficient leadership.

Further conclusions that were made at that time will be omitted here as they will be covered again at the end of the report.

The Hitler Line cannot be left without reference to an unfortunate affair involving the Psychiatrist, 1 Canadian Corps and, in his opinion, his integrity as a Medical Officer, and the prestige of Psychiatry in the Corps. Early in the action, a RCAMC officer who had even in Sicily shown highly nervous symptoms; and had continued to do so since, was admitted to the Neuropsychiatric Centre following some shelling near the advance party of the CCS to which he belonged. When the DDMS heard of his admission as a Neuropsychiatric patient, he was

infuriated. He visited the Centre, got the officer out of bed when he was sleeping under sedation, and offered him the following alternatives:

1. To go to the forward section of a Field Ambulance, with an infantry unit.
2. To revert to the rank of Pte. and work in the Pioneers.
3. Be court-martialled for cowardice. There were many other details entering into this case, but the fact remains that he was a very definite neuropsychiatric case and had to be treated like any other similar patient.

Although on several occasions we tried very hard to advise the Brigadier to change his attitude, he was adamant and the case became an issue that involved psychiatric principles that we could not possibly ignore. It was not felt our stand in this matter improved relations with the DDMS, 1 Canadian Corps, but the status of psychiatry and of the psychiatrists in the Corps as a whole, was certainly not impaired.

It was noted previously that the Field Ambulance Commanders were ordered to hold Neuropsychiatric casualties during the Hitler Line action. This they tried to do, but the whole effort broke down within two days' time. To some extent, this effort had good results. Two of the Field Ambulance Commanders were new to the Division and were rather sceptical about psychiatric casualties. They became excellent supporters of psychiatry in the Corps after a few days attesting to treat these cases.

#### *MORALE.*

The morale of the Canadian troops was at its best during and immediately after the Hitler Line. It received two blows, one of which was suffered immediately thereafter.

1. Disappointment in not being able to follow the Hun.
2. Shortly after the action, for which the Canadian soldiers were so highly complimented both in the press and by high authority, all towns in Italy were put out of bounds. In many cases it happened that soldiers were ready with their packs on to go on leave when orders came through that they were not to go on leave. Many went anyway and later got into prison for going AWL. The reason for this action, of course, was the VD situation and for some reason it was thought that disciplinary action of this sort was advisable. The principle of punishing many because of the acts of a few always leads, as it did here, to poor morale.

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### *CHANGES IN PSYCHIATRIC PERSONNEL.*

After consultation with the DDMS, 1 Canadian Corps, the OC, Corps Exhaustion Unit relinquished, his command to take command of the Base Psychiatric Centre, #14 Canadian General Hospital, Caserta. He was told at the time he was shortly to be appointed Adviser in Psychiatry, Canadian Section, GHQ, 1 Echelon, AAI. Command of the unit was taken over by Major A.E. Moll and Major B.M.E. Allan moved from #2 Canadian Reallocation Centre to assist Major Moll. Major A.E. McKercher returned to England. These exchanges took place on 21 June 1944.

### *W.E. CORPS EXHAUSTION CENTRE.*

In July 1944, the W.E. for Corps Exhaustion Centre was approved and the unit became known as #2 Canadian Exhaustion Unit with an establishment, as follows:

- 1 Major O.C. Specialist Neuropsychiatrist
- 1 Major carried on strength Corps HQ. Specialist Neuropsychiatrist
- 1 Sgt
- 2 Cpls 4 Ptes
- 1 Batman-driver

### *THE GOTHIC LINE.*

During the last week in August, the battle of the Gothic Line began. The Corps Exhaustion Unit functioned smoothly throughout this period and morale was in general very good among the troops. They were a bit shaken by the fact that they had been led to believe that the action would be quickly over and that the casualties would be small. As it turned out, the fighting was extremely severe, they met with fanatical resistance, and casualties were moderately high. Throughout the three months period 1 October - 31 December 1944, the psychiatric casualties totalled 703. Of these, 39.2% were returned to full duty. This was later seen to be too high and in the following period reported on from #2 Exhaustion Unit, i.e. 1 January - 31 March 1945, the present return to full duty dropped to 8%. This was an indication of (1) Improved screening of psychiatric casualties by units in the field and (2) the Psychiatrists at the Exhaustion Unit had come to realise that they were perhaps too optimistic during the previous period, and that there is little point in returning a doubtful case to full duty.

The battle of the Gothic Line during September was followed by the crossing of the Lamone. The Corps experienced very bad weather conditions here and

the fighting was hampered by the many canals and rivers in the area above Rimini. The neuropsychiatric casualties became extremely high during the third week in December and during one week reached 50% of battle casualties. The DDMS, 1 Canadian Corps, advised the GOC that these casualties indicated that the Corps was fatigued and in need of rest. The troops, however, put on a last spurt and did a very good job in clearing the Hun to beyond the Senio River. Canadian troops were withdrawn from action in late January, and in February, the move to North West Europe began. One of the things that upset Canadian morale during December was the fact that when they went into action in the first week of that month, they had been specifically told that, the action would be of short duration – of about two weeks – and this was their last final blow against the Germans. They were then expected to go to a rest area for a period of training and/or refitting. They knew that their advance parties were already in the rest area making the necessary arrangements. About the middle of the month, it became generally known that these plans had had to be dropped and that they were to remain in the line for an indefinite period.

*ADVISER IN PSYCHIATRY, CANADIAN SECTION, 1 ECHELON, A.A.I.*

The Adviser in Psychiatry was appointed on 23 November 1944, at the time of the visit of the Consultant Psychiatrist. CMHQ, Colonel F.H. van Nostrand, and was dated 28 August 1944, but had not yet been put into effect. Following Colonel van Nostrand's visit, and upon his advice, the appointment was made. Terms of reference for this appointment are self-explanatory and appear as Appendix 3 to this report. Unfortunately very shortly after the appointment was made, it became evident that Canadians were not to be in action in the Italian theatre for very long, and long term planning, which is the essence of such a job, was impossible. Liaison trips were made to Corps and base units, the most helpful being that with the Consultant in Psychiatry CMHQ, during December when the Corps was in action. The Adviser in Psychiatry did considerable work in those hospitals where no psychiatrist was on strength and assisted the OC, Canadian Base Psychiatric Centre when this unit was over-taxed through the loss of an officer due to sickness. A number of changes in personnel that were arranged, became impossible on account of the move of 1 Canadian Corps to the North Western European theatre.

*SOLDIERS UNDER SENTENCE.*

The most important task undertaken by the Adviser in Psychiatry was the survey of all SUS in the Italian theatre during March. This was carried out by three teams consisting each of a Psychiatrist and a PSO and clerk. Some 700 prisoners were examined all told and the complete report was made to AAG, CMHQ, and

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to the Consultant Psychiatrist, CMHQ. The general statistical findings of the report were as follows:

Considered reclaimable, likely to succeed as combat soldiers	222	38%
Neuropsychiatric Disorder, unfit for combatant duty, requiring recategorization	191	32.5%
Considered unsuitable for military for military service on disciplinary grounds	165	28.2%

As a result of this survey, the AAG (Dis) suspended sentence on most of the cases where this appeared likely to be successful from a psychiatrist's report.

The chief recommendations were:

1. Wider use of suspension of sentence
2. The examination by a Psychiatrist and S.P.O. of all soldiers committed to Prison.
3. The dishonourable discharge from the army of those who have persistent long crime records.

#### *PSYCHIATRIST - CANADIAN REALLOCATION CENTRE.*

The Reallocation Centre had a very heavy responsibility, particularly as when it began there were large numbers of soldiers awaiting medical boarding and reallocation. Unfortunately we have few records of the early months, during which most of the work was done, available at the present time. The Psychiatrist advised the Medical Board and examined all cases who did not have psychiatric reports. Finally, in December 1944, a definite W.E. was obtained which called for a Major Psychiatrist Specialist and Major J.J. Weber was appointed. Since that time, the psychiatrist at this Centre has examined approximately 100 patients a month; in addition to his consulting work he has made surveys of #18 S.E.C. Very few of his cases are fresh ones, most of them having been pretty well screened out previously. That his work was appreciated is exemplified by the statement of the OIC, 2 Echelon, who stated that he could not operate a Reallocation Centre without the help of a Psychiatrist. The excellent cooperation extended by the officers 2 Echelon and the staff of the Reallocation Centre to the psychiatrist have been much appreciated and have led to excellent team work.

*#2 CANADIAN BASE PSYCHIATRIC CENTRE.*

This Centre began in North Africa at #15 Canadian General Hospital as indicated previously in this report and became attached to #14 Canadian General Hospital in Caserta in December 43 under command of the same officer. From June 1944, until the end of the Italian Campaign, this Centre was attached to #15 Canadian General Hospital. From January 1943, the unit operated as two 100 bed increments of a general hospital, and it was not until December 1944 that a W.E. was obtained as follows:

- 2 Majors Psychiatrists Specialists
- 1 Captain RCAMC
- 8 Nursing Sisters
- 1 S/Sgt. Medical Nursing Orderly
- 2 Sgts.
- 2 Cpls.
- 10 Ptes.
- 2 Clerks
- 2 Cooks

A high percentage of the work of this unit consisted of cases referred by other departments of #14 and #15 Canadian General Hospitals. These cases were mainly of the psychosomatic group and offered many interesting clinical problems. It goes without saying that the whole hearted support given by the officers and staff of #14 and #15 Canadian General Hospitals were an essential factor of the success of this unit. Following Major C.E.G. Gould, the unit was under command of Major A.M. Doyle from June 1944 to 23 November 1944, and from that time until the Canadians left the theatre, was under the command of Major H.F. Frank who did a very fine job, carrying on without assistance. The work of this unit is best shown by the following table which gives the record of work done since the inception of the unit in North Africa.

*Statistics for #2 Canadian Base Psychiatric Wing from 10 Jul 43 - 1 Apr 45.*

Diagnosis		Disposal		
Psychoneuroses	931	R.T.U	527	22.7%
Mental Defect	73	Reboard and Reallocate	1461	62.8%
Psychopathic Pers. Inad. Type	794	Evacuate to U.K	338	14.5%
Psychopathic Pers. A/S Type	24			



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Epilepsy	30			
Reactive Dep	19			
Manic Dep	23			
Schizophrenia	138			
Others	205			
NAD (N)	77			
NYD (N)	12			
	2326		2326	100%

#### *O.P.D.*

989 cases were examined in the O.P.D. Unfortunately the earlier records do not show the diagnoses and disposal.

Total number of psychiatric cases seen by Canadian Base Psychiatric Wing = 3315.

#### *#2 CANADIAN EXHAUSTION UNIT.*

The following tables on Pages [216, 217, 218 and 219] show the cases and disposal of all patients seen by this unit and by the Psychiatrist 1 Canadian Division since 10 July 1943.

#### *EVACUATION FROM THEATRE.*

It is also to be noted that the number of patients evacuated from the theatre on psychiatric grounds and on the advice of a psychiatrist amounted to 338 or 6.7% of the total. All the rest were considered by the psychiatrist to be fit for some form of military duty in the theatre.

#### *DISTRIBUTION BY CORPS.*

Complete figures were not available, but for a series of 2250 cases, the following table shows the distribution by Corps:

			Distribution by Corps in the CA(O) %
Infantry	1620	72%	43
RCA	205	9.1%	17
RCASC	45	2%	10
RCAMC	49	2.2%	5

RCOC	22	1%	4
RCE	153	6.8%	3
RCCS	29	1.3%	2

As might be expected, it is seen here that those elements of the army that bore the brunt of the fighting and battle stress, their psychiatric casualties are out of all proportion to their distribution in the CA(O).

**DISTRIBUTION IN ARMOUR.**

In 1028 cases, 76 came from armoured regiments for a total of 7.4%. This low figure was to be expected because of 1) the greater (*continued on page 219*)

Table No. 1.

#2 Canadian Exhaustion Unit: Case Analysis by Diagnosis.

Diagnosis	10 July 1943 – 20 June 1944	20 June 1944 – 30 September 1944		31 December 1944 – 9 February 1945	Totals
Psychoneuroses	618	281	192	85	1176
Mental Defectives	99	16	9	1	125
Psychopathic Personality (Inadequate Type)	754	133	360 (113 Mixed)	83 (32 Mixed)	1330
Psychopathic Personality (Anti-social Type)	9	10	4		23
Epilepsy	12	2	4	1	19
Reactive Depression	5	2	3		10
Manic Depression	4				4
Schizophrenia	24	7	9	1	41
Exhaustion	20	11			31
No Diagnosis	70	55	83	48	256
Medical	83	8			91
Others	131	50	39	15	235
<b>Totals</b>	<b>1829</b>	<b>575</b>	<b>703</b>		<b>3341</b>

Table No. 2.

#2 Canadian Exhaustion Unit: Disposal.

	(A) Period 10 July 1943 – 31 March 1944		(B) Period 1 April 1944 – 20 June 1944		(C) Period 30 June 1944 – 30 September 1944			
Returned to full duty	394	31.9%	Returned to full duty	111	18.7%	R.T.U.	200	36%
Evacuated for reboard and reassignment	747	61%	Evacuate for reboard or treatment	218	36.6%	Evacuate for reboard	41	8%
Evacuated unfit for military duty	20	1.6%	Posted to S.E.C's	266	44.7%	Evacuate to Neuropsychiatric Base	57	10%
Evacuate to hospital	44	3.6%	Total	595		Evacuate to General Hospital	58	10%
Unknown	29	2.4%				Posted to S.E.C	209	36%
<b>Total</b>	<b>1234</b>				<b>Total</b>	<b>Total</b>	<b>565</b>	
1 October 1944 – 31 December 1944			1 January 1945 – 8 February 1945					
Returned to full duty	106	14.2%	Returned to full duty	22	8%			
Posted to S.E.C's	334	47%	Posted to S.E.C's	150	56%			
Evacuate for reboard	69	10%	Evacuate for reboard	23	8.5%			
Evacuate to Neuropsychiatric Base	97	14%	Evacuate to Neuropsychiatric Base	51	19%			
Evacuate to General Hospital	93	13.3%	Evacuate to General Hospital	23	8.5%			
<b>Total</b>	<b>699</b>		<b>Total</b>	<b>269</b>				

N.B. To illustrate the changes in disposal occasioned by the advent of the S.E.C's and because of changes in records, the disposal of cases seen by the Forward Psychiatrist have to be divided into various periods, following which a master table summarizes the totals.

Table No. 3.

*Master Table of Disposal of all Neuropsychiatric cases seen by Forward Psychiatric Units from 10 July 43 – 8 Feb 45.*

Period 10 July 1943 – 1 April 1944		Period 1 April 1944 – 9 February 1945				Grand Total
Returned to full duty	394	31.9%	Returned to full duty	439	20.6%	833
Evacuate for reboard and reallocation	767	62.6%	Evacuate for reboard and reallocation	556	45.1%	1323
Posted to S.E.C's	-		Posted to S.E.C's	959	45.1%	959
Evacuated to General Hospital	44	3.6%	Evacuated to General Hospital	174	8.2%	218
Unknown	29	1.9%				29
<b>Total</b>	<b>1234</b>		<b>Total</b>	<b>2128</b>		<b>3362</b>

*Relationship of Neuropsychiatric casualties to Battle Casualties (Battle Casualties = Killed, wounded and died of wounds).*

Total New Cases examined at #1 Cdn Base NP Center	1658
Total New Cases examined at #2 Cdn Exhaustion Unit	3362
Total Neuropsychiatric Casualties in CMF	5020
Total Battle Casualties	25 090
Neuropsychiatric Ratio = $5020 \times 100 / 5020 + 25\ 090 =$	<b>16.7%</b>

N.B. The total new psychiatric cases as reported above is a conservative figure, and does not include any of the cases at the Reallocation Centre. The true Neuropsychiatric Ratio is probably closer to 20%.

(continued from page 217 ) selection of personnel in armoured units, 2) the protection that the armoured affords the other army personnel with consequent less battle stress, and 3) an armoured unit does not usually have the prolonged periods under shell fire before and after engagements.

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# CONCLUSIONS AND RECOMMENDATIONS.

### *STATISTICAL.*

It can be said that when Canadian formations go into action, the relation of Neuropsychiatric casualties to battle casualties, plus Neuropsychiatric casualties will be about 20% and plans for the care of these casualties should be made on this basis.

Infantry units will be represented in these casualties to an extent almost twice their distribution in the army. It is notable that the R.C.E. were also represented among the psychiatric casualties to a much greater extent than their distribution in the CA(O). It should be remembered that the R.C.E. and field units have often to carry on under circumstances of great stress in very forward positions, and they can absorb very few unstable personnel. Other branches of the army will be well below the percentage of their distribution in the CA(O).

### *ADMINISTRATIVE.*

The following is recommended as satisfactory psychiatric arrangements for care of psychiatric casualties in a formation unit:

1. One Psychiatrist with each Division.
2. A Psychiatric Centre at Corps level attached to a suitable medical unit - CCS, FDS or Field Ambulance.
3. A Base psychiatric Centre with facilities for the holding and treatment.
4. Psychiatrist at Reallocation Centre in the region of reinforcement units.
5. The establishment of S.E.C's or a similar type of unit is the single most efficient means of handling Neuropsychiatric casualties. 60% of all such casualties will be found suitable for employment in these units and their work will be much needed by the formations.
6. The use of special disciplinary measures will not affect the incidence of psychiatric casualties.

# CLINICAL CONCLUSIONS.

### *TREATMENT IN THE FORWARD AREA.*

Very simple treatment only, not prolonged more than four days should be carried out. The chief job of the psychiatrist here is the selection of favourable cases who

will recover quickly with rest, sedation, safety and reassurance. It may be unfortunate, but it is nevertheless true, that the use of complicated treatments such as Insulin, Prolonged Narcosis &c. at forward level is not only impractical, from a military point of view, but this does not change the personality and the man who is going to recover within a few days will do so without this type of treatment. At the Base Centre, more complicated forms of treatment can be used, but if the forward psychiatrist knows his job, it will be discovered that these treatments will only relieve symptoms and will not to any great extent rehabilitate soldiers for forward duty. Not more than 1% of cases seen by the forward psychiatrist and evacuated to the Base Centre were found fit to return after treatment to combat duty again. Such treatments as Convulsive Shock Therapy should be used at the Base Centre to alleviate acutely ill patients, particularly when periods of awaiting evacuation are likely to be long as they are in the Italian theatre.

Our experience was that over 80% of our patients had diagnoses that came under the chronic group. Too many of them could have been recognized beforehand as unsuited to combat duty. Personnel selection has to a large extent removed the onus of the mentally defective problem, but much remains to be done in the weeding out of the unstable.

We are in accord with the statement of the Consultant Psychiatrist, CMHQ, after his liaison tour to the CMF to the effect that our efforts should be made in the direction of "drastic weeding out of the unstable".

## GENERAL CONCLUSIONS.

Most of our mistakes have been in the direction of trying to keep too many inadequate or neurotic people in positions of stress that they cannot endure. After careful discussion with officers and O/R's in the field, the following conclusions that were previously reported in our report of June 43 still appear to be sound:

1. The presence of a neuropsychiatric casualty in the combatant ranks is a menace. He is not only unable to do his duty, but he is a handicap to others in his section. Often he has to be cared for by them when they are busy enough with their own jobs. A stable soldier often has to expose himself unnecessarily in the case of demoralized personnel who have been retained in the ranks.
2. There is no justification for the prevalent idea that other soldiers will try to get out of the fight if they see neuropsychiatric casualties being evacuated.

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3. Indeed, the opposite of the above is true. The others are happy to see the afflicted one taken out so that they can get on with their own jobs without encumbrance.

In view of all this, it is advised (as in several previous reports) that unit commanders be urged to pay careful attention to personnel, with neuropsychiatric instability in mind, and that officers be encouraged to weed out or to send to neuropsychiatrist for consultation those whom they suspect of being incapable of performing combatant duties.

In this war, as in no other, the medical corps is being asked to assume responsibility for diagnosis, treatment and disposal of personality disorders occurring among the troops. Sometimes this trend has been misinterpreted as an unfair shifting of responsibility from combat to medical authorities. In the writer's opinion there has been little indication that this interpretation is correct and it is a compliment to the profession that they are recognized as the persons best suited to handle these problems.

The problem of disciplinary cases is small. Practically all are found quite fit to stand trial and serve punishment.

There was no indication that neuropsychiatric casualties were being unnecessarily evacuated from forward units.

It is believed by the writer and corroborated by combatant officers of all ranks and most N.C.O's, that the experienced combatant officer knows when a man can or cannot carry on. It is rare that he mistakes a disciplinary case for a neuropsychiatric one. Consequently, it is suggested that the M.O. can usually trust the opinion of experienced combatant officers on his statements about a patient.

From the point of view of psychiatry in the field, the single most important feature is the provision of a Divisional Psychiatrist. He is the "front" man of military Neuropsychiatry and unless our efforts begin at this level, the contribution we have to make does not become known or appreciated by the very individuals to whom we have the most to offer – namely, the field units.

I believe there has been one omission in the Canadian Neuropsychiatric programme, and this is the lack of facilities for at least, elementary research. It is appreciated that psychiatrists were not readily available and that the limitations, especially in forward areas, are great, but we were impressed by some of the things that forward psychiatrists with the American Army were doing. For example, we found American psychiatrists at the Divisional level who were devoting their whole time to such problems as disciplinary cases, their disposal and thorough follow-up. Other psychiatrists had much free time to carry on

liaison with Brigade HQ and combatant organizations. An interesting example of a practical kind of research to which I refer is a study made by American Psychiatrists after the Sicilian Campaign. One of their Divisions had left much to be desired in their performance. The psychiatrist carried out a survey among three Battalions. The questions asked were as follows:

*Question 1.*

How many officers in your Company are the kind you would want to serve in combat?

The men were asked to were as follows:

1. All or most of them are.
2. About half of them are.
3. Few or none of them are.

*Question 2.*

How many of your officers are the kind willing to go through anything they ask their men to go through?

1. All or most of them are.
2. About half of them are.
3. Few or none of them are.

and finally, Which of the following statements best tell us the way you feel about getting back into actual combat?

1. Relatively ready for the next combat.
2. Relatively not ready for the next combat.

The results of this investigation were dramatic, and the psychiatrists were in a position to give very excellent advice to command regarding conditions in the three Battalions. In short, I feel that we are still too clinically minded and have not achieved the place we might in the general military and tactical picture.

(A.M. Doyle) Lieut. Col. RCAMC.  
Neuropsychiatric Adviser  
Canadian Section, GHQ, 1 Echelon,  
AFHQ



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### **APPENDIX NO. 1. (EXTRACT FROM SUMMARY REPORT OF NEUROPSYCHIATRIST 1 CANADIAN DIVISION. 10 JUL - 10 NOV 1943).**

In Italy, by virtue of being at the field ambulance level, it has been possible to keep in much closer touch with the Regimental Medical Officer and also with line officers of the combatant units as well as being in constant reach of Div H.Q. This close contact with all branches of the division has made possible much of the saving in man-power represented in the figures presented below.

Whenever possible, the combatant units have been visited both in action and during rest periods. Recently a gratifying number of the O's C of combatant units have invited the neuropsychiatrist to visit their units to discuss personnel problems in an informal way and the neuropsychiatrist has learned much from these opportunities.

The Consultant in Neuropsychiatry to the American Forces in North Africa and this theatre, Major F. Hansen, and the Consultant to the Eighth Army, Lt. Col. S.A. MacKeith, have both paid visits of several days duration and close contact has been maintained with the psychiatrist of each of the three corps with whom we have been in touch.

While nearly all of the neuropsychiatric cases come to the field ambulance at which the neuropsychiatrist happens to be attached it has been the policy that he will visit any other field ambulance or Medical Officer who desires his consultation and it has been ordered by the ADMS that no cases of a psychiatric nature will be evacuated from the division unless they are seen by the neuropsychiatrist.

Although Medical Officers and line officers have been deliberately encouraged to bring their neuropsychiatric cases for consultation, the emphasis has always been on rehabilitation and treatment rather than evacuation and in this respect, through the ADMS, an increasing number of cases are finding employment suitable to their limitations within the division rather than being evacuated because they were not suited to the job they were doing.

The neuropsychiatrist has undertaken to examine all cases of S.I.W. whether they are thought to be accidental or not, in an attempt to ascertain what sort of soldiers have this type of wound.

Considerable neurological and medical cases have been dealt with, but only those referred for consultation and treatment are included in the statistical table.

As a general rule, the neuropsychiatric cases are admitted to the general medical ward or a special ward of the field, ambulance to which the neuropsychiatrist is attached. There is usually ample time to either cure the patient or come to a reasonable conclusion as to his disposal.

A Standing Medical Board recently set up makes it possible to be sure that cases not fit for duty in the Division are suitably categorised and are thus certain to be sent to duties within their capacities. It has happened that cases evacuated with recommendation that they are not fit for the field have been returned only to have to be evacuated again.

**STATISTICAL:**

Since the beginning of the Sicilian campaign to 1 Nov 43, 190 cases have been treated. The table below shows only those groups that accounted for 5 or more cases. Only Canadian cases are shown.

	Anxiety Neuroses		Hys- teria	Psychopaths		Border- line or Mental Defect	Psych- oses	Total
	Recent	Chronic		Inad.	A/ Social			
No Cases	24	93	18	10	7	7	8	167
Retn Unit	24	34	12	4	4	4	0	82
Evac. Rbd.	0	55	3	6	3	3	4	74
To Hosp		2	2				4	8
Transferred in Division		2	1					3

From the above, it is seen that 50 per cent of all neuropsychiatric cases are treated and returned to their original unit without going beyond a field ambulance. A small number have been transferred to other jobs in the division and about 4 per cent were sent to hospital for further investigation, these latter were cases in whom there was some possibility of organic disease being present.

**RESULTS OF A GENERAL NATURE:**

The following are observations gleaned personally and from interviewing of officers and other ranks of units in the field.

1. Invariably the presence of a bad “jittery” or nervous or psychopathic soldier in the ranks in action leads to nervousness among the others.
2. The reaction of other soldiers is to ask that the “jittery” one be removed. They say they have enough to do to fight the enemy and look after

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themselves without caring for a demoralized fellow soldier. Though they frequently use such uncomplimentary terms as “yellow”, they usually recognise that the soldier with an anxiety neurosis “just can’t help it”.

3. Practically all officers from O’s C. down agree that there is no evidence that the evacuation of a neurotic from the line tends to influence other soldiers to seek the same way out either consciously or unwittingly. On the contrary, they are glad to see him go and get along better without him.
4. O’s C. and other officers of combatant units are almost unanimous in the opinion that the soldier hides his fear and his complaints rather than parades them. They rarely have any reason to suspect malingering.
5. All ranks agree that the worst possible situation in the line is a body of troops led by a neurotic officer. Troops that have fought well under another, break and run when under an officer they know to be himself abnormally nervous and vacillating. An officer recently commissioned at OCTU twice had this experience in a recent battle. He has long had a chronic neurosis and in action it was all he could do to keep from panicking himself. The troops recognized his inadequacy and twice bolted before he could give a command.
6. 14 of the cases tabulated above were officers. Although many were subalterns who had qualified since the beginning of this war, all were chronic cases that careful examination would have recognized.

### *COLLUSIONS CLINICAL:*

1. These results and those obtained by others in the British and American forces indicate that neuropsychiatric service in the forward area is practical and valuable.
2. The most serious wastage results from chronic cases that could easily be recognised at the recruiting or training level and the observations above demonstrate that placement of these men in non-combatant work before they break down in the field would be in the interests of military efficiency, economy, and humaneness.
3. The Canadian soldier, even when he is unfortunate enough to be of neurotic disposition, is one who does his best to control his fear and do his duty. The too prevalent idea that the soldier is likely to be a malingerer is false, and those who cling to it must surely have some psychological weakness in themselves. Recently in a combatant unit the only officer who was

afraid of malingering in his company was one about whom his medical and his commanding officer had asked my professional advice. His own weakness was betrayed by his lack of confidence in his men.

4. Simple, common sense neuropsychiatric treatment is quite practical in the forward areas. Even such forms of psychotherapy as hypnosis have been successfully employed by the writer.
5. A large part of the value of this work in the field lies in the dissemination of sound psychiatric principles among medical officers and combatant officers, but this is better done informally than by attempts at lecturing.
6. Too many chronic cases among young officers are encountered. Here it is especially important that the neurotic personality should be weeded out before being sent to the field. In the past week two such officers have been seen. One said that at CCTU and again this year, the personnel officer rejected him but "no one paid any attention".

***CONCLUSIONS ADMINISTRATIVE:***

1. There is ample work for a neuropsychiatrist with each division on active service.
2. He should work at the Field Ambulance level and should be a physician who in rush periods can give his assistance in the treatment of casualties and the sick.
3. It is advised that there should also be a neuropsychiatrist at the Corps level in the field. There will be need to correlate and direct the clinical work and the policies of the divisional neuropsychiatrists and to maintain facilities for the treatment of certain cases that have to be evacuated from the division but not necessarily from the field. He will also act as adviser in neuropsychiatric matters to the Corps and conserve man-power by the placement of certain personnel who have become unsuited to their particular job but are of value elsewhere in the Corps. He will maintain records of the neuropsychiatric work in the Corps and be in a position to compare it with similar work in other formations.
4. The neuropsychiatrist needs little equipment. He should have: stethoscope, Tycos sphygmomanometer, reflex hammer, tape measure, ophthalmoscope, 2 lumbar puncture needles size 20. It is recommended that a kit containing these be made up for those in the field as divisional medical units do not have them and the neuropsychiatrist needs them.

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5. Written reports to M.O's whose patients the neuropsychiatrist sees should always be sent. These are much appreciated and the M.O. does more thinking about personnel problems when he sees this evidence of interest in his sick.
6. The neuropsychiatric work in the 1 Canadian Division has been a happy and valuable experience, largely because of the wholehearted cooperation that has been extended the neuropsychiatrist by the Medical Units of the Division.

*In the Field, 12 Nov. 1943.*

### **APPENDIX NO. 2. IN THE FIELD, 19 MAR 44 D.D.M.S. 1 CANADIAN CORPS.**

#### **Re: Neuropsychiatric Casualties among British, American & Canadian Troops.**

1. During the past week the neuropsychiatrist, 1 Canadian Corps, visited all the Canadian Hospitals in this theatre and also the British and American forward and base Psychiatrists and Psychiatric units.
2. Throughout all the Canadian installations an attitude of alarm over the number of neuropsychiatric casualties among Canadian troops was very noticeable and it seemed too often to be the impression that the Canadians were suffering many more of these casualties than our British and American colleagues.
3. There is no doubt that neuropsychiatric casualties constitute one of the most important medical military considerations, but it has been ascertained that there is no need for odious comparison of our troops with others; on the other hand there is reason for every confidence in them as fighting men.
4. For example, in recent fighting on the Garigliano, 10 Corps suffered 480 neuropsychiatric casualties that were seen by the Corps Psychiatrist in 8 days. He did not see others who were evacuated and others who were perhaps crippled. In this Corps, as a rule, of all psychiatric cases, about 20% are returned to full duty. In the strictly battle cases, as against chronic cases that are referred for consultation, about 35% are found to be returned to duty from the forward Corps Exhaustion Centre. In the action above mentioned, two divisions were in the fighting. One of these divisions

suffered 320 neuropsychiatric casualties in a few days, recalling the bad week in December when 1 Canadian Division had a similar number.

5. On the Rapido the Americans suffered large numbers of psychiatric casualties. One unit alone accounted for 90 in 2 days. This was in a heavy and unsuccessful action. 15% were returned to duty. There were others who claimed American neuropsychiatric casualties have been as high as 35% of battle casualties. Usually it does not go above 20%.
6. The percent of neuropsychiatric casualties as against total battle plus neuropsychiatric casualties has varied from 5 - 40 with the British, depending on a number of factors. The highest known in 1 Canadian Division was about 25% and such a figure was only reached during one week in Dec '43.
7. Both British and American Psychiatrists believe that pre-disposition and pre-existence of a psychiatric disorder are major factors and that more careful selection of troops for combatant duty would cut down the incidence of neuropsychiatric casualty vastly. This has been our experience also and in the neighbourhood of 80% of our exhaustion cases are people who have suffered a chronic psychiatric disorder for a long time preceding battle stress. Most of them could be recognized before they came to a field unit.
8. The British have 4 levels of evacuation for neuropsychiatric casualties - (1) R.M.O. (2) Corps Exhaustion Centre (3) Forward Psychiatric Wing and (4) Rehabilitation Centre or (4) Base Hospital. They expect to send away from this theatre only 2.5% of the total neuropsychiatric casualties.
9. The rehabilitation centre is entirely run by combatant personnel and here men are recategorized and reallocated to duties for which they appear fit.

In contrast to this, we recently returned to the UK a considerable number of our low category neuropsychiatric casualties, as we do not seem to have the same resources for placing these personnel. This is unfortunate as it already has had a noticed effect on those left behind. It is to be hoped that everything possible will be done to get these casualties back at useful work at the earliest possible moment after evacuation as they tend to deteriorate if left long idle in hospital or in holding units. The rehabilitation centre appears to be an excellent idea and we have been trying the same thing on a smaller scale for nearly three months in 1 Canadian Corps with encouraging results.

A glance at the recent analysis of sickness in 8th Army (Jan 44) compares 10 Corps and 1 Canadian Division. The figures in terms of number per 1000 per annum of neuropsychiatric casualties are respectively - 96.9 and 105.5. Even if these were 2 Divisions being compared the figures are not significantly different

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but a Corps has many more non-combatant personnel who are not under battle stress than a Division and thus the above figures indicate a very good comparative standing for the Division. This is exactly in accord with observation made elsewhere and there is certainly no reason for belief that we are much different from British or American troops from the point of view of exhaustion cases and with further effort we should indeed be able to make an excellent showing by comparison.

(Signed) A. Manning Doyle, Major, RCAMC.  
Neuropsychiatrist, 1 Cdn Corps.

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## Appendix 4

### REPORT OF SURVEY OF CANADIAN SOLDIERS UNDER SENTENCE IN THE C.M.F.

A.M. Doyle

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"Report of Survey of Canadian Soldiers Under Sentence in the C.M.F.," file no. 11/PSYCHIATRY/4, RG 24 volume 12,631, Library and Archives Canada.

*Dr. A.M. Doyle's report on the psychiatric problems of soldiers under sentence in Italy reflects his belief in the "chronic" nature of neuropsychiatric disorders. The report nevertheless provides important evidence about an important and neglected aspect of the Italian campaign.*

#### INTRODUCTORY REMARKS

This survey was undertaken primarily to assist the AAG (Discipline) in deciding the disposal of Canadian Soldiers Under Sentence in the CMF and was undertaken after consultation with Lieut. Col. L.R. MacDonald, AAG (Discipline) CMHQ, when he visited this theatre about 1 Mar 45.

On this date, there were approximately 1033 Canadian Soldiers Under Sentence in Italy. In addition, there were approximately 100 awaiting trial or sentence and at least 500 unaccounted for in the country, most of whom were AWL and would become subjects for examination when they turned themselves in or were apprehended. It was well known at this time also that the participation of the Canadian Forces in the hostilities in Italy had ceased and that all Canadian troops were leaving the Theatre, so it was anticipated (as indeed occurred) the vast majority of those who were AWL would give themselves up and be subsequently incarcerated.

There had unfortunately been no previous psychiatric or personnel selection study of Soldiers Under Sentence in the CMF, though this had been recommended in Oct 44 when the Adviser in Neuropsychiatry, Cdn Sec, 1 Ech, AFHQ, advised the psychiatric screening of all Canadian Soldiers committed to Military Prisons.

Geographical difficulties were presented by the fact that Canadian Soldiers Under Sentence were distributed throughout nine British Military Prisons and one Canadian Field Punishment Camp, those being distributed from Florence and Cesana in the north to Brindisi in the south. In addition to the geographical difficulties, we were informed that we had not more than approximately four weeks in which to conduct the survey.



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### OBJECTIVES

After consultation with the AAG (Discipline) CMHQ, and Officer i/c Discipline, Cdn Sec, 2 Ech, AFHQ, it was decided that:

1. Examination by a psychiatrist and by a personnel selection officer would be made of every Soldier Under Sentence in the CMF whose sentence did not expire prior to 15 June 45 and, in addition, there would be a number of short-term prisoners examined on special request, and –
2. The following information would be obtained in the case of each examination:
  - a) Name
  - b) Unit
  - c) Length of Service
  - d) Length of Service in Action
  - e) Present Crime and Sentence
  - f) Previous Crime Record, both Civil and Military
  - g) Presence or absence of any psychiatric condition
  - h) Special problems, such as mental difficulties, alcoholism, remustering to new unit, etc.
  - i) Education
  - j) Skilled or Unskilled occupation
  - k) Opinion as to motivation

### ORGANIZATION

Three teams, consisting each of a psychiatrist, a personnel selection officer and a clerk, were organized. Each team was equipped with transport and assigned to the prisons in which they would work. The personnel of those teams is noted in Appendix "1" [page 244] and it should be here pointed out that this report is a result of their combined efforts and that the opinions expressed herein were in general agreed upon among the group.

## STATISTICAL RESULTS

At the present time, it is possible to report on a total of 584 of the prisoners examined. Of these, 84% were under sentence either for being AWL or for desertion. The remaining 16% were mainly under sentence for crimes such as theft; although some were under sentence for the strictly military crime of refusing to obey an order.

The following Table illustrates some of the general statistics concerning this group.

Average Age	24.7 years
Average Total Service	44.1 months
Average Service with unit in the field	5.7 months
Average Education	Grade 7
Skilled training	15.1%
First Offence	285 – 48.8%
Neuropsychiatric Disorder	141 – 32.5%

The accuracy of such figures is, of course, open to question, but we were satisfied that the trends indicated were correct. The average age of the offenders did not seem to us to mean very much, but we did get the impression that certain age groups appeared more often than one would expect. There were a notable number of youths who had enlisted underage and whose bad behaviour appears to have commenced while being held in Holding Units undergoing a boring existence.

It was also our impression that the older age groups were too widely represented. Many of these had long histories of poor service with many crimes and had often been relegated to non-combatant units because field units would not have them. From this group came a large number of those who we felt would not have been of much use in any form of military service.

Certainly these observations coincided with other observations of Soldiers Under Sentence in the UK as recorded by Colonel F.H. van Nostrand, Consultant Psychiatrist, CMHQ, in his memo of 19 Jul 43 on the psychiatric aspects of crime in the CA(O) and Major B.H. McNeel's survey of Soldiers Under Sentence of 19 Apr 44.

The average total service of the Soldiers Under Sentence was surprisingly high, particularly the number of those who had 5 years service in the Army. Here again too many had been chronic offenders almost since the beginning of their army career and had given little in the way of service in return for the time and money spent in their training. It can only serve to emphasize the great waste incurred in expense and manpower in such cases.

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The comments of the last paragraph are particularly noteworthy when the average total service with unit in the field is considered. We do not think that this figure, i.e. 5.7 months, is too accurate. Certainly if the actual amount of time that the soldier spent in operations was known, it would be much smaller than this figure. Here we had to rely almost exclusively on the soldier's statement.

In considering education and occupational skill, the soldier's statements also had to be relied upon. We were impressed by the large numbers of inferior education among the group and that few showed any claim to be considered as skilled tradesmen, although we were generous in our interpretation of what constitutes skilled occupation. Actually the educational level noted is not far from the average for the Canadian Army as a whole, but we were struck not so much by the formal educational level or the degree of skilled training as we were by the general indifference towards education and occupation expressed by the vast majority of these Soldiers Under Sentence.

It should be pointed out here that we did not think that the material with which we were dealing could have achieved higher educational standards. We did not have "M" score records for the whole group, but of 110, the average "M" score was 106.

### NUMBER OF FIRST OFFENDERS – 285 OR 48.8%

This is much higher than that recorded by previous observers, and is understandable when it is realized that a high percentage of these soldiers were committed for offences directly related to incidents on the field of battle as was not the case in the study by Major McNeel. We had to rely however on the soldiers' statements because it was obvious that MFM 6's were inaccurate and we have already learned that a number were untruthful in statements regarding their past records. It was nevertheless true that the great majority of those recorded as first offenders had previously been well-behaved soldiers and usually their first offence had to do with their conduct in the face of the enemy or in anticipation of enemy action. This group is particularly important, especially when one considers the severity of the sentences that were imposed as outlined in the Table immediately following.

### PRISON SENTENCES

Less than 6 months	1	
6 months to 1 year	43	7.4%
1 to 2 years	191	32.7%

2 to 3 years	195	33.4%
3 to 4 years	75	12.8%
4 years	32	5.5%
5 years	17	2.9%
6 years	2	
Unknown	27	4.6%

In a few cases discharge with ignominy also had been added to the sentence. It is seen here that the sentences are much severer than those recorded in previous surveys of SUS in the UK and indicate the appalling loss of manpower entailed.

Among the prisoners, there was widespread dissatisfaction about sentences. We did not expect to find soldiers in prison happy about their situation but their chief complaint was about inconsistency. Among those who had previous offences, one repeatedly heard the complaint that they had committed the same offence or even a lesser offence than previously, but instead of receiving 28 days, they found themselves with sentences from anywhere to 1 to 4 years.

The first offenders often received very severe sentences also, and they naturally felt they had been harshly dealt with considering their past good record. Particularly among the first offenders there were a large number of very ashamed and unhappy men. We felt that in such cases to insist upon the carrying out of long prison sentences was only to defeat the purposes of military punishment.

In connection with sentences, although we have no proof on which to base our statements, it seemed there was a great deal of inconsistency particularly when the sentence had been imposed by FGCM in a forward area where in different units or varying circumstances similar offences received punishments that ranged from 6 months to 5 years. The SUS often made the following complaints:

1. He had only a few minutes to talk to his defending officer.
2. He had been advised by the Defending Officer to plead guilty with the implied or stated hope that he would then receive lenient treatment, only to find after pleading guilty a sentence of several years penal servitude.
3. He was unable at the time of his trial, either because of military exigencies or because of considered neglect, to obtain witnesses who could substantiate his statements.
4. He was tried without being able to talk to his CO or an officer of his choice from his own unit.

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### NEUROPSYCHIATRIC DISORDERS

The neuropsychiatric disorders discovered – 141 – 32.5% – were practically all either Psychopathic Personalities, Inadequate Type or Chronic and Acute Anxiety Neuroses. In no case did we feel that neuropsychiatric disorder had been such that the soldier should have been excused from responsibility for his actions. It was obvious, however, that in many cases the neuropsychiatric condition of the prisoner at the time of his crime was such as to constitute mitigation of the seriousness of his crime. We did not make a diagnosis of neuropsychiatric disorder unless we felt that it was sufficient to warrant recategorization because the soldier was unfit for combatant duty.

Among these were a number who had previously been evacuated or had been treated in their unit echelons for “exhaustion” and had been returned to duty after treatment. All of this neuropsychiatric group had been guilty of being AWL or desertion usually at the time the unit was in action or when action was imminent. Many of them had appealed to their officers or had been seen by their MO prior to the offence, and it would appear that their evacuation as psychiatric casualties would have been preferable to the policy of holding them until they committed an offence. Among this group were a number who had previously been wounded and one was struck by the lack of consideration that appeared to have been extended to these men when they had finally “cracked up”. Many examples could be cited and the following is rather typical:

Age – 23. Serving 2 years sentence convicted of desertion. Always delicate – always nervous, easily excited, timid, avoided violence, suffered “St. Vitus” Dance as a child – this was corroborated by the parents on correspondence. Always been recessive and introspective. Liked the Army. Was keen about his regiment. Has been with his regiment since Nov 42. Was promoted to Cpl. and got along well until the Hitler Line when he had to be evacuated to the RAP. He did not wish to be evacuated further and later returned to duty. In the Gothic Line he was sent back to work in the kitchen by his officer who said he was unfit for combatant duty. Later reinforcements were needed and he was sent up and he broke down again. Altogether he tried to go forward three times and finally at his regiment tactical HQ he was court-martialled and sentenced to 2 years in prison. He complained of being unable to talk to any of his officers at the time of his trial. The officer who had sent him out was not consulted. He begged for a chance to redeem himself. Later the CO of his regiment had asked for psychiatric examination when he visited the prison.

Like many others, this man illustrates the sincere well motivated individual who should never be considered a disciplinary problem and who had done his best for his unit considering his native endowment.

## **FACTORS ASSOCIATED WITH MILITARY CRIMES**

### *DOMESTIC DIFFICULTIES*

Only 24 prisoners or 4.3% complained of serious worry over domestic difficulties. This is in marked contrast with McNeel's findings of 20% who complained about worry over domestic problems. He comments in his report – "It is difficult to know whether domestic difficulties were reason for being in prison or merely symptoms of mal-adjusted personalities".

Our findings here and our past experience lead us to make a very specific answer to this query, namely that domestic difficulties are usually a symptom of personality instability rather than the primary cause of the misdemeanour.

### *ALCOHOLISM*

45 prisoners or 7.7% were chronic alcoholics or stated that alcohol had led to the offence for which they were serving punishment. Here again with very few exceptions alcohol is only a symptom of instability or inadequate personality and quite a number of this group were chronic offenders in many other ways.

### *CIVIL CRIME*

Only 17 or 3% admitted crimes in civil life, but the prisoners who had served civil crimes were invariably also chronic and serious military offenders.

### *UNIT CHANGE AND REMUSTERING*

18 of the group stated that they had gone AWL solely because they were forced to remuster to another Corps or because they had been forced to go to a unit other than their own. This group is particularly important because, as a rule, they had good past histories and had not been chronic troublemakers. About half a dozen of these had all gone AWL from the same unit and interestingly enough, they received varying sentences. Practically all the group were considered reclaimable, but unfortunately they were unanimous in the feeling that they had been "pushed around" and very shabbily treated. Most of them stated

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they had gone into action with the unit to which they were sent and then gone AWL when their request to be sent to their own unit went unheeded.

### *DISPOSAL RECOMMENDED*

Disposal recommended fell under three headings. We were primarily concerned with economy of manpower so that the most interesting group were those whom we considered reclaimable for full duty. We were generous in our interpretation feeling that where it appeared there was reasonable chance that a man would succeed if given another opportunity he should be considered reclaimable and naturally we were much influenced here by motivation and the prisoner's expressed attitude toward the Army and his personal feeling regarding further combatant duty. Those we considered reclaimable were prisoners whom we believed had a reasonably good previous crime record, were free from neuropsychiatric disorder and were well motivated. All those who suffered from neuropsychiatric disorder were recommended for medical reboard and almost all were considered fit for some form of duty but not combatant duty. The third group consisted of those who were poorly motivated – who had bad crime records and whose past history or present statements indicated they had no intention of carrying out their military duty satisfactorily. The following Table summarizes the disposal suggested in this survey.

Considered Reclaimable, likely to succeed as combat soldier	222	38%
Neuropsychiatric Disorder, unfit for combat duty, requiring recategorization	191	32.5%
Considered unsuitable for military service on disciplinary grounds	165	28.2%

We felt fairly well satisfied with the last two groups, but were probably too optimistic assessing the first group. There was often no record and always incomplete records of prisoners available, and we have since learned that a number who gave evidence of good motivation and good past record were to say the least putting their best foot forward as their crime records were discovered to be quite bad. Fortunately this number was not great.

### *DISTRIBUTION OF CASES BY CORPS AND UNITS*

Some interesting observations can be made under this heading. McNeel in his study of Canadian Soldiers Under Sentence at the Canadian Detention Barracks listed the various corps giving percentage of that corps in the CA(O) and percentage of that corps among prisoners. He found that the CIC composed 43% of the CA(O) and 41.9% of prisoners of the Detention Barracks that he surveyed. In our survey, infantry units comprised 477 or 81.7% of the total

number of Soldiers Under Sentence. There is no point in listing the other corps whose numbers are almost negligible. RCA for example who comprise 17% of the CA(O) accounted for only 3% of the prisoners. RCAMC who comprise 5% of the CA(O) accounted for only .6% of the prisoners. CAC who comprise 15% of the CA(O) showed only 3% of the prisoners.

It is seen therefore that while most branches of the service will show a similar or even improved incidence of crime when they go from a static to battle role, those elements that bear the brunt of hardship and fighting, namely the infantry, will show remarkably increased incidence of military crime.

The 477 Soldiers Under Sentence arising from the CIC came from 14 different units. Incidentally one unit alone accounted for 25% of the total – 121 prisoners. It might be interesting to compare three brigades.

	Brigade "A"	Brigade "B"	Brigade "C"
Unit 1	24	13	121
Unit 2	28	23	49
Unit 3	20	22	41
Total	72	58	211

It might be interesting to note here that throughout the campaign in the CMF, Brigade "C" consistently produced the highest number of psychiatric casualties that were evacuated through medical channels, and that also unit (1) of Brigade "C" has almost always had the highest ratio of neuropsychiatric cases to wounded. On the other hand, Brigade "B" has consistently had the lowest psychiatric rate since the invasion of Sicily. One might have thought that units and formations with low psychiatric casualties were being harsher in their discipline and that their psychiatric casualties were being hidden by disciplinary action. It is obvious from the experience of the above division that the units who have had the high psychiatric rates have also had high crime rates. Incidentally it can also be pointed out that even when a unit claimed large numbers such as occurred in unit (1) Brigade "C", their position as regards psychiatric casualties was not affected. It is obvious therefore that a harsh punishment goes hand in hand with high psychiatric casualty rates and that punishment is an ineffective method of reducing the psychiatric rate. It must be obvious that factors such as leadership, training and quality of material in the unit (especially the latter) are the factors involved in both incidence of crime and incidence of neuropsychiatric casualties in units or formations.



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### *THE PRISONS*

All prisons, with the exception of one Canadian Field Punishment Camp, were run by British units. The physical facilities available to the staff at these prisons such as buildings, recreational grounds, location, etc. varied considerably. In one instance, a prison is set in the middle of a dirty Italian town with little opportunity for staff to make use of outside recreational or training facilities. On the other hand, another prison was situated in what had been the show-place of Italian penology where accommodation and facilities for occupational and military training were excellent. These, of course, were factors beyond the control of individual Commandants, but consistently throughout the survey, one found the prisons spotlessly clean, discipline was excellent, and very good esprit de corps among the staff of the prisons existed. Here and there soldiers complained of being left in the hands of the British, but actually complaints on the part of prisoners about their treatment were extremely few, except for a general dissatisfaction with such rules as "no talking" which is common to all prisons. In every prison visited, the Commandants who had had to start from scratch were busy building up workshops of different kinds, and in many cases were already working on contracts which provided occupation for many of the Soldiers Under Sentence and considerable enterprise was being shown in educational pursuits. Food was of good quality and sufficient in quantity.

It is quite true that the Canadian soldier when he first enters a British Prison, often gets into difficulties, but it was usually only the recidivist who complained that he was mal-treated. Commandants of prisons frequently expressed a wish that Canadians be cared for in Canadian prisons because they felt that morale would be better; the prisoner would feel he was understood more thoroughly and better results would be finally achieved. Without exception, one found the Commandants and officers of the prisons oriented towards the rehabilitation of the soldier rather than merely his punishment. In spite of this, prison life is by no means pleasant. The Soldier Under Sentence is unlocked about 9 a.m. until 11.30 a.m. or 12.00. Again from 2 to 4 p.m. The rest of the time he is behind bars except when he achieves the training company where, although locked up, he is in usually more pleasant surroundings.

Contrary to popular conception, Commandants of prisons did not complain they were having difficulty in dealing with Canadian soldiers, and this is borne out by the high numbers who earned their remission and the very few that had to be punished for prison offences. Nevertheless, a military prison is run very much after the lines of the civil penitentiary and this must be remembered, particularly when considering the disposal of prisoners who are thought to be well motivated and returnable material.

## SUMMARY AND RECOMMENDATIONS

A rather cursory study of 584 prisoners in Military Prisons in the CMF is here reported. By and large our findings and recommendations agreed consistently with previous observations and reports such as:

Capt. C.K. Sundry – 20 June 42

Memo of Colonel F.H. van Nostrand – 19 Jul 43

Report of Advisory Committee on SUS – 1 Oct 43

Report of Maj. G.S. Burton – 5 Sep 43 and the excellent survey of SUS at Canadian Detention Barracks by Major B.H. McNeel, RCAMC, and Capt. C.A. Williamson, Personnel Selection Officer, of Apr 44.

This survey was different from most others reviewed in that a higher percentage of the SUS were under sentence for crimes associated with their conduct in action.

### *SENTENCES*

It was felt that sentences for crimes associated with enemy action were often too severe in the case of the well motivated soldier, and that they were also often inconsistent even within the same formation. It is recommended that consideration be given to the formation of a permanent court martial board in the division, so that consistency of punishment can be achieved.

The longer a well motivated soldier is kept in prison, the less likelihood there is of his being rehabilitated. It is felt that much saving of manpower could be affected if all Soldiers Under Sentence as soon as practicable after conviction are examined and assessed by a Personnel Selection Officer and Psychiatrist, and appropriate recommendations made by them to higher authority.

Wider use of suspension of sentence in suitable cases is recommended.

### *NEUROPSYCHIATRIC CASES*

Too many prisoners suffering from neuropsychiatric conditions appear to be convicted and sent to prison. The incidence of psychiatric cases will never be affected very greatly by disciplinary measures alone, and when an obvious psychiatric case is harshly dealt with, it is bad for the morale of other troops who are usually perfectly aware of the circumstances. The provision of a divisional psychiatrist is recommended and would provide for the consultation between

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psychiatrist, MO's and combatant officers which would lead to the best handling of those problems.

### FACTORS AFFECTING CRIME

Domestic difficulties appear to be a symptom of instability of personality rather than factors having a great deal of bearing on incidence of military crime. This appears to be particularly true in a theatre of war as domestic difficulties were complained of much less frequently than in the group of prisoners previously studied in the UK.

#### *REMUSTERING AND CHANGE OF UNIT*

Forcing a soldier to change from one unit to another or remuster from one corps to another on short notice, is a practice which leads to serious grievances and crime, often among good soldiers. This goes hand in hand with recruiting propaganda, and follows in the same category. The soldier is promised on recruitment that he will have a certain type of job or training. He bears a grudge when the promises of the Recruiting Officer cannot be fulfilled. When he has been trained in one branch of the service and worked at it for years and suddenly switched to the infantry, his reaction is naturally poor. Where remustering is necessary, it should be done slowly, with ample time for retraining and assimilation of the individuals involved. We have seen examples of soldiers who actually reached the echelon of one unit for whom they had long been trained as reinforcements and whose badges they were wearing, and immediately upon arrival at the echelon, they were switched to another unit. This leads to crime concerning which the soldier's point of view is easily appreciated.

#### *CHRONIC CRIMINALS*

28% of the total group were considered to be chronic criminals, and were thought to be prisoners who had no intention of carrying on duties as soldiers. It is felt that they were not suitable for military duty of any kind, and that they should be considered disciplinary problems and discharged from the service.

In this regard, discharge with ignominy should be more often employed in those cases. More important still, many of these had criminal records for many years in the Army, and could have been recognized a long time ago as being unsuitable for military service. It is evident that soldiers who are chronic criminals and no use to the units during the training period and static times, will still be a detriment rather than of use to the units when they go into action. The morale

and efficiency of troops would be benefited if such people could be discharged from the service earlier in their careers and with dishonour.

## **PRISONS**

The prisons were found to be well administered, but handicapped in their rehabilitation programme by lack of physical facilities and looking after large numbers of incorrigible men. Military Prisons, as at present constituted, are no place for long confinement of any soldier whom one expects to rehabilitate for further military service. The reclaimable type of soldier should be quickly screened out and returned either to duty with suspension of sentence, or sent to training camp especially equipped to carry out a rehabilitation programme.

We are well aware of the fact that manpower situation has not been easy and has indeed been overtaxed. It would seem obvious however that removal of those who are a menace and detriment and the proper placement of those who have been found unsuited to their tasks is the only intelligent approach in dealing with the “problem children” of the armed forces.

(A.M. Doyle) Lieut. Col. RCAMC.  
Neuropsychiatric Adviser  
Cdn. Sec. 1 Echelon,  
A.F.H.Q.

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# REPORT OF SURVEY OF CANADIAN SOLDIERS APPENDIX 1

This survey was carried out by the following officers and this report is the result of their work.

Lieut. Col. A.M Doyle, RCAMC

Capt. A. Ryan. S.P.O.

Major H.F. Frank, RCAMC

Capt. C.A. Williamson. S.P.O.

Major J.J. Weber, RCAMC

Major E.F Burbank. S.P.O.

Capt. E.A. Wood. S.P.O.

Report of Survey of Canadian Soldiers Under Sentence in the C.M.F.

### *FURTHER STATISTICS*

Since the above report was completed, 82 more S.U.S. completing the total have been examined.

The following table shows the results:

Average age	24.8
Average length of service	45 months
Average service in action	4 months
Average education	Grade 6
Skilled	12%
First offences	37.8%
History of civil crime	18.3%
50% suffered from some form of Neuropsychiatric disorder	
19% were considered unfit for military service because of conduct and bad past criminal record in the army	
31% were considered reclaimable for further combat duty	

These figures are in line with those found in the original investigation and the comments and conclusions are not altered by them.

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## Appendix 5

### REPORT BY PSYCHIATRIST ATTACHED 2ND ARMY FOR MONTH OF JULY 44

Major D.J. Watterson

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"Report by Psychiatrist Attached 2nd Army for Month of July 44, To: D.D.M.S., Rear HQ 2nd Army" file no. 11/PSYCHIATRY/4, volume 12, 631, Library and Archives Canada.

*Major D.J. Watterson wrote this report on psychiatric casualties in 2nd British Army, which until 23 July 1944 included the 2nd and 3rd Canadian Infantry Divisions. Just as the prolonged stalemate in Normandy (8 June to 27 July) was ending, Watterson's comment that "the incidence of psychiatric casualties has been higher in the 2nd Canadian Corps" should be understood in the context of the number of days of intense combat experience by 3rd Canadian Division. The divisions NP ratio was comparable to the ratios of those British divisions in action since D-Day.*

#### 1. GENERAL TREND.

The high optimism of the troops who landed in the assault and early build up phases inevitably dwindled when the campaign for a few weeks appeared to have slowed down. Almost certainly the initial hopes and optimism were too high and the gradual realisation that the "walk-over" to Berlin had developed into an infantry sloggng match caused an unspoken but clearly recognisable fall of morale. One sign of this was the increase in the incidence of psychiatric casualties arriving in a steady stream at Exhaustion Centres and reinforced by waves of beaten, exhausted men from each of the major battles. For every man breaking down there were certainly three or four ineffective men remaining with their units.

Swings of morale often tend to overshoot the mark and this happened during the first half of July. Thereafter men settled to their new appreciation of this War of Liberation, discarding their notions of marching through welcoming and gay French villages, replacing them by more realistic appraisals of a brave and skilful enemy, of battered towns and of necessary days, perhaps weeks, of grimly sitting down and holding on under mortar fire, cloudy skies, rain and mud.

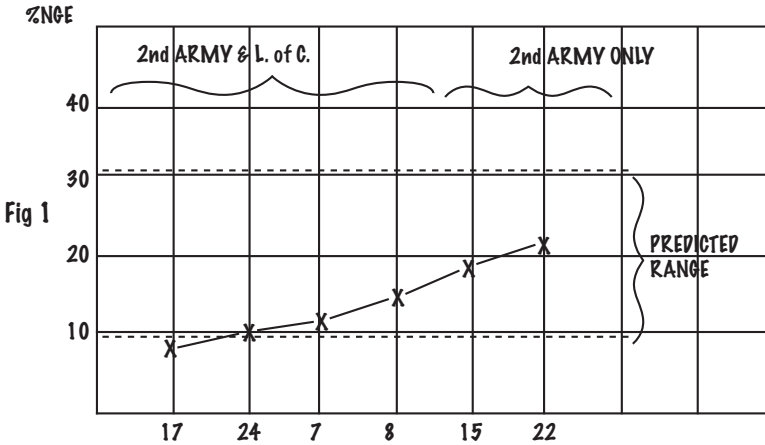
Finally in the last week of the month a noticeable steadying and bracing of morale occurred so that the subsequent breakthrough South of Caumont by our own army, the long strides of the Americans into Brittany and the pursuit

**CHAPTER 3**

of the enemy by the Russians through Poland and the Baltic States caused no sudden inflation of false optimism but rather a sober satisfaction that the hard fighting ahead would bring its own similar rewards. With this background the incidence of exhaustion and neurotic breakdowns in the army maybe assumed to have reached and passed its peak

**2. INCIDENCE.**

The incidence of exhaustion casualties expressed as a percentage of all casualties is shown in Fig. 1. It will be seen that the incidence has doubled during the month though it has remained within the predicted range. The present indications are that the peak was reached during the week ending July 22nd and that a fall has since occurred.



A noticeable fact is that the incidence has been higher in the 2nd Canadian Corps than in other Corps:

*Exhaustion Casualties as Percentage of all Casualties.*

Week ending:	2nd Can. Corps	All other Corps
July 15th	28%	16%
July 22nd	29%	19%

The recorded incidence is also bolstered to some extent by the fact that men referred for psychiatric opinion from forward units (not casualties in the ordinary sense) are for convenience of transport evacuated as casualties to the Corps Exhaustion Centres where they are seen by the Corps Psychiatrists.

### 3. ETIOLOGY.

The etiological factors mentioned in the report for June continued to be the chief precipitating causes of breakdown during July. One factor mentioned frequently by combatant officers and R.M.Os is the greater frequency with which reinforcements break down. Apart from the general quality of reinforcements, three points stand out. The first is that a unit that has suffered a very large number of casualties consists almost entirely of reinforcements and can hardly be considered a coherent body of men. For example, the 1st Hampshire battalion were visited on July 17th. They had lost 686 killed, wounded and missing since D-Day. Sixteen officers and two Commanding Officers had been killed, and the battalion was then waiting for its third CO. When such a battalion goes into action a very high breakdown rate must be expected, since the emotional ties among the men, and between the men and their officers (which is the single most potent factor in presenting breakdown), barely exist. Having reached this state a unit needs several weeks out of the line (at least two) to reform.

The second is that reinforcements should be integrated into their new units in sizeable bodies, sections at the least, preferably platoons. The Reinforcement Group set up by 59 Div is a valuable step forward here in that it gives fresh reinforcements a few days to acquire a feeling of attachment for the formations they are going to.

The third point is that untrained reinforcements frequently become psychiatric casualties. Stories of clerks, cooks, storemen and the like being sent forward as rifleman reinforcements are all too frequent. Such men, apart from breaking down themselves, can be a real menace to their units. For example 4 RWF were visited in the line on July 29th. A few nights previously an N.C.O. had scurried back with his section to Coy. H.Q. with the information that they had been surrounded by Germans. What had happened was that an enemy patrol had passed them nearby. The N.C.O. had not broken down or lost his head. He merely did not know the job of Section Sgt as he had always been a C.Q.M.S. in charge of a store.

### 4. LENGTH OF TREATMENT.

During July it has been possible to retain men for treatment up to 5 – 7 days, with the exception that following the battle South of Caen the rush of patients was enough to fill the Exhaustion Centres quickly. During this period No. 50 F.D.S. very usefully took on the job of passing men quickly through to the C.E.P., detaining them only long enough for a change of clothes, bath, food and sedative.



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### 5. HOSPITAL TREATMENT.

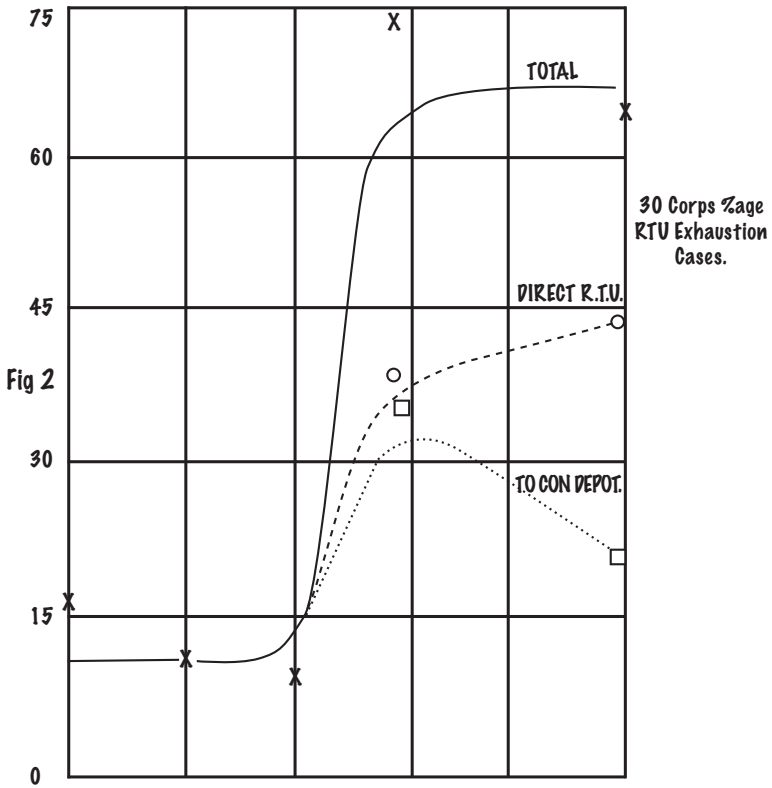
The advance section of 32 Psychiatric Hospital (200 beds) opened at the beginning of the month. The numbers of officers, psychotics, and severe neurotics sent there for treatment limited their duration of stay to less than 5 days. Now that the base section of the hospital is also over (400 beds) it will be possible to cease evacuation from Exhaustion Centres direct to C.E.P.

### 6. DIVISIONAL TREATMENT.

The major step forward in the treatment and return to duty of exhaustion casualties has been the opening of Divisional Exhaustion Centres. The way was led by 30 Corps, which, during a quiet period, used Field Ambulances for the purpose, 200 Field Ambulance in 50 Div, and 160 Field Ambulance in 49 Div. Both these centres took to the work admirably and showed an immediate dividend in the shape of a 50% return to duty.

The advantages of having Divisional Centres were considerable. First, divisions were continually switching about within Corps so that the division was the only stable entity. Second, men treated at a divisional centre were still within the family, and intimate contact was possible between the centre and the R.M.Os of the division. Third, there was no doubt that treatment at a forward medical unit within sound of the battle was easier than at more rearward centres. Fourth, the number of casualties was such that Corps centres working alone were swamped.

Thus although the practice of detaining exhaustion casualties for treatment in any handy medical unit is deprecated, the concentration of them for treatment in one Divisional Exhaustion Centre is a policy that pays. It is not generally known that this was in fact the intended scheme. For interest, a 12 Corps letter dated 9th March 1944 which outlines the plan for that Corps is attached as an appendix.



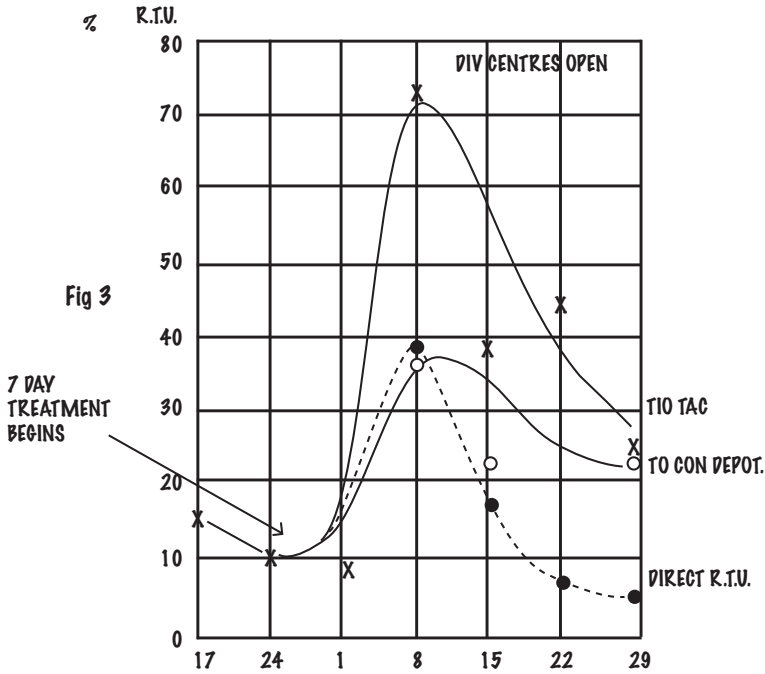
Figures are not available for the return to duty rate for the whole array. Fig. 2 shows that in 30 Corps there was a huge increase from the beginning of the month. This was partly because at that time retention of cases for 7-days treatment became possible and also because divisional centres were started. Now almost half of all exhaustion casualties return to full duty and another 10% to 20% to modified duty via the Army Convalescent Depot. The position is much the same in 8 and 12 Corps.

## 7. CORPS TREATMENT.

The opening of divisional centres has decreased the pressure on Corps Exhaustion Centres and at the same time has reduced the quality and prognosis of material reaching Corps level. This is shown in Fig. 3 which again relates to 30 Corps. At the beginning of July Major Wishart was able to return almost 40% to full duty and another 30% to Convalescent Depot. Since the opening of

## CHAPTER 3

divisional centres his rate of return to full duty has inevitably fallen to less than 10%. Interestingly, also, his rate of return to duty through the Convalescent Depot has fallen to about 20%. The inference (and there is other evidence to support it) is that important fact that the further back men are evacuated the lower their medical categories become.



R.T.C. at 30 Corps Exhaustion Centre. (55F.D.S.)

It is hoped that the decreased pressure on the Corps Psychiatrists will free them for out-patient work and for their equally important duty of visiting units within Corps.

## 8. FIELD DRESSING STATIONS AS EXHAUSTION CENTRES.

By now over 14 Field Dressing Stations have functioned as Divisional, Corps, or Army Exhaustion Centres for periods of several weeks. Credit is due to them all for the remarkable way they have adapted to their novel and arduous task. Running an efficient Exhaustion Centre is certainly the most difficult of their various roles, entailing much hard labor, great energy, considerable tolerance and

an imaginative understanding of the problem. The three pioneer Corps Centres (Nos: 35, 1 and 4) stood out as models. The lesson that all three very quickly learnt was that men who have broken down in battle are like children, in that they respond to considerate treatment by the measure in which it is given.

The Divisional Centres followed similar lines and learnt much from the three Corps Centres. Among Army F.D.Ss, No. 50, with its large capacity, has been a useful buffer, when numbers coming in have been big, and No. 31, although small, has shown the most lively enthusiasm for the work.

The tendency throughout the month has been gradually to decrease the degree of sedation used in treatment. With deep sedation lasting two days or more residual toxic symptoms hinder convalescence and an early return to duty. Moreover, men who will be fit to return to their units within five or six days actually require no more sedation than on the first day and the first two nights of treatment. Severe acute anxiety states frequently show no lasting improvement from deep and prolonged sedation, which, in fact, merely shelves and postpones the problem of freeing the intolerable anxiety. Abreaction techniques are indicated in these situations and have been used successfully in the field at No. 51 F.D.S. by Captain de Mare.

The treatment in the narrow medical sense of the acute and moderately severe anxiety states with varying degrees of exhaustion is fairly simple – a bath, good sleep in pyjamas with sedative for about 36 hours and a couple of days lounging about in a reassuring atmosphere while barbiturate detoxification occurs. The test of an F.D.S. doing the job is largely in the final two days of rehabilitation where there must be a gradual but definite re-imposition of military discipline. It has been suggested occasionally that this would be better done in a separate small camp “over the road” run on regimental lines without medical supervision. But in my opinion this is a confession of failure. Rehabilitation is a part of treatment and a break of continuity militates against its success. With the aid of a Sgt of the A.P.T.C. and an N.C.O. of the A.E.C. most F.D.Ss have been able to arrange a fully organised two-day program for the period of rehabilitation with good effect on the morale and discipline of the men returning to duty.

## **9. 2ND ARMY CONVALESCENT DEPOT. (NO. 13).**

No. 52 F.D.S. opened at Vaux-dur-Mer as 2nd Army Rest Centre for the purpose of taking in for rehabilitation those men not immediately fit for return to full front line duty but capable of doing duties at base or in L. of C. No. 13 Convalescent Depot took over 20 July 1944 and carried on the same task. Up to

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the week ending 29th July, 1944, 1327 men, who had been evacuated from the line as cases of "Exhaustion", had been admitted. At first about 1/5 of admissions returned to duty in their original medical category, the remaining 4/5 requiring reduction of category and often a change of employment. As the rate of return to full duty of cases treated within Corps increased, so the number of men reaching the Convalescent Depot not requiring reduction of medical category decreased, so that now it is not more than 10% of admissions.

Thus a large proportion of admissions to the Convalescent Depot will be lost to Army through reduction of medical category and change of employment. Nevertheless the policy of opening a rehabilitation centre for mild chronic cases has fully justified itself. It is certain that many, possibly most, of the men coming to the Convalescent Depot would have come back into the reinforcement stream in category C2 if they had gone to emergency Hospitals in the U.K., whereas now they are available for further service overseas. Moreover there is no doubt that treatment and convalescence overseas, in the theatre of operations and not far removed from the actual front, achieves more for the individual than evacuation to a distance, somewhere "out of it". Finally, satisfaction is expressed on all sides that the problem of the mild chronic neurotic has been capable of solution on this shore. The ultimate effect has been good on the morale both of the convalescents and of the Army as a whole.

The Convalescent Depot is now functioning smoothly, and the following short account of teething troubles is given in no critical sense but rather as a factual account of the administrative and emotional difficulties which will confront any similar undertaking in this or other theatres.

The first problem was the disposal of men on leaving the Depot. There were two alternatives, either forming large labor battalions for manual work of all kinds on the beachhead or selective posting. The former is the present Canadian solution, until the arrival of their reallocation centre. It can only be a temporary expedient since it is in the long run wasteful of man-power. Moreover, by no means all psychiatric convalescents are suited to routine manual work, and this solution would only build up another problem for the future. The second alternative was our aim, and 21 Army Group accordingly agreed to amend their policy of evacuation of all casualties to the U.K. The directive effecting the change was issued on July 23rd, 1944 (2E21/SP/80074). A selection team of two P.S.Os, two Sgt. testers, and two psychiatrists were sent from U.K. to begin the same selection procedure as is carried out at 46 R.H.U. at home.

The second problem was the kitting and equipping of convalescents. Practically all arrive at the Depot with no small kit. It is the first step in rehabilitation to

supply men with all necessary clothing, small kit and basic equipment. The collection of these items from the various Ordnance Dumps and Salvage Depots has involved a great deal of harassing work for the Depot staff and the difficulties are not yet over.

The third and major problem was the emotional difficulty that any Convalescent Depot has in understanding its task in rehabilitating psychiatric casualties. At one period this difficulty came near to bringing the whole project to an end. By and large, the feeling among the staff was that the patients were “cowards” who “couldn’t take it”, and that the impasse at the Front was caused by them “quitting”. The patients of course held the opposite view. They believed that the impasse at the Front had been the cause and not the effect of their breakdown. Inevitably an antagonism grew on this basis, expressing itself among the staff in an irritability and a feeling of frustration that their endeavours to bounce the men into activity produced anything but the desired response, and among the patients in a growing sullenness and resentment.

Three circumstances helped to bring this unfruitful state of affairs to an end. The first was the untiring exertion of the C.O. to cut through all administrative difficulties and to meet and marry the emotional needs of his staff and patients.

Second, during the battle south of Caen the Exhaustion Centres overflowed for a short period and a hundred casualties straight from the battle arrived at the Convalescent Depot. They were accommodated in one of the blocks. The Depot staff gazed in amazement at these filthy, exhausted, tremulous, stuttering men, huddled under their blankets, and decided that these were good men who had had a hard time. It dawned on them later that their own convalescents were in fact the same men after treatment at Exhaustion Centres.

Some days later the Depot had a bad night. It began in the evening with terrific explosions from an ammunition dump a few miles away. As darkness fell the local AA barrage opened up, noisier than usual. Even a bomb fell. There was a certain amount of panic, which the staff shared with the patients. This event was followed by a sudden swing of opinion. It was decided that the patients were still sick men, that they needed peace and quiet, that everywhere in Normandy was too noisy and that they must all be sent to England immediately. The P.T. instructors were told to go easy, to let the men sit about and rest, not to force them.

These events, and a certain amount of reassurance and guidance, helped the staff to settle in their oscillations between uncompromising hardness and over-tender solicitude to a steady mean of firm, considerate treatment.

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Men break down at the Front (and far behind the Front) because, for a variety of reasons, they lose their sense of emotional security in their own units. They become fit again to return to duty when this sense is restored to them. Once the staff of the Convalescent Depot realised this they orientated themselves a fresh, and with new understanding they tackled, and have now almost solved, their chief problem. The C.O. decided to speak to the new arrivals as a group each day to give them a sense of welcome to their new Army home. The unimaginative training program of almost solid P.T. was replaced by one with more variety and scope, including liberal time for educational activities and discussions with the padre. It is hoped soon to introduce creative and constructive activities into the training, and at the moment there are many useful jobs and fatigues to be done in the Depot. The single training officer has been supplemented by four young officers, themselves convalescents, from physical disabilities. They act as Company Officers, and, coming fresh from battle, bring immediate understanding and fresh enthusiasm. Welfare facilities in the widest sense have been poured into the Depot – a mobile NAAFI canteen, a large library and wireless sets. A building has been set apart as a Quiet Room for letter writing and reading. A large ward has been turned into a Depot Chapel, here the padres hold prayers in the evening and meet the men individually and collectively during the day to discuss their personal problems. An Army Cinema Unit gives three shows one day a week. The staff and convalescents together organise frequent concerts and the once sullen patients now raise the roof in communal song.

The result of all this is far better discipline among the men. The events in the last few weeks have been a clear-cut example of the fact that good discipline depends for its existence on good morale. The whole effort at the Convalescent Depot has been to improve morale, but the most obvious expression of this has been the smarter turn-out of the men and their increased alertness in moving about and saluting. The whole Depot is paraded once a day on the Square. At one of these parades the C.O. looked on with pride and aptly commented: "They almost look like soldiers again!"

### 10. NOISES IN RELATIONSHIP TO TREATMENT.

Noise in relation to treatment is often a subject of comment and is worth a few notes. Certainly all men who have broken down in battle are for the time being, more sensitive to noise than the average. A man showing a severe anxiety state will leap out of bed if a match is struck near him and even with milder degrees of anxiety there is a brisk and gross startle reaction. As a result the most severe cases cannot be treated anywhere in Army and need immediate evacuation to hospital.

Experience shows however that milder cases can without difficulty be nursed in medical units well forward, within a short distance of Divisional Artillery. The continual barrage of our 25-pounders is less disturbing than anticipated and as a background has an almost soothing effect. Patients are more disturbed by AA fire at night and there is also the rational fear of shrapnel. The most potent guard against noise sensitivity is the general atmosphere of emotional security in the medical unit giving treatment. Slit trenches (preferably with head-cover) for the men who want them and sedatives for the first night or two are all else that is required.

## 11. LEGAL ASPECTS.

A conference was held on July 30th between psychiatrists with Corps and Army and their opposite numbers from the J.A.G's department. The meeting allowed a useful airing of views and showed that the common ground between the medical and legal stand points was considerable. It was agreed that the policy that no man should leave the battlefield without permission of his C.O. was the aim. (This is after all no more than a statement of fact, namely, that the C.O. of a unit is the Commanding Officer). It is an aim which can be attained easily during quiet periods but during an attack when casualties are heavy it requires great vigilance on the part of all unit commanders (down to Section Sgts) and R.M.Os. Generally speaking R.M.Os are well aware of this responsibility, though useful work can be done here by frequent visits to Corps Psychiatrists to forward units. (Incidentally such visits for discussion of problems on the spot are, in my experience, always welcomed). The J.A.G's department also propose putting out an instruction through 'A' channels reminding unit commanders of their responsibility in charging deserters.

Major. R.A.M.C. Psychiatrist att. 2nd Army.  
13. Convalescent Depot. 5th August, 1944. DRW/LAP.



## CHAPTER 3

### APPENDIX PSYCHIATRIC CASUALTIES

The proposed arrangements in this Corps for the triage and evacuation or return to the line of psychiatric casualties occurring during action are outlined below. These arrangements are concerned only with cases of "Exhaustion" whom R.M.Os will evacuate as casualties. It is realised that there is no sharp line between minor cases of "Exhaustion" and men who merely need a night or two of good sleep under sedatives without requiring evacuations.

1. The line of evacuation will be RAP, ADS, Div FDS Corps FDS, Psychiatric Wing of General Hospital.
2. R.A.P. In each case to be evacuated, the RMO will enter the diagnosis "Exhaustion" on AFW3118 and delete "Battle Casualty" and "Accidentally Wounded". A brief note of the circumstances will be most useful later on. (e.g. "A Week in the line. Mate killed this morning".) Where possible cases of "Exhaustion" will be given sedatives, either soluble barbitone (gr 10-20) to the cases of good prognosis or any available and suitable sedative to others (Drug used, dose and time to be entered on AF W 3118). In deciding whether to evacuate a man, the RMO will be guided by these considerations; (a) the man's usefulness in his present condition at the front, (b) that early evacuation, treatment and return to the line before a breakdown occurs is preferable to evacuation after breakdown, when the prognosis is so much worse, (c) that men who are evacuated will go to Div FDS only a few miles away and have a good chance of returning to their Units in a few days.
3. A.D.S. The triage Officer will confirm or change the diagnosis. He should not amplify (i.e. All Psychiatric casualties being evacuated from ADS, to prevent confusion, should be diagnosed simply "Exhaustion" and nothing more). Where possible he should add a clinical note on AF W 3118. Sedatives should be given or repeated where required.
4. Div FDS. Cases of "Exhaustion" arriving at Div FDS will be divided into (a) those who will be completely recovered under active treatment in 2 or 3 days (i.e. before the FDS moves). These men will be retained in a portion of the FDS set apart for this purpose, treated and returned, to the line, (b) those who will not or may not be completely recovered in 2 or 3 days. These men will be evacuated without delay to Corps FDS.
5. Corps FDS. Part of Corps FDS will be set apart as an Exhaustion centre for the treatment of cases of exhaustion arising in Corps Area and for cases

evacuated from Div FD's. Men arriving at Corps FDS will be sorted into (a) those who will not recover within 5 or 6 days. These men will be evacuated without delay to the Psychiatric Wing of a General Hospital, (b) those who with active treatment will be fit to return to duty within 5 or 6 days (or before Corps FDS moves).

6. Recovered cases will be returned to their units from Div FDS either directly or via Div Admin Area depending on the circumstances (and by arrangement with 'A' Division). Recovered cases from Corps FDS will return to their own units via-Corps Reception Camp.

Brigadier, DDMS 12 Corps.  
Home Forces, 9th March 44, DJW/GLB.



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# Appendix 6

### QUARTERLY REPORT OF N.P. SPECIALIST ATTACHED TO DDMS OFFICE 2 CDN CORPS, FOR THE QUARTER 1 JAN 45 TO 31 MAR 45 INCLUSIVE

**B.H. McNeel**

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"Quarterly Report of N/P/Specialist Attached to DDMS Office 2 CDN Corps, for the Quarter 1 Jan 45 to 31 Mar 45 Inclusive," RG 24 file no. 11/PSYCHIATRY/4, volume 12, 631, Library and Archives Canada.

*Dr. Burdett H. McNeel served as the officer commanding 2nd Canadian Corps Exhaustion Unit in Normandy before his appointment as advisor to the Deputy Director Medical Services at Corps Headquarters. McNeel therefore had considerable experience in treating battle exhaustion casualties before taking on responsibility for overall policy. This report, written in April 1945 as the war neared its end, was the last detailed picture of the extent of battle exhaustion in 2nd Canadian Corps.*

The beginning of this quarter found this Corps in a static role. Battle casualties were negligible but there was a fairly high sickness rate – chiefly respiratory diseases. The absolute incidence of exhaustion was low but the ratio to battle casualties was very high. This was anticipated because it was appreciated that the circumstances of bad weather, very dull surroundings, relative inactivity and general war weariness were major factors in producing exhaustion and would continue whether there was fighting or not. During these static conditions the cases evacuated through medical units and the cases referred for consultation were about equal.

On 8 Feb 45 operation "Veritable" commenced. The Corps was not involved as a Corps but 3 Cdn Inf Div took a leading part and was later joined by 2 Cdn Inf Div. The hazards encountered by 3 Div at first were chiefly those of very bad terrain and inclement weather and the members of the Div remembering past experiences nicknamed themselves, rather bitterly, the Water Rats. However, evacuations for exhaustion were not notable until the units came under heavy fire although it was felt that the factors mentioned above had considerable conditioning effect.

On 22 Feb 45 operation "Blockbuster" commenced. The whole Corps took part in this with three Cdn divisions and two British divisions under command. This operation was characterised by the heaviest fighting and the highest incidence of exhaustion since Aug 44. However the ratio of exhaustion to battle casualties contrary to expectations did not rise above the rate in previous heavy engagements.

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After the end of “Blockbuster” the incidence again fell until the heavy fighting at Emmerich. Two units provided the greater proportion of cases evacuated from 10 - 31 Mar. One was a 2 Div unit which evacuated 14 men during a rest period. These were men whom the officers felt had “had it”. The other was a 3 Div unit which evacuated a considerable number of men during a battle in which the unit was very heavily shelled. The reason for this is now under investigation.

On the whole the absolute and relative incidence of exhaustion cases in this quarter had actually been less than was anticipated. A good number of those evacuated have been in action for a considerable period and might be termed “chronic exhaustion”. It is gratifying to be able to report that the opinion of combatant and medical officers who have been consulted in forward units is that the quality of reinforcements has improved.

### DIVISIONAL PSYCHIATRY

The policy of holding most cases for about 48 hours in a Div Recovery Centre had been continued with varying success. In the three divisions the number returned to duty runs from 6 - 12 % of the total number of exhaustion cases. However, of those treated in the Divisional Recovery Centres from 24 - 47% were returned to duty. (See section on “Statistics” Page 264).

The best of these figures is lower than figures previously quoted. This is due in part to:

1. The nature of the cases (see Appendix A [page 266]).
2. Our increasing skepticism of the usefulness of the men so returned.
3. Rapid movement of medical units at a time when they were full of exhaustion cases and treatment was incomplete.
4. Evacuation of a number of cases through other channels so that they were not retained for treatment.

### 2 CDN INFANTRY DIVISION

4 Cdn FDS has continued as a Div Recovery Centre. One officer from this unit was given a week's course on the practical management of Exhaustion cases at No 1 Cdn Exhaustion Unit but as this officer was transferred to another unit

most of the cases have been handled by another MO of the unit who had a short course at BN & PS hospital before coming to this theatre. An analysis of a group of cases treated at this unit is presented in Appendix A.

### **3 CDN INFANTRY DIVISION**

Major Gregory who was Divisional Psychiatrist with 3 Div since D-Day left the division shortly before operation Veritable to take up duties at 3 CCD. It was quite evident that the division had depended on him a great deal and it is felt that the effect of his absence is reflected in part by the statistical results.

7 Cdn FDS continued to function as a Div Recovery Centre until a few days before the end of March when the treatment of exhaustion cases was given up in order to concentrate on the treatment of divisional sick.

### **4 CDN ARMD DIVISION**

12 Cdn FDS continued to function as a Div Recovery Centre. The officer in charge of Exhaustion cases completed a two week course at 32 (Br) Gen Hospital a short time before 4 Div was committed to action in operation "Blockbuster".

The British Divisions under command at various periods did not have any special unit or medical officer assigned to the treatment of Exhaustion in the divisional area.

### **CORPS PSYCHIATRY**

The number of cases referred from Canadian units for consultation has continued to be low, particularly since the commencement of active operations in February. These have been interviewed by the Corps Psychiatrist at the most convenient medical unit.

### **NO 1 CDN EXHAUSTION UNIT**

For the first part of the quarter No 1 Cdn Exhaustion Unit carried on a leisurely and rather prolonged program of treatment and rehabilitation but with the

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rapid increase of cases from middle of February onward, treatment had to give way to rapid assessment and disposal. Large numbers of British have been dealt with, as well as Canadians, and for a few days after the beginning of Blockbuster more than half of the admissions were from British units not under command.

The efficient functioning of this unit was considerably impaired during critical periods due to frequent moves. In one instance about 160 newly admitted cases had to be rapidly evacuated preparatory to moving.

The association of the unit with No 21 Cdn FDS seems to have been a particularly happy one as the unit was given the fullest cooperation and assistance in matters of accommodation, administration and personnel. This situation in which the FDS more or less took on the function of an Exhaustion Unit with attached Specialists rather than having the Exhaustion Unit living a parasitic existence on it illustrates the sort of situation to be desired.

### NO 19 CDN SPECIAL EMPLOYMENT COMPANY

This unit began its career in Normandy as a psychiatric Auxiliary, under command of DDMS 2 Cdn Corps. Problems of administration had to be shared with "Q" and with 3 Cdn Reallocation Centre. Due to the lack of a clearly defined relationship of these various groups and to other circumstances, both internal and external, the unit did not function as effectively as had been expected though it did fill a need for some sort of a convalescent depot and unit where men could be held in a forward area for observation. By the end of last year the employment situation, which had been a problem for sometime, was pretty well ironed out and a considerable number of men had been placed at useful work in Corps units on an attachment basis. Most of these men were very useful to them.

At the beginning of this quarter the problems of the company were largely internal problems and the chief one was the matter of a satisfactory rehabilitation program for men who were not attached out on a semi-permanent basis for employment. It was felt in some quarters that the percentage of men returned to full duty from this company was too low and the criticisms of the company and the changes advocated for it were based on this conception.

A training wing had been set up in Nov 44 but achieved no notable success. Following inspections by the DDMS First Cdn Army and DDMS 2 Cdn Corps on 6 Jan 45, and by the DA and QMG and the DDMS 2 Cdn Corps on 16 Jan 45, it was advocated that the company should be used purely as an employment company utilising downgrade personnel evacuated to psychiatric units for exhaustion and who were thought by the psychiatrists to be reclaimable for duties

in Corps area or further forward. It was felt at this office that since the medical function of the unit had ceased that it should no longer be under command of the DDMS. No action was taken on this recommendation but for all practical purposes this unit is no longer under command as no information has been received at this office regarding changes in administration which are being made by persons officially unknown to us.

Just prior to a recent Corps move the OC No 19 Cdn Spec Empl Coy received instructions to recall a number of men (by name) from the various Corps Units. Most of these men had adjusted well and some were considered by units to which they were attached to be indispensable. Some of the units attempted to hold these men. A number of them have now been replaced but it remains to be seen what the effect will be on men who are once again transplanted and also what the effect will be on the cooperative attitude of commanding officers who are constantly having to break in new men of low stability and adaptability.

As the official attitude now is that once a man is placed with No 19 Cdn Spec Empl Coy he is no longer a medical problem, it is recommended that the company be placed under command of a branch more directly concerned with its function than is the medical branch.

## **EDUCATIONAL AND GENERAL MORALE MEASURES**

In pursuance of a letter from DA & QMG First Cdn Army dated 6 Jan 45 arrangements were made in Corps to give lectures on the psychological aspects of morale to combatant officers from the level of platoon commanders and up. Twelve lectures were given to 2 Cdn Inf Div between 18 - 21 Jan, by the Corps Psychiatrist. These consisted of two lectures to each held at each brigade. The lectures were well attended (30 - 50 officers each) and were apparently well received.

The Divisional Psychiatrist of 3 Cdn Inf Div who was still with the division was not so fortunate in arranging a schedule as operational requirements made it impossible for him to complete his course of lectures before the commencement of operation Veritable.

The DAAG of 2 Cdn Corps attempted to make arrangements for lectures to be given to 49 (Wr) Inf Div by a British Psychiatrist from 1 Br Corps. In return the psychiatrist from 2 Cdn Corps was to lecture to 4 Cdn Armd Div then under command 1 Br Corps. This arrangement was upset by the requirements of the operation at Kapelsche Veer.



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# STATISTICS

### *INCIDENCE OF EXHAUSTION*

Complete statistics of Exhaustion for the past quarter are not at present available at this level. The principal sources of error in this quarter, aside from the usual sources are:

1. During operation Veritable a large proportion of evacuations from 3 Cdn Inf Div was through British channels and returns were not received here.
2. During operation Blockbuster cases evacuated through British units under command were marked as "Canadians" and no divisional affiliation was indicated. (An example of the error is shown by the discrepancy between Medical and A Branch figures for Battle Casualties (wounded) in 3 Cdn Inf Div namely 1379 to 1201).

The following are the statistics available from the daily reports from the divisional ADMS:

### *EXHAUSTION:*

	Exhaustion	Battle Casualties (Wounded)	Ratio
2 Canadian Inf Div	273	1778	13%
3 Canadian Inf Div	318	1201	26%
4 Canadian Armd Div	105	994	11%

As it has always been considered that the Exhaustion/BC ratio is greater in Infantry than in Armour it is interesting to note the figures for two British divisions which were under command from 19 Feb to 8 Mar 45:

	Exhaustion	Battle Casualties (Wounded)	Ratio
43 (Wx) Inf Div	42	612	7%
11 (Br) Inf Div	99	347	29%

These figures are subject to all the errors previously mentioned but suggest that more thorough investigation might show interesting results.

**RESULTS OF DIVISIONAL TREATMENT**

Statistics do not give the whole picture of the value of treatment at Divisional Recovery Centres (See Appendix A) but for what they are worth the numerical results are recorded as follows:

	Exhaustion	Retained for Treatment	RTU	% Re-covered	% of Total Cases
2 Cdn Inf Div	237	57	14	25%	6%
3 Cdn Inf Div	318	72	33	46%	10%
4 Cdn Armd Div	105	51	12	24%	11%

During this quarter we were favoured by visits from the Consultant in Psychiatry DMS Branch, CMHQ and from the Adviser in Neuropsychiatry 21 Army Group. Col van Nostrand visited late in February and made a tour of various units. Lt-Col Watterson visited the Exhaustion Unit and No 19 Cdn Special Employment Company for a day early in January.

**GENERAL**

The state of morale has been surprisingly good throughout the static winter war and the bad conditions under which the late winter campaign commenced. We had anticipated a rather marked rise in Exhaustion rates as soon as stiff resistance was encountered but this did not develop to the extent we had expected. This speaks well for the considerable efforts made in the various units to keep up the spirits of the men generally.

The chief problems which have not yet been settled are:

1. The suitable disposal of officers who develop exhaustion but are still employable.
2. The appropriate treatment and disposal of the unstable soldier who becomes involved in a charge of AWL or desertion.

Both these problems involve decisions which are not primarily psychiatric but which should be based on a policy formulated by the command with joint medical, administrative and legal advice.

(B H McNeel) Major RCAMC  
NP Specialist for DDMS 2 Cdn Corps

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### APPENDIX A THE WAR WEARY AND THE SENSITIZED SOLDIER

It has been the general impression of theme engaged in forward, psychiatry that a large number of cases now admitted for “Exhaustion” have suffered from Exhaustion or from wounds previously. While we have no statistics on the number of previously wounded who adjust well on return to duty there is a considerable number of combatant officers and RMO’s who feel that such a man is more vulnerable to “Exhaustion” and certainly more cautious in action.

In the early stages of operation Veritable twelve men were evacuated from the NSRs after a short sharp action. The CO of the regiment undertook to investigate this situation on his own initiative and reported that the majority had either been previously wounded or were “repeaters”.

An analysis of 49 cases retained for treatment in 4 Cdn FDS submitted by Capt Boettger, shows:

11 Returned to Unit

5 Evacuated for medical or surgical reasons

Of the remaining 33:

Previously wounded	5
Previously exhausted	
Treated in unit or sent for consultation	4
Evacuated	0
Previously wounded and exhausted	2
Other Factors	
Short service (a week or less in action)	3
Prolonged stay in hospital for physical illness	2
In mental hospital in civil life	1
Total	17

This does not include those not held for treatment of whom we have no record but in whom, presumably the rate of repeaters would be higher. Of the 11 RTU three had been previously wounded and one of them had been treated for exhaustion symptoms in his own unit at an earlier date.

During the month of Feb 1945, 227 Cdn soldiers and 138 Br were admitted to No 1 Cdn Exhaustion Unit. An analysis similar to the one above is as follows:

	Cdn	Br
Previously wounded	46	24
Previously exhausted		
Treated in unit	19	10
Evacuated	26	7
Long hospitalisation for sickness	2	3
Total	93	45

From the above it appears that at this stage of the war at least 1/3 of the cases admitted give a history of being previously wounded or “exhausted”. 3 Cdn Inf Div estimated their rate of repeaters much higher than this figure. This does not necessarily mean that these men should not have been returned to duty as in some cases the period between the last incident and the present admission has been considerable but it does suggest previous “sensitization”. The quality of service since the last incident is not certain in most cases.

Perhaps of more significance are the figures quoted by the report from the Exhaustion Unit of the number who served in BLA less than 3 months. These were 23 Cdn and 8 British. It is inferred that the remainder had over three months service. The frequent appearance of the war weary and “chronically exhausted” soldier has been remarked on. One case recently seen was a man of low normal intelligence and very poor education who nevertheless had led a section for several months, had been blown up eight times but had always carried on with his duties. Recently he had lost his confidence, was unable to make decisions, had become unduly cautious and felt that he was a bad influence in his section.

There is no doubt that the anticipated end of the war has also brought to many a good man an increased caution and sense of danger.

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### APPENDIX B DIVISIONAL RECOVERY CENTRES

The value of a Divisional Recovery Centre is estimated by determining:

1. Percentage of total Exhaustion Cases RTU from a Divisional Recovery Centre. (Providing the unit has had adequate opportunity to function),
2. Percentage of cases RTU who give satisfactory service subsequently.
3. Quality of cases evacuated.

In the past quarter the percentages RTU have been low. Some of the reasons have been pointed out above. We have not determined how many of these have given satisfactory service subsequently but previous experience suggests that about 1/2 of the total number RTU under our present standards may be expected to do so. The opinion of the Psychiatrists at the Exhaustion Unit is that the majority of those who have been evacuated beyond Div level have been evacuated justifiably.

The following quotation from the Quarterly Report of No 12 Cdn FDS for the current quarter illustrates the function of the Div Recovery Centre in the treatment of "Exhaustion":

It is our experience that up to forty percent of these cases can be returned to unit, provided that we have suitable accommodation and can hold them at least four or five days. As noted above twenty percent of all cases are either recurrent or had been previously evacuated from their units with wounds. It is the opinion of the Corps Psychiatrist that such cases should be evacuated early as their chance of recovery to condition for being RTU is practically nil.

Our treatment consisted of a short five minute interview on admission, then a wash and shave and a hot meal if desired. Following this, 3 grams of Pento Barbitol Sodium was given at night. This usually had its effect within ½ to 1 hour. They were allowed to sleep all the next day and from then on only 1 ½ grams of Pento Barbitol Sodium was given at night. On the second day, and each day thereafter, they were interviewed for approximately ½ hour, they were allowed to sleep off the sedative the second day and the following day encouraged to get up, wander about, keep the wards clean and get their kit in order. Usually by the third or fourth day their anxiety was gone and they now begin to think of returning to their units.

The treatment is naturally complicated a great deal when our own artillery is close by and when enemy shells are landing nearby. At such times the patients, like the nursing staff have a tendency to run down to the collar, etc.

The results of treatment are quoted as follows:

Total all Exhaustion Cases	56	
Less Psychiatric Consultations	5	
True Exhaustion	51	
Percentage of Cures at Bedburg	5/33	15%
Percentage of Cures at Udem	7/18	39%
Total Cures	12/51	24%

These percentages are lowered in considering the total number of cases as a considerable number were evacuated through other channels and were not retained for treatment.



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## Appendix 7

### MEDICAL APPENDIX — PART IV: PSYCHIATRIC CASUALTIES

Major D.J. Watterson

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*"Medical Appendix — Part IV: Psychiatry Casualties," WO 205.972XC 164800, Public Record Office (UK).*

*This report written by Major D.J. Watterson provides an overview of military psychiatry in 2nd British Army. The total of 13,247 exhaustion casualties for the eleven month period suggest the significance of the problem given the manpower shortages experienced by the British Army in 1944-45.*

#### GENERAL

As a result of experience gained in the Middle East and North Africa, the necessity had been realised for including specialists in psychiatry in the field medical organisation. They were attached to the headquarters of 1, 8, 12 and 30 Corps and were later included on the War Establishment of corps headquarters. Immediately before the invasion, a psychiatrist was attached to Army Headquarters to act as Army Adviser in Psychiatry. Unfortunately requests for this appointment to be authorised within the War Establishment of Army Headquarters were rejected. As the appointment was a most necessary one the ad hoc arrangement of attaching a psychiatrist from a general hospital had perforce to continue.

In planning an improvised psychiatric service to cover the anticipated requirements, it was decided that during battle periods the increment held dressing station allotted to corps by Army would be used as a corps exhaustion centre to provide for the reception and early treatment of psychiatric battle casualties. In addition, whenever possible, an Army psychiatric centre would be established. The first of these corps exhaustion centres opened on D plus 8 in the 30 Corps sector, an exhaustion centre under Army control (later developed into the Army psychiatric centre) opened on D plus 11.

#### THE CORPS EXHAUSTION CENTRE

- a. The corps exhaustion centre, established by the increment field dressing station, was intended to provide accommodation for 100 cases



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(though this number was increased to 150 on several occasions during the heavy fighting in the bridgehead). In the early days, immediately following the assault, it was impossible to retain cases in the corps centres for more than 48 to 72 hours, but as more medical accommodation became available for patients corps exhaustion centres held cases up to seven days, as originally intended.

- b. The exhaustion centre was organised in three main departments:
  - i. Admission and sorting. Here cases were fully examined and those cases likely to be fit for front line duties again in two to seven days were retained for treatment, while longer-term cases were evacuated.
  - ii. Treatment department, where sedation treatment and resuscitation were carried out. Heavy sedation was seldom required for more than 24 to 36 hours.
  - iii. The rehabilitation department, comprising accommodation for sleeping, reading, writing, games and physical training. The main object of this department was to attempt to rebuild the patient's confidence and restore his personal pride. Patients spent three or four days here, and after a final short psychiatric interview they were returned to duty.
- c) By the end of July, corps exhaustion centres returned to full duties in the line some 30—40 per cent of the cases they admitted. In its first seven weeks one corps exhaustion centre dealt with over 1,500 cases.

## THE ARMY PSYCHIATRIC CENTRE

The Army psychiatric centre was also formed by a field dressing station and accommodated some 100-120 cases, most of whom would be fit to return to duty after 7-14 days treatment. Cases requiring longer periods of treatment were evacuated further back to the psychiatric hospital.

Initially the Army centre acted as a stop gap for corps exhaustion centres, but later it became customary to establish the Army centre near the convalescent depot and the reinforcement holding units. Almost a quarter of the total cases seen at this centre initiated from the reinforcement holding unit, and were conveniently "weeded-out" at this level before taking up combatant duties in the line (where they would soon have "broken down").

## TYPES OF PSYCHIATRIC CASUALTIES

- a. The last war-term of “shell shock” was banned. It was obviously administratively desirable that psychiatric cases (of which the majority are only temporarily disabling and not organic in origin) should not be labelled by tags implying mental disease or damage to the nervous system. For this reason all psychiatric casualties evacuated were labelled “Exhaustion.”
- b. Cases admitted to exhaustion centres fell into the following main groups:
  - i. Anxiety States. This comprised the largest group and constituted some 55 per cent of the total cases. Mild anxiety states responded well to treatment at corps or Army level, but the more severe types required evacuation to the Base.
  - ii. Depressive states formed 9 per cent of the cases. They could not be treated satisfactorily at corps or Army centres and even after prolonged hospital treatment would be fit only for limited employment.
  - iii. Conversion Hysterias—cases suffering from hysterical stammering or mutism, deafness, blindness or paralysis, constituted some 8 per cent of the cases.
  - iv. About 4 per cent of cases admitted were simple physical exhaustion, a further 2 per cent were concussion states following the effects of explosion.
- c) Throughout the whole campaign the policy was deliberately to return too many to duty rather than too few. An appreciable relapse rate was expected but even so, about one third of exhaustion cases treated eventually remained at full duties. Expressed as a figure it represents just over 4,400 men saved for further battle at a time when our manpower situation was critical.

## INCIDENCE OF PSYCHIATRIC CASUALTIES IN THE NORMANDY BRIDGEHEAD

As was expected, there were no cases of exhaustion on D-Day or the following day. For the remainder of that first week the incidence of exhaustion was

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only three per cent of the total battle casualties. During the second week this figure rose and exhaustion cases varied from 11 to 13 per cent of the total battle casualties.

It is interesting that in this fighting the “seasoned divisions” from the Middle East produced as many as, or more, exhaustion cases than did the “green divisions” from the United Kingdom.

During July the incidence of exhaustion cases rose to 23.8 per cent of the total battle casualties. It was obvious that if unnecessary loss of manpower were to be avoided, milder exhaustion cases had to be retained and treated further forward. It was therefore decided to establish divisional exhaustion centres.

### DIVISIONAL EXHAUSTION CENTRES

Divisional exhaustion centres were first established within 30 Corps, and later in 8 and 12 Corps. Some formations used a field ambulance for this role, while others employed a field dressing station. Divisional exhaustion centres, working on “common sense” lines of treatment (with occasional visits and advice from the corps psychiatrist), paid a handsome dividend, returning to duty more than half the cases they admitted. Divisional exhaustion centres were opened during all major operations subsequently carried out.

### CONCLUSIONS

The psychiatric organisation of Second British Army, improvised as it was, appears to have worked quite efficiently. The mere fact that over one third of battle exhaustion cases treated were returned to and remained at front line duties is a criterion of the value of psychiatric opinion.

The total number of psychiatrists was never adequate. Each corps had one on its establishment. Army Headquarters made use of an unofficial adviser borne on the strength of a general hospital. This officer had not only to deal with ordinary clinical work, but concern himself with the administrative problems between corps, Army and Lines of Communication areas and, as it so happened in this campaign, to spend a great deal of his time as a member of the Second Army Review of Soldiers under Sentence Board.

The psychiatrist attached to the Army psychiatric centre was extremely busy. In addition to treatment of cases in the centre he was responsible for the greater

percentage of out-patient work for Army Troops and all out-patients referred from reinforcement holding units.

Corps psychiatrists were similarly worked extremely hard. During battle periods it was a physical impossibility for one psychiatrist adequately to do justice to all the vast number of patients passing through a corps exhaustion centre.

The true value of the divisional exhaustion centres never really became evident until the medical officers in charge of them had gained some experience in the forward treatment of psychiatric casualties.

Ideally one psychiatrist per division is required, but the medical manpower situation would not permit this.

In the light of experience in the North-West Europe campaign, the ideal psychiatric organisation appears to be:

At Army Level	i. An Assistant Director of Army Psychiatry, with rank of Lieutenant-Colonel on the War Establishment of Army Headquarters. ii. A specialist or graded psychiatrist in charge of the Army Psychiatric Centre.
At Corps Level	A Deputy Assistant Director of Army Psychiatry with the rank of Major on the War Establishment of corps headquarters
	One specialist or graded psychiatrist on the War Establishment of divisional headquarters

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### STATISTICAL ANALYSIS

Dates	Operations in progress	Total exhaustion casualties	Exhaustion cases expressed as a % of battle casualties	Weekly exhaustion rate per 1000 troops
6-24 Jun 44	Establishing bridgehead	928	11.1	1.67
24 Jun-29 Jul 44	Enlarging the bridgehead over R Orne and R Odon and preparation for the breakout	6288	23.8	3.14
29 Jul-16 Sep 44	Breakout from bridgehead and pursuit into Belgium	2199	14.2	1.17
16 Sep-7 Oct 44	Operation Market Garden (Arnhem)	608	12.5	0.78
7 Oct-16 Dec 44	Clearing up to R Maas. Advance to Overloon and Venraij. Taking of Tilburg and Hertogenbosch	1499	14.3	0.56
16 Dec 44-24 Mar 45		573	12.8	0.2
24 Mar-21 Apr 45	Operation Plunder (R Rhine crossing)	895	7.3	0.54
21 Apr-12 May 45	Assault over R Elbe and capture of Bremen leading up to final defeat of German Army.	257	11.3	0.23
Total		13 247		

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## Appendix 8

### COMPETITIVE HEALTH PRESERVATION IN THE ARMY

Colonel F.M. Richardson

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*Competitive Health Preservation in the Army*, Text of a presentation at the USAREUR and Seventh Army Medical Surgical Conference at Garmisch, Germany, 18 May 1981.

*Colonel (later Major-General) Frank M. Richardson is best known as the author of Fighting Spirit: Psychological Factors in War, which emphasizes the importance of unit cohesion and morale as a means of limiting combat stress. Richardson was a medical officer who won the DSO in the Eritrean campaign of 1941 and went on to serve in North Africa and Northwest Europe. His views are those of an experience soldier not a psychiatrist.*

The value of the competitive spirit in maintaining the efficiency of individuals and units is well known in the Army, and is recognized in the encouragement of competitions in rifle-shooting and all sporting activities. Formations, units, and subunits vie with one another in smartness. During the war salvage was encouraged by competitions in which points were allotted for the amount and value of salvage delivered to the depots; and War Savings were stepped up by publication of the amounts saved by units, and sometimes even by rewarding the best units. Field Ambulances vied with one another in efficiency and in the comfort given to their patients to an extent which often imposed a considerable strain, not only on the ingenuity of their members, but on the carrying capacity of their transport. Perhaps this suggests the need for standardization of such things as welfare equipment in order to control the snowball accumulation of things aimed at “going one better,” but that is outside the scope of this article. A useful way of raising the efficiency of units’ transport is to organize unexpected road checks on long moves; to award points for convoy discipline and to publish the results in unit or Brigade orders. In Field Ambulances interest and original thought in training can be stimulated by competition essays for money prizes, which may not only produce useful ideas but reveal those who have alert minds and initiative and often help in the selection of potential N.C.O.s. It is even possible that in formation exercises higher commanders may be actuated not solely by motives of pure academic research but also by the desire to get the better of one another.

There are various ways in which the soldier’s competitive instinct can be applied to improving the standard of health preservation in units and formations.

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### ANTIMALARIAL MEASURES AND FLY CONTROL

In a Brigade in Palestine in which antimalaria discipline was lax, I organized road patrols from my Field Ambulance, who made a note of anyone seen wearing shorts or rolled-up sleeves after dusk. The results were analysed and the culprits shown as mild or severe casualties—the worst being those whose sleeves were actually cut short. The casualty rate amongst officers and men was published in Brigade Orders.

In a camp in Sudan where fly infestation was very bad and made life intolerable despite intensification of all the usual measures and the efforts of a strong daily fly-swatting patrol almost unbelievable results were achieved in little over a month by a fly-killing competition. The unit was divided by tents and other convenient groups into teams of ten to twelve men and a running total of the number of flies killed by each team was published weekly. A standard tin of which the fly content was known was kept by the Q.M. Havildar to whom the teams brought their daily bag to be counted, recorded, and burned. The results soon became apparent and it was not long before the 100,000 mark was passed. The I.H.C. sepoy would do a lot for a few rupees and a good curry bat, and enthusiasm soon rose so high that the best hunting grounds had to be allotted on an official programme like the blocks in a shooting jungle. Finally the few remaining flies were being stalked by the more resolute competitors and one could see none where recently they had been swarming. This may all sound rather ridiculous but I was later discussing it with a man who had lived in Rumania, where, he said, flies had been innumerable. A similar competition on a village basis for big money prizes was organized by the Government, and the results, he assured me, were so remarkable that flies virtually disappeared from the country and the disposal of the rubbish which the flies would have eaten became quite a problem. I accept no responsibility for this statement which may have been merely a dramatic way of emphasizing the success of the scheme, but it is a stimulating thought for medical entomologists.

### THE HEALTH LADDER

As I had been struck by the success of pitting the companies in Battalions and the units in Brigades against one another in the preservation of health I introduced the method in 15 (Scottish) Division towards the end of the war by a device which I called “The Health Ladder” —a term suggested by the Squash Ladder often seen in officers’ messes.

A table was published, and seen by all ranks, showing units' figures for Attendance at Sick Parades, I.A.T. and Skin Sepsis, V.D., Scabies and Lice. Two separate tables were used, one for major units and one for smaller units; and during active operations the numbers of cases of exhaustion in units were also shown. The whole thing including some simple hints on health preservation based on current trends in sickness easily went on one sheet of foolscap; and on the back of copies sent to Brigade Commanders there was a graph comparing the three Brigade Groups. The first table published was for the first quarter of 1945 and it was explained that similar tables would be published monthly, so that "good" units should strive to maintain their high places, and "bad" ones should try to climb the ladder.

References to the Health Ladder and simple health hints were published regularly in the divisional newspaper. The following is a sample of the notes on preservation of health which were shown on the monthly Health Ladder.

## **THE ABOVE TABLE SHOWS UNITS IN ORDER OF HEALTH**

### **THE HEALTHIEST AT THE TOP\***

*You can help your unit to gain places on the ladder by keeping your skin and hands clean, and reporting to have antiseptic applied to cuts and scratches (I.A.T. and skin sepsis), by keeping your teeth clean (gingivitis and digestive disorders) and by avoiding contact with civilians (V.D., Scabies, Lice and Gingivitis).*

After two months the column for pediculosis was omitted and the following note made:

*"Pediculosis: There is very little of this, and there should be none if AL 63 dusting is properly done. In future this column will be omitted and only units having cases will be shown."*

The conditions shown on the Health Ladder and dealt with in the notes would of course vary with the season and the conditions prevalent at the time.

To give units something to work on in their efforts to improve their position, advice on health preservation on the usual lines was circulated. This dealt with the prevention of V.D., scabies, lice, respiratory infections, with fly control and so

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\* Authors' note: This Appendix is the text of an oral presentation. The table in question was shown during the presentation, but was not part of the original text.



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on; but the main attack was on septic conditions, which are always with us and seem to be too often taken for granted although a lot can be done in prevention.

As an R.M.O. I used to think it unreasonable to punish men who took no precautions against V.D. and not similarly to punish men who took no precautions against sepsis. I kept a book in which were recorded the names of men who reported for acriflavine to be put on cuts and scratches, and a man who became septic was liable, if his name was not in the book, and if the M.O. thought that he had neglected himself, to be punished. Disciplinary action was taken against any man whose underclothes or body were neglected, and all were encouraged to keep a separate outfit to sleep in or, if this were impossible and sheets were in use, to sleep naked. Many Regimental Officers nowadays do not seem to know in what clothes their men sleep, nor do they always take enough interest in the state of their underclothes; and they are satisfied if a man possesses a toothbrush whether he uses it or not. This is as unreasonable as to regard the possession of a pullthrough as an excuse for a dirty rifle.

Sick wastage will be reduced when as much attention is paid by all officers to dirty underclothes, dirty hands with grime under the nails ready to inoculate germs by scratching, and dirty teeth, as is normally paid to dirty equipment.

The results of our competition soon became apparent and graphs for the various conditions seemed to confirm our impression that the attention which was focused upon the prevention of sickness was having remarkable results. Even if we had been able to get accurate rates per 1000 to compare the figures before the scheme began with those after it, figures can be so juggled and conditions vary so greatly that accurate statistical comparisons would be difficult. Our strength remained much the same and the rates of sickness greatly improved, and the results described in general terms can fairly be said to have been excellent.

In 1944 the Division had had hardly any V.D., or scabies and no gingivitis at all, but despite the very great increase in those three conditions in 1945 especially after the end of hostilities, despite the generally recognized tendency of the soldier to report sick more readily when the fighting was over, and despite the fact that during most of 1945 all accidents were included amongst "Sick" (whereas in 1944 many of these were shown as "Battle Accidents" amongst the Battle Casualties), we had only a total of 28,204 men reporting sick in the whole of 1945 compared with 18,217 in half of 1944. Excluding V.D., scabies, and gingivitis, which all formations were finding it difficult to control, our figures were 25,186 for all 1945 and 18,022 for half 1944.

Injuries at games increased after the end of hostilities and if we had extracted all accidents from the sick rates for both years the comparison might have looked

even more encouraging. Of course with the end of hostilities morale improved and men lived more comfortably, and if they had more time to report sick they also had more time to devote to personal hygiene and health preservation, and many of them would have done so without our propaganda. Some will say—the worst units sometimes did say—that M.O.s will be persuaded by C.O.s to “cook” their figures. We looked out for this and did not believe that it occurred, but even if M.O.s did treat more minor cases out of working hours and without the absence from duty involved even by “Attend A” that meant a saving of man-power which was the aim of our scheme. If M.O.s could “cook” figures for attendance at sick parades they could hardly “cook” those for admissions to medical units, and despite the tendency to admit more of the slighter cases after fighting ceased we had only 4,293 for all 1945 compared with 5,528 for half 1944, a reduction of more than 50 per cent and fairly good evidence of a healthy Division.

No claim is made to have proved the value of the method by accurate statistics but commanders and medical officers agreed that it seemed to work wonders by focusing universal attention and keen interest on health preservation. If it caused occasional ill-feeling this was only apparent in units with poor figures, and it is not uncommon for the losers to criticize the rules and method of running of any competition. Indignant C.O.s who swore that the others did not play fair could often be shown at a visit where their own methods could be improved. Never a month passed without many enquiries on the subject from Brigade Commanders and unit C.O.s. all of whom were keenly watching their rates of sickness; and R.M.O.s reported that not only officers but N.C.O.s and men watched their position on the Health Ladder and were keen to improve it.

A year's experience of the method in a Division, added to previous experience in Brigades and Battalions, convinced me that interest in Health Preservation can be greatly stimulated by competition. In present conditions the methods described may not be easily used in formations but should be of value within major units.

## PREVENTION OF WAR NEUROSES

It may be thought that it was a little unkind to show in a separate table on my Health Ladder all units which had cases of exhaustion; but two months before such cases were given publicity the whole Division had been advised how to reduce the incidence of such conditions, and the competitive spirit had been invoked by urging units to regard it as a disgrace to have many such cases and to strive to make our Division the best in the Army. Certainly such an attitude

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may be hard on some cases but the condition is largely preventable and to take the opposite view is defeatist and may be disastrous. Thus whilst investigating the problem in another Division I had been told by one C.O. that he had been told by a senior medical officer that he need not reproach himself for having 150 cases in his unit since nothing could be done to prevent it; and in another unit the men had heard that a Corporal evacuated for exhaustion was being feted in his home town as a wounded hero.

Much has been written about exhaustion and I may have little new to say, but my experience of these conditions from 1941 to 1945 convinced me that not nearly enough was done in prevention; so I hope that as a mere dabbler in “drawing room psychiatry,” as a real psychiatrist would probably describe one who follows in a rather vague way the teachings of Alfred Adler, I may be forgiven for describing my methods and their results.

During the severe fighting in Eritrea and in minor operations in the Western Desert in 1941 I did not see much of the kind of states of which we saw so much in Normandy. The Indian soldier, fine fighter though he was, was not immune from conscious or unconscious desires to escape from the battle, but he tended when things got too much for him to escape from them by more direct means than by the flight into neurosis which the British soldier sometimes adopted. One saw self-inflicted wounds and actual flight occasionally, and both amongst Indian and British soldiers in those days I saw more of hysterical conditions than of the various other states included in the unsatisfactory term exhaustion. I was struck by the ease with which by simple persuasion and explanation of the cause of the condition even an inexpert practitioner like myself could cure these patients if they were caught on the battlefield itself. It seemed that if one caught them whilst the emotions which caused the condition were still operative they were like a jelly which had not set, and if one could pour it into a mould of one's own choosing they recovered, whilst if allowed to pass the C.C.P. they set firmly into the hysterical or neurotic state and were lost to the Division. We had a rest station at the foot of Mount Dologorodoc, near Keren, where such cases could spend twelve to twenty-four hours before returning, without any loss of face, to their units. Attempts to cure them on the spot amongst those who had seen the condition develop were not successful, presumably because this would have demonstrated that the condition was not to the lay mind a “genuine” one, and loss of face would thus have been involved so that cure was consciously or unconsciously resisted. For example a soldier seen in the wide trench surrounding the summit of Mount Dologorodoc, which was part of the fort, had a hysterical paralysis of both legs after a mortar had buried his friend at his side. He had to be removed as a stretcher case but once out of sight of his friends and in the C.C.P. some 200 yards away he was easily convinced of the true nature of the

condition and walked down the hill to the rest station. In another theatre an officer suddenly called on to take command of his battalion woke next morning with a hysterical drop wrist. It was his left wrist so that he was still able to carry on and one felt justified in telling him that his surrender to his feelings of inadequacy was only a partial one. When it had been explained to him that the condition was a self-protective mechanism which had developed when he was confronted by a situation which he unconsciously felt unable to face he recovered, though not so quickly as had been the case in some private soldiers with similar conditions, perhaps because his disability had naturally been more widely known about. After his recovery he asked whether the incident denoted some inherent weakness in his make-up and if therefore under future strain some similar breakdown might be expected. He was assured that the insight which he had gained on this occasion would protect him from further trouble, and whatever the most scientific prognosis should have been the answer given him was I feel sure the best one and his subsequent career amply proved this.

These very ordinary cases are mentioned only to stress that the results which followed simple explanations of the nature of their trouble to case, caught early enough clearly indicated that widespread teaching on these lines could do much to prevent these conditions. I discussed this in 1941 in Palestine with a psychiatrist, and together we planned a campaign in the Brigade with which I was then serving. At a guest night to which the Brigade Commander and staff, and the Commanding Officers of the Regiments and their seconds in command and medical officers were invited, after a preliminary alcoholic softening process the psychiatrist delivered a surprise attack in the shape of a ten-minute talk. The interest aroused by this finally led to a whole morning devoted to three short addresses by the psychiatrist on Fear, the genesis of War Neuroses, and their prevention, which provoked many questions and a lively discussion. This meeting was attended by all officers and N.C.O.s in the Brigade Group who then disseminated the teaching in their units. This Brigade, as the armoured brigade in the 2nd New Zealand Division, subsequently played a most important role in the Battle of Alamein and, despite heavy casualties in tanks in very severe fighting, had virtually no cases of neurosis. We were dealing here with regular soldiers and with the flower of the English yeomanry but the results were sufficiently promising to encourage me to try similar methods in a Brigade of 40th Division destined to take part, less than two months after I joined them, in the Invasion of Normandy as a follow-up Division. Time was short but, although I gathered that morale in the Division was high and that such cases were not expected to become a serious problem, I was given a free hand in the Brigade and everyone in it quickly became interested. A leaflet on the regimental officer's part in the prevention of neurosis prepared for me by the Corps Psychiatrist, Major J. Wishart [see

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page 292], was circulated to units with a letter from myself in which amongst other things I suggested that to have many cases of this preventable condition should, like gas cases, be regarded as a disgrace. I also gave some short talks on the subject and C.O.s took it up with enthusiasm. Fear and individuals' reactions to it were treated as proper subjects for discussion with all ranks, being sometimes treated as an "ABCA"\* subject, and so were brought out into the open and kept there throughout the fighting.

It is common knowledge that the incidence of exhaustion became quite a problem in Normandy and at one time my Field Ambulance whilst out of the line ran an exhaustion centre where we were able to study the cases. The low incidence of cases in the units which had been subjected to the propaganda mentioned above emphasized the value of such methods in prevention. In August 1944 as chairman of a board of officers I was given the task of studying the problem in the whole Division and visited every battalion to discuss it with C.O.s and officers. R.M.O.s, Chaplains, N.C.O.s and men. Our report is an interesting one, although hastily prepared, because it combines the medical with the regimental officers' views on the subject, but it is too long to be included in this paper which is not intended to be a detailed contribution to the literature on exhaustion.

Finally I had the opportunity of trying my methods in 15 (Scottish) Division which I joined as A.D.M.S. twelve days before the Reichswald battle (Operation "Veritable"). After that battle I circulated to all units Major Wishart's notes with a letter embodying some of my own ideas (see Appendix B), in which it will be seen that the idea of competition was introduced in somewhat flamboyant language for which my apology is that it seemed to produce results. C.O.s also received a copy of the report referred to above, on which in one Brigade they were required to submit their views to the Brigade Commander. That particular Brigade led the assault across the Rhine, took part in several stiff encounters in the fighting advance to the Elbe, and was an assault brigade at the Elbe crossing, and in all these engagements had only one mild case of exhaustion.

Statistical comparisons in this particular condition are clearly difficult, and the best guide is a study of the ratio of cases of exhaustion to battle casualties; and even, this may be misleading when comparing one unit with another since certain units such as the Reconnaissance Regiment or Divisional Regiment R.A.C. may be subjected to the maximum mental strain without a liability to heavy casualties and others such as Royal Engineer units may be exposed to casualty risks without the elation of actual combat.

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\* meaning something that is simple or elementary.

Our figures were as follows:

*RATIO OF EXHAUSTION TO CASUALTIES*

Operation	Exhaustion	Wounded	Killed, wounded and missing
Veritable	1	17	9.6
Torchlight	1	19	24.9
Advance to the Elbe	1	24	35.0
Enterprise	1	13.3	16.8

These figures show the improvement after the inauguration of the campaign in Prevention, which was begun after Operation “Veritable”; and they would have been still better but for an unfortunate incident during the Kibe Crossing (Operation “Enterprise”). During that battle a large number of cases from one Field Company R.E. were sent back by an officer who was himself somewhat shaken and at least twelve of them were believed to be not true cases. This fact was reported to me not only by the O.C., A.D.S., but by the D.D.M.S., who was in the A.D.S. when all these cases came in and who gave me the name of the officer and directed me to enquire into the matter. We found that many of the cases had not wanted to be evacuated at all, but some of them had suffered severe concussive experiences. The officer had acted in good faith but he had been on leave when my letter and the leaflet on exhaustion were circulated, and he had omitted to read them in the officers’ file of his unit. Careful analysis of those cases led to the conclusion that 9 were definitely not cases of exhaustion and if those 9 cases are excluded our ratios for this last battle of the war would have been 1:25.3 and 1:32, i.e. the steady improvement was maintained.

In considering these figures as proof of the value of prevention many more or less imponderable factors have to be considered. We were not enduring the stalemate conditions of the Normandy bridgehead but were advancing in the ever surer belief that victory was in sight, and although the opposed night crossing of the Rhine with its noise and confusion may well have daunted the fainter hearts there was the feeling that it might be the last big battle; later there was the inspiring sight of the mighty airborne force passing overhead; the weather was fine, and though there were heavy counter-attacks and periods when troops were pinned down by fire these did not last for days and the operation was short and sharp. The advance to the Elbe was rapid and exciting but included some severe fighting against fanatical battle groups and a stiff siege at Velzen; the Elbe, though a smaller river, was in many ways a harder nut to crack than the Rhine, there was much less air support, and shelling and bombing of our crossing was much heavier. Before that battle there had been much talk of peace

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overtures and the desire to keep a whole skin over the last fence might well have led to an increase in cases of exhaustion; as might certain other factors which emerged from a careful analysis of 58 of the 68 cases which occurred after our preventive methods were introduced—the other 10 cases were not treated in our own F.D.S. 45 per cent of all our cases were returned to units, the figure in the case of our own F.D.S. being 47.5 per cent; and the Corps psychiatrist said that a case which reached him from our Division was always a genuine one. Commanding Officers and R.M.O.s protested against our policy of returning so many cases, and indeed evacuation of more cases would have pleased them and enabled us to show better figures, for 48 per cent of our cases were recurrences. Units had been warned of the tendency of these cases to relapse and asked not to employ them forward of “A” Echelon, but this was often impossible. It is possible that we did return too many of these men to their units, but at that time the conservation of man-power was vital and reports from units indicated that many of them did do useful work. 48 per cent of our cases were aged from 18 to 21 and 10.3 per cent from 37 to 40. The older men, mostly sappers, had endured prolonged physical and mental strain, and in this group and in the men from 21 to 30 the progressive strain of the war and the fact that many had been wounded once or more in previous operations and had not fully regained their self-confidence were causative factors.

The younger men were a more serious problem for we were at that time getting reinforcements of a very poor quality indeed, some of whom were found to be suffering from exhaustion when they joined their units and some had suffered from the condition in other formations. Most of them, however, had had no battle experience before; and many had less than six months total service, 40 per cent having had between one week and three months' service with their units. The tempo of the operations did not allow of training these men nor of introducing them gradually to their job and to the corporate family spirit of the Battalion which is so important in preserving the high group morale which is essential to the reduction of cases of exhaustion. They had had no time to absorb the unit esprit de corps or to form sound friendships which have a steady influence and help men to trust themselves and their comrades, and so to have their personal instincts of self-preservation balanced by herd instincts directed to a common resolution to overcome danger. From the more limited point of view of this enquiry many of them had not been indoctrinated with the principles upon which we based our attempts to prevent breakdowns.

Our analysis of these cases further convinced me that the adoption of the term “exhaustion,” more properly described as an administrative label than as a diagnosis, was most unfortunate. It provided the busy medical officer with a ready diagnosis for cases which a more careful clinical appraisal might have placed

in some category not associated with the slight stigma which a diagnosis of exhaustion involved. Thus 29 per cent had suffered some effects of blast, some even had ruptured ear drums, and these some medical officers felt should have been called concussion or post-concussional syndrome; and careful reconsideration of other cases suggested that they were not true cases of exhaustion. In one series of cases from units which had been pinned down by fire and had not been supplied with water for considerable periods in hot weather, quite severe dehydration was a feature of the cases. It was not only to the doctor that this "label" gave an easy way of dealing with a difficult case, for regimental officers and N.C.O.s often sent a man to the R.A.P. with this diagnosis when he was more properly a problem for themselves, perhaps even a disciplinary problem. Men frequently wandered back to the R.A.P. and quite jauntily announced that they were suffering from exhaustion and the average case clearly felt that no stigma was attached to his failure to stand up to conditions which he had left his comrades to face. In the 1914-1918 War the condition was called shell shock and was treated as a battle casualty and it was widely recognized in the Second World War that this had been an expensive mistake which must not be repeated; yet that mistake was perpetuated in a lesser degree by the use of the term exhaustion with its suggestion of the tired soldier who had fought hard until he could fight no more. Many cases were indeed entitled to that description but many were not and a few were even cases of pure funk. The term used in Eritrea was "fear neurosis" which seems to be a reasonably accurate description, and was at least a diagnosis with which the average soldier would not want to label himself.

To sum up the results of our efforts to reduce this condition it may be said that, however misleading figures may be, the value of our methods, as was the case with the Health Ladder, lay in keeping attention focused on the many aspects of man management which can reduce these cases.

The experience of one Brigade has already been mentioned and there was every evidence that the problem was constantly watched throughout the Division. Very few cases indeed ever drifted back on their own, and nearly all came to the R.A.P. with a note from an officer which helped the R.M.O. to make a diagnosis and to decide upon disposal. Many were treated at the R.A.P. by rest and sedation before evacuation.

Notes were sent periodically to medical officers and commanding officers giving the incidence of cases in various engagements and describing apparent causative factors, such as the dehydration already mentioned. Tables showing the ratio of exhaustion to casualties were circulated to the units affected thus further keeping alive the spirit of competition. That interest in all aspects of prevention was stimulated and was proved by the many questions and requests for advice which were received.



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### SUMMARY

Most of the conditions which were included in the administrative label “exhaustion” are caused by the more or less unconscious adoption of some sort of hysterical or neurotic symptom as a self-protective mechanism when the man is confronted by a situation which he feels it is impossible to face.

Broadly speaking they are cured by laying bare and explaining their origin and by giving the sufferers insight into the true nature of their condition and the earlier this can be done the better the prognosis; and my experience in various formations convinced me that they can often be prevented by giving as many men as possible that insight, before they are exposed to the precipitating conditions. As indicated in Appendix B much of this must be done by deliberate teaching by medical and regimental officers in which fear and the soldier’s duty to face and to overcome it are discussed; and esprit de corps, team spirit, determination and confidence in oneself, one’s weapons, one’s comrades and commanders, and in the supporting arms are fostered. When all ranks understand the problem and how it can be overcome then it is proper to introduce the competitive spirit and to aim at being the unit, Brigade, and Division with the fewest cases; and to teach that to have many cases is a disgrace, the blame for which must be based mainly upon the officers as the custodians of unit morale.

### PREVENTION OF NEUROSES BETWEEN WARS

Having said all that I have to say about the competitive pursuit of health it would probably be wiser to stop, but, at the risk of being thought the kind of person who rushes in where better-balanced individuals fear to tread. I want to suggest that some of the methods by which I have found that war neuroses can be prevented could be extended to an attempt to improve the mental health and moral standards of the Army in peacetime. This would simplify the task of preventing war neuroses should war come again, and since morale is one of the most important factors in war anything aimed at improving it is as important as weapon training.

If the fear which leads to a breakdown is less the fear of the enemy or of being wounded than a fear of being afraid and of being thought to be a weakling and a coward, a fear that one’s moral and physical fibre is less able to stand up to the strain than is that of one’s comrades, then clearly anything which gives rise to feelings of inferiority or inadequacy—the popular “inferiority complex”—must be an important predisposing factor. In studying these cases I found that most of them had such feelings of inferiority, usually derived from a false evaluation

of their own personalities. No one who has attempted to deal with such cases will be surprised that many of them suffered from what is sometimes called “masturbation guilt”—from morbid fears about the fancied evil results of that practice whether it was being practised at the time or had been abandoned since earlier youth. So common was this finding that the first draft of my letter (Appendix B) included a brief paragraph about it, which the Divisional Commander, very wisely as I now believe, preferred to have deleted.

The inclusion of teaching on so thorny a problem for general consumption as part of an attempt to reduce exhaustion in the last lap of the War might have been unwise, but it is a different matter in peacetime when we are responsible for the moral welfare of the National Service Soldier, often in circumstances in which he is exposed to difficulties, doubts and temptations.

Alfred Adler taught that the happy well-integrated man must be properly adjusted to the claims of Society, of Occupation, and of Sex. Good man management aims at adjusting the soldier to the first two of these, but the attitude of the Army to the third is not always so sound, and it is probably the most important of the three and the one in which maladjustment is most common.

Many lectures on V.D. and the average officer's and man's way of talking about this subject tend to imply that occasional or even regular sexual intercourse is the normal practice of the healthy virile young soldier, and without doubt the apostles of this creed are more confidently vocal in the barrack room, as indeed they are in most male society, than are those who may hold that continence and pre-marital virginity is a Christian virtue and a desirable thing in itself. Thus many young men joining the Army quite ignorant of the subject are led by such talk either to promiscuity or to a belief that they are, as they usually put it, “undersexed,” or even to an unfounded fear that they may be homosexual, and they may withdraw into a life of masturbation with consequent feelings of guilt and inferiority. That such reactions do occur is no mere surmise and most doctors in the Army must have encountered cases illustrating these and other results of the lack of clear teaching on this subject. The Army draws its men from every stratum of society and no uniform standard of sexual behaviour is to be expected, but it is only fair to those adolescents who are in a state of uncertainty that the other side of the picture should be presented, and that the common omission of parents and teachers to give instruction on the subject should be remedied. Certainly most lecturers on V.D. do advise continence, and this point is stressed in the pamphlet “The Medical Aspect of the Moral Welfare of the Soldier” in use in the Middle East Land Forces, but I think that it is commonly suggested to the audience more as the best way to avoid V.D. than as an aim in itself and a factor in an eventual happy marriage which shall be an ideal relationship into which both partners enter upon an equal footing without

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secrets to conceal. The idea of continence can hardly be presented without some sound teaching on sex in general aimed at dispelling the many false beliefs which surround the subject such as the imagined effects of continence upon potency and virility and the even more widespread fears of the fancied evil effects of masturbation. This is a subject which bristles with difficulties, dangers and prejudices. Any doctor can guide individual patients in these matters but mass teaching is very difficult if some are not to misunderstand it. I have attempted to tackle the problem since my very first lecture on venereal disease as a subaltern at which a vast audience was present, surprisingly enough including a general. I shall never forget my feelings of impending dissolution, or at the least impending resignation, when I huskily announced that I was finished, nor my relief when, as the audience stood up to go, from the third row of the stalls a popular and bull-voiced officer bawled "Well doctor you've certainly taken a load off my mind" (sensation! followed by roars of laughter).

I know how I tackled the problem, and have had evidence that men have been helped by it; I have submitted my views in writing to my betters; and have discussed them with many colleagues—some have agreed with me and some have not.

No two doctors will use the same approach, and this is not the place in which to stuff my views down people's throats; but to be sufficiently widespread this important teaching cannot be left entirely to doctors. What is wanted is a pamphlet produced by psychiatrists assisted by chaplains from which sex, and perhaps other subjects of importance in moral rearmament, can be taught as a current affairs subject.

The medical officer's help will always be valuable and one of the aims of the teaching will be to remove the reticence usually felt about discussing sexual problems, and to make men realize that it is as easy, and just as important, to consult the doctor about sex as about sore feet. Such an approach to the problem should not merely help to prevent venereal disease, but should lower the incidence of psychosomatic illness, and so lead to a healthier Army and one which in wartime would have little war neurosis. It has become quite a platitude to say that moral standards always decline during and after a war and a campaign which had as its aim a raising of moral standards and an improvement in our young soldiers' psychological adjustment to life might even have more far-reaching results in this post-war world. The opinion of a winner of the Nobel Peace Prize must always carry weight and in a review of Sinclair Lewis' book "Cass Timberlane" the following words are quoted as stating the book's thesis. "If the world of the Twentieth Century...cannot succeed in this one thing, married love, then it has committed suicide, all but the last moan, and whether Germany and France can live as neighbours is insignificant compared with whether Johann and Marie can live as lovers."

It has been said that a nation's sexual and its social activities are in inverse ratio, and, although one must not forget the bibikhanas of the ripe old John Company days and the villages peopled by the Anglo-Indian descendants of some of our greatest soldiers of those times, it is not improbable that much of our Empire was built by men who could keep their sexual emotions in control, and who perhaps by the process of sublimation derived therefrom some of the driving force which enabled them to accomplish what they did.

Field-Marshal Lord Montgomery has said "Anything which weakens the national character weakens the Army" and "The Army must be woven into the social fabric of the nation."

The Army in the coming years will be handling a very big proportion of the nation's young men at an age when they need education, and widespread teaching on the various subjects included in the term mental hygiene will help us to return good sound material to be woven into the social fabric of the nation.

I have to thank Brigadier T.H. Twigg, D.D.M.S. Malta Command, for permission to send this article for publication.

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### APPENDIX A NOTES ON THE PREVENTION OF WAR NEUROSES BY MAJOR J. WISHART 30 CORPS PSYCHIATRIST— APRIL 1944

Modern war is primarily a contest of morale. Victory lies in demoralization of the enemy. Morale is based on a sense of worth and power directed towards a goal. War neurosis is, in the last resort, a failure of morale—in the individual or in the group. Promotion of high morale is thus the best preventive of neurotic breakdown.

Individual morale, assuming average constitutional stamina to begin with, is supported by:

1. *Knowledge of the Aim.*—Men grasp concrete and limited aims better than abstractions. Whenever possible, tell them what is to be attained and what their part is to be. Rumours engender doubts and uncertainty. Foreknowledge dispels rumour.
2. *Positive Health.*—Not just absence of disease. Fit men fight better. Basically this depends on food, sleep, and activity of mind and body. See that food is ample, and, whenever possible, hot and appetizing. Practice acquiring the ability to sleep at unaccustomed time. Allow short breaks for recuperation, e.g. brewing up. Physical exercise aids general fitness, but exhaustion lowers resistance.
3. *Contentment of Mind.*—The soldier fights for his home. His photographs are precious. If his home is disrupted, he feels insecure. If there is sickness, or financial distress, he becomes anxious and may be resentful, his morale is undermined, and he is predisposed to breakdown. Spare no pains to help him through the Welfare organizations. Herein lies the paramount importance of a swift and regular mail service.
4. *Competence at His Job.*—See that each man can do his job well. If he cannot, find out why. Is it lack of intelligence, lack of training, worry, physical incapacity, or just being a square peg? Has he confidence in his weapons and in his ability to use them? Give praise for work well done—this increases the feeling of worth.

Group morale partakes of all these, but has additional features:

1. *Unit Spirit.*—Remember the importance of tradition—i.e., past achievements. Play up to it.

2. *Team Spirit and Training.*—Training together and working together, the soldier becomes imperceptibly to rely on his mates and they on him. This engenders a feeling of security—each knows what his job is and how he fits into the team—“family” ties are made and strengthened. Do not break up trained teams without good reason. Encourage friendly rivalry, yet retain the “family” basis and widen the ties to include relationship with other units in the formation.
3. *Leadership.*—This is critical. An officer must be able to make a decision, stick to it, and lead. His responsibility is that of the father in the family constellation. If he breaks, men will break.
4. *Discipline.*—True discipline is the maintenance of a calm orderliness, of justice and fairness, and helps to strengthen a man’s belief in himself and trust in his superiors.

Remember to watch for incipient breakdown—neurosis is infectious and panic spreads. The early signs of restlessness, sleeplessness, loss of appetite, irritability, rise in consumption of tobacco or alcohol, change of temperament with unaccustomed elation or depression, deteriorating efficiency, “jumpiness.” Send the man to the R.M.O. with a note—rest and sedation taken in time at a forward psychiatric treatment centre can avert breakdown.

See that the period of tension before action is relieved by activity—even trivial activity provides an outlet for pent-up emotion. If a man appears to be weakening, put him next to a steady, experienced soldier who will act as a “battle friend” and help him through. Let a man discuss his fears—bottling up emotions increases tension—point out that fear is the normal reaction to danger but that it is overcome by determination, by sticking together and by experience.

Anticipation is generally worse than realization. Stress that some weapons are far more terrifying than lethal—such as screaming bombs.

Make enquiries about the progress of casualties—and spread the news that they are in good hands and doing well. During rest periods, see that wholesome entertainment is provided to distract attention from the unpleasantness of war.

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### APPENDIX B EXHAUSTION

During Operation “Veritable” 15 (S) Div. had 155 cases of “Exhaustion.” From a study of the cases and the factors causing them, I do not think that this is too bad; but I am convinced that we can reduce this drain on our man-power. I have proved in two brigades that the incidence of exhaustion can be greatly reduced by sound propaganda amongst all ranks about its main causes.

The Regimental Medical Officer is of course an essential factor in such a campaign; and so is the Chaplain for, although it is outside my province, I know that many men are saved from a breakdown by sound religious beliefs. Helpful though the doctor and the padre are to men who are beginning to show signs of failure, the regimental officers and N.C.O.s for whom these notes are intended, have probably a still greater influence in prevention.

The term exhaustion is in some ways a bad one since it has been used for many cases of pure physical fatigue; for some which might have been due to mild concussion or to effects of blast; for a wide range of neurotic and hysterical conditions; and also for many cases of lack of “guts” and of fear in which it has been a toss up between the R.A.P. and the guardroom. It is of utmost importance that such cases should not be allowed to drift back to the R.A.P. without an officer’s permission.

Good advice on prevention is given in the attached leaflet by the 30 Corps Psychiatrist and I would like to add the following remarks:

*Man Management.*—Good man management by Officers and N.C.O.s is the most important single factor in prevention. When an Indian soldier makes a request of his Officer he often says “Sir, you are my father and my mother.” A good Officer must know when to use the punishing right arm of the father, and when the protecting arm of the mother.

The importance of occasional enforced rest cannot be overstressed. If it is possible to have a rest centre near Coy. or Battn. H.Q. (especially when in a defensive role) to which men are sent periodically or when showing signs of strain, many breakdowns may be prevented.

Men in the early stages of a breakdown who report to the R.M.O. can often be sent to such a centre or to “A” Echelon for twenty-four hours rest, and so avoid evacuation by medical channels and the stigma of a diagnosis of exhaustion.

*Square Pegs in Round Holes.* — When reinforcements arrive it is usually impossible to employ them all in the job which they prefer and for which they are trained; but the adjustment of “misfits” is very important, since they are apt to mistrust themselves, and still worse, to feel that their comrades mistrust them.

Confidence in one’s personal weapons, in our armour and army, belief that one is the better man, etc., all need cultivating.

The skilful grafting of reinforcements into a Battalion with its spirit and traditions is most important; and if they can be rather gradually introduced to battle, so much the better.

*Fear.*—Perhaps most important of all is a sane attitude to fear. Men are often not so much afraid of danger as they are of showing fear, and adopt an easy way out to avoid open disgrace. They fail because they believe themselves to be the only cowards amongst a band of heroes. It must be taught that fear is the normal reaction to danger and is felt by all normal men. A brave man is not one who feels no fear, but one who, though afraid, goes on with his job. Fear, like trench foot and lice, is a normal battle risk to be faced and overcome.

In a Battalion in Normandy which had hardly any “exhaustion,” fear was openly talked of and had been freely discussed at Platoon “ABCA” talks based on the sort of points mentioned here.

*General Attitude.*—However hard it may be on some cases, we must teach that it is a disgrace for a unit to have many cases of exhaustion.

We should aim at having fewer cases than any other Division in the Army and at being able, as I believe we can, to add this to the collection of feathers already in our bonnets.





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## Appendix 9

### NEUROPSYCHIATRY IN THE CANADIAN ARMY (OVERSEAS)

Colonel F.H. van Nostrand

*Neuropsychiatry in the Canadian Army (Overseas). Paper given before the Inter Allied Conference on War Medicine at the Royal Society of Medicine, 9 July 1945.*

*Colonel F.H. van Nostrand was a Great War veteran who became a medical doctor specializing in veterans mental rehabilitation issues at Christie Street Hospital in Toronto, Canada. He became the Canadian Army's senior psychiatrist in 1942. His belief that psychiatry should remain a branch of general medicine linked to neurology influenced army psychiatry for the duration of the war.*

Although the Canadian Army began mobilisation in 1939, and came to England early in the war, we had little battle experience until 1943. Therefore, our detailed planning for both the Mediterranean and Western European Campaigns was based largely on the wider experience of the British Medical Services and the American Army. We received invaluable assistance from many sources, but are particularly indebted to Brigadiers Rees and Sandiford.

In the main our organization and policies were copied from the British Army and our results are comparable. If some of my statements suggest to you that there are wide differences of opinion between the Canadian and British or American Psychiatrists, this is not so. At this meeting, it is well to emphasise the few differences, rather than the many similarities, so that if any of them have merit, they may be used in future planning.

There has probably been more muddled thinking and talking in connection with psychiatry than with any other branch of medicine. On both sides of the Atlantic there has been a tendency for psychiatry to dwell in a very rarified atmosphere, having a language all its own, only interpreted to the general practitioner by the high priests of the cult. Even the Nomenclature of psychiatric disease has no uniformity, and many of the terms used have no precise meaning, except to the persons using them. This ultra specialisation of psychiatry may have been a good thing, but it was a definite handicap in setting up a rational psychiatric service in the army. Unfortunately we received more hostility and open opposition from senior medical people in the army than from laymen. Brigadier Rees, Air Vice Marshal Symonds, Surgeon Capt. Curran and their services have done much to break down this prejudice, but some still exists.

We therefore attempted to anchor psychiatry firmly to Medicine and Surgery.

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Throughout the war, we have combined psychiatry and neurology. At Basingstoke, we have psychiatry, neurology, neurosurgery and maxillo facial and plastic surgery all under one roof. This combination has been satisfactory, and in future planning, we would go further and recommend that a similar unit be formed and placed adjacent to a general base hospital so that we would have the benefit of all of the specialists who cannot be carried economically on the strength of a special unit.

In base areas, theatre of war, we had special Neuropsychiatric Wings but these were formed as increments to general hospitals. This has certain advantages and certain defects. I am not sure that it should be recommended for the future.

In forward area, we followed the British example, except that to C.M.F. and B.L.A. we sent divisional psychiatrists who had been attached to the divisions during their final training in U.K. During this period they did valuable missionary work, both with medical officers and formation and medical commanders. This we would do again, but it must be appreciated that there are many times during a campaign when it is impractical for a specialist to be useful at divisional level. The Divisional Neuropsychiatrist must be used in forward area wherever his services are most needed. The whole Neuropsychiatric service in the field must be kept flexible.

In L. of C. the Canadians are again slightly out of step. Because of the small size of both Canadian forces, it was impossible to give a separate neuropsychiatric service over two long lines of communication, stretching over 400 miles. We foresaw this and therefore planned to fill in the gaps by treating neuropsychiatric cases in general hospitals. To this end over a period of three years, we gave courses at Basingstoke to medical officers from general hospitals and C.C.S's. These courses were for a minimum of one month and many of them for as long as the M.O. could be spared from his own unit.

In addition we attached Neuropsychiatric specialists to some general hospitals. Although we were forced by circumstance to treat large numbers of psychiatric casualties in general hospitals, we have found that this has certain advantages over attempting to evacuate them all through special psychiatric units. Between five and ten per cent of the routine admissions to general hospitals have psychiatric disabilities, although the admitting diagnosis is a medical or surgical one – dyspepsia, low back pain, etc. On the other hand, some of the admissions to psychiatric centres have organic disabilities; others require special investigation to determine whether their many symptoms have organic foundation. And finally, no matter what policy has been laid down, there are times when psychiatric casualties are unloaded on general hospitals and we must be prepared to treat them. We recommend that each general hospital have a position in War

Establishment for a neuropsychiatrist, but that only some of these positions need be filled.

We believe that to return a high percentage of psychiatric casualties to combat duty is inconsistent. Experience of the first three years of the war showed that in 80% of psychiatric cases, there was definite evidence of constitutional predisposition and the stresses of service were only precipitating factors. The next largest group of psychiatric casualties consists of soldiers of better type who break down because of the cumulative effect of the stresses of war. These occur in increasing numbers as a campaign progresses. Obviously neither of these types will be cured by a few days or a couple of weeks of intensive treatment. The first "can't take it" and the second "have had it". If this is accepted, provision must be made in the theatre of war for the suitable employment of those who have broken down as combat soldiers but are still capable of useful service. Much has been done by reallocation to L. of C. and base units, but some time during a campaign the saturation point for this type of personnel is reached.

We therefore made provision for the surplus by setting up Special Employment Companies, to which were posted suitable psychoneurotic or inadequate soldiers of normal intelligence. These men did many types of useful work varying from the menial tasks ordinarily performed by the Pioneer Corps to semi-skilled jobs with the Engineers, Service Corps and Forestry Corps. Not all of the Special Employment Companies were satisfactory. We believe that was our fault, and that the principles involved are sound. Of our best Companies, one was attached to the Canadian Forestry Corps in Western Europe and two others operated well forward in Italy.

We believe in the therapeutic value of early and appropriate disposal of psychiatric casualties. Except in the cases of severe and chronic psychoneuroses, the lowering of category and immediate placement in suitable employment does more good than prolonged treatment as such. Lowering of category alone only results in temporary relief of symptoms. The soldier of lowered category who is pushed around in the holding units loses the ground that he gained while under treatment.

No discussion of lessons gained in this war is complete without some mention of psychiatry in relation to personnel selection. Personnel selection is, of course, not new. All of the great armies of history were accompanied by large numbers of Artisans and Courtesans, who contributed their aptitudes, skills and energies to the war effort, but who did not fight. Ghengis Khan early in the thirteenth century employed personnel selection. He appreciated that many men are by temperament unsuited to fight and these were detailed to tend the

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flocks and herds, move the caravans, etc. and formed the Service Corps of his Army. He also employed many skilled tradesmen who did not bear arms. We have to thank the British Services for first placing personnel selection on a broad and rational basis. During the past four years, it has advanced far – perhaps too far in some directions.

We do not believe that any of the tests or batteries of tests now employed in testing recruits, accurately measure stability or the ability of the man to carry his anxieties without breakdown. We therefore think that rejection at the point of intake should not be too rigid, but that weeding out during training should be more ruthless and reallocation because of proven unfitness should be more widely used.

The opinions I have expressed are those of Neuropsychiatrists of the Canadian Army Overseas. Those that I am about to give are mine and are not necessarily held by my superiors or subordinates.

I am not convinced that psychiatry will ever solve the vast problem of the psychiatric breakdown of soldiers during war. It is my opinion that the methods now employed in the British, American and Canadian armies will not materially lower the incidence of psychiatric casualties in a fighting force. There are various reasons for these opinions but two of them are fundamental. First, there is direct conflict between the needs of the service and the needs of the individual soldier as assessed by his physician. Secondly, the attitudes and behaviour of the successful soldier are contrary to most of his previous teaching. He must adopt a detached attitude toward the mass destruction of human life. Property ceases to have value except in relation to his comfort and success as a soldier. He must not allow death or mutilation of his comrades to prevent him reaching his objective, and finally, he must pretend that he is glad to risk or lose his life for the cause.

These basic conflicts will always exist in armies such as ours, which are composed largely of citizens who become soldiers, either voluntarily, or by compulsion for a short period. It is right that this should be so.

This is not a plea for sympathy for the inadequate soldier who is unable to stand the stresses of prolonged combat, nor is there any wish that discipline be relaxed or that any of the defections which fall under the heading of cowardice in the face of the enemy should be condoned. It is a plea for the adoption of realistic attitudes toward the reactions of normal men and women to the stresses of war.

We who formulate medical policy should keep constantly before us certain premises which we believe to be true, but which we have ignored in practise:

- 1) An army's killing power is not necessarily proportionate to its numerical strength.
- 2) We fight our wars with the human material we have and not with what we think we would like.
- 3) Although there are wide variations in the capacities of normal soldiers to withstand stress, every soldier has his breaking point and if this is reached, he becomes a liability to his unit.

In a recent article in the British Medical Bulletin, Professor Adrian has reminded us that although the Alchemists never found a method of converting base metal into gold, their search through the centuries laid the foundation of modern chemistry. We do not know whether it will ever be possible to convert base material to gold, but we now appreciate that if this does occur, it is unlikely to be of much benefit to mankind.

It is conceivable that by early teaching, propaganda, blood and guts military training and ruthless weeding out of the unsuccessful, the British Commonwealth of Nations and the U.S. could produce an immense fighting force which would win its wars with very few psychiatric casualties. If this ever happens, I believe that we will find the results hateful, and the ultimate disadvantages will far outweigh the wartime advantages.

(F.H. Nostrand) Colonel. RCAMC  
Consultant Neuropsychiatrist  
D.M.S. Branch  
Canadian Military Headquarters

N.B. It should be stated that this paper was given before the Inter Allied Conference on War Medicine at the Royal Society of Medicine on 9th July 1945.



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## Appendix 10

### THE PERSONALITY OF THE SUCCESSFUL SOLDIER

B.H. McNeel and T.E. Dancey

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*"The Personality of the Successful Soldier," American Journal of Psychology, 102 (November 1945): 337-342.*

*This article written by the two psychiatrists who commanded No. 1 Canadian Exhaustion Unit in Normandy and Northwest Europe. Both men agreed that this was a very preliminary study but it is the only one completed before demobilization in 1945. Their conclusion that more stringent screening was not required was controversial.*

A considerable amount of theoretical discussion has taken place as to the type of individual who is able to withstand the stresses occurring during the course of a more or less protracted modern campaign. Each of the Anglo-American armies engaged in the recent war evolved some scheme for the screening of men at the enlistment level. The method used by the Canadian Army during 1943 and 1944 was frequently criticised. It was stated that at the enlistment level men were rejected on neuropsychiatric grounds much too frequently and that this rejection was based on theoretical findings. The critics maintained that many of these men would be successful as combatant soldiers. The pre-invasion screening in England was subjected to less criticism, for in addition to such indications as family and early personal history of instability which were subject to differences in interpretation, there were usually current evidences of maladjustment which made it obvious that the man was not a satisfactory soldier. However there were many differences of opinion as to how the "problem child" would behave in battle and this was particularly true of the psychopaths who were considered by many to need only strict discipline in order to become good fighting men. With the test of battle a considerable number of men broke down and were evacuated as exhaustion cases. A large proportion of these were considered as "predictable" casualties because of the neurotic predispositions and psychopathic traits which were admitted in their histories. From this it might be inferred that these casualties could have been prevented by more stringent screening. However other men who had no such histories also broke down and it was our opinion from casual observation of troops that there were men with positive histories who did not become psychiatric casualties.

As far as we knew a control series had never been investigated and hence we could not assume that the so-called constitutional features, which we had



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considered to show a dangerous degree of susceptibility, were necessarily the determining factors in breakdown.

This presentation is a rather cursory study of 200 soldiers who commenced action in the North Western European Theatre on D-Day or within the subsequent month and who were still with their units at the cessation of hostilities.

### SOURCE OF MATERIAL

Men from each of the infantry regiments, except one, of 2nd and 3rd Cdn. Inf. Div. were interviewed at their units. The method of selection of the material is indicated below. The scope of the investigation was limited by time and by the fact that the number of D-Day men remaining with their unit ranged from about 10 to 30 in most regiments.

### METHOD OF INVESTIGATION

The study was made on two groups: a) selected group of 100 men who had served as active combatants practically continuously throughout the campaign; (b) an unselected group of 100 men whose service with the unit from D-Day may or may not have been limited in type or interrupted by evacuation.

The purpose and impersonal significance of the examination was explained to the men before interview. Names and regimental numbers were not taken. Each man was interviewed alone for 15 to 20 minutes and the examination was along the general lines which had been followed with cases at the exhaustion unit except that no physical examination was done. Considerable time was spent on the discussion of battle reactions.

An attempt has been made to assess the personality types, their reaction to stresses and the factors which enabled them to carry on.

Age on Enlistment		Age on D-Day	
20 and under	38	20 and under	11
21-25	32	21-25	41
26-30	22	26-30	29
31-35	6	31-35	16
Over 35	2	Over 35	3
	100		100

As is evident from the above a large percentage were in the low age group on enlistment but relatively few were in the low age group when they actually were subjected to battle stress. It is of interest to compare them with the immature youths frequently seen in exhaustion centres. Among the factors responsible for their better adaptation are probably the natural maturing process and their incorporation into their unit during a long period of training with the unit.

***SERVICE IN THE ARMY***

Yrs. of service	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5 yrs. and over
Number	6	26	20	16	32

(The table of service overseas follows a similar distribution with a one-year shift to the left of the table.)

Only one man in the 100 had been reallocated from another corps (RCE). This is a contrast to the frequent incidence of reallocated men in the series of cases seen in the exhaustion unit.

**FAMILY HISTORY AND EARLY ENVIRONMENT**

The features in family history taken into account were:

- a. Mild nervous traits in the family (14%).
- b. Frankly unstable parents or siblings (6%).
- c. Chronic invalidism (2%).

In addition consideration was given to such home influences as:

- a. Death of parents before subject was 15 years of age (both parents, 3%; one parent, 15%).
- b. Home broken by instability and incompatibility of parents (1%).
- c. Oversolicitous and pampering attitudes in the home, or in contrast, those which fostered self-reliance and a sense of responsibility.

This last factor is more difficult to assess but about 75% of the cases reported a conscious emphasis in home training on self-reliance and responsibility. About 5% reported lax discipline in the home. In the remainder no definite opinion

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could be formed but in several cases the fact that the family was a large and harmonious one or that all the members were employed in helping out on the farm indicated that there must have been some atmosphere fostering cooperation and responsibility.

The effect of the death of one parent seems to have depended on the attitude of the other parent. In some cases the home discipline suffered but in other cases the responsibility of the child was increased with a general salutary effect on his development.

### DEVELOPMENTAL HISTORY AND PERSONALITY TRAITS

Under this heading a search was made for the so-called neuropathic traits of childhood as well as for fears and undue physical timidity. Seventy-nine gave a negative history. Ten had significant neurotic traits which in 2 cases was combined with definite physical timidity. Six gave a history of minor disorders—occasional nightmares, etc. Five had minor fears only (dark, water, etc.). Fear of height was frequently admitted but not to a pathological degree.

Neurotic tendencies in later life were evident in 8 cases with psychosomatic complaints—chronic headaches, postural dizziness, chronic dyspepsia, etc.

### ACADEMIC RECORD—INTELLIGENCE

No psychometric testing was done because of time and situational factors. The academic record together with the clinical impression of the man was accepted as a rough gauge of intelligence for comparative purposes (for the purpose of Study B). However it was apparent that its individual value varied greatly with the locality in which the man was raised and with his station in life and opportunities. In some regiments the degree of literacy was considerably below the generally accepted standards but this did not necessarily indicate inferior intelligence. Of the whole group, 22% had an academic standing of grade VI or less. A few cases in which low academic achievement was due to dull mentality nevertheless had good records as fighting men. Two men who won high praise from their officers and N.C.O's had completed grade III with difficulty. One rifleman who was completely illiterate was considered to be an ideal soldier. Further comments on the mentally dull soldier will be made under Study B.

It should be pointed out that chronic truancy from school did not appear in this series.

## **SPORTS AND SOCIAL ACTIVITIES**

Participation in sports and social activities has been considered as significant in indicating good adjustment and freedom from undue timidity in civil life. The present group shows a much higher frequency of participants in competitive sport than did the series seen at the exhaustion unit. However, many of the present group lacked opportunity and a number of the solitary type preferred individual sports and showed social but not physical timidity.

## **CIVILIAN WORK RECORD**

The common occupations were farming, mining and fishing, depending on the locality in which the soldier lived. Lesser numbers were labourers, truck drivers, etc. Few men were engaged at skilled trades, this type possibly having been absorbed into other corps as tradesmen. Eighty-five were never out of work in civil life. Three were students at the time of enlistment. Of the remainder, most had only short periods of unemployment during the depression years and had been employed at the time of enlistment. Several were “odd-job” men. One had alternated between peddling, poolroom and labouring. One sergeant had been a bootlegger. A considerable number had changed employment once or twice, usually for a good reason.

## **DOMESTIC SITUATION**

Although only 29% of the men were married, we thought it remarkable that there was an almost complete absence of worries about home and we encountered no instance in which the man admitted having marital difficulties while serving in this theatre.

## **ARMY ADJUSTMENT**

Inquiry revealed that only 3 men had fallen out of route marches on more than one occasion; only 5 men had been charged with a major crime and 3 of these charges were in Canada; only 4 men had appeared with any frequency on sick

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parade. Three of the latter complained of pains in legs and feet and one of headaches from wearing a steel helmet. These got no satisfaction from the R.M.O. so “gave it up as a bad job.” As pointed out above some men became successful soldiers in spite of low literacy, although they would have difficulty in qualifying under the training syllabus recently in use in Canada.

### STUDY B

For the purposes of Study B, an unselected group of 100 cases was divided into 4 categories. T group—those who have spent their total time in this period as active combatants (43); W group—those who have been evacuated for wounds and returned to unit (30); S group—those who were employed in a support company for the last three months of action (17); L group—those whose service was limited to employment in a non-combatant job or had missed a month or two of action for reasons other than wounds (10). Of the W group, 15 were away from units less than two months and 15 more than two months; some missed strenuous action and others were out during long lulls; some were near breakdown when wounded. Of the S group, 12 were in support company from the beginning and 5 had served four to seven months in a rifle company. The policy of employment in the support company varied with the regiment, in some regiments it appears that the support company was viewed as a specialist group whereas in others it was used to a considerable degree as a holding company for the less stable. We happened on to this study more or less accidentally while selecting cases for Study A, when certain personality differences between the groups became apparent. Percentages are of no great statistical value as the series is a small one. However it is felt that the trend can only be shown by giving approximate percentage values.

<i>Family History:</i>	T group (43 cases)	W group (30 cases)	S group (17 cases)	L group (10 cases)
Mild nervous traits	5 (12%)	5 (16%)	4 (23%)	1 (10%)
Frank instability	2 (5%)	6 (20%)	4 (23%)	4 (40%)
<i>Home Instability:</i>				
Death of one parent	5 (12%)	3 (10%)	4 (23%)	0
Death of both parents	2 (5%)	0	0	1 (10%)
Separation or divorce	0	1 (3%)	1 (6%)	0
Good discipline*	32 (75%)	16 (33%)	5 (29%)	5 (50%)
Fair discipline*	10 (25%)	16 (33%)	5 (29%)	1 (10%)
Lax discipline*	1 (2%)	4 (15%)	7 (41%)	4 (40%)

<i>Developmental History and Personality Traits:</i>	T group	W group	S group	L group
Definite neurotic traits	3 (7%)	12 (40%)	1 (6%)	2 (20%)
Mild neurotic traits	3 (7%)	2 (7%)	1 (6%)	2 (20%)
Significant physical timidity	4 (9%)	3 (10%)	0	0
<i>Academic Standing:</i>				
Grade VI or less	4 (9%)	7 (23%)	4 (24%)	2 (20%)
Grade X or more	8 (19%)	10 (30%)	2 (12%)	1 (10%)
<i>Discipline:</i>				
Minor difficulties at school	5 (12%)	3 (10%)	0	1 (10%)
Minor changes in army	0	4 (16%)	0	1 (10%)
Minor sentences in civil life	1 (2%)	2 (7%)	3 (18%)	1 (10%)

(The word 'discipline' is used to describe home attitudes which instil sense of responsibility and self-reliance.)

## PERSONALITY TYPES

At the time of interview an impression of the personality of each man was recorded. These now seem to be strikingly parallel with the trends indicated in the above tables.

In the T group the predominant types were the well adjusted, the sensitive but progressive, the phlegmatic and the recessive or solitary.

In the W group the rate of marginally neurotic, inadequate, recessive and psychopathic types is high. This raises the question of "accident proneness." In this connection it is of interest to cite the spontaneous comment of one soldier interviewed who stated that he had never run out of the line because he had observed that those who ran back often were hit. The possibility of men becoming 'wound prone' is also suggested by the frequency with which wounded men stated that being wounded had saved them from breakdown.

In the S group, there is a rather high rate of dull and inadequate types which may indicate a tendency to place less stable types in less exposed duties. The L group is similar to S group.

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### GENERAL COMMENTS

#### *REACTION TO BATTLE STRESS*

It would be of interest to give in the men's own words their comments regarding their reaction to battle stress, the type of action which bothered them most, the type of cover which they felt was most satisfactory and the factors which they felt enabled them to survive. However these will have to be summarised briefly. Only one man in this group stated that he had never been scared, and he seemed somewhat overcompensated. A small group of men of rather phlegmatic temperament stated that they had frequently been frightened but that the fright was only momentary and neither interfered with their efficiency nor affected them later. Over 50% of the men stated that at some time or other they had felt themselves at the breaking point and in a few cases had actually been L.O.B. for a day or two. Although there were variations, the general experience seemed to be that the excitement of D-Day or the feeling that "it was just like a scheme" prevented fright, but that within the next few days the heavy shelling and loss of comrades brought home the grim reality of battle, and in many cases brought on shakiness under fire. This was followed in some men by an almost complete but gradual adjustment but with a tendency to recurrence in heavy action and with a gradual increase in susceptibility toward the end of the campaign. Many men stressed the effects of hunger, exposure and fatigue, and practically all were agreed that the most disturbing factor was a "bomb wacky" comrade. The men who got along comfortably were those who took everything as it came, who laughed and joked about their grim experiences, or who never thought of them afterwards. However, the imaginative type of man with high morale was often rather outstanding in achievement. Most men preferred any kind of activity to sitting under shelling. Some preferred to take cover in a slit trench, some in a house, and a few preferred to remain in the open. Some men rationalized their preferences, and others laughed at their own irrational feelings such as the increased feeling of safety in a slit trench when it was covered with an anti-gas cape. In most cases the wounded men stated that on return to action they did not feel adjusted until after one or two attacks. Most were more cautious subsequently, and some never became adjusted. Usually a man became more careful of the type of fire by which he had been injured, sometimes changing his dislike from one type to another after having more than one wound. Most of the men were able to recite numerous experiences of being blown up, grazed, etc., similar to those related by patients admitted to the exhaustion unit. The thing which was difficult to estimate was the accumulation of stresses.

The factors which seemed to support men under stress varied with the men's personalities. These are illustrated by the following fragmentary quotations:

“my Pop stuck to his job”

“excitement keeps you going”

“never wanted to be thought scared”

“never took time to think”

“thought of my family”

“pride I guess”

“the job had to be done”

“couldn’t let the other boys down”

“I had definitely in mind that I had had a day and that’s all there is to it”

A number of men stated definitely that it depends on how one is brought up. In most cases where adjustment was good there seemed to be considerable personal and family pride, a sense of responsibility extending back to early life, and the definite feeling of responsibility to comrades. A number of men stressed the importance of the example of officers and N.C.O’s. The N.C.O’s themselves seemed to be more frequently carried along by their responsibilities than submerged by them. Some sort of fatalistic attitude was frequent. A good many men stated that they had been helped by prayer. Some of the more dramatic statements such as “do or die” were made by men who seemed to be overcompensated. One of us noted that French Canadians were more likely to speak of patriotism and duty than were others.

## CONCLUSION

The number of cases in this survey is too small to justify any conclusions of a statistical nature. However the results of the survey confirm a number of impressions which we have had in casual contacts with considerable numbers of successful officers and soldiers.

In describing the personality of the successful soldier it must be kept in mind that in this study we are dealing with the front-line fighting man below commissioned rank and that in selecting this group we have automatically eliminated on the one hand officers, technical experts, tradesmen and craftsmen, etc., who presumably should be in the higher brackets as regards intelligence rating, academic standing and occupational achievement. On the other hand



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we have eliminated those who have sought or been placed in labouring, non-combatant or rear area jobs because of mental dullness, emotional inadequacy or other limitations.

It has frequently been suggested that the good soldier is of rather dull mentality and of phlegmatic temperament. In this group average intelligence appeared with the greatest frequency. Most of the men were of a fairly alert, responsive type and only a relatively small group could be said to be definitely phlegmatic. Most were rather casual in manner and not highly imaginative but gave a history which showed a reasonable degree of persistence and initiative. Most of these men were well socialized, liked companionship, enjoyed sports and had never been unduly timid in a physical sense. This general type we considered as the "norm." Those who departed from this "norm" and yet were good soldiers could be classed chiefly in two groups. The first consisted of the sensitive, highly imaginative types, who were compensated for their greater sensitivity by high ideals, personal pride and urge to self-management. In other words, this group of men though showing tendencies to neurotic types of reaction were carried along by a high, persistent personal morale. The second group consisted of recessive or solitary individuals who gave no history of instability but who had developed solitary habits largely due to the circumstances of early life and who consequently were socially timid but when on their own were quite self-reliant. For the most part the men who were good soldiers showed a common tendency to accept situations and to actively adjust to them, to accept responsibilities and to accept discipline. This tendency is shown in their descriptions of their home life, the rarity of serious breaches of discipline and the general impression of adaptability which they made. The development of such personality trends can probably be explained in the answer which many of these men gave: "it depends on how you are brought up."

The possibility of "wound proneness" was an entirely new one to us which was brought out by the facts presented above. It is obvious that in this study at least, the wounded soldiers show an excessively high rate of neuropathic traits both in family and early personal history.

The problem of the value of the soldier as a fighting man after he has once been wounded has been the topic for considerable debate off the record and is as yet unsettled. However it has been noted that in many cases even minor wounds have apparently caused a "sensitization" to psychogenic disorders.

A discussion of the situational factors which influence the reactions of the soldier will be left for another paper, except that attention is here drawn to the importance of long service with, and incorporation into, the unit in the making of a successful soldier. The rarity of reallocated personnel in this study is remarkable.

## **APPENDIX 10**

The above study was made with the approval of Brigadier C.H. Playfair, C.B.E., E.D., by the above named officers who have served successively as O.C. 1 Cdn. Exhaustion Unit since July, 1944.



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## Appendix 11

### PSYCHIATRIC SCREENING OF RECRUITS: A REVIEW<sup>‡</sup>

F.C.R. Chalke

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*Psychiatry Screening of Recruits: A Review, Department of Veteran's Affairs Treatment Services Bulletin 9 (June 1954), 273-292.*

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#### INTRODUCTION

The issues raised by the attempt to assess and grade the emotional stability of recruits for military service are amongst the most important and contentious problems in military medicine. Some of the difficulties are inherent in the entire procedure of requiring physicians to examine and estimate military suitability in a standard, simple, mathematical form, on the basis of cross section examination. Even a factor such as vision which is measurable has not been experimentally studied to establish the validity of the decision that an individual of 20/60 vision can perform this duty and not that. When one adds to this the discrepancies in interpretation of findings possible between radiologists in reading doubtful chest x-rays, or between surgeons in the diagnosis of pes planus,\* the uncertainty is compounded. Little attention has been paid to the manpower implications of these sources of error.

If the matter of the validity and reliability of the medical examination-in-general of recruits, has been of little concern, the same cannot be said of that portion which deals with the assessment of stability. There are obvious reasons why this part of the examination is of widespread interest and often biased opinion for it has particular implications:

1. Emotional instability is a very commonly diagnosed disorder and hence involves a large segment of potential manpower;
2. The basis of assessment is to a large extent subjective, not readily verified, not fully recordable, and is based on an infant science, as yet poorly integrated with medicine in general and relatively little understood by most physicians;

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\* Pes Planus is the medical term to describe what is commonly referred to as flat feet, or fallen arches.

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3. The disorders of concern to psychiatrists, by their nature, border upon, and at times overlap with aspects of man's behaviour and attitudes which are viewed as "moral" and hence are inevitably emotionally charged.

Because of the widespread interest in, and uncertainty of, knowledge about the psychiatric screening of recruits, the writer undertook a synoptic review of the available information in order to answer if possible the questions: How useful was psychiatric screening of recruits, and on what evidence did the psychiatrist base his opinion?

Psychiatric screening for the Armed Forces, during the Second World War, was practiced in some degree by Canada, the United Kingdom and the United States. The extent of application varied between countries, between services and at different periods. An historical survey has not been included since the experiences of all the English-speaking allied countries have already been adequately reported in official and unofficial publications. (1, 2, 3) Screening can be divided for purposes of investigation into two types:

- a. Screening at intake level for disorders of personality presumed to preclude adequate emotional adjustment to service life in general.
- b. Screening for emotional suitability to undertake specific service assignments, e.g., paratrooper, fighter pilot, submariner, infantry officer.

This report deals primarily with screening of the first type, but includes illustrations from the second type which have application to the principles of screening. The subject of screening for intelligence, in terms of capacity to learn the necessary military skills, has not been considered, but for reasons given below, enters into some of the figures of incidence.

The review of presently available knowledge has been divided into two broad categories:

- a. Results of psychiatric screening;
- b. Methods of screening.

## THE RESULTS OF PSYCHIATRIC SCREENING

Information available to answer the question "How effective was screening?" was sought in three areas.

- a. Statistical records of incidence, rate, and ratio of psychiatric disability in various countries and services.
- b. Specific follow-up studies and prediction experiments.
- c. Opinions of psychiatrists and other scientists, based upon their experience with military psychiatry.

## INFORMATION FROM STATISTICAL AND HISTORICAL RECORDS

Figures from official histories can be presented to offer some idea of the magnitude of the problem.

- a. During World War II the US Selective Service rejected 1,000,000 men for service for psychiatric reasons (including lack of sufficient intelligence). The services discharged 800,000 during the same period because of psychiatric illness. (2)
- b. During 1944 the Canadian Army rejected 58,000 men on psychiatric grounds (one-third of these were for lack of sufficient intelligence for full Army training). In the same year, the Army discharged 19,200 soldiers for psychiatric reasons, and downgraded to limited duty (S-3 or S-4) approximately 25,000 more. (1)
- c. Psychiatric disability was the most frequent cause for medical discharge from the RCAF during the war. In 1944 one in every three medical discharges was for mental disorders. (1)

Wide variations are apparent between the Canadian services and at different periods in the same service. Moreover, statistics are not available in comparable form for all services for similar intervals of time.

- a. The Royal Canadian Navy rejected 0.37% of all recruits examined (105,533) for Nervous and Mental Disorder. The Navy discharged 1,011 men from 1 Sep. 39 - 30 Sep. 45 for Nervous and Mental Disorder. (These figures included neurological disorder such as poliomyelitis, brain tumours, etc. (1)
- b. Psychiatric rejection rates of all recruits examined varied in the Canadian Army from 0.24% in 1940 to 26.4% in 1944. In the latter year 8% were considered unfit for any type of service and 18.4% fit for service in Canada only. The rate of discharge on psychiatric grounds

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from the Army varied from 6 per 1,000 per annum in 1939 to 26 per 1,000 per annum in 1944.(1)

- c. In the RCAF aircrew, rejection on grounds of nervous and mental disorder was 0.86% of approximately 100,000 aircrew applicants examined. The rejection rate for groundcrew was 0.66% of 128,000 applicants. The rate of discharge for all males in the RCAF for psychoneurosis and psychosis varied from 3.2 per 1,000 per annum in 1942 to 12 per 1,000 per annum in 1945. (1)

As has been pointed by others (4) who have attempted to draw conclusions as to the efficacy of screening from comparisons of wartime statistics, little is to be gained from elaborate manipulation since the available figures are in no way equitable. For example:

- a. There is an absence of comparable data for similar periods. The Canadian Army has scanty information prior to 1944.
- b. The Services used different terminology for classification of rejections and discharges. The RCN grouped “nervous and mental” together for recent rejection figures. On discharge “nervous” and “mental” are separated, but under which rubric psychoneurosis was classified is not known. The Army classified rejections by specific diagnoses, but discharges are reported as “nervous and mental”. The RCAF separates aircrew and groundcrew figures for and indicates cause as “mental disorders” and “other diseases of the nervous system.” On discharge, however, figures for all males are combined, and the classification is “psychoneurosis”, “psychoses”, and “other nervous mental disorders”.

A more serious handicap imposed on gaining information from the available figures is differences in policy which governed what should be included in the figures as psychiatric disorder. For example:

- a. What degree of mental deficiency or retardation were included as medical rejections by the various services is not known.
- b. The RCN had a low rejection rate for psychiatric disorders. However, the Navy’s manning policy by which “men were inducted into Divisions near their homes, and exposed to Navy training as a part-time occupation....and could be eliminated if it were discovered that they were not good Naval material or by the men themselves if they chose to change their minds;”(5) represents a very real and effective screening. No figures are available of the numbers so eliminated.

- c. The disposal of those with personality and behaviour disorders, and of psychoneurosis deemed to be of pre-enlistment origin were dealt with as administrative by the RCAF, and as medical by the Canadian Army.
- d. Changes in administrative policy can materially alter statistics, as illustrated by Table I which summarizes rates of discharge for different but related “causes” over the years 1951-53

TABLE I

Reason for Discharge	Rates per 1000 per annum		
	Sep. 1951	Sep. 1952	Sep. 1953
Psychiatric downgrading	23.2	9.9	5.2
Inefficiency	3.0	6.3	16.3
Misconduct	8.0	14.6	15.6
Total	34.2	30.8	37.1

As only those figures in the psychiatric column will appear in medical reports of the health of the Army, some future historian may conclude that there had been a dramatic change in the quality of recruits, screening procedures, or man-management in the Army between 1951 and 1953. In fact, however, the decline in psychiatric discharge rate is probably due mainly to two administrative acts. In February 1952 the Adjutant-General directed that soldiers receiving the diagnosis of personality or behaviour disorder would not be discharged for medical reasons, and that soldiers suffering from psychoneurosis to such degree that they could not serve in the regular Army, but who might be able to render limited service in wartime, would be discharged on administrative grounds. In early 1953 the Advisor in Psychiatry to the DGMS visited all medical installations across the country and urged a more thorough adherence to this policy. That no real improvement in either selection or utilization had taken place is obvious from a glance at the total figures which represent all types of psychological failure. The US Army reports the following changes in N.P. separation rate consequent upon a stricter definition of psychiatric illness. (6)

NP Separation rate per 1000 per annum	
1917-19	10
1942-45	14
1950-51	1+

The degree to which this represents an actual increase in effective manpower is not known, but there appears to have been a sharp rise in separations on



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administrative grounds for unfitness and ineptness coincident with the fall in psychiatric discharges. (6)

### INFORMATION FROM FOLLOW-UP STUDIES

Since official records offer so little data upon which to base a realistic policy it is fortunate that a few psychiatrists have published results of the laborious process of following up the careers of soldiers upon whom they made predictions at the time of enlistment.

Aita recorded his predictions for 500 recruits of the US Army seen in 1941. Two hundred and fifty of these he expected to do well as soldiers, and 250 he considered doubtful on the basis of a brief psychiatric interview. Follow-up information was available after the war on 150 of those expected to be successful, and 154 of the “doubtful” group. With careful definitions of “success”, “average adjustment” and “failure” in terms of performance it was found that 21% of the doubtful group were “failures” in comparison with 5% of those expected to succeed.

Eanes and his associates (8) located the names of 2,054 men from 14 states in the USA who fulfilled the following criteria:

- i. They had been rejected once at least by the Selective Service for psychiatric disability during WW II.
- ii. They were subsequently inducted into the Army when selection standards changed.
- iii. They served as enlisted men.

On follow-up of the military careers of this group 20.6% were discharged on psychiatric grounds. This is to be compared with 6% which was the rate for the whole US Army during WWII. The psychosis rate for this group was 1.5% which is nearly identical with the rate for the whole US Army (1.3%). A “service rating” compounded of length of service, rank attained, courts martial, etc., revealed average or better performance for 77.3% of the group.

Fry (9) studied the military history of 2,017 students of Harvard and Yale who had been patients of the university psychiatrists, and who were called up for service during WWII. Three hundred and thirty-one were rejected for service on psychiatric grounds. Of the 1,686 men who served (mostly as officers) 264 were subsequently discharged for neuropsychiatry disability. It is stated that the remainder rendered satisfactory service.

In 1918, DRB (10) while assessing the value of the Cornell Selectee Index, had an opportunity to validate the psychiatrist's prognosis in 159 recruits. Ninety-nine recruits were described by the psychiatrist as suitable, in 44 there was some doubt as to the adjustment, and in 16 the psychiatrist felt the individual had no better than an even chance of success or failure. (Those considered to have less than an even chance were rejected on psychiatric grounds.) Six months later the 159 soldiers were followed-up by an on-the-job assessment of performance by a personnel officer, who did not know the psychiatrist's prediction, with the following results:

Pers. Officer's assessment at 6 months	Psychiatrist's Prediction		
	"50-50" chance	Doubtful	Suitable
Successful	57.1%	72.7%	81.7%
Unsuccessful	42.9%	27.3%	18.3%

Chalke, in an unpublished study, reports somewhat differing results in predicting success of Canadian Army Korean Force volunteers. Of 28 men who appeared to be poor risks at recruit level only 3 served their term of engagement of 18 months, the remainder withdrew, or were discharged for psychiatric illness, misconduct, or inefficiency. A control group of 28 selected at random from those not given an adverse prognosis had 19 of its members complete their term of engagement.

The differences between the results of this last study and those previously outlined above may be accounted for by the degree of instability involved. Aita describes his group as "doubtful", and presumably those recruits with more severe disorders were rejected. Eanes' group included only those who on a second examination were found suitable for induction – the more unfit were probably again rejected at this second examination. Fry's group were screened, were college students with many assets, and may have been helped by treatment. The DRB group were selected during the post-war period when psychiatric standards for regular soldiers were high. In contrast to these groups Chalke's samples were selected during a time of shortage when a policy of trial and error for all but the psychotic recruit was in effect. The writer can best indicate this difference by stating that the Korean group were felt to have a 10-1 chance of failure at time of recruitment whereas a 50-50 chance might better characterize the other groups mentioned above.

That the validity of the psychiatrist's prognosis increases with the severity of the disability is illustrated by the following reports: Weinstock and Watson (11) report that of 121 Naval recruits who were allowed to remain in the service despite an adverse prognosis based on clinical interview 44 (36%) were discharged

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for psychiatric disability during recruit training. Hunt and Wittson (12) divided 944 seamen referred to the psychiatrist during initial training on suspicion of neuropsychiatry difficulty, into three groups mild, moderate and severe. A year later, follow-up showed the following percentages discharged from the US Navy in each group — “mild”, 6.5%: “moderate”, 20.2%: “severe”, 89.7%.

The statement is often made that the screening examination would be more accurate if it took place during the initial training period. The US Navy operates upon this principle. Recruits are seen routinely on arrival at “boot camp”, and are observed during training if the interview suggested a doubtful prognosis. The overall effectiveness of this approach has been reported by Wittson and Hunt (12). Three Naval recruit centres, each receiving approximately the same type of recruit, and each with the same professional standards of screening were selected for study. The centres varied, however, as the rate of psychiatric discharge, during training, permitted by the CO. Their findings are shown in Table II.

TABLE II

Recruit Centre	Number	% discharged during training	% discharged on NP grounds during subsequent service
Centre A (CO permitted unlimited NP discharge during training)	1525	4.5%	1.5%
Centre B (CO cooperative but imposed 4% ceiling on NP discharges)	1173	2.6%	1.8%
Centre C (CO actively discouraged NP discharges)	2823	0.7%	3.0%

The results indicate that NP screening significantly reduced subsequent attrition for psychiatric causes. However, the slight reduction in subsequent breakdown achieved by screening at the 4.5% level compared with 2.6% level suggests the value of an imposed ceiling. Studies of attempts to predict success in battle do not lend support to the proposition that observation in the service increases the validity of prediction. Plesset (14) followed 138 doubtful cases through a period of combat. There were three cases of battle exhaustion from the group after 60 days of action, 2 had been killed, 7 were non-battle casualties, and 8 had been transferred. At the end of the war 120 men were still on duty. Glass (15) rated 192 infantry reinforcements on a 5-point neurotic index after

a 15 minute interview. He followed up the group after the first major offensive engagement, considering any absence from battle except killed or wounded in action as ineffectiveness with the following results

86% of normals were effective

75% of mild and moderately predisposed were effective

41% of the severely predisposed were effective.

Sharp (16) on the basis of his observations as a divisional psychiatrist during the pre-battle period identified 395 mild NP cases as a “varied assortment of anxiety neuroses, other nervous, and mild psychopaths.” The division was heavily engaged in the Battle of the Bulge. At the end of 50 days, 9 of the group had been evacuated for NP reasons, and another 35 for wounds, trench foot, and other illness. Of the 395, 351 were still on duty 50 days after heavy fighting.

## OPINIONS OF PSYCHIATRISTS

Since World War II many of the psychiatrists, who played a leading part in guiding the policies then in force, have questioned the value and wisdom of the intensive screening, and rejection at induction levels. Moreover, statesmen, military leaders and service medical authorities have expressed concern at the apparent manpower loss which resulted from this practice.

In 1951, Ginsberg, the psychiatric consultant to the Human Resources Conservation Project at Columbia University, polled fifty psychiatrists who had held responsible positions in the US Forces as to their present opinions of the World War II policies in regard to recruit screening. The following quotation (17) summarizes the replies received.

The most striking conclusion which can be drawn from their replies relates to their present attitude toward psychiatric screening as a personnel selection device. In place of their initial enthusiastic belief early in World War II that they could contribute to the efficiency of the Armed Forces by rejecting large numbers of individuals with varying degrees of neurotic disturbances, the vast majority now holds that with the tools available to them at present and under the actual conditions of rapid examinations, they cannot perform such screening effectively. They now believe that instead of attempting to keep as many “vulnerable” people out of the service as possible, only those individuals with a clear history of psychotic behaviour and those with

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very severe neuroses which are certain to interfere with performance in a military environment should be kept out of the service. This change in attitude is as complete as it is striking.

Closely related to this basic revision of their philosophy of screening is their new attitude toward reliance on clinical symptomology in the screening process. Our psychiatric respondents now believe it to be an error to search for negative factors that might possibly interfere with a man's successful performance as a soldier. They have come to recognize that every man has one weakness or another and it is more than likely that these weaknesses are, willingly or unwillingly, intensified under the stress of the screening examination. Most psychiatrists now feel that although it remains important to give considerable weight to indications of weakness in a man's past, even more importance should be ascribed to evidences of strength. In general, they hold that men who have made a reasonable adjustment in civilian life should be able to make a reasonable adjustment in military life. Although some might fail in the transition, it would not be possible to identify them during a short—or even a longer—screening period.

Finally, our psychiatrists now believe that an adequate screening system must be based on explicit assumptions about manpower reserves and, further, must be geared to realistic standards of performance that will be required of men who are accepted. Otherwise, screening will be blind. During World War II the performance standards were altered not once but several times, from full combat for all to limited service for some, with many intermediate gradations. Even in the absence of other difficulties the fluctuating objectives and policies of the Army's personnel management system were sufficient to prevent the development of an effective screening system.

W. Menninger states in his book "Psychiatry in a Troubled World", "There is no doubt that the method by which the psychiatrist made his personality assessment of the soldier at induction had many flaws. Men were rejected who could have given good service, while other men were accepted who should have been rejected. Our experience with combat taught us that no selection methods could have picked out the men who would fail. In other words if a man succeeded in maintaining his mental equilibrium through the training period, shipment overseas and training on foreign soil, there was no means by which unsuccessful combat service could have been forecast.

H. L'Etang (18) in a general critical survey of Military Psychiatry in the U.K. during World War II supports the contention, by quoting various psychiatrists,

that motivation was primarily responsible for the exhibition of symptoms and complaints by recruits and soldiers. So strong was the reaction against recruit screening following the war that one could fill many pages with similar published statements. It is impossible to establish how representative or unbiased are the opinions expressed. However, the written (6) and unwritten recommendations of consultants to most of the armed services are now phrased in terms of rejection of the manifestly unfit and enlistment of those who might render some useful service in a limited capacity. This policy has governed screening in the U.S. Army during the Korean outbreak when rejection for “NP defects” were 2% in comparison with 7% during World War II. (Parenthetically, it should be noted however that rejections for lack of intelligence rose from 5% in 1942-45 to 20% in 1950-51).

## METHODS OF PSYCHIATRIC SCREENING

Having surveyed what information is available about the results of screening, the second important question is: On what basis did the psychiatrist make a decision as to suitability for service of a recruit at enlistment—and—what studies are available to validate the significance of the factors upon which he based his judgement?

The method of psychiatric examination was most frequently an interview by a psychiatrist, aided at times by health questionnaires, biographical inventories and occasionally psychological tests.

In the early years of psychiatric screening the examiner usually felt obliged either by regulation or by personal need to make a “diagnosis.” It was then decided on ‘a priori’ grounds that anyone with such a diagnosis would not be able to adjust to the services. This approach was fraught with error for the following reasons:

- a. There is considerable disagreement among psychiatrists concerning nosological classification (less than 35% agreement in a series reported by Wittson and Hunt);
- b. Brevity of examination precluded definitive diagnosis;
- c. Predominance of “mixed syndromes”;
- d. Some psychiatrists reported that “obsessive-compulsives” made the best soldiers and others stated that they could not adjust. A similar conflict occurred concerning “mild anti-social psychopaths”.

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The approach of the psychiatrist gradually changed to consideration of factors which might be valuable in predicting maladjustment. Different authors (19, 20, 21, 22) stressed to varying degrees the importance of heredity, abnormalities of childhood, motivation, psychiatric symptoms, social behaviour and personality attributes.

Unfortunately not a single satisfactorily concluded study has been located that establishes which of these factors are valid as predictors. There are scores of published papers that attempt a contribution to this problem. These fall into two groups:

- a. Studies by psychiatrists of the incidence of factors in soldiers who have developed illness;
- b. Studies of the validity of tests and questionnaires administered to recruits.

There are many papers available in which the writers have collected together the incidence of broken homes, instability, and personality characteristics among soldiers seen in outpatient clinics or hospitals because of maladjustment or frank psychiatric illness. These findings, reported without adequate controls, often formed the basis for a recommendation that these factors should be considered as the basis for prediction at the recruit screening level. Two studies will be mentioned where an attempt was made to provide some degree of control.

Billings, Ebaugh et al. (23) compared the incidence of hundreds of items between 100 neuropsychiatric patients and 100 apparently well-adjusted soldiers within the first year of their enlistment. Some items apparently discriminated between the patients and the controls. They found that 95% of the patients compared with 20% of the controls had 4 or more signs considered prognostic of failure. These items included—hypochondriosis before entering the services, excessive sweating, difficulty making friends, irregular work record.

Needles (24) asked 86 questions covering home background, childhood, sexual and social adjustment of 100 NP patients who broke down within one month of taking part in the Normandy invasion, and compared the answers with those given by 100 non-psychiatric casualties in a nearby hospital. On the basis of the differences in the responses to the questions—which are not treated for significance—he attempts to establish various factors as predictors. Aside from the statistical inadequacies of Needles' treatment of his data, the choice of hospitalized, non-psychiatric casualties as controls is open to question in the light of the work of Dancey and McNeel. (25) The latter psychiatrists studied identical background data in three groups—(a) those who remained with infantry

units throughout the war and were still with their unit at the armistice, (b) those transferred to support units, (c) those sick or wounded. The last mentioned group, similar to that chosen by Needles, as his controls, had a much higher incidence of “predisposing neurotic factors” than did those who remained on duty.

The cardinal defect of these studies is that the information was gathered after the soldier became a patient. It is reasonable to assume that anxiety will promote the recall and recounting of more predisposing events than when the individual is better adjusted. Additionally, conscious and unconscious motives will encourage the presence of symptoms, personality manifestations such as dependency and hostility to authority, as well as tension, once the soldier is ill and a “patient”.

The second group of studies which might have yielded information of value were attempts to assess the predictive capacity of psychological tests and questionnaires, routinely administered to recruits. As well as total test “scores”, these instruments contained items concerning pre-enlistment history and current emotional health. Here again, however, one finds little that is useful and that will bear the weight of scientific evaluation.

Conrad and Ellis (26) have summarized the results of over a hundred published experiments utilizing commercial or specially devised tests, including the Humm-Wordsworth scale, the MMPI, the Army Personnel Inventory and the Cornell Selectee Index. Some of these studies suffered from the same limitations as those mentioned above, i.e., the tests were administered to patients and “healthy” controls. While some tests were given routinely to all recruits, the results, however, were evaluated against inadequate, short term criteria, for example:

- a. The test’s efficacy was measured by its agreement with the clinical impression of the psychiatrist examining the recruit. In these cases a high degree of correlation was found since—
  - i. the test results were often used by the psychiatrist in arriving at his decision (contamination), or
  - ii. the tests were based upon the same data which the psychiatrist utilized in making his judgement (overlap).
- b. The test results were assessed as to their capacity to detect “pass” or “fail” at some stage of early training. Success or failure in such training usually correlated highly with tests of mechanical aptitude or intelligence but tests of personality or emotional adjustment had such a low co-efficient of correlation as to be practically useless.



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Since the war the U.S. Army has followed for 18 months, 11,000 men who completed a personal inventory on induction. There is a coefficient of correlation of .39 (*r bis*)\* between test scores and a “good” or “unfavourable” discharge. (27)

A study based on war time experience in the Canadian Army with a health questionnaire reveals that there are statistically significant differences on items gathered at enlistment between those who subsequently rendered satisfactory service and those who were ineffective. It suggests, too, that certain factors to which the psychiatrist gave considerable weight were relatively non-discriminative. This experiment involved analysis of the routine questionnaires completed by recruits in 1943 at an Army enlistment depot and followed up in 1946 after demobilization. The ineffective group was made up of 25 soldiers who were discharged for misconduct and 25 who were downgraded because of instability subsequent to enlistment. The successful soldiers (100) had all served in an operational theatre without psychiatric breakdown or major crime.

The following Tables summarize the results of this study.

Results: For purposes of analysis of most factors groups (a) and (b)—psychiatric patients and disciplinary cases were combined as ineffectives (*n*=50) and compared with group (c)—effective soldiers. Those items from the enlistment questionnaire which differed significantly in frequency between the effective and ineffective soldiers are shown in Table III.

**TABLE III**

*Items showing significant differences between ineffectiveness and successes.*

Item	% of ineffectives No. - 50	% of successes No. - 100	P less than
“M” score less than 110	40%	19%	0.05
Eldest or youngest child of a broken home	32%	16%	0.05
Considers self nervous	26%	9%	0.05
Has appeared in court	22%	8%	0.05
More than 5 positive answers on health questionnaire	34%	9%	0.01

Some items on which there were differences, not statistically significant but of such degree that larger samples might demonstrate a difference, are listed in Table IV.

\* (*r bis*) is the mathematical statement for biserial correlation, which is a correlation coefficient where one variable is many-valued and the other is dichotomous.

TABLE IV

*Items on which differences are present but below the level of significance.*

Item	% of ineffectives	% of successes
	(50)	(100)
Broken home	44%	29%
Eldest, youngest or only child	54%	38%
Fired from a job	12%	3%
Considers self in poor health at time of enlistment	10%	1%
Has dizzy spells	14%	3%
Has "much" stomach trouble	14%	4%
Missed much time from work on account of illness	10%	2%
Prefers to be by self	16%	6%
Has crying spells	10%	0%
Considers he worries too much	12%	3%

TABLE V

*Items upon which differences are insignificant.*

Item	Ineffectives	Successes
	(50)	(100)
Age (mean)	21.5 yrs.	22.6 yrs.
Years employed	6.5	7.2
No. of jobs held	3.8	3.2
Married (percent)	28	36
Rural background	26%	24%
Separate school	36%	25%
History of serious illness or operation (pre-enlistment)	30%	29%
Feeling of shyness	30%	21%

A few items shown in Table VI appear to discriminate between the 25 psychiatric patients alone and the successful soldiers. The significance of the differences for these items was lost when combined with the responses of the disciplinary cases.

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TABLE VI

Items showing differences between 25 psychiatric cases and control successes.

Item	% of psychiatric cases (25)	% of success (100)	P less than
Nervous breakdown in family	28%	8%	0.05
Poor health as a child	28%	6%	0.05
History of frequent headaches	28%	1%	0.01

\*Note — For convenience in comparison the incidence of the various factors is shown as percentages for both groups. However the significance of differences was calculated with the actual numbers involved, by the method of chi-square (corrected for contingency).

Remarks—Since the groups studied do not include those rejected and those who served with varying degrees of effectiveness in Canada or the U.K. only, this data is primarily of interest to demonstrate the possibilities of a method rather than to offer final criteria for selection.

### CONCLUSIONS FROM THE MATERIAL SURVEYED

The information presented warrants the following conclusions:

- a. There is value in the historical records of incidence of psychiatric disorders in World War II insofar as it indicates the numbers of individuals involved. This source alone, however, is inadequate to establish the value of psychiatric screening.
- b. Individual studies offer some valuable findings. The psychiatrists' predictions had a useful validity in the more severe cases of instability. In mild or doubtful cases the psychiatrists' predictions while valid statistically had such a wide margin of error in World War II that screening at the doubtful level represented an extensive loss of potential manpower. Predictions as to fitness for combat were of little practical significance or value.
- c. Most knowledgeable psychiatrists have developed a more skeptical attitude toward recruit screening.
- d. Except for a healthy uncertainty, psychiatrists are little further ahead than they were at the outbreak of World War II in knowing what factors are important in assessing a recruit.

- e. There is no evidence at hand to indicate that psychiatric screening of recruits could not be improved by well-planned research.

## MANNING POLICY AND PSYCHIATRIC SCREENING

What are the implications for manning policy of the present state of knowledge concerning screening?

In this discussion stress is placed upon the problem of manning in the Army. During World War II, and since, experience has been that from the practical viewpoint it is that service in Canada which has felt the major manpower shortages most critically in the realm of infantry soldiers. A DRB study of Military Manpower states that in the crucial period 1944-45 "only the Army was suffering from chronic shortage of men. The Navy was not lacking in reinforcements and the Air Force was embarrassingly rich in fit and able young men." It is interesting to raise the hypothetical question as to the problems which would be faced by the RCN and the RCAF should a different system of manning make it necessary for these two services to employ more marginal personnel. The question is academic at present but the capacity of these services to utilize a higher proportion of men with obvious emotional limitation requires study.

Manning policies are not formulated on the basis of what a psychiatrist can do, but in terms of practical, political and economic necessity. Therefore we must ask what can the psychiatrist contribute to the implementations of policies given, and not expect policy to be determined by the state of psychiatric knowledge.

In the event of total emergency mobilization the policy might be in words similar to the following recommended to the Surgeon General of the U.S. Army by his consultants:

Mobilization for emergency service should be universal in the broadest possible sense. Only those individuals obviously disqualified by disabling disease from rendering reasonable service should be exempted. All others within eligible age groups should be called on to serve.

As long as he is dealing with serious disability the evidence indicates that the psychiatrist is more often right than wrong in his predictions. Operating within an imposed ceiling of the "worst" 4% of the population and with definition of "reasonable service" for psychiatrists when well trained could make a valuable contribution to manning according to this policy.

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In Canada, during the recent years, our manning policies have differed from that framed above since manning has been on a volunteer basis and/or it has been partial, not total, mobilization.

Since World War II manpower needs have varied. An attempt has been made to fill requirements from amongst the most desirable of the applicants available. At times there has been a relative manpower shortage and a high proportion of doubtful or borderline recruits presenting themselves for enlistment.

The experience of the past few years has been that in spite of the psychiatrists' disavowal of sufficient justification for screening, manning authorities insist on selection on grounds of character and motivation. The methods used at times appear to a scientist as naive and uncontrolled. Moreover the techniques are mostly of the "all or none" variety. In periods of increased manpower need all attempts at selection in the sphere of emotional suitability are stopped and large numbers of handicapped are enlisted. Concern over this situation results in a sweeping re-imposition of what are believed to be "high" standards. The psychiatrist has few facts upon which to base advice in this situation. In fact he finds himself after a decade and a half of experience, faced with a host of what now begin to appear as perennial questions.

- a. Who are the individuals "obviously disqualified by disabling disease" of a psychiatric nature?
- b. Is it possible to indicate at the initial examination the optimum type of employment for those with non-disqualifying limitations?
- c. Can factors available at the recruit examination be weighted to provide a scale of probability which permits flexibility in meeting manpower requirements?
- d. Does a more specific definition of the emotional requirements of the job increase the accuracy of psychiatric predictions?
- e. What is the degree of agreement between psychiatrists' predictions?
- f. To what degree is psychiatric training and experience a factor in the ability to predict in the area of emotional stability?

As well as the practical questions asked above, consideration of screening makes one painfully aware of present lack of basic scientific information and faces one with such questions as:

- a. What relationships exist between various physiological and psychological variables?

- b. What changes take place in test scores, physical measures, and retrospective recall of past events after a man has become ill compared to a period when he was adequately adjusted?
- c. What are the “constitutional” components of the tendency to develop mental illness?
- d. Is “ego strength” a definable, measurable, useful, construct?
- e. Amongst those equally predisposed, what distinguishes those who adjust from those who decompensate?

It is felt that some of these questions could be answered experimentally. To do this would require a standard comprehensive examination of an adequate sample of recruits who were later followed up carefully during their service careers, and performance assessed against specific criteria of “success” and “failure”. In carrying out such an investigation the following have been stressed as important:

- a. That in experimental groups chosen for intensive study as many as possible of the men who might be rejected on N.P. grounds under “normal” circumstances should be allowed to enter the service.
- b. That measures being validated should not be generally available to the officers making the administrative decisions until after the criteria data have been collected.
- c. The possibility that special type of assignments may be related to different predictive scores should be explored.

That there can be, finally, as the result of any such research, a technique evolved, applicable at recruit level in a brief period of time, which will accurately discriminate between those who will succeed, those who will “scrape by”, and those who will fail, in the protean world of the services, will remain for a long time the vain hope of the personal administrator or the megalomaniac fantasy of the psychiatrist.

However, it is likely that such research would establish more accurately the degree of error in screening, and more importantly elucidate the historical facts, signs and symptoms that are pertinent and those that are irrelevant in arriving at a prognostic opinion. Because of the magnitude of the numbers involved small gains in knowledge may have significant effects.

## CHAPTER 3

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\*This work was carried out by contract with the Defence Research Board, under the direction of the Panel on Psychiatry of the Defence Medical Research Advisory Committee.

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# Chapter 3

## Appendix 12

### THE PROBLEM OF NEUROSIS IN EX-SOLDIERS

Harold Palmer

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"The Problem of Neurosis in Ex-Soldiers," *New Zealand Journal of Medicine* 48 (1948). See Australian Government Health Study 2005 "Australian Veterans and the Korean War" < [www.dva.gov.au](http://www.dva.gov.au) > 12/7/2007.

*This study of what would today be called Post Traumatic Stress Disorder was one of the earlier attempts to study the problem as it affected veterans of the Second World War.*

Approximately 250,000 men enlisted in the New Zealand forces, of whom 7,308 were subsequently discharged with a diagnosis of neurosis of which around 4,160 have been awarded a pension. It will be seen, therefore, that neurosis affected 3% of all New Zealand service personnel and that pensions have been allocated on account of neurosis of 1.75% of all enlisted men.

During 1947 these neurosis pensions, together with their proportionate charge of administration and treatment, were costing the nation £250,000 p.a., exclusive of social security benefits. The actual cost of pensions alone was £216,000. It is interesting to compare these figures with those published in the United Kingdom where 3,788,000 men served in the army, of whom 109,000 were discharged on account of neurosis. From amongst 3,788,000 enlisted soldiers, 31,000 are in receipt of a pension. This means that neurosis affected 2.8% United Kingdom enlisted soldiers and pensions have been awarded to 0.8%.

There are certain other statistics relating to the pension problem which are not without interest. In New Zealand approximately 50,000 men have received pensions from the 1939-45 war, of which 26,000 were current in 1947. It appears, therefore, that one in five New Zealand ex-servicemen have been awarded pensions. In the United Kingdom 366,000 soldiers or one in ten have been awarded a pension. The cost of pensions will continue for many years to come and we can form some idea of the magnitude of the problem by studying some facts relating to the 1914 war. That war produced 60,000 pensioners and pensions accruing in that war have cost the Government £45,000,000 up to date exclusive of the cost of administration and treatment. If we assume that neurosis accounts for 10% of this total, it will be seen that neurosis arising from the 1914-18 war has cost up to date between four and five million pounds. At the present moment the annual cost of pensions for all men from both wars is £1,559,974, and the total annual expenditure including administration and treatment is £2,025,331 per annum. The problem of rehabilitation is thus concerned with a very large portion of national income and expenditure.

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In this paper I propose to inquire: how does neurosis arise in soldiers? What is the nature of the problem? What is its status in 1948 and what lessons, if any, can be learnt which might usefully be applied in the development of our health services?

In the recent war it was found that of the five causes of military ineffectiveness – capture, death, wounding, illness and neurosis, the last of these causes, i.e., neurosis, accounted for 10% of all battle casualties an equivalent proportion of all men evacuated from any theatre of war. This is a conservative estimate and under certain circumstances such as those which existed at the Anzio beach-head, nervous exhaustion was reported to account for 50% of all men passing through medical channels. Of the neurotic casualties approximately one third were genuinely sick men who had succumbed to mental and physical reactions brought on by exposure to danger and privation. These true illnesses were irreversible with the aid of a physician, except after very prolonged periods, and did not respond to simple measures of rest and removal to safety. Such reactions were, therefore, outside voluntary control and did not constitute cowardice.

Although this one third of neurotic casualties were genuinely sick men, they were nevertheless abnormally prone to secondary demoralization if inexpertly handled. Good man management is in fact as important as good medical treatment when dealing with the neurotic whether he be a battle casualty or a civilian patient. The first essential of case management is rapid expert diagnosis and assessment by trained medical personnel, so that the genuinely sick man can be given the treatment he requires before the opportunity for demoralization has occurred. The remaining two-thirds of these neurotic casualties are not to be regarded much as sick men, but should be regarded as men who have lost their morale. It is, however, equally important from the standpoint of an efficiency that these men who have simply temporarily lost their grip should be handled with speed and efficiency and the fullest amount of respect for the inadequate man compatible with military exigency.

When treating demoralization in the individual soldier it is very important to bear in mind that his condition may reflect the morale of the group to which he belongs. Consequently in the army it was eventually found necessary to institute machinery whereby group morale could be studied and this became one of the chief functions of the corps psychiatrist. An important development which resulted from the study of morale was establishment of Officer Selection Boards seeing that morale depended on good leadership more than any other single factor. Returning now to the treatment of the individual soldier; this requires a filtration technique within which the fullest opportunity is provided for treatment of illness followed by the rehabilitation of combatant capacity. This filtration technique commences at Divisional Rest Centre level and proceeds

through Corps Exhaustion Centre back through the Advanced and Base Psychiatric Units to the Military Rehabilitation and Reallocation Units. Here the soldier is retrained and eventually posted to duties within his capacity. It will be seen that the critical task is not symptom removal but the creation of good soldiers. We are not primarily studying disease but trying to achieve health and efficiency. Therefore it is of critical importance to secure good teamwork between the medical man, army administration and the combatant officer. Where such methods were available it was found possible to return up to 98% of these men to some form of full duty and the statistical average stay in hospital was only three days. Treatment of the really sick man was very gratifying and nearly one hundred percent could be rendered symptom free.

The clinical syndromes encountered can be divided roughly into two in groups: the dissociative syndromes or hysterias, and the tension syndromes or anxiety states. The most effective treatment for the dissociative syndromes is by means of persuasion and for the tension syndromes by means of continuous narcosis. A small but significant group derived from both clinical types required specific psychological treatment and there was a small and comparatively insignificant psychotic group, some of whom could nevertheless be successfully treated at army level. If it be true that 98% of such men could be successfully returned to full duty and if it be true that almost all of them could be rendered symptom free, how is it that 31,000 men in the United Kingdom and 4,160 New Zealand are today in receipt of pensions on account of neurosis? In order to find the explanation of this paradox we must study some of the influences which affect the morale of the soldier who has become a casualty and has been evacuated home, and at the same time study the influences at work in relation to the problem in general.

Let us first of all study the military influences. Army commanders, though rarely officially admitting the fact that one of the largest causes of ineffective soldiers is this loss of combatant capacity which we nowadays call neurosis, were nevertheless compelled by the logic of the facts tacitly to recognize their existence. These men were "left out of battle" and gradually allowed to trickle back to base area from whence they were subsequently evacuated home. During this slow demoralizing process a certain number found their way into medical establishment, but as no scientific treatment was available they tended to be herded together prior to their onward passage through convalescent units and on to base holding units. Little attempt was made to diagnose a really sick man from the others. During this passage through medical channels these men frequently acquired labels of physical disease. It is to be expected that many of these men in fact possessed relatively few complaints which otherwise would probably have passed unnoticed. The loss of effective strength of the men's units was dealt with by the simple process of sending for reinforcements whenever the numbers concerned reached any considerable size.

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It is curious that little scientific study of how to deal with demoralization and little study of what was the basis of good morale had ever been done. Army commanders too frequently mistook parade ground discipline for combatant capacity and it was assumed that any raw recruit could be formed into a good soldier if he was given sufficient training. It seems most incredible that no provision whatsoever had been made to study the problem of mental defect and the obvious fact that certain percentage of any population contains a significant number of men constitutionally predisposed to break down under stress had been ignored. In their preoccupation with their heart or stomach or some form of rheumatism, they crowd our outpatients and have frequently been the subject of investigations and therapies. In the army failure to recognize the principles resulted in serious degrees of demoralization. This is often the cause of the chronicity of neurotic ex-soldiers whenever they are encountered subsequently in civil practice. The civilian neurotic is just as prone to demoralization to the extent that he becomes a chronic hypochondriac who cannot live happily without a bottle of medicine or the thought that he is the victim of some bodily disease.

Were a full time health service ever to be instituted in New Zealand the number of patients referred for psychiatric opinion would swamp the existing facilities. This is precisely what happened in the army where we commenced the war with only three psychiatrists but finished with psychiatrists attached to every corps in the 21st Army Group.

In the third instance the war demonstrated that the treatment of neurosis is very encouraging provided that we discard traditional modes approaching neurosis as a problem of disease of the individual and bring to bear total methods of approach in its treatment. Such treatment is not only capable of making a contribution to individual happiness, but it can contribute to the welfare of communities. Family life may be upheld and industrial efficiency can be increased.

We see therefore that the treatment of neurosis inevitably leads us into contact with factors not traditionally associated with the routine practice of medicine. In the war we were led to institute personnel selection and officer selection boards and salvaged the self respect of thousands of men and by doing so rendered them fit once more for fresh contribution to the military effort. Hospital beds were freed for the really sick and medical men freed for other duties.

There is a rich field for research open for the study of these ecological problems for which New Zealand is particularly well suited. Such problems as incentives in industry and the biotechnies of housing and education are examples where medical and other related fields find a common meeting ground in the problem of emotional maladjustment.

A community which has become health conscious and chosen well-being as the symbol of its national heritage must be puzzled that an increase in its health services does not diminish the amount of money spent on drugs. The answer to the paradox is simply that under the conditions which exist today in New Zealand an enormous amount of minor neurosis is brought to light. If we seek to meet this rising tide of neurosis by means of our accepted technology we shall continue to find that a vicious spiral is created and the pursuit of health will be found to have created widespread hypochondria and dependence on pharmaceutical aids.

In the army we showed that the answer to the problem lies in devising ways of dealing with human beings which transcended our concept of disease. This is a moral challenge to our profession today for it is neurosis which impels one-third of our patients to come to us for help.

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## Appendix 13

### TREATMENT IN THE ABSENCE OF PENSIONING FOR PSYCHONEUROTIC VETERANS

Travis E. Dancey

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"Treatment in the Absence of Pensioning for Psychoneurotic Veterans," *American Journal of Psychiatry* 107 (November 1950): 347-349. Read at the 106th annual meeting of the American Psychiatric Association, Detroit, Mich, May 1-5, 1950.

*Dr. T.E. (Travis) Dancey served as the Officer Commanding No. 1 Exhaustion Unit from October 1944 to the end of the war. After the war, he served as a psychiatric consultant to the Department of Veterans Affairs in Montreal. Dr. Dancey strongly opposed the granting of pensions to veterans who suffered from anxiety or what would today be called PTSD as he was convinced this would encourage retention of the symptoms.*

The governments of countries in the Western Hemisphere have, during recent times, accepted the responsibility for compensating those who have served in their armed forces and as a consequence have developed disabilities. In addition, the State is expected to show some measure of gratitude toward those who have fought its battles. Medical and surgical treatment is therefore provided, and indemnity through the payment of money is utilized whenever a permanent disability, related to service, remains in spite of treatment. It is not difficult, from the pension point of view, to deal with those cases where an uncomplicated physical disability of a permanent nature is present. The problem becomes more complex when this assessment concerns a neurosis, since there is grave danger of handicapping the veteran by leading him to believe that his illness is irreversible and entirely related to service. When a monthly income is acquired from this source for a neurosis, treatment is too frequently dismissed by the subject as a medium that will take away his livelihood and is therefore something of which he wants no part. This state of mind is exemplified by one veteran who, after receiving a pension for an anxiety neurosis for 3 years, found that his monthly cheque had been reduced by approximately 8 dollars. During the next 4 months he worked only one day because, he said, "...getting less money made me realize just how sick I am." Suggestions regarding therapy were waved aside as being impractical and of no interest to some.

The Canadian Pension Commission functions in a capacity not unlike that which applies to similar bodies in other countries except in respect to the veteran who is seeking a pension for a neurosis. Here the attitude has for some years been rather unique in that, unless positive proof of definite exaggeration



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of symptoms during service exists, the illness is termed "pre-enlistment in origin" and compensation is refused. Although at first glance one may deplore an attitude that in any way penalizes the subject of psychiatric illness, further reasoning must persuade us that this discrimination in most instances reacts to the benefit of the veteran concerned. Dr. J.P.S. Cathcart(l) has observed numerous instances where the veteran of World War I, who was pensioned rather leniently for a neurosis, forced his family to live a pauper-like existence while he put all his time and energy into his often vain efforts to have his pension increased by a few dollars.

In brief, the stand taken by the Canadian Pension Commission might be summarized as follows:

A neurosis is a disorder that has its roots in childhood and may increase in severity throughout the years and is utilized by the subject, through unconscious mechanisms, to avoid painful experiences and to escape certain responsibilities. Because of repetitive patterns of thinking and behaviour the subject is prone to take advantage of situations that may arise and will further protect him. Any encouragement toward the acceptance of his illness as a means of escaping his responsibilities is therefore dangerous and may well develop from compensation in the form of the payment of money. The subject, under such conditions, is apt to feel more and more disabled and to demand repeated increases in his income from a State that has already assumed a certain responsibility for his illness.

The Canadian veteran may receive treatment for any condition that may arise during the first year following demobilization. At the expiration of this period he may receive treatment for his pensionable condition or for certain acute illnesses provided only that he has had meritorious service and provided he is relatively indigent. This would mean that the thrifty veteran with a neurosis could not obtain treatment.

It will be readily understood that veterans welfare organizations, when told that it was unwise to pension a condition that frequently reacted favourably to treatment, would demand that provisions for this treatment be provided. Such representation was made and the problem was approached with some trepidation(2). The best guide that came to hand was the report prepared by Drs. Campbell, Kubie, and Solomon for The American Psychiatric Association(3). It approached the problem from various points of view and indicated lines that should be followed if the errors that occurred after World War I were to be avoided. Full use was made of the suggestions in this report. We also considered carefully those methods employed in other countries. It was decided to

offer treatment to any veteran with a neurosis regardless of his time or place of service or of his income provided it was felt that his symptoms could be expected to fade after a brief period of therapy. The chief psychiatrist in each district was given the task of screening applicants in order to exclude psychotics (who receive the same consideration as do the subjects of other illnesses) and psychopaths. The dangers inherent in other schemes were avoided as much as possible and to this end no financial allowances were permitted either to the patient or to his family. Although this may create certain hardships, it does minimize any desire that a veteran may have to remain more or less permanently in hospital. At the same time it creates a state of affairs where his family will urge him to return to work as soon as possible. Provision was made for treatment both in hospital and in outpatient clinics. To these provisions was attached the proviso, "... insofar as facilities for treatment are available."

From January 1, 1948, to December 31, 1949, some 420 veterans received treatment under this new classification. This number corresponds approximately to 20% of all general hospital psychiatric cases under treatment during that period. Owing to the fact that this survey had of necessity to be conducted rapidly, only rough figures could be obtained concerning the value of this short-term therapy. The various district psychiatrists in Canada are of the opinion that definite benefit occurred in approximately 75% of cases. The criteria for this consist of the ability of the patient to return to work and to remain relatively free from acute symptoms from 3 to 12 months (period between institution of treatment and present survey). The remaining 25% of cases is composed largely of those who were actually psychotic or became so and had to be admitted to mental hospitals, of those who became recognized as untreatable subsequent to admission (character-neuroses, etc.), and of those whose indulgence in alcohol prevented therapy from being carried out. Our facilities appeared to be adequate and a veteran who was acceptable to the chief psychiatrist was seldom kept waiting for more than a few days. The average stay in hospital varied a bit from district to district but was usually under 2 months. If treatment is, in most instances, expected to replace pensioning in this area, it must obviously be of a high standard in order to produce results that are acceptable to the veteran concerned. Otherwise, there will appear a demand for compensation in the form of money in the low-wage-earning group, and a search for treatment elsewhere by those who can afford such. Faced with these possibilities, it is of paramount importance that our methods of treatment be maintained at a high standard.

A brief description of the arrangements developed in Montreal should suffice to explain the planning that has been necessary. Each psychiatrist must be certified by the Royal College of Physicians and Surgeons of Canada, and must hold a teaching appointment at either McGill or the University of Montreal, which

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must recommend his employment; obviously he must be acceptable to the Department of Veterans Affairs. These men are urged to utilize the same methods of treatment that they employ in their individual private practices. No full-time psychiatrists are employed. The resident group is obtained from the men who are enrolled in the McGill diploma course in psychiatry. They remain at the Veterans Hospital for a period of one year and during that time are expected to attend lectures and seminars at the Allan Memorial Institute. In addition to the resident group a number of rotating interns are utilized. No resident is expected to treat more than 10 cases at any one time and in each instance he works under the supervision of a consultant. Case presentations and seminars are given regularly for teaching purposes. Analytically oriented psychotherapy is the chief method of treatment. In addition such aids as modified insulin therapy and diversional therapy are provided. An earnest attempt is made to see that every patient is occupied during his waking hours while he is in hospital. A group psychotherapy project has been in existence for over 2 years.

The criticism that this type of treatment cannot, in most cases, be more than ameliorative is perhaps justified. At the same time I would point out that in its absence the veterans would be either unemployed or working under marked difficulties. In a limited number of cases regular therapeutic interviews may be carried on for longer periods than indicated above, usually in the outpatient department; almost invariably there is some continuance of treatment in that department.

Each district psychiatrist has been requested periodically to comment upon the new treatment classification and to suggest modifications. The apprehension that was present originally has practically disappeared since many of the pitfalls that were foreseen failed to appear. There is a universal opinion to the effect that the present scheme should be maintained with some minor alterations. Certain psychiatrists urge greater leniency so that early psychotics with mild symptomatology may be admitted; some urge the inclusion of the alcoholic, who so far has been either avoided or admitted under some other diagnosis.

At present, arrangements are being made whereby Canadian veterans who have availed themselves of voluntary health insurance schemes may be admitted to veterans hospitals for treatment. The medical or surgical fee will be the responsibility of the veteran concerned and is of no interest to the Department of Veterans Affairs. With the advent of this measure a modification of the present treatment classification for veterans suffering from neuroses may become necessary.

Because of the different attitudes concerning the pensioning of veterans in Canada and in the United States of America, it is of paramount importance

that psychiatrists in these countries keep themselves aware of the advantages and disadvantages arising from the two schemes so that eventually a satisfactory solution to the problem may be found. There are wider ramifications than appear on the surface; with the rapidly developing interest in social security there is a tendency for the worker in industry to demand compensation in the form of money to an increasing degree following any disability that appears to be connected with his employment. The dangers of supplying the worker with money as compensation for a functional disability are perhaps not as great for the man in industry as for the veteran, but nevertheless there does exist a certain similarity.

Should we at some time in the future find ourselves working under conditions similar to those in Great Britain, we may discover that many of the problems of the veteran with a neurosis exist for the members of the general population. One can visualize the possibility that in the absence of the recognition and treatment of the neuroses the demand for an income from government sources may be put forth. I would suggest that we be prepared for this possibility by making further studies along the lines I have indicated so that this knowledge may be applied without delay should an undesirable form of government-controlled medicine make its appearance.

## SUMMARY

For many years the Canadian veteran has not received the same consideration by the Canadian Pension Commission as does the subject of other diseases. The advantages of this system are indicated. A novel arrangement whereby this veteran may receive treatment regardless of his place of service or income and without any change in the previous pension regulations is described. Further study is recommended.

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TRAVIS E. DANCEY



# Chapter 4

## **PENSIONS, PTSD, AND COMBAT STRESS REACTION: MILITARY PSYCHIATRY IN THE POSTWAR PERIOD**

The end of the Second World War brought a rapid and remarkably complete collapse of the elaborate psychiatric system developed by the medical services of the Commonwealth armies. Almost all of the military psychiatrists were quickly demobilized returning to an uncertain future in their chosen profession. The more established physicians obtained hospital appointments at university-affiliated teaching institutions but many others resumed careers in traditional mental hospitals.

The British Army retained its wide imperial responsibilities and continued to conscript large numbers of young men through “National Service” but Australia, Canada and New Zealand re-established small volunteer forces. The British Army retained the services of a limited number of psychiatrists to assist with personnel selection and treatment in base hospitals and when the decision was made to send British troops to Korea a single psychiatrist was attached to the base hospital in Japan. It was left to the Canadians to provide a forward psychiatrist for the Commonwealth Division. The battle exhaustion unit was located in Seoul as part of 25 Canadian Field Dressing Station but it served largely as a diagnostic centre which quickly dispatched all but the mildest combat stress reaction cases to Japan.<sup>1</sup>

Practices more closely resembling forward psychiatry were introduced in August 1951 to limit the number of evacuations. One reason for the slow development of forward psychiatry was the relatively small number of cases of either mild or moderate battle exhaustion. During the period of intense combat, December 1950 to November 1951, 554 men were evacuated to Japan for psychiatric assessment. Battle exhaustion rates therefore, were exceptionally low by Second World War standards.<sup>2</sup> Recently Edgar Jones has reassessed the data on psychiatric casualties and suggested that as stress plays a significant role in battlefield cold injuries there may have been “unintentional under reporting” of combat stress in Korea.<sup>3</sup> Perhaps so but this insight could also be applied to previous wars.

Korean war veterans suffering from psychological problems were incorporated into programs developed after the Second World War including outpatient treatment and pensions. The New Zealand situation was typical. By 1948 of the approximately 250,000 men enlisted in the New Zealand forces 7,308 had

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been discharged with a diagnosis of neurosis and 4,160 had been awarded pensions.<sup>4</sup> The small number of Korean veterans added to the pension roster caused little comment.

In Canada the problem of veterans who exhibited continuing symptoms of neurosis was handed to the newly formed Department of Veterans Affairs (DVA). The Division of Treatment Services appointed Dr. Travis E. Dancey as adviser in psychiatry, and thus Dancey became one of the key figures in policy development. An MD with a one-year diploma in mental hospital psychiatry, Dancey had begun his career at McGill University and the Verdun Protestant Hospital for the Insane. His background and interest in various physical therapies, such as insulin subcoma, fitted well with the resolutely anti-Freudian approach of the McGill medical faculty and the prestigious Montreal Neurological Institute. Dancey joined the army and, after service as a psychiatrist in the Montreal military district, worked overseas at No. 1 Neurological Hospital in Basingstoke.<sup>5</sup> When the 2nd Canadian Corps appointed Dr. Burdett McNeel as Corps Psychiatrist in the fall of 1944, Dancey took over No. 1 Canadian Exhaustion Unit, where he was exposed to front line psychiatry. In the battle of the Rhineland in February and March, 1945, Dancey dealt with hundreds of battle exhaustion cases using various physical therapies and experimenting with hypnosis.<sup>6</sup>

Dancey's experience in Northwest Europe challenged his previous view that early treatment would cure battle exhaustion and raised doubts about the value of personnel selection, but he remained convinced that delayed, or recurring, chronic neuroses could be avoided or minimized by removing all prospects of "secondary gain." He described the Canadian approach to war-related neuroses in a paper presented to the American Psychiatric Association in May 1950. Titled "Treatment in the Absence of Pension for Psychoneurotic Veterans," the paper described the policy of the Canadian Pension Commission to claimants who exhibited neurotic symptoms:

A neurosis is a disorder that has its roots in childhood and may increase in severity throughout the years and is utilized by the subject, through unconscious mechanism, to avoid painful experiences and to escape certain responsibilities. Because of repetitive patterns of thinking and behaviour the subject is prone to take advantage of situations that may arise and will further protect him. Any encouragement toward the acceptance of his illness as a means of escaping his responsibilities is therefore dangerous and may well develop from compensation in the form of the payment of money. The subject, under such conditions, is apt to feel more and more disabled and to demand repeated increases in his income from a state that has already assumed a certain responsibility for his illness.<sup>7</sup>

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Dancey went on to note that the initial policy of providing treatment only for conditions that arose in the first year following demobilization had been reversed, and veterans with chronic neuroses were able to obtain therapeutic assistance at veterans' hospitals. In 1948, the first year of the program, 420 veterans were admitted to sessions of analytically-oriented psychotherapy, modified insulin treatment, or group psychotherapy.<sup>8</sup>

The Pension Commission's insistence on refusing pensions was endorsed by the Director of Treatment Services, Dr. J.N.B. Crawford, a veteran of the Hong Kong expedition and Japanese prisoner-of-war camps, who was convinced that if he ever allowed himself to "gratify his dependency needs," he would lose his grip and avoid all stressful situations and work. When Crawford moved to the Department of National Health and Welfare, however, the stone wall began to crumble. Constant pressure from veterans who had not responded to treatment led to an increasing number of awards for neuropsychiatric disabilities.<sup>9</sup>

Nonetheless, Dancey continued to oppose this trend. He had been instrumental in developing a research project designed to follow up the post-discharge adjustment of soldiers treated for exhaustion at No. 1 Canadian Exhaustions Unit from October 1944 to May 1945, and his research team interviewed 346 of the 1,271 men admitted. The report concluded that all but a small minority of the men who had broken down in battle had made a satisfactory adjustment to civilian life.<sup>10</sup> Those who were having difficulty were said to have been "poorly adjusted before enlistment." Further, the report suggested that the group that had experienced most combat stress had made the best adjustment to civilian life.<sup>11</sup>

Dancey and other DVA psychiatrists continued to advocate treatment in place of monetary compensation. They contrasted the Canadian system with what was happening in such countries as the United Kingdom and New Zealand, where thousands of veterans were pensioned for neurosis and where psychiatrists reported a "vicious spiral" that was creating "widespread hypochondria and dependence on pharmaceutical aids."<sup>12</sup>

In Canada, the mechanism through which pensions for neurosis were granted was the Assessment and Rehabilitation Unit of DVA. This "backdoor route" for veterans who had been denied awards by the Canadian Pension Commission was sharply criticized by Dancey in a 1960 article, but by then the unit was making decisions on the merits of each case and was recognizing the existence of what is now called post traumatic stress disorder.<sup>13</sup> Dancey believed that all that prevented a flood of applications was the lack of publicity and the complexity of the appeal process.



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The uneasy compromise between doctrine and the empirical evidence of veterans suffering from war-related chronic neurosis persisted until the 1980s. The challenge to the status quo developed in the United States when an alliance of Vietnam veterans and radicalized psychiatrists mounted a well-organized campaign to force the American Psychiatric Association (APA) to include “Post-Vietnam syndrome” as a recognized disorder in the Association’s *Diagnostic and Statistical Manual*, the physicians’ desk reference for psychiatrists.<sup>14</sup> Recognized mental illnesses were described, providing a basis for categorizing a bewildering variety of symptoms and providing patients with illness labels that would be accepted by employers, insurance companies, and the American Veterans Administration (since 1988 the Department of Veterans Affairs).

The first manual, known as DSMI, published in 1952, included a category called gross stress reaction, usually a combat stress reaction, which was described as a temporary condition. The authors specifically rejected the concept of delayed or chronic stress reactions insisting, as Canadian officials did, that chronic neurosis only developed among predisposed individuals. In DSMI, the symptoms of delayed stress reaction were categorized under forms of behaviour such as alcoholism, drug abuse, and depression. The second edition, DSMII, was developed between 1965 and 1968, before American attitudes to the Vietnam War had changed.<sup>15</sup> The apparent success of battlefield psychiatry in Vietnam, where the rate of breakdown was 5 to 7 per cent instead of the 20 per cent level reached in World War II, persuaded the authors to drop gross stress reaction from the manual, and no other reference was made to war-related disorders.<sup>16</sup> Psychiatrists working with veterans of the Vietnam and earlier wars were stunned by this decision. They had encountered numerous examples of delayed stress reactions and were looking for help from the leaders of their profession. Between 1968 and 1980, when DSMIII appeared, groups such as Vietnam Veterans Against the War joined with other antiwar activists in pressing for change. Robert J. Lifton, a popular writer and psychiatrist, worked with psychiatrist Chaim Shatan and a young social worker, Sarah Haley, to force the profession to recognize delayed stress reaction as a diagnosis for thousands of troubled Vietnam vets.<sup>17</sup>

Shatan, a Canadian, had studied at McGill during World War II, and had been exposed to veterans labelled chronic neurotics. Convinced that many veterans suffered from delayed traumas caused by their “inability to grieve in the combat zone,” he developed the case for post-Vietnam syndrome in a series of articles and public presentations.<sup>18</sup> In 1973, Lifton published *Home from the War*,<sup>19</sup> which criticized the U.S. government, the military, and the psychiatric profession. The stage was set for forcing changes in DSMIII. In 1980 the APA capitulated, agreeing that a diagnosis of post traumatic stress disorder (PTSD)

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could be applied to veterans and other survivors of traumatic events. The characteristic symptoms were described as “re-experiencing the traumatic event; numbing of responsiveness to, or reduced involvement with the external world; and a variety of autonomic, dysphoric, or cognitive symptoms.”<sup>20</sup>

Official recognition of PTSD was a turning point, a major paradigm shift, in ideas about psychological trauma.<sup>21</sup> Whereas previous explanations of chronic neuroses had drawn upon psycho-dynamic (life-history) theories or notions about inherited predisposition, PTSD was thought to be a result of specific stressful experiences. Initially it was assumed that only major traumatic events outside the range of normal human experience could cause the illness and investigators concentrated on veterans of the Vietnam War.

Both Australian and New Zealand soldiers had served alongside Americans in Vietnam and PTSD was gradually accepted as an appropriate diagnosis. For Australian Vietnam veterans exposure to chemicals, especially Agent Orange, was a far more important issue and the Vietnam Veterans Association of Australia was created in 1979 to pressure the government for compensation. After the 1983 Evatt Royal Commission rejected veteran’s claims the struggle intensified and was linked to PTSD.<sup>22</sup> The Australian Department of Veterans Affairs began to recognize the necessity of establishing a coherent and collaborative approach in the aftermath of the first Gulf War and in 2001 released a report “Toward Better Mental Health for the Veteran” establishing a new policy framework. Currently more than 40,000 Australian war veterans receive pensions for mental health conditions most of them awarded in the past decade.<sup>23</sup> New Zealand reached a similar accommodation with its Vietnam veterans in, 2006.<sup>24</sup>

The Vietnam War had less impact in Canada. Young Canadians who had volunteered to serve with U.S. forces in Vietnam were all but invisible, and the PTSD diagnosis seemed to be specific to that war.<sup>25</sup> It is not yet possible to trace the pattern of acceptance of the diagnosis by Veterans Affairs Canada,<sup>26</sup> but it is evident that by the mid-1980s, veterans’ advocates were employing the concept in presentations to the Canadian Pension Commission.<sup>27</sup>

In 1990, Dr. Lynne Beal, a psychologist serving as a consultant to the Dieppe Veterans and Prisoners of War Association, appeared before the Senate Subcommittee on Veterans Affairs to review a “Report to the Minister of Veterans Affairs on a Study on Canadians Who Were Prisoners of War in Europe During World War II.” Dr. Beal told the subcommittee that a large number of Dieppe veterans were suffering from PTSD, thus alerting Senator Jack Marshall and his colleagues to the problem.<sup>28</sup>

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Dr. Beal developed a questionnaire designed to identify those veterans, especially former prisoners-of-war, who reported symptoms. She concluded: "Forty-eight percent of [Dieppe] POWs had PTSD in 1946 and forty-two percent of POWs... Only 5% receive pensions for psychological disability pension... There appears to have been no significant initiative to diagnose PTSD in these POWs after this disorder was identified."<sup>29</sup> Dr. Beal reported that the incidence of PTSD was also high among veterans of the Dieppe Raid who were not taken prisoner. Her questionnaire produced rates of 27 per cent in 1946 and 30 per cent in 1992. While there are serious methodological problems with an investigation employing a questionnaire without a clinical interview or corroborating evidence, it is clear that any form inquiry into the presence of PTSD symptoms among World War II and Korean veterans would identify a large number exhibiting symptoms that might be attributed to post-traumatic stress.

The armed forces of the four Commonwealth countries were forced to respond to the evolving interpretations of CSR and PTSD as the first Gulf War and the Bosnian conflict resulted in a significant number of such casualties. For the British army, Northern Ireland and the Falklands war added to the pressure to rethink assumptions about combat stress and its consequences. The expeditionary force that sailed to the South Atlantic in 1982 did not include a psychiatrist or any special provisions for treating what was then described as "battleshock" Brig. P. Abraham, then Director of British Army Psychiatry, was convinced that if the long-established principles of proximity, immediacy and expectancy were implemented most "battleshock" casualties could be quickly returned to duty. In his view both "first aid and even the principles of more specific treatment" could be applied "within battalions" though if there were large numbers of casualties a Battleshock Rehabilitation Unit with a Field Psychiatric Team would be required.<sup>30</sup>

The Falklands War produced relatively few battleshock casualties but upon their return to Britain many veterans began to exhibit the symptoms associated with PTSD. After fruitless efforts to achieve recognition and compensation a group of 200 veterans launched a covert action against the Ministry of Defence. The claimants argued that the MOD had failed "to prevent or ameliorate the psychological consequences of combat" and encouraged a military culture that was antipathetic to psychiatric problems.<sup>31</sup>

When more than 2,000 British veterans joined the class action originally brought by survivors of incidents in the Falklands, the High Court of England and Wales accepted the explanations of the MOD and denied the claimants argument that the army had failed to provide adequate measures of prevention, detection and treatment for PTSD.<sup>32</sup> The High Court judge, Mr. Justice Owens did recognize that by 2003, when his judgment was rendered, that PTSD had

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become widely recognized, placing a new burden on the MOD, but he noted that this was not the case in 1980. He also recognized that:

the ultimate function of the military is to fight and win in battle. This meant that there will always be a necessary culture of toughness. It is a culture of mutual dependence in which the interests of the individual are subordinated to those of the organization.<sup>33</sup>

Mr. Justice Owens also dismissed claims that the screening, pre-deployment and post-deployment briefings in relation to stress were inadequate. There is, he wrote, “no conclusive or empirical evidence” that screening or such briefings are effective, a view now widely shared.<sup>34</sup>

The High Court case is of considerable interest because Mr. Justice Owens listened to a complete debate sifting the evidence with care. He held, correctly, that while there were many ideas and opinions about stress-related injuries there was remarkably little credible research available to support the various arguments.

The one area where he was reasonably confident about the evidence of efficacy was with regard to current treatment options for PTSD. He agreed that Cognitive Behaviour Therapy (CBT) alone or in combination with SSRIs (Selective Serotonin Reuptake Inhibitors) appeared to be effective. It was however apparent that CBT, as presently understood, was not available until the late 1990s.<sup>35</sup>

The Canadian Forces had adapted to the transition from peacekeeping to peace-making by introducing the term “Critical Incident Stress” (CIS) to categorize “events or circumstances outside the range of normal experience that disrupts one’s sense of control and involves perception of a life threat.” In March 1994, the Directorate of Health Treatment Services issued a pamphlet on *Preparing For Critical Incident Stress* which outlined the then current wisdom on the origins, prevention and treatment of CIS.<sup>36</sup> The pamphlet begins with a statement which is echoed in other official National Defence publications; CIS is “a normal reaction to an abnormal event” The author(s) go further insisting that “a strong reaction is a normal reaction” and few remain unaffected by a Critical Incident (CI), although reactions may differ. Some reactions are immediate and some may occur and/or recur days, even weeks later.<sup>37</sup> The pamphlet then offers a long list of symptoms characteristic of both immediate and delayed reactions and identifies PTSD as a medical diagnosis which “occurs in only a small minority of people exposed to psychologically traumatic events and may be preventable by adequate management of CIS.”<sup>38</sup>

Adequate management was said to consist of a variety of techniques to employ “both during and after the event” including stress management methods such

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as deep breathing, and talking about what happened and what you felt. The next step, described as CIS Defusing, involved a group meeting “to allow those involved to tell what happened and to talk about their reactions.” The authors suggest that the next step is a CIS Debriefing which “ideally takes place 48-72 hours after the CI” and involves a structured intervention by specially trained members of a Critical Incident Stress Team.<sup>39</sup>

The Army Lessons Learned Centre offered a similar view of “Stress Management in Operations” in its 1996 *Dispatches* emphasizing that no one is exempt from the possibility of CSR, which is the “normal” emotional and physical response of “normal” people.<sup>40</sup> The Lessons Learned Centre, drawing on the Critical Incident Stress Debriefing Process (CISD) conducted by “specially trained members of the helping professions (i.e. social work officers, medical personnel, personnel selection officers and chaplains) and peer supporters belonging to the unit being debriefed.”<sup>41</sup>

The approach to the stress casualties mandated by the Canadian Forces reflects the imprint of analytical model derived from social psychology. The insistence upon educating soldiers to believe that CSR is a normal response to stress and that delayed stress reactions may also be expected has little empirical basis and is best understood as a treatment strategy. During the Second World War temporary evacuations for “battle exhaustion” reached levels of one in four non-fatal casualties during periods of intense and prolonged combat but the average over the duration of a campaign which involved high levels of fatal and non-fatal casualties was one in ten or less. If battle exhaustion were a normal reaction to combat most infantry battalions would have ceased to function before the end of the battle of Normandy. Is it possible that the type of deployments experienced by the Canadian soldier in the late 1990s has proven to be more stressful than Italy or Normandy? It seems unlikely and it must be noted that despite the establishment of a military-medical model which *expects* CSR, and regards it as normal, only a small number of CF personnel report CSR or PTSD symptoms.

This approach to operational stress had been criticized by Dr. Allan English, an historian who prepared studies for the Board of Inquiry – Croatia. English believes that the high incidence of in-theatre psychological problems and of “unexplained physical symptoms” reported by Canadian veterans of recent deployments may be due to the way in which the CF has employed “a model of stress as a disease” and the emphasis on “treatment over prevention.” English writes:

In both World Wars and in subsequent conflicts it has been found that the most effective way to decrease preventable stress-related casualties was through a comprehensive and integrated system designed to reduce the effects of the inevitable stress of operations on military personnel.

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The central principle for success in designing and running this type of system has always been that military commanders must bear the ultimate responsibility for the system. When they have delegated this responsibility to others, such as those in the health care professions, the result has inevitably been unnecessary operational stress casualties.

We know that strength of leadership and unit cohesion are the only factors that have had a consistent impact on reducing operational stress casualties. These factors are purview of commanders at all levels. Therefore, a new system for dealing with operational stress should be regulated by those in the operational chain of command.

The most comprehensive model for dealing with operational stress is found in the Combat Stress Reaction (CSR) doctrine of the Israeli Defence Forces (IDF). Focusing on stress prevention by improving leadership practices and strengthening unit cohesion, this model has proven to be effective in reducing the effects of operational stress in the IDF over the past 20 years. It has many useful attributes, but would require major modifications to be acceptable to the CF. Extensive research would be required to adapt existing CSR models for use by the CF.

Leadership, at all levels, is the key to reducing the effects of operational stress. There has been very little empirical research done in this area in the CF; however, the small number of studies that have been published indicate that there is a “definite association” between certain stress-related illnesses on deployments and the confidence that personnel had in unit leaders. This confirms the findings of other studies done on the effects of leadership in reducing preventable operational stress casualties.<sup>42</sup>

The suggestion that commanders must take responsibility for limiting stress casualties by reducing operational stress may seem simplistic, but recent studies of the incidence of such casualties suggests that a renewed emphasis on leadership, unit cohesion and rest may be the only effective means of reducing CSR and PTSD presently available. This is particularly important in the light of current research which challenges the social psychological model employed in the CF in the 1990s.

For example, Dr. L. Stephen O’Brien who as a British Army psychiatrist was involved in the treatment of veterans of the Falkland War, now questions many of the underlying assumptions of the military and civilian approaches to traumatic illness. O’Brien discovered that not all Falkland War veterans who responded positively to questionnaires about PTSD symptomology seemed actually to be ill. Some who reported experiencing classic PTSD symptoms were unaffected

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by it, living their lives successfully. What role, O'Brien wonders, does "investigator priming" have to play in the incidence of post-traumatic illness?<sup>43</sup>

O'Brien raises questions about the universality of stressful experiences: "If three men are in an armoured vehicle and the vehicle next to them bursts into flames, one may feel that witnessing the probable death of close peers is terrible. A second may see it as an indicator that they too will inevitably be killed, heightening his fear. The third may see it as a lucky escape and proof of personal invulnerability."<sup>44</sup> The stressor is the same but individuals respond differently. O'Brien notes that we simply do not know why some people suffer from CSR and/or PTSD and why others do not.

This uncertainty raises serious doubts about the value of psychological briefing and debriefing. Recent studies reported by O'Brien have posed the question "Early interventions are intuitively appealing but do they work?" Is it possible they may do harm? One of the few controlled studies of psychological debriefing found that no protective effect was obtained by such debriefing and that "neither previous experience nor longer training was predictive and the one identified predictive factor was a history of previous emotional problems."<sup>45</sup> Research on the effectiveness of early intervention with CSR casualties must also be examined carefully. Almost all writers draw upon the work of the Israeli Army in discussions of this question but the evidence is ambiguous. The major follow-up study of Israeli veterans of the Yom Kippur and Lebanon wars found the rate of PTSD was fifty-nine percent for those who had been "successfully" treated for CSR on the battlefield.<sup>46</sup> Since there is no information on the severity of the individual stress reactions it is possible that even a larger percentage of those who experienced an intense episode of CSR subsequently developed PTSD.

The current uncertainty about the causes and consequences of stress reactions is dramatically emphasized in a recent issue of the *Canadian Journal of Psychiatry* that begins with an editorial titled "Does Stress Cause PTSD?"<sup>47</sup> This serves as an introduction to two articles that challenge much of the current consensus. Dr. Laura Bowman reports that "greater distress arises from individual differences than from even characteristics" and argues that "evidence of the efficacy of current treatment procedures is fragile."<sup>48</sup> The second article investigates "Biological Factors Associated with Susceptibility to Post-Traumatic Stress Disorder" and introduces some "preliminary research on biological and genetic factors which may account for vulnerability to stress."<sup>49</sup>

Few military commanders can be expected to stay abreast of psychiatric research but they should at a minimum be aware that current ideas on treatment and prevention are based on explanatory models that may lack empirical validity. Officers charged with the command of troops in stressful situations

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may find themselves required to work within an officially approved medical-administrative framework but they should resist those parts of the model which promote the view that CSR and PTSD are normal. They have the responsibility to ensure that the men and women under their command have confidence in the mission and its leadership at all levels.

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# Chapter 4

## Appendix 1

### ARMY PSYCHIATRY IN THE KOREAN WAR: THE EXPERIENCE OF 1 COMMONWEALTH DIVISION

Edgar Jones

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*"Army Psychiatry in the Korean War: The Experience of 1 Commonwealth Division," Military Medicine (April 2000): 256-260.*

*Edgar Jones, a Professor of the History of Medicine and Psychiatry at King's College, University of London, England, has analysed reports on psychiatric casualties in the Korean War to produce this thoughtful study. His emphasis on maintaining morale through the rotation of complete combat units every 12 months is especially interesting.*

This study seeks to investigate the incidence of psychiatric casualties in 1 Commonwealth Division during the Korean War. It had been hypothesized that these casualties were unusually low compared with earlier conflicts. Casualty returns and psychiatric reports were analyzed and showed that the war fell into two phases determined by the intensity of combat, which, in turn, influenced the nature of the psychiatric disorders encountered. Rates of acute combat stress were closely correlated with battle casualties, although not with total psychiatric admissions or nonbattle injuries. The limitations imposed on the psychiatric liaison service by the medical organization suggested that the incidence of psychosomatic cases, including cold injury, may have been unintentionally underreported.

#### INTRODUCTION

Despite the prediction made by General MacArthur in November 1950 that the troops would be "home by Christmas," the Korean War proved to be a protracted and large-scale conflict. It began in June 1950, when North Korean forces crossed the 38th parallel and rapidly overran most of the South until they were halted by a desperate defense behind the Rakdong River. Although United Nations troops drove the Communists back into their own territory, the war continued for another 3 years until an armed truce was signed on July 27, 1953. Some 5.7 million U.S. troops were deployed, and 54,000 died in combat or in captivity. (1) The United Kingdom contributed 81,084 servicemen to the 17-nation United Nations force, of whom 1,078 were killed and 2,674 were wounded. (2) Although a growing number of studies have investigated military and political aspects of the war, comparatively little research has been directed toward its medical aspects,

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particularly the treatment of soldiers with psychiatric disorders. Having analyzed admissions of U.K. troops to the base hospital from January to November 1951, Flood observed that the number of psychiatric casualties, including cases of acute combat stress, was unusually low. He attributed this to the relative absence of “intense enemy shell fire and aerial bombing.” (3) However, a reexamination of the medical returns for 1 Commonwealth Division suggests that the true incidence of psychosomatic disorders may have been underrecorded and that some cold injuries, particularly in the first half of the war, may have fallen into this category.

### MILITARY CONTEXT

The fighting fell into two distinct phases. At first, it was a war of movement, when the North Koreans pushed United Nations troops back to a thin strip of land around Pusan and when the Allies regained lost ground, driving north to the Yalu River. After the front line solidified just below the 38th parallel in mid-1951, it became a static conflict of attrition.

Already stretched by deployments to Europe, Hong Kong, and Malaya, the British government found itself facing a manpower crisis. National service was extended from 18 months to 2 years, and reservists were called up. Because the war appeared to have little relevance to Britain's fortunes and failed to inspire a strong patriotic spirit, it was anticipated that there was considerable potential for psychiatric breakdown in a force largely composed of conscripts and reservists. (3) The first U.K. troops sent to Korea, later part of 1 Commonwealth Division, were the Middlesex Regiment and the Argyll and Sutherland Highlanders. Forming 27 Brigade, these units landed at Pusan on August 29 and were quickly sent into action near Taegu. (4) Lieutenant Colonel Malcolm commented of the Argyll and Sutherland Highlanders that although this was “a regular battalion,” relatively few had seen any active service and it had not fought as a unit since leaving Palestine in 1948. (5) About half of the soldiers of 27 Brigade were national servicemen with no experience of combats and a high proportion of 29 Brigade, which arrived in November 1950, were reservists, many of whom were discontented by their unexpected recall. Most of the reservists sent to Korea had joined the regular army in the late 1930s and had seen a considerable amount of active service before recently settling into a peacetime lifestyle. (7)

### MEDICAL ORGANIZATION

Because it was possible to evacuate the sick and wounded rapidly by air, the base hospital (29 British General) was set up not in Korea but at Kure, Japan, 140 miles from Pusan. (8, 9) An RAMC psychiatrist, Captain J.J. Flood, ran a 30-bed

unit established in November 1950. In Korea itself, the divisional psychiatrist, Major J.F. Robitaille, RCAMC, was attached to the 25 Canadian Field Dressing Station (FDS), which was then in a school building at Seoul. However, a growing number of air medical evacuations to the Kure psychiatric unit, including those for mild and moderate cases of battle exhaustion, prompted a change in management. Previous wars had demonstrated that cases of combat stress reaction became increasingly intractable the farther soldiers traveled from their comrades and the front line. The role of the FDS was redefined in August 1951 as “that of holding minor sick and injuries from the division and thereby obviating a large proportion of such cases from being evacuated out of Korea,” and by December 1951, the FDS functioned as a “small general hospital.” (11) In addition, a clinical officer in psychiatry, Captain R.G. Godfrey, RAMC, was sent to Korea in August 1951 to enable a greater number of patients to be treated at the FDS, where a 24-bed psychiatric facility had been established. Although not a qualified specialist, Godfrey had 8 months of experience working in an adult psychiatric assessment unit in East London and had spent another 2 months working with Flood at the Japanese base hospital. In general, regular British officers with psychiatric qualifications were not deployed to Korea but kept in Germany, the United Kingdom, and other long-term postings. By contrast, the Canadian military regularly rotated divisional psychiatrists to give its officers combat experience, and Robitaille was succeeded by Major F.C.R. Chalke, who in August 1952 handed over to Major J.L. Johnson, RCAMC.

## PSYCHIATRIC PRESENTATIONS

Psychiatric casualties among U.S. troops were recorded as 37 per 1,000, higher than in the Vietnam War (12 per 1,000) and equivalent to those recorded in certain theatres during the Second World War. Reister found that these fell into distinct groups according to the phases of the war. The mid to high intensity combat from June 1950 until November 1951, when battle casualties increased to 460 per 1,000 troops, led to a preponderance of anxiety and fatigue states, and the highest levels of combat stress were recorded. (12) Most of those affected were infantry soldiers. The static warfare that followed led to a decrease in battle casualties, from 170 per 1,000 in 1951 to 57 per 1,000 in 1952. (13) Norbury showed that the low-intensity fighting was associated with increasing numbers of nostalgic symptoms (despair, frustration, and alienation), alcohol and drug abuse, and character and behaviour problems. (14)

This pattern was replicated in 1 Commonwealth Division. In the year from December 1950 to November 1951, 554 U.K. soldiers from a division of just over 16,000 were evacuated to Japan for psychiatric assessment, giving a total

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casualty rate of 35 per 1,000. Of these, 52% (287 patients) were diagnosed as suffering from anxiety disorders, and 13% (73 patients) were diagnosed with dissociative states or conversion disorders, which were more common after periods of intense shelling or mortar attacks. (3) The initial peak in psychiatric casualties also owed something to the nature of the troops that had been deployed. The Canadian brigade, for example, was not a regular unit but had been hastily recruited from veterans, reservists, and volunteers, 25% of whom were found unsuitable within 6 months. Their first infantry battalion to arrive in Korea soon lost substantial numbers from chronic medical conditions, and another 150 men were sent back with disciplinary and psychiatric problems. Major Chalke, an expert in personnel selection, doubtless owed his posting to the attempt to stem the flow of evacuees.

In the second stage of the war, as the FDS took an increasingly active role, psychiatric admissions to the divisional base hospital decreased appreciably. In May 1952, for example, psychiatric inpatients represented only 2.3% of total admissions, and in the next year they fluctuated between a high of 5.4% in February 1953 and a low of 0.6% in November 1952, at a time when the division was 18,500 strong. (6) No equivalent medical returns survive to provide statistics for the early part of the war.

The admission figures to the base hospital in Kure, however, understate the true incidence of psychiatric casualties because patients were initially referred to the FDS for treatment and were evacuated only if their conditions proved intractable. Although an incomplete series of monthly returns has survived, these figures show a much higher incidence of psychiatric casualties. The majority of FDS admissions were diagnosed as suffering from psychoneuroses, a group of disorders in the main composed of anxiety and dissociative states together with conversion disorders. Of lesser significance were personality disorders. Most cases of battle exhaustion were treated at the FDS, and these are analyzed below. More than half of these patients were returned to duty, although usually in a less active role, and approximately 30% were evacuated to the base hospital.

Although the low intensity of the fighting in the second half of the war undoubtedly played a major role in reducing the rate of psychiatric breakdown, it also appears that the limitations imposed on the liaison service may have led to underreporting of psychosomatic disorders. The divisional psychiatrists regularly visited front-line units, where they would be asked to see soldiers with cases of suspected somatization. These commonly presented with backache, and in August 1952, Colonel G.L. Morgan-Smith, the Assistant Director of Medical Services, found it necessary to remind medical officers that "chronic low back pain, gastrointestinal disturbances and vasomotor symptoms are often bodily

responses to anxiety, resentment or low morale.” (17) However, once a patient had been referred to a medical or surgical specialist at the FDS, there was little opportunity for psychiatric input. Given the ease of aeromedical evacuation, soldiers with unexplained or intractable physical symptoms were flown to Japan for further investigation. In the 14 months from May 1952 to June 1953, the chief causes for admission to the base hospital were respiratory (10%), gastrointestinal (2.7%), and skin reactions (10.3%). It is likely that some of these cases represented somatic expressions of psychological distress. An American study of orthopedic patients evacuated from Korea, for example, showed that psychiatric symptoms were present in 56% of the sample, the majority of them combat stress. (18)

## COMBAT FATIGUE AND BATTLE EXHAUSTION

“Combat fatigue,” as it was termed by U.S. forces, or “battle exhaustion,” as it was known to Commonwealth troops, proved to be an important feature of Korean War psychiatry. Approximately half of U.S. servicemen treated for combat fatigue were returned to duty within 1 to 6 hours, and 70% were shown to have mild symptoms. (19) The success of the American treatment program owed much to Colonel Albert J. Glass, a veteran of the Second World War. (20) U.S. divisional psychiatry rapidly became operational within 8 weeks of the beginning of hostilities, and by October 1950, the three levels of treatment, based on the Army’s recent experience of war, were in place. (21, 22) Glass had organized mental health sections to train regimental and battalion medical officers and set up mobile psychiatric detachments, called “KO teams,” to reinforce divisions at times of heavy fighting so that combat fatigue could be treated rapidly and effectively as close to the front line as possible. (23, 24) In the initial phase of the war, U.S. medical services appear to have responded more efficiently than their British counterparts. This may have been a reflection of the divided chains of command within the Commonwealth Division, the smaller scale of its deployment, and the manpower shortages it faced.

In December 1952, Major Johnson, the divisional psychiatrist, reported that the proportion of battle exhaustion to battle casualty cases for the Commonwealth Division was only 21 per 1,000, significantly lower than the 200 per 1,000 recorded for the British Second Army between July and September 1944 during the intense fighting in Normandy. (25) From May 1952 until the end of the war, only 37 cases of battle exhaustion were reported among 2,026 casualties, giving an average rate of 18 per 1,000, although in September 1952 it increased to 24 per 1,000 and between January and March 1953 no cases were referred to the FDS. (26) It is possible that these low levels also reflect the growing experience

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of battalion medical officers, who in this quieter phase of the war may have been managing mild cases at regimental aid posts to keep soldiers within their units. Blood and Gauker established an association between the intensity of fighting and the incidence of disease and nonbattle injuries for U.S. troops during the assault on Okinawa (April to June 1945) and in Korea between February and June 1951. (27) For the 1 Commonwealth Division, battle exhaustion cases were found to be closely correlated with battle casualties (Spearman's  $p = 0.001$ ), although no such relationship could be detected for psychiatric admissions to the base hospital (Spearman's  $p = 0.599$ ) or nonbattle injuries (Spearman's  $p = 0.69$ ). In October 1952, Captain Godfrey had observed that increased enemy artillery fire usually led to higher referral rates. Commonwealth troops were rarely subjected to sustained or concentrated shelling or aerial bombardment, and between battles they often endured lengthy periods of inaction.

With regard to treatment, Captain Godfrey concluded that "motivation is of paramount importance in determining the chances of a patient's return to full duty. This is particularly true among the less severe cases of battle exhaustion." (28) Although the majority of patients returned to some form of duty, few returned immediately to their battalions. Most were sent to the divisional reinforcement unit for further training and assessment. Flood recorded that 66% of patients evacuated to Kure for treatment were returned to military duties, although it is unlikely that many of these returned to front-line units in Korea. (30) In Italy during 1943 and 1944, for example, the exhaustion centre serving the British 10 Corps succeeded in returning 90% of soldiers to duty, although only 30% returned to combat with their original battalions. (29) The high proportion of Australian troops requiring evacuation to the base hospital related to the inflexible regulations imposed by Australian military authorities rather than the quality of Australian servicemen. In British and Canadian units, men suffering from battle exhaustion could be assigned to other duties, but Australian soldiers had to be fit for service in a front-line company at the end of treatment or they were removed from the division altogether.

Despite the work of the FDS, resistant cases of battle exhaustion were encountered, and these patients were evacuated to Kure, where Major R.D. Davies, RAMC, had succeeded Flood. Between January and May 1952, five servicemen with acute combat stress reaction were flown to Japan, representing 15% of all psychiatric admissions. (33) In June 1952, the military authorities explored the idea of transferring the base hospital to Korea, a suggestion supported by the psychiatrists, who argued that it would not only improve opportunities for liaison work but also prevent the "backward-looking attitude of mind that develops and becomes fixated and immovable the further the patient is from the scene of active warfare." (31)

## COLD INJURY

The Korean War, recalled Brigadier R.V. Franklin, the Deputy Director of Medical Services, was popularly invested “with a variety of hazards to the health of troops required to serve there... The climate, particularly the winter was one of the aspects that gripped and held public imagination.” (32) Frostbite assumed significant proportions in the harsh winter of 1950-1951, when temperatures were reported as low as -27C and when some U.K. troops had yet to be issued proper clothing and equipment. Between November 1950 and February 1951, 120 Commonwealth servicemen from a division of 10,000 were admitted with cold injuries, of whom 66 were diagnosed as suffering from frostbite, 37 with trench foot, and 22 with exposure conditions. (31)

During both the Second World War and the Korean conflict, cold injuries occurred primarily among servicemen engaged in battle. Hanson and Goldman estimated that the number of cases reported during combat was greater than would have been predicted based solely on temperature and wind chill, and they proposed exposure, immobility, improper attention to clothing, fatigue, and fear as explanations. (34) During the winter of 1950-1951, more than 4,000 (i.e., >50%) United Nations cold-injury casualties were flown to a special treatment unit in Japan. (35) The U.S. Army became concerned about the incidence of cold injuries, a number of cases being considered to have been self inflicted by men who had removed their boots or neglected to take proper precautions. (3)

Stress plays a central role in combat cold injury because of both its behavioural and physiological manifestations. (36) It can lead a soldier to fail to protect himself from the environment, and in extreme cases it can produce total immobility. Physiologically, fear or increased activity of the sympathetic nervous system leads to vasoconstriction and sweating, which contributes to significant temperature reduction in the extremities. Psychiatrists in Korea observed that as the incidence of frostbite increased, the number of psychiatric casualties decreased. A comparison between 110 frost-bitten servicemen and 20 hospitalized soldiers showed that the former had a lower drive for prestige, took fewer precautions against the cold, and exhibited a greater range of hypochondriacal beliefs. It was hypothesized that physical injury could have served as a defense against psychiatric disorders in situations of intolerable stress. (3) An investigation conducted during the Second World War of 21 U.K. soldiers with vasoneuropathy after chill, or trench foot, showed that 12 were preoccupied with problems at home, 5 suffered from psychological disorders, and 8 exhibited emotional instability. Ten of the soldiers admitted that they experienced uncontrollable fear when in action. (38)

The role of morale as a protection against cold injury was exemplified by the Argylls. They had arrived in Korea during the summer and were still wearing



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tropical kit when the winter arrived, forcing them to acquire clothing and equipment from U.S. troops. Despite their lack of preparedness, the battalion had the lowest incidence of frostbite of any front-line United Nations unit in the harsh winter of 1950-1951. (5) This was because the commanding officer gave permission for small fires to be lit in the trenches but also because unit morale remained high and great emphasis was placed on preventative measures such as regular changes of dry socks.

The conditions in Korea, where troops were continuously in the open and exposed to intense cold at night but only moderate cold during the day, gave rise to a form of cold injury intermediate between frostbite and trench foot that almost exclusively affected the lower limb. Watts showed that cases were most common in the infantry, with a mean rate of 2.13% [range, 7.82-0.65%]. Other troops had a mean rate of 0.37% (range, 1.54-0.12%). Although a higher incidence was predicted in older reservists, no marked difference was detected, and battalions composed of recalled Second World War veterans recorded below-average rates. (39) By the winter of 1951-1952, when better clothing, boots, and stoves had been issued, new cases of frostbite were “considered to be due to failure of unit discipline.” (40) During the next winter, it was considered that “the division has reached the stage when one should treat every case of cold injury within our lines as a self-inflicted wound.” (41) The incidence of frostbite decreased greatly, and in 1952-1953 only 30 first-degree and 5 second- and third-degree cases were recorded, and no amputations were necessary. (42) The admission rate of 12.0 per 1,000 recorded in the winter of 1950-1951 had decreased appreciably to 1.9 per 1,000 two years later. Unfortunately, the monthly casualty figures do not systematically record cold injuries, thereby preventing statistical comparison with battle injuries and psychiatric referrals.

## CONCLUSION

From January to November 1951, when some of the bitterest fighting took place, often in adverse conditions, the incidence of psychiatric disorders in 1 Commonwealth Division increased to 35 per 1,000, almost equivalent to the 37 per 1,000 calculated for U.S. forces. The delay in setting up a forward treatment unit until August 1951 and the limitations imposed on the liaison service reinforce the impression that psychiatric casualties may have been unintentionally underrecorded. It is possible that some patients with psychosomatic and factitious disorders were evacuated to the base hospital in Japan without assessment by a military psychiatrist. The incidence of acute combat stress reaction was comparatively low in the second half of the war and was closely correlated with battle casualties. Although this was primarily a consequence of the changed character of the

fighting, it also might have reflected the greater experience of regimental doctors and psychiatrists in the field, who may have detected cases earlier and been more discriminating in their referrals to specialist units. At the onset, when the organization was rudimentary and located far from the front line, proper diagnosis and treatment were compromised. Reduced numbers of referrals to the base hospital may have been a reflection of a more effective clinical system.

What, then, are the lessons to be learned from the Korean War? First, the work of the FDS confirmed the efficacy of Thomas Salmon's system for treating battle-exhausted troops quickly and close to their combat units. It is significant that this method had to be rediscovered so soon after the Second World War in the same way that Captain Frederick Hanson had resurrected it in the North African campaign. Morale appears to have protected servicemen from breakdown, and the regular rotation of armoured regiments and infantry battalions every 12 months helped to preserve this group spirit. Whole units arrived and departed together rather than in "trickle postings." (2) This policy did much to retain a sense of team loyalty so essential to the fighting spirit. Troops were generally spared the terrors of aerial bombing and constant shelling, and one of the main problems encountered by units when not on the front line was boredom. However, the low figures for psychiatric admissions during the second half of the campaign may have led the military authorities to underestimate the potential for breakdown and encouraged a rationalization of Army Medical Services, which saw the number of military psychiatrists cut from 82 in 1948 to 42 in 1958, at a time when the British Army grew from 418,000 to 450,000. (43) Finally, the loss or destruction of substantial sections of the medical corps archive, including statistical returns, emphasizes the need for accurate record keeping during conflicts and careful preservation of historical evidence once the fighting has ended.

## ACKNOWLEDGMENTS

The authors thank Dr. RG. Godfrey for his generous help in the researching of this paper. This study was funded by a grant from the U.S. Department of Defense.

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## Appendix 2

### POST-TRAUMATIC STRESS DISORDER IN PRISONERS OF WAR AND COMBAT VETERANS OF THE DIEPPE RAID

Lynne Beal

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*"Post-Traumatic Stress Disorder in Prisoner of War and Combat Veterans of the Dieppe Raid," submission to the Senate Subcommittee on Veterans Affairs, 16 August 1994 (Senate of Canada, Proceedings of the Subcommittee on Veterans Affairs, Tuesday, 16 August 1994, issue no. 3:30).*

*Dr. Lynne Beal a Professor of Psychology at the University of British Columbia developed an interest in Post Traumatic Stress Disorder among Dieppe veterans after observing her own father who was a veteran of the 1942 raid. This report was prepared for the Senate Subcommittee on Veterans Affairs which was seeking information on PTSD before making policy recommendations.*

#### ABSTRACT

*Objective:* This paper presents the first 50-year study of the differential effects of incarceration and combat on the development and persistence of post-traumatic stress disorder (PTSD) in Canadian veterans and prisoners of war (POWs) from the Dieppe Raid.

*Method:* A large sample of Dieppe POWs and non-POWs completed questionnaires diagnosing PTSD and other psychological and health problems of the veterans in 1946 and in 1992.

*Results:* The POWs showed a higher incidence of (PTSD) and other psychological symptoms than veterans with the same combat exposure. The POWs' experiences of malnutrition, maltreatment and torture, and mental suffering showed strong links to PTSD.

*Conclusions:* For many veterans, PTSD has lasted 50 years. Failure to be eligible for psychological disability pensions demonstrates that PTSD and other psychological disorders in these veterans have been greatly unrecognized by the Canadian Department of Veteran's Affairs.

#### INTRODUCTION

This paper investigates differential effects of incarceration and combat on Post-traumatic stress Disorder (PTSD) in Canadian veterans of the Dieppe Raid

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and those veterans who were taken prisoner or war (POW), fifty years after the Raid. The relationship between PTSD and malnutrition, maltreatment and mental suffering during the incarceration of Dieppe POWs is also reported.

If incarceration conditions are an important correlate of psychological sequelae, Dieppe POWs will have similar psychiatric problems to those described in POWs held by the Japanese and Koreans (Beebe, 1975; Page, Engdahl & Eberly, 1991). Dieppe POWs' incarceration was similar to that of Japanese-held World War II (WWII) POWs, both in duration of 33 months (Hermann, 1973; Miller, Martin & Spiro, 1989; Zeiss & Dickman, 1989), and in conditions (Tennant, Goulston & Dent, 1986a). These included malnutrition, inadequate shelter and clothing, enforced prolonged marches, physical labour, severe physical violence and unpredictable punishments. In addition, the Dieppe POWs' hands were tied or chained together for 18 months.

### PSYCHOLOGICAL DISORDERS OF COMBAT VETERANS AND POWS

PTSD in POWs and combat veterans has been investigated using questionnaires for large samples, clinical interviews of small samples, and hospitalization records. However, no study has used nonPOWs with the same combat experience as a control group to link incarceration to PTSD. This study of Dieppe POWs and nonPOWs provides such a comparison.

The incidence of PTSD in POWs vastly exceeds the .08% incidence in the general male population (Helzer, Lee, Robins & McEvoy, 1987). Long-term follow-up of WWII and Korean War POWs has shown that PTSD has lasted for 40 years after repatriation.

Large survey studies of American POWs have reported PTSD in 55.1% of POWs of the Japanese; 55.7% of POWs held in Europe (Zeiss & Dickman, 1989) and 67% of a combined sample of POWs (Kluznik, Speed, VanValkenburg & Magraw, 1986). The only study to include nonPOWs did not examine PTSD, but showed a higher incidence of anxiety disorders in Australian POWs of the Japanese (71%) than in nonPOWs with similar combat experience (46%) (Tennant et al., 1986a).

Clinical interviews found 50% of American POWs held in Europe had PTSD 1 year later and 29% had PTSD forty years later (Speed, Engdahl, Schwartz & Eberly, 1989). Long-term follow-ups of POWs held in Korea showed PTSD in 50% (Goldstein, van Kammen, Shelly, Miller & Van Kammen, 1987), 29% (Speed et al., 1989), 90100% (Sutker, Winstead, Galina & Allain, 1990) and 86% of POWs

(Sutker et al., 1991). Only 9% of nonPOWs had PTSD (Sutker et al., 1991) and POWs had more PTSD symptoms than nonPOWs (Fairbank, Hansen & Fitterling, 1991; Sutker and Allain, 1991; Sutker et al., 1991). While complete clinical interviews provide more reliable diagnoses of PTSD than questionnaire studies, small samples, ranging from 20 to 62 POWs, cannot reliably establish the incidence of PTSD in POW populations.

Strong links have been established between severe PTSD symptoms and three aspects of the POW experience (Speed et al., 1989). The first link to PTSD and other psychiatric problems is physical symptoms of malnutrition during incarceration (Beebe, 1975; Page, Engdahl & Eberly, 1991; Speed et al., 1989; Sutker, Bugg & Allain, 1990). The second link to PTSD is maltreatment during incarceration including torture, beatings or physical abuse (Eberly, Harkness & Engdahl, 1991; Miller et al., 1989; Sutker, Winstead Galina & Allain, 1990; Sutker et al., 1991). The third link is to mental suffering during incarceration (Speed et al., 1989; Sutker, Winstead, Galina & Allain, 1990).

PTSD has not been linked to predisposing factors of family history of mental illness, pre-service adjustment problems or severe childhood trauma (Speed et al., 1989). Young age, limited education and low rank at the time of capture were correlated with PTSD (Speed et al., 1989; Zeiss & Dickman, 1989) and other forms of long-term psychological maladjustment (Engdahl, Page & Miller, 1991).

## **DIEPPE VETERANS AND POWS**

Hermann (1973) surveyed the state of Dieppe veterans 30 years after the Raid. While their psychological status was not studied in depth, more Dieppe POWs (72%) reported feelings of anxiety than other Canadian POWs groups or non Dieppe nonPOWs (50%). These figures closely resemble the incidence of anxiety disorders in Australian Japanese-held POWs and nonPOWs (Tennant et al., 1986a).

Dieppe POWs suffered higher post-war mortality rates at an earlier age and more health problems than Dieppe nonPOWs or other American or Canadian POWs from the European theatre (Beebe, 1975; Hermann, 1973). Dieppe POWs' post-war mortality rates are similar to those of American, Australian and Canadian POWs of the Japanese and Koreans (Beebe, 1975; Eberly & Engdahl, 1991; Richardson, 1965). Dieppe POWs had significantly worse physical health, had aged prematurely and had a higher incidence of pensionable disability than other Canadian POWs held in Europe or Canadian nonPOWs (Hermann, 1973).



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### CURRENT STUDY

This questionnaire study examines the incidence of PTSD and other psychological outcomes in Dieppe veterans and POWs 50 years later. It is the longest follow-up study of combat veterans and POWs yet published. As WWII veterans are at least seventy, it may constitute the longest follow-up period that can be accomplished. It is the first large sample study to compare the psychological outcomes of WWII POWs with combat veterans with identical initial combat experiences, enabling the establishment of further links to PTSD. Dieppe POWs are expected to show PTSD rates and physical symptoms similar to the American POWs of the Japanese and Koreans whose incarceration conditions were similar, and higher rates than the Dieppe veterans who were not captured.

The results will show links between PTSD and malnutrition, maltreatment and mental suffering during incarceration which have lasted for 50 years. Patterns of psychological and physical symptoms are demonstrated through veterans' reports of symptoms as remembered from 1946, and as experienced in 1992.

### METHOD

#### *SUBJECTS*

The participants were 276 Caucasian World War II veterans of the Dieppe Raid, 198 or 71.7% of whom had been POWs. All but four were Canadian Army veterans and most were enlisted men. Dieppe was the first combat for Canadians in WWII and the only combat seen by 76.1% of participants.

The POWs and nonPOWs were well matched for education before the war and after the war, age at enlistment, marital status in 1992, number of previous marriages, work status and income in 1992. They did not differ in rank at the time of the Dieppe Raid, although nonPOWs continued their Service careers and saw more combat ( $X^2(1) = 167.56, p < .001$ ), obtained higher ranks ( $X^2(2) = 18.07, p < .001$ ), and were older at discharge ( $t(255) = 2.69, p < .008$ ) than POWs.

#### *PROCEDURE*

The Dieppe Veterans and Prisoners of War Association provided the names and addresses of potential subjects. Members of the Association received a letter from Senator Jack Marshall, Chairperson of the Senate Committee on Veterans Affairs, asking them to participate in a study of their wartime experiences. Questionnaires were later mailed to all 647 members of the Association in the

veteran's native language, English or French, along with a stamped envelope addressed to the author. Reminders to return the questionnaire appeared in the ensuing issue of the Association's newsletter.

In all, 276 questionnaires (42.66%) were returned and usable. An additional 11 questionnaires were unreadable or had too much missing data to be included in the analyses.

The questionnaire asked about the veterans' demographics, pre-war history, military history, medical and psychological history, and psychological symptoms since WWII, including all symptoms of PTSD listed in DSM-III-R (American Psychiatric Association, 1987). POWs were also asked about their experiences during incarceration and their military pensions. Informed consent was indicated by signature on the questionnaire.

Diagnosis of PTSD was determined through full DSM-III-R criteria. Each of the 17 symptoms of parts B, C and D of the PTSD diagnostic criteria appeared as individual items on the questionnaire. Participants rated how seriously they were troubled by each symptom, using a scale of 0 (not at all) to 4 (a great deal). Duration of symptoms longer than one month was established by asking separately about each PTSD symptom in 1946 and 1992.

Veterans were considered to meet the criterion for PTSD diagnosis if they assigned ratings of 2 to 4 on one symptom from part B and three symptoms from part C and two symptoms from part D of the PTSD diagnostic criteria, in accordance with the DSM- III-R standard. Separate PTSD diagnoses were determined for symptoms in 1946 and 1992. The frequency score for PTSD symptoms was determined by adding each respondent's frequency ratings on each of the 17 component symptoms of PTSD from DSM-III-R.

## RESULTS

### *COMPARISONS OF POWS AND NONPOWS*

Table 1 compares POWs and nonPOWs on psychological and physical symptoms. For each group means are presented, along with the  $X^2$  or  $t$  value and degrees of freedom. Comparisons within groups for conditions before Dieppe and after Dieppe are based on means presented in Table 1, and the correlated  $t$  values are presented in the text.

## CHAPTER 4

### *INCIDENCE OF PTSD IN POWS AND NONPOWS*

More POWs than nonPOWs met the DSM-III-R criteria for PTSD diagnosis, although incidence was high for both groups. No significant change in incidence of PTSD from 1946 to 1992 was observed for POWs ( $t(197) = 1.63$ , n.s.) or nonPOWs ( $t(66) = -.63$ , n.s.). Regardless of diagnosis, POWs showed more PTSD symptoms than nonPOWs.

### *FURTHER PSYCHOLOGICAL SYMPTOMS*

Before the Dieppe Raid feelings of depression and anxiety were rare for POWs and nonPOWs. POWs showed a higher increase in incidence of feelings of depression and anxiety after Dieppe than nonPOWs. Feelings of depression increased after Dieppe for both POWs ( $t(137) = 14.6$ ,  $p < .0001$ ), and for nonPOWs ( $t(61) = 5.23$ ,  $p < .0001$ ). Feelings of anxiety also increased for both POWs ( $t(191) = 19.32$ ,  $p < .0001$ ), and for nonPOWs ( $t(66) = 6.09$ ,  $p < .0001$ ).

Canadians suffered 68% casualties at Dieppe (Robertson, 1962). In 1946 more POWs than nonPOWs experienced feelings of guilt over surviving. The incidence of this feeling decreased in POWs from 1946 to 1992 ( $t(177) = 4.08$ ,  $p < .0001$ ), but did not change for nonPOWs ( $t(86) = 1.11$ , n.s.). A vast number of POWs and nonPOWs reported difficulty in expressing feelings in words, with a higher prevalence in POWs than in nonPOWs in 1992. There was no decrease in this feeling from 1946 to 1992 for POWs ( $t(178) = 1.95$ , n.s.) and for nonPOWs ( $t(56) = 1.11$ , n.s.).

### *PENSIONS FOR PSYCHOLOGICAL PROBLEMS*

While 37% of veterans had PTSD in 1992, only 5.4% of veterans receive psychological disability pensions from Department of Veterans Affairs (D.V.A.). More veterans with PTSD diagnoses in 1992 than without PTSD receive a psychological disability pension ( $X^2(1) = 7.21$ ,  $t < .007$ ). Yet only 10.6% of veterans with PTSD in 1992 receive psychological disability pensions. Most veterans' pension status is unchanged since 1973.

### *COMPARISON OF POWS WITH PTSD AND WITHOUT PTSD*

Table 2 compares POWs who met the DSM-III-R criteria for PTSD with POWs who do not. While 47.5% of POWs had a PTSD diagnosis in 1946, 42.4% of POWs had PTSD in 1992. POWs with PTSD were younger and had less pre-enlistment education than POWs without PTSD, but did not differ in rank at capture, post-war education attained or discharge date.

POWs with PTSD diagnoses showed more malnutrition symptoms than POWs without PTSD. POWs with PTSD diagnoses had lost a larger percentage of their body weight, had more visual symptoms, more lower extremity swelling and more hospitalizations for gastro-intestinal problems than POWs without PTSD.

POWs with PTSD experienced significantly more maltreatment than POWs without PTSD. POWs who were beaten had more PTSD diagnoses. POWs who were fired on by Allied Forces during the forced “Death March” in 1945 had more PTSD diagnoses in 1946.

POWs with PTSD endured more mental suffering during incarceration than POWs without PTSD. More POWs with PTSD reported personal intimidation and interrogation. More POWs with PTSD in 1946 reported group intimidation and personal death threats, while more POWs with PTSD in 1992 reported group death threats, solitary confinement, and witnessing POWs being tortured, than POWs without PTSD.

POWs with PTSD showed a higher incidence of further psychological symptoms. Most POWs reported having little or no depression or anxiety before Dieppe whether or not they later developed PTSD. In contrast, POWs reported a high incidence of feelings of depression, helplessness, confusion, anxiety, isolation and loneliness during incarceration. Each of these symptoms was experienced by more POWs with PTSD diagnoses than POWs without PTSD. PTSD in POWs was also related to a cluster of symptoms including sleep disturbance, guilt, lack of concentration and lack of interest. Engdahl, Speed, Eberly and Schwartz (1991) related this cluster to “sadness” since American POWs were unlikely to volunteer having feelings of sadness but frequently reported having these symptoms. Dieppe POWs with PTSD diagnoses in 1946 reported a higher incidence of these “sadness” symptoms than POWs without PTSD, in both 1946 ( $X^2(16) = 80.66, p < .00001$ ) and 1992 ( $X^2(17) = 63.03, p < .00001$ ). Likewise, Dieppe POWs with PTSD diagnoses in 1992 reported a higher incidence of these “sadness” symptoms than POWs without PTSD in both 1946 ( $X^2 = 43.9, p < .002$ ) and 1992 ( $X^2(17) = 73.13, p < .00001$ ). POWs with PTSD diagnoses in 1992 further reported a higher incidence of suicidal thoughts than POWs without PTSD.

After repatriation both groups of POWs experienced difficulty expressing their feelings in words and feelings of guilt over surviving, with incidence higher in POWs with PTSD. POWs with PTSD reported more hospitalizations for nervous or psychiatric conditions than POWs without PTSD.

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### *PENSIONS FOR POWS WITH AND WITHOUT PTSD DIAGNOSES*

While 42.4% of POWs had PTSD in 1992, only 5.1% receive pensions for psychological disabilities. For POWs there was no relationship between a PTSD diagnosis in 1946 and a psychological disability pension ( $X^2(1) = 1.69$ , n.s.) while more POWs with PTSD diagnoses in 1992 receive a psychological disability pension ( $X^2(1) = 5.86$ ,  $R < .007$ ). Most veterans' pension status is unchanged since 1973.

### *PHYSICAL HEALTH OF POWS AND NONPOWS*

While the veterans were in good health before the Dieppe Raid, both groups showed significant increases in three specific physical symptoms after the Raid. Gastro-intestinal problems increased for POWs ( $t(195) = 16.3$ ,  $p < .0001$ ), and for nonPOWs ( $t(44) = 4.40$ ,  $p < .0001$ ). Severe headaches increased for POWs ( $t(191) = 10.38$ ,  $p < .0001$ ), and for nonPOWs ( $t(66) = 3.01$ ,  $p < .004$ ). Duodenal ulcers increased for POWs ( $t(192) = 9.43$ ,  $p < .0001$ ) and for nonPOWs ( $t(66) = 3.79$ ,  $p < .0001$ ). POWs had a higher increase of gastro-intestinal problems and severe headaches than nonPOWs. The veterans had lost count of their numerous hospitalizations since WWII, precluding reliable empirical comparisons.

Eighty-five percent of veterans and over 97% of POWs receive a pension from D.V.A. Most veterans are pensioned for physical disabilities (54% of veterans and 55.6% of POWs).

## DISCUSSION

Dieppe POWs have as high an incidence of PTSD as American POWs held by the Japanese and Koreans. The incidence of PTSD in Dieppe nonPOWs is also astonishingly high. PTSD and its symptoms have lasted 50 years in Dieppe POWs and nonPOWs, essentially a lifetime, and beyond the forty years reported previously (Kluznik et al., 1986; Zeiss & Dickman, 1986).

The strong relationships between PTSD and the Dieppe POWs' incarceration experiences of malnutrition, torture, and mental suffering replicate the experiences and outcomes of the POWs held by the Japanese and the Koreans (Beebe, 1975; Miller et al., 1989; Speed et al., 1989; Sutker, Winstead, Galina & Allain, 1990). The extended incarceration of Dieppe POWs under these traumatizing conditions links closely to the development of PTSD which has lasted 50 years in many POWs. PTSD is not as strongly linked to the combat experience.

A striking difference between the Canadian Dieppe POWs and American WWII POWs is in prevalence of psychiatric diagnosis. In the United States

the American Vietnam veterans' efforts to get PTSD recognized (Helzer et al., 1987) and the 1981 Former Prisoners of War Act (PL 97-37) led to increased research, clinical services and benefits for American ex-POWs through the U.S. Veterans Administration (Engdahl, Speed et al., 1991). Psychiatric disorders and subsequent hospitalization are more prevalent in American POWs than nonPOWs over time (Beebe, 1975; Tennant et al., 1986b, 1986c).

For Dieppe veterans, the low incidence of psychological disability pensions despite high incidence of PTSD suggests that veterans with psychiatric disorders were not identified by D.V.A. Their psychological problems in particular appear to have gone undiagnosed. Dieppe POWs and nonPOWs did not differ in incidence of hospitalizations for psychiatric conditions (13.7% and 6%, respectively) use of tranquilizers (46.5% and 37.1%, respectively) or of previous psychotherapy (21.2% and 18.8%, respectively).

As Medical Advisor to the Canadian Pension Commission, Richardson (1965) classified Canadian POWs of the Japanese with psychiatric disabilities related to service stress under the heading "avitaminosis", a term used to describe the effects of malnutrition and captivity. Avitaminosis was the diagnosis used widely to cover pension entitlement for nervous symptoms not otherwise diagnosed. In 100 Japanese-held POWs, Richardson diagnosed 95% with avitaminosis and only 11% with neuropsychiatric conditions. Richardson acknowledged that these proportions did not even approximate the relative prevalence of psychiatric disabilities among the POWs, even though a large proportion of the services provided by physicians were for psychiatric conditions. He concluded that the number of psychiatric diagnoses made would be closely related to the number of requests for treatment (Richardson, 1965, page 28), so psychiatric disabilities were not linked to entitlement to pensions for "neuropsychiatric" conditions. Dieppe veterans' psychological disorders remained unlinked to eligibility for D.V.A. psychological disability pensions in 1993 (Hermann, 1973) and in 1992.

The vast preponderance of physical over psychological disability pensions for Dieppe POWs and nonPOWs suggests that Richardson's diagnostic framework has prevailed despite the psychological problems of these veterans. The significant biological component in the etiology of persistent psychological distress in American POWs 40 years later (Eberly et al., 1991) and the link between medical symptoms during captivity and long-term psychological maladjustment (Engdahl, Page & Miller, 1991) appear to have been overlooked in diagnosing Dieppe veterans.

Persons with PTSD are twice as likely as persons without PTSD to have some additional psychiatric disorder (Helzer et al., 1987). American POWs with PTSD have shown high incidence of generalized anxiety disorder, depressive

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disorder and psychiatric symptoms up to 40 years later (Engdahl, Speed et al., 1991; Kluznik et al., 1986; Miller, Goreczny, & Perconte, 1992). Dieppe POWs with PTSD reported a higher incidence of heavy binge eating than nonPOWs (Polivy, Herman, Zeitlin & Beal, in press). It would not be surprising to find Dieppe veterans to have other psychiatric disorders comorbid with PTSD. As many as 23.2% of POWs and 13.2% of nonPOWs indicated that they want psychological treatment now, a nontrivial number that does not differentiate the two groups.

Questionnaire data such as these might underestimate the incidence of PTSD that could be found through individual clinical interviews, as WWII POWs tend to under report their symptoms (Kluznik et al., 1986; Miller et al., 1992). The actual incidence of PTSD in 1946 might have been higher had it been measured in 1946. Beebe (1975) speculated that POW survivors were of better than average physical constitution and emotional stability than normal. Surviving American POWs have somewhat lower rates for physical illness than the general population, suggesting that POWs who survived captivity and live long enough to be examined constitute a biased sample that is more likely to include healthy subjects (Eberly & Engdahl, 1991). The high post-war mortality rate of Dieppe POWs (Hermann, 1973) suggests that the healthier Dieppe POWs survived. The surviving Dieppe POWs were as robust as nonPOWs in their general health, the duration of their marriages, further education, retirement age and in equivalent incomes in 1992.

## AUTHOR NOTES

I am indebted to Ronald F. Beal, President of the Dieppe Veterans and Prisoners of War Association for providing the Association's mailing list and doing the mailing, and to C. Douglas Creelman for his comments.

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TABLE 1

Comparisons of Physical and Psychological Symptoms of Prisoners of War and Combat Veterans

Symptom	POW	NonPOW	Between Groups		
			X <sup>2</sup> (df)	T (df)	p
PTSD Diagnosis (%)					
1946	48.5	26.9	9.54 (1)		<.002
1992	43.4	26.9	3.85(1)		<.05

PTSD frequency of symptoms (0-68)					
1946	33.91	21.30		3.79 (181)	<.001
1992	28.19	16.77		3.69(181)	<.001

Depression (%)					
Before Dieppe	1.4	6.3	3.58 (1)		n.s.
After Dieppe	62.6	40.3	8.62 (1)		<.001

Anxiety (%)					
Before Dieppe	2.6	3.0	.03 (1)		n.s.
After Dieppe	68.4	39.4	17.39 (1)		<.001

Survival Guilt (%)					
1946	54.7	37.5	5.08 (1)		<.03
1992	48.0	33.9	3.42 (1)		n.s.

Difficulty expressing feelings in words (%)					
1946	72.9	61.4	2.75 (1)		n.s.
1992	68.9	53.4	4.60 (1)		<.04

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Physical Symptoms					
Gastro-intestinal problems (%)					
Before Dieppe	2.5	4.5	.64 (1)		n.s.
After Dieppe	60.7	29.9	19.01 (1)		<.001

Severe Headaches (%)					
Before Dieppe	3.6	6.0	.70 (1)		n.s.
After Dieppe	41.5	22.4	7.79 (1)		<.005

Duodenal ulcer (%)					
Before Dieppe	1.0	4.5	3.17 (1)		n.s.
After Dieppe	33.5	22.4	2.89 (1)		n.s.

Weight (pounds)					
Before Dieppe	151.75	146.03		1.97 (254)	<.05
Weight Change	-22.83	8.18		10.48 (240)	<.001
Current weight	176.61	172.86		-.96 (256)	n.s.

*Comparisons of Characteristics, Physical and Psychological Symptoms for POWs with and Without PTSD*

Characteristic or Symptom	POWs PTSD	POWs No PTSD	Between Groups		
			X <sup>2</sup> (df)	T (df)	p
Demographic Characteristics					
Age at Enlistment (years)					
1946	19.91	20.96		2.53 (272)	<.02
1992	19.88	20.93		2.50 (272)	<.02

Pre-enlistment Education					
1946	8.89	10.02		3.10 (269)	<.002
1992	9.02	9.88		2.34 (269)	<.02

**APPENDIX 2**

Malnutrition					
Weight loss (pounds)					
1946	13.41	5.51		4.11 (240)	<.001
1992	11.65	7.16		2.25 (240)	<.03

Vision Problems					
1946	.90	.42		2.83 (194)	<.005
1992	1.00	.39		3.61 (194)	<.0001

Swelling of Body Parts 1946 (%)			9.15 (2)		<.01
None	44.3	66.3			
Feet and ankles	25.0	14.3			
Legs	30.7	15.0			

Swelling of body parts 1992 (%)			14.71 (2)		<.001
None	41.8	66.4			
Feet and ankles	20.3	18.7			
Legs	38.0	15.0			

Hospitalization for gastro-intestinal problems (%)					
1946	21.7	7.7	8.50 (1)		<.004
1992	20.5	9.5	5.03 (1)		<.03

Maltreatment					
Beatings (%)					
1946	57.1	35.3	8.12 (1)		<.003
1992	54.8	39.6	3.86 (1)		<.05

Fired on by Allies (%)					
1946	57.0	35.6	8.8 (1)		<.003
1992	53.6	40.0	3.53		n.s.

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Mental Suffering					
Personal Intimidation (%)					
1946	86.9	67.4	9.23 (1)		<.003
1992	85.5	70.1	5.70 (1)		<.02

Interrogation (%)					
1946	82.6	64.5	7.41 (1)		<.007
1992	82.9	66.0	6.34 (1)		<.02

Group Intimidation (%)					
1946	90.7	74.7	6.70 (1)		<.01
1992	88.4	77.8	2.93 (1)		n.s.

Personal Death Threats (%)					
1946	60.9	45.2	4.33 (1)		<.04
1992	60.3	47.3	2.85 (1)		n.s.

Group Death Threats (%)					
1946	70.1	58.8	2.72 (1)		n.s.
1992	74.0	57.8	4.65 (1)		<.04

Solitary Confinement (%)					
1946	44.3	39.4	.46 (1)		n.s.
1992	51.3	24.3	5.29 (1)		<.03

Witnessed POWs being tortured (%)					
1946	53.3	41.8	2.48 (1)		n.s.
1992	58.8	38.1	8.10 (1)		<.005

Further Psychological Symptoms					
Depression (%)					
1946	83.2	46.6	28.71 (1)		<.001
1992	86.0	47.3	31.71 (1)		<.001

Anxiety (%)					
1946	76.8	53.4	11.88 (1)		<.001
1992	77.9	54.5	11.70		<.001

Helplessness (%)					
1946	81.1	53.4	17.01 (1)		<.001
1992	77.9	58.0	8.64		<.004

Confusion (%)					
1946	49.5	30.1	7.77 (1)		<.006
1992	57.0	25.9	19.69		<.001

Isolation/loneliness (%)					
1946	69.5	42.7	14.33 (1)		<.001
1992	72.1	42.9	16.83 (1)		<.001

Suicidal Thoughts (%)					
1946	11.6	6.9	1.32 (1)		n.s.
1992	17.6	2.7	13.04 (1)		<.0003

Psychological State after Repatriation					
Hard to express feelings in words in 1946 (%)					
1946	95.7	47.3	68.41(1)		<.001
1992	93.5	52.2	49.10 (1)		<.001

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Hard to express feelings in words in 1992 (%)					
1946	87.8	44.6	50.02 (1)		<.001
1992	95.5	42.8	68.02 (1)		<.001

Feelings of guilt over surviving in 1946 (%)					
1946	72.2	31.5	39.96 (1)		<.001
1992	64.5	40.0	14.32 (1)		<.001

Feelings of guilt over surviving in 1992 (%)					
1946	63.5	26.5	32.97 (1)		<.001
1992	61.7	30.4	23.73 (1)		<.001

Hospitalization for anxiety/psychiatric condition					
1946	17.4	6.8	5.64 (1)		<.02
1992	19.3	6.3	8.23 (1)		<.005

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## Appendix 3

### SYMPTOMS OF POST-TRAUMATIC STRESS DISORDER IN FALKLANDS VETERANS FIVE YEARS AFTER THE CONFLICT

L.S. O'Brien and S.J. Hughes

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*"Symptoms of post-traumatic stress disorder in Falklands veterans five years after the conflict," British Journal of Psychiatry 159 (1991): 135-141.*

*This analysis of the impact of the war in the Falklands on veterans is an especially well-designed research study which includes detailed comparisons to Vietnam veterans. Dr. L.S. O'Brien served as a psychiatrist in the British Army but as he notes "no mental health professionals were deployed with the land forces in the Falklands."*

A group of 64 Falklands war veterans who were still serving in the British Army were studied and compared with a group of matched controls. Half the veterans reported some symptoms of post-traumatic stress disorder, and 22% were rated as having the complete PTSD syndrome. Presence of the symptoms was associated with intensity of combat experience and the retrospective report of emotional difficulties in the initial period on return from the war.

Post-traumatic stress disorder (PTSD) was defined in DSM-III (American Psychiatric Association, 1980) as the development of characteristic symptoms following a psychologically traumatic event that is generally outside the range of normal human experience. This reification of a concept into a syndrome and a respectable diagnostic entity was an important event in the history of stress-related disorder. It was, however, far from being the first recognition of psychiatric symptoms following traumatic events. Daly (1983) reported that Samuel Pepys recorded symptoms in himself in the aftermath of the Great Fire of London which would fulfil DSM-III criteria for PTSD. Foy et al (1987) alluded to clinical presentations similar to PTSD in the American Civil War, and Freud (1921) theorised on the aetiology of war neurosis. Adler (1943) wrote what is perhaps the first extensive and systematic description of a traumatic syndrome following a civilian catastrophe in his accounts of the aftermath of the Cocoanut Grove fire.

Andreasen (1980) pointed out that the fate of PTSD seems to have been linked with the history of warfare. Previously, surges of new papers have reflected re-learning when conflict has followed a period of peace. For example, it is generally accepted that the hard-learned lessons of World War I had to be revived and retaught in World War II. Andreasen noted the subsequent appearance in



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DSM-I in 1952 of “gross stress reaction”, although she pointed out that this was quite different from PTSD in that it was considered to be a brief and reversible reaction, the diagnosis of which should be altered if the condition became chronic. The condition was omitted from DSM-II in 1968, only to be reborn as PTSD in DSM-III following the Vietnam war.

The predominance of papers concerning combat-induced PTSD is a consequence of two factors. One is that war is readily recognisable as being traumatic and outside the range of usual human experience, but is nevertheless all too common and involves large numbers of identifiable subjects. The other is that PTSD was not immediately generally recognised as a consequence of other stressors. More recently, there have been reports of PTSD following a range of traumatic experiences, including volcanoes (Shore et al, 1986, 1989), violent crime (Loughrey et al, 1988; Kilpatrick et al, 1989; Dahl, 1989), occupational accidents (Schottenfeld & Cullen, 1986), sexual abuse (Deblinger et al, 1989), immigration (Cervantes et al, 1989) and an Australian bush fire (McFarlane, 1987). Major sources of combat-related research have been the experiences of Vietnam and the Middle East. Many authors have reported chronic adjustment problems and or PTSD in Vietnam veterans (Van Putten & Emory, 1973; Figley & Leventman, 1980; Keane & Fairbank, 1983; McFarlane, 1988), with Foy et al (1987) producing a review of nine controlled studies. Yager et al (1984) pointed out that the particular problems reported following the Vietnam war have been attributed to “the stressful nature of combat in an anti-guerrilla war, to the veterans’ moral doubts about their actions in Vietnam, and to the American peoples’ unwillingness to welcome or sometimes even to acknowledge the veterans of an unpopular war”. It has been repeatedly suggested that the unpopular and controversial nature of this drawn-out war and the consequences thereof increased the likelihood of problems. The Middle East has also produced much research (Solomon et al, 1985; Bleich et al, 1986a, b; Garb et al, 1987) as a result of the repeated conflict and continuous military tension in this region.

In contrast, the Falklands war produced very few reports on the subject of PTSD except for a review of the reasons behind the low initial PTSD rate by an American observer (Price, 1984), and a set of brief case histories by Jones & Lovett (1987). This has led to a hostile press (Smith, 1988; Daily Mail, 1988) and to claims that the Ministry of Defence has ignored the fate of veterans.

This paucity of research may be associated to some extent with the factors which differentiate the Falklands war from the recent American and Israeli experiences, and which Price associated with the low rate of immediate psychiatric casualties. The Falklands war was brief. It lasted a total of 74 days, with the land campaign totalling only 25 days. For the British at least, it was offensive rather than defensive, with the total number of casualties being comparatively

small - 237 killed and 777 wounded. Unlike the Vietnam experience, the Falklands veterans were welcomed home as heroes on a tide of media-stimulated patriotism. This was a brief, popular, victorious, circumscribed war which involved comparatively small numbers of regular troops and apparently had a low psychiatric casualty rate. It has been suggested that this 'success' of the war, and the fact that the veterans were hailed as returning heroes, led to a failure to recognise their problems. This in itself might tend to sustain the problems and induce chronicity. Despite Price's concentration on the low rates of early casualties, Jones & Lovett contended that "the comfortable conclusion that the Falklands war had remarkably few psychiatric casualties is not tenable", and suggested that delayed or chronic reactions were likely to exist.

This paper aims to identify potential examples of such reactions and to look for predictors or markers thereto. A number of previous studies of the long-term effects of trauma have had problems of preconception or bias, or have used inappropriate controls. These problems have been highlighted by Green et al (1985), while La Guardia et al (1983) have demonstrated the potentially problematical effects of prior priming or 'set'. They demonstrated that veterans reported more psychopathology when inquiries were made following suggestions of adverse effects of exposure to combat than when introductions pointed out the positive and enriching effects of such experiences. The present study aims to avoid such problems by avoiding comparison of servicemen with civilians, using individually matched controls, and using a neutral set in a non-clinical situation.

## METHOD

The subjects for the study were serving members of unit X, a battalion-sized unit of the British army, who had been with the unit in the South Atlantic in 1982 during the Falklands conflict. The controls came from unit Y, a unit exactly similar to unit X, being in the same Division, having the same structure and composition, rotating through the same duties, and drawing recruits from the same pool; but unit Y remained on home duties during the Falklands conflict. Both units are composed of elite troops who are selected volunteers.

The study involved the administration of questionnaires to all available members of both units, who were approached in normal working groups in a working environment without any prior preparation and without any priming about medical or other sequelae of trauma. Anonymity was guaranteed.

Because of the intentional lack of prior notice, part of unit X was absent on duty at the time of the study. Only 55% of the unit were available, of whom over 90% returned usable questionnaires. The unit nominal roll confirmed that

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the sample accurately represented the composition of the unit by age, rank, marital status, length of service and nature of employment. It also confirmed that the 55% of the unit included 54% of those still serving who had served in the Falklands conflict. Clearly non-veteran unit members could not be used as controls so 450 members of unit Y, comprising 90% of the available subjects, also completed the questionnaires.

Controls from unit Y were individually matched to veterans from unit X by an investigator blind to questionnaire scores. They were matched exactly for rank and marital status, within one year for length of service, and within less than 18 months for age.

The instruments used were the Service Experience Questionnaire (SEQ), a modified version of an instrument developed by M. O'Connell for use with Naval personnel, and the General Health Questionnaire (GHQ) of Goldberg (Goldberg, 1972, 1978; Goldberg et al, 1974). The GHQ is a well validated instrument, originally intended for use in general practice studies but often used for community-based research. It is recognised that it was intended for the detection of recent and minor rather than long-term or severe psychological disability. No attempt was made to revalidate the questionnaire in this study. All subjects were asked to complete the 60-item version of the GHQ. They were considered to be GHQ-positive (GHQ +) if they scored 12 or over, and GHQ-negative (GHQ -) if they scored 11 or less.

The first part of the SEQ recorded simple demographic data and asked about events and perceptions in May 1982. It recorded marital status, pregnancy and childbirth at that time, as well as losses of near ones through death then and subsequently. It also inquired about a sense of belonging to the unit and about preparedness for combat at the relevant time.

Only those who had taken part in the land battle completed the remaining three parts of the SEQ, which comprised Combat Experience, Subsequent Experience, and PTSD Symptomatology. Combat Experience included:

- a. bad weather at sea; action stations at sea; air raids at sea; damage to the ship
- b. casualties in the sub-unit; wounding of a close friend; death of a close friend; being wounded
- c. assisting with own casualties; assisting with enemy casualties; disposing of bodies
- d. directly killing someone
- e. gallantry awards.

Subsequent Experience included the following on initial return to the UK:

- a. hero - feeling that people made you out to be more of a hero than you were
- b. understand - feeling that people did not understand how you felt
- c. talking - difficulty talking to others about your experiences
- d. feelings - strong and disturbing emotional feelings
- e. sleep - any disturbances
- f. relating - trouble relating to people near to you.

It also included hypnotic use before and after May 1982, and increased use of alcohol after May 1982.

PTSD Symptomatology asked whether subjects had experienced the symptoms of PTSD as listed in DSM-III during the two months prior to the study. All members of the veterans group were considered to fulfil criterion A as a result of their Falklands experience. This assumption seems reasonable as all subjects reported actual combat exposure and were members of a single unit which remained united and was documented as being involved in intense combat. They were considered as “admitting to symptoms of PTSD (PTSD +) if they responded positively to at least one of the symptoms from criteria B and C and to two of those from criterion D. They were considered as admitting to some symptoms of PTSD” (PTSD?) if they fulfilled the criteria for two of B, C and D.

Because of the comparatively small groups involved, and the type of data, parametric tests of significance were not used in the analysis. The sign test for untied pairs and exact test for correlated proportions were used for paired data; and  $\chi^2$  tests with Yates’ correction or Fisher’s exact probability test were used for unpaired comparisons.

## RESULTS

Falklands veterans differed from the overall control group in that they were older, of higher rank, of longer service, and more likely to be married. These differences are a function of age and reflect the fact that the veterans were all serving in May 1982. The veterans also had higher GHQ scores and a higher rate of GHQ + than members of unit Y (23.4% v. 10.2%).

Socio-demographic data for the 64 veterans and their matched controls are shown in Table 1. Rank and marital status are not included as they were exactly

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matched. Members of both groups saw themselves as well prepared for war in May 1982, and saw themselves as being very much a part of their respective units. Births in the 12 months prior to the Falklands and pregnancies at the time were equally represented in both groups. Both groups reported equal numbers of deaths of people close to them in the 12 months prior to the conflict. Veterans were more likely to report such deaths after the war, but the difference did not reach significance (sign test, untied pairs = 14,  $n + = 11$ ).

Veterans had a higher mean GHQ score than controls (sign test, untied pairs = 51,  $n + = 36$ ,  $P < 0.02$ ), and a higher rate of GHQ-positives (23.4% v. 7.8%, exact test for correlated proportions, untied pairs = 13,  $c = 13$ ,  $P < 0.05$ ). In neither group were GHQ scores related to age, rank, marital status or length of service.

**TABLE 1**

*Socio-demographic data for veterans and matched controls*

Veterans ( $n = 64$ )    Controls ( $n = 64$ )

Mean age: years	27.5	27.55
s.d.	4.95	4.98
range	23-42	22-43
Service: years	9.2	9.2
s.d.	4.6	4.7
range	3.6-22	3.5-22
Married in 1982	18	18
Baby born in previous year	3	3
Wife pregnant in May 1982	4	5
Death of near one in previous year	3	3
Death of near one since 1982	14	6
GHQ mean score	7.0	3.19**
s.d.	9.1	7.0
range	0-44	0-37
G HQ-positive	15	5*

\*Exact test for correlated proportions, untied pairs = 13,  $c = 13$ ,  $P < 0.05$ .

\*\*Sign test, untied pairs = 51,  $n + = 36$ ,  $P < 0.02$ .

## VETERANS AND PTSD SYMPTOMS

Fourteen veterans (22%) were rated PTSD + and 18 (28%) PTSD?, so that half of all Falklands veterans studied described symptoms fulfilling three or more of the four criteria for PTSD. Only 18 of the sample (28%) who had been exposed to the trauma of combat did not admit to any symptoms of PTSD.

PTSD scores were not related to age, rank or length of service. There were no differences in the incidence of studied life events between those who were and were not PTSD + (Table 2).

GHQ-positive veterans were also likely to admit to symptoms of PTSD. Of the 15 who were GHQ+, eight were PTSD +, five were PTSD? and only two were PTSD -. Thus the excess of GHQ+ occurs in PTSD + veterans, with the GHQ+ rate for PTSD + veterans being 57% and that for the rest being 6% (Fisher exact test,  $P = 0.002$ ).

**TABLE 2**

*PTSD symptoms and life events in veterans*

Life events reported by Veterans	Veterans rated PTSD + (n = 14)	Veterans not PTSD + (n = 50)
Married at the time of the war	5	13
In the year before the war:		
Wife gave birth	2	1
Wife was pregnant	0	4
Relative died	0	3
Moved house	0	3
Death or near one since war	3	11

**TABLE 3**

*Reported combat exposure and PTSD symptomatology*

Combat-related event	All veterans (n = 64)	PTSD+ (n = 14)	Not PTSD+ (n = 50)
Subject wounded	10	2	8
Friend wounded	56	13	43
Friend killed	48	12	36
Helped with casualty treatment	50	14	36*

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Helped treat enemy casualties	27	7	20
Helped bury dead	17	3	14
Killed someone	55	14	41
Cumulative combat exposure score ^9	47	14	33**
PTSD + v. not PTSD + Fisher exact test, *P<0.05, **P<0.02.			

**TABLE 4**

*Subsequent experience and PTSD symptoms*

	Number (n = 64)	PTSD + (n = 14)	Not PTSD + (n = 50)
Hero	54	12	42
Understand	50	13	37
Talking	38	12	261
Feelings	30	13	172
Sleep	26	12	143
Relating	19	11	84
Total >4	18	12	64
Alcohol use up since 1982	32	10	22
Hypnotic use since 1982	2	2	0

1.  $\chi^2 = 3.85, P<0.05.$
2.  $\chi^2 = 12.9, P<0.001.$
3.  $\chi^2 = 12.8, P<0.001.$
4. Fisher exact.  $P< 0.001$

## COMBAT EXPERIENCE

All veterans went to the South Atlantic by sea. All but one stoic reported that they had suffered significantly bad weather while on board ship, and almost all reported that they had been at action stations and under air-raid attack, although the ship did not suffer significant damage.

The land-battle combat exposure of veterans is demonstrated in Table 3. It reflects the nature of the campaign, a brief offensive war. Most of the veterans had

close friends wounded and killed, and had had to assist with casualty management. About 15% had been wounded to some degree, and over 85% believed that they had probably or definitely killed others.

Veterans who were PTSD + showed a non-significant trend to be more likely to have lost friends through wounding or death, and to have killed the enemy. They were more likely to have actively assisted in the management of casualties. When a simple cumulative combat-exposure score was calculated for each subject, all PTSD + subjects scored >9, whereas only two-thirds of others did so (Fisher exact test,  $P < 0.02$ ). At a cut-off score of 8/9, the combat-exposure score was a 100% sensitive but only 34% specific indicator of PTSD.

## SUBSEQUENT EXPERIENCE

Veterans' responses to inquiries about their experiences on return after the conflict are summarised in Table 4. The first part relates to feelings or experiences in the first weeks after return to the UK. Most veterans complained that they were treated as more heroic than they felt on their return, and that those who had not been there could not understand them. However, veterans who admitted to full PTSD symptomatology five years after the event were significantly more likely to state that on their immediate return to the UK they suffered problems, including problems talking about their experiences, strong disturbing emotional experiences, disturbed sleep, and problems relating to near ones. Veterans who were PTSD + were more likely to report four or more of these six problems than those who were not PTSD +. When this retrospective score was used as an indicator of PTSD symptomatology five years later, it gave a sensitivity of 85.7% and a specificity of 88%.

Hypnotic use was rare in all veterans. No subjects admitted to use of hypnotics prior to the Falklands conflict, and only two to their use subsequently.

An increase in alcohol consumption since 1982 was admitted by half the veterans. PTSD + veterans were more likely to report increased alcohol intake, but the difference did not reach significance.

## DISCUSSION

This study demonstrates a higher rate of self-reported minor psychological symptoms in Falklands veterans than in a control group. The GHQ scores for the control group and for non-PTSD subjects were equivalent to those found in other



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non-clinical studies of British servicemen (O'Brien, 1983). The choice of unit X rather than unit Y joining the Falklands task force was made on logistic grounds, and mental health was not a factor. Apart from the Falklands, the groups had equivalent service experience both before 1982 and since, and individual subjects were carefully matched. It seems, therefore, that the difference in reported psychological symptoms is related to the Falklands experience or sequelae thereof.

There were no other significant differences between veterans and controls in the variables measured. However, veterans tended to be more likely to report the loss through death of "someone belonging to you" since the time of the Falklands. This may be a spurious observation, but is potentially interesting. Presumably PTSD or other sequelae of stress do not result in a higher mortality in relatives of subjects. Therefore, the veterans must attach a greater significance to death or see a wider range of people as belonging to them. Both previous studies and the diagnostic criteria for PTSD emphasise a narrowing of relationships and problems relating to significant others, and so it seems likely that it is a greater significance of death which is of importance. The experience of an imminent and sustained threat to life, along with the witnessing of and participation in the death of others, could increase the awareness of death. This would sensitise survivors to subsequent experience of death.

Raphael (1986) has reported the use of the GHQ in several investigations of the short- and medium-term effects of a major stress or catastrophe. In this study the GHQ-positive rate was 2½ times that of controls five years after the event. This is perhaps surprising, as the GHQ is known to under-rate chronic symptoms because of its intentional concentration on recent change in symptoms. However, the veterans' symptoms might be expected to change in response to the reminders or triggers associated with continued armed service. They could also be expected to have increased at the time of the study, exactly five years later, because of an 'anniversary reaction'

In the Falklands the rate of immediately recognised psychiatric casualties was only 2% and the estimated total rate 7%, of all wounded. This is comparable with rates in the early part of the Vietnam war. Unusually as regards recent conflicts, there were no mental health professionals deployed with the land forces in the Falklands. Accepted doctrine suggests that the presence of integral psychiatric services in front-line units will reduce psychiatric disability. The rationale for this is that the treatment principles of immediacy, proximity and expectation (of recovery) allow the return of men to duty and prevent chronic disability (Solomon & Benbenishty, 1986). Thus psychiatric intervention would be expected to increase the apparent rate of acute psychiatric problems by increasing detection, but to reduce the rate of chronic disability. In this study, 22% of veterans reported symptoms fulfilling the diagnostic criteria for PTSD

five years later, while only 28% did not report any PTSD symptoms. The PTSD rate seems high in light of the very low reported rates of acute PTSD following the conflict. It is lower than the 43% reported by Frye & Stockton (1982) in Vietnam veterans ten years after the conflict, but higher than the 16% prevalence reported by Solomon (1989) in non-help-seeking Lebanon war veterans one year after the war. This raises the possibility of a continued increase in rates due to delayed-onset PTSD. However, the Centers for Disease Control Vietnam Experience Study (1988) showed a lifetime rate of 15% in Vietnam veterans 10-15 years later, and Solomon et al (1989) reported that only 10% of late cases showed true delayed onset. Other studies of PTSD have considered the significance of predisposing or predictive factors, although the results have not always been consistent. This study is in general agreement with most of the Vietnam studies in that age, marital status, nature of duties, length of service and prior psycho-social stressors have not been found to be significant predictors of PTSD. Race was not studied as the group was wholly Caucasian. Most subjects had completed five years of secondary education. As in all other studies in which it was assessed, combat exposure was found to be of considerable significance.

Some Vietnam studies have related high rates of PTSD and post-military adjustment problems to drug abuse (Nace et al, 1978). Unlike the Vietnam experience, there have been no reports of a drug abuse problem during or following the Falklands conflict. There are no published systematic studies of drug abuse in the British Army. Drug abuse is not consistent with continued service, and illicit drug use does not have a generally accepted place in this subculture of regular soldiers. There is no evidence of increased rates of reported drug abuse or discharge from the service for drug offences in the population under study. Similarly, the use of prescribed psychotropic medication such as hypnotics is neither encouraged nor popularly accepted in this subculture, so that low usage rates are not surprising. Alcohol is the only generally accepted drug and there was a non-significant trend for PTSD-reporters to be more likely to report an increase in alcohol consumption.

Studies of Vietnam veterans have related experience in the early weeks after return from the war with PTSD. Raphael (1986) has associated a high rate of delayed or chronic problems with the following: a lack of helpfulness and inability to talk with the family; the immediate discharge of veterans so that they were often home within 48 hours and therefore did not have a transitional period in which they could adjust to events and did not have contact with other military personnel with whom they could talk and work through their experiences; and an ambivalent or negative image of the conflict.

The subjects in this study were sent home on leave within 48 hours of flying back to the UK. Those who reported PTSD symptoms were more likely to complain

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of problems relating to, and talking with, their relatives. Although they were not rejected on their return, many Falklands veterans experienced being inappropriately lionised and treated as popular heroes. There was a disparity between their own and the general population's perception of their experiences.

In the absence of others around them who had shared the experience, this lack of fit between their own perceptions and the perceptions of others, with expressions of celebration and heroism which they found inappropriate, is likely to have interfered with the process of assimilation of the experiences into self. The retrospective reports of early problems by those who later admit to PTSD symptoms is likely to be a valid observation, rather than a retrospective 'search for meaning'.

Many but not all of the Vietnam studies have been either of recognised patients or of complainants and attendees at veterans' outreach centres, whereas subjects in this study were not complainants, were still serving servicemen, and had not been previously identified as being disabled in any way by their symptoms. What is the significance of their symptoms? There seems to be a lack of evidence of actual disability in this group of people who did not spontaneously complain of symptoms and appeared to be functioning normally.

This raises the question of the differentiation which Raphael (1986) makes between "distress and disease". The existence in this group of PTSD symptoms and of GHQ-identified symptoms is established. Yet the men either did not see themselves as ill, or had not decided to consult. They might have decided not to consult because they saw the symptoms as natural, non-pathological sequelae of their experiences, or as inevitable or deserved effects with which they had to cope. Alternatively, they might have been unable to envisage any possibility of effective help, or might have felt that sub-cultural pressures prevented help-seeking behaviour. Although they admitted symptoms, this group did not show evidence of poor psycho-social function on the measures used. They did not have a high divorce rate (4.7%) and examination of records showed that their career progression equated with that of controls and they did not show an excess of disciplinary problems or psychiatric referral.

All the subjects in this study were still serving soldiers five years after the conflict. Continued military service must provide constant reminders or 'trigger' experiences. It seems likely that this would tend to lead to subjects with chronic PTSD migrating away from the military. Such pressure to leave would be opposed by the "social support and cohesion offered by the men of his fighting unit and his leaders" described by Raphael. The group would replace other relationships which were unable to fulfil a supportive role. This would result in sufferers being less likely to leave the service. In fact, following the initial

12 months after the conflict, when deaths and major disabilities resulted in a major difference, the discharge rates for units X and Y for all causes were not significantly different. It is likely that the most severely disabled will have left as a result of their own or the executive's decision. Those who are able to function despite symptoms and who find the military group supportive are likely to continue to serve.

It seems likely that continued membership of a group, such as that of soldiers who were Falklands veterans, may serve two opposing functions. It provides a milieu in which there is a commonality and an acceptance so that members are supported. At the same time it may tend to perpetuate symptoms and prevent resolution of conflict. If the latter, one must be aware of the possibility of the appearance of latent disability on subsequent separation from the group.

In light of the presence of symptoms in serving veterans, a similar study of discharged veterans seems appropriate in order to examine differences. A very high response rate would be needed because of possible biases acting in the case both of non-responders (Weiseath, 1989) and of those who were not traceable. Another important area for further study is the significance of PTSD symptoms in non-complainers. Dohrenwend et al (1983) have questioned the idea that psychological symptoms have the same implications whether they are found in persons receiving treatment or in untreated persons, while Solomon (1989) showed that veterans who did not seek help for PTSD had less severe symptoms and greater perceived self-efficacy than those who had sought help and received apparently successful treatment 12 months previously.

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## Appendix 4

### A PARADIGM SHIFT IN THE CONCEPTUALIZATION OF PSYCHOLOGICAL TRAUMA IN THE 20<sup>TH</sup> CENTURY

Edgar Jones and Simon Wessely

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*"A paradigm shift in the conceptualization of psychological trauma in the 20<sup>th</sup> century," Journal of Anxiety Disorders 22, no. 2 (2007): 164-175.*

*Historian Edgar Jones and his co-author, psychiatrist Simon Wessely, who is a professor at the Institute of Psychiatry, King's College and an Advisor in Psychiatry to the British Army, present an exceptionally valuable overview of the evolution of ideas about combat stress and PTSD.*

The formal recognition of posttraumatic stress disorder (PTSD) in 1980 represented a paradigm shift in the way that psychiatric trauma was interpreted (APA, 1980). Hitherto, it was argued that if a healthy individual suffered psychological effects as a result of a life-threatening event, these would resolve themselves naturally, like a self-healing wound, with no long-term effects. The discovery of a so-called "delayed stress syndrome" during the Vietnam War appeared to show that healthy soldiers subjected to the trauma of combat could suffer chronic, adverse effects that were not apparent at the time of their exposure (Figley, 1978).

Before the 1970s, anyone who suffered long-term psychiatric effects after a frightening event was considered constitutionally predisposed to mental illness or subject to a repressed childhood trauma; in either case, responsibility lay with the individual. The event itself served merely as a trigger. With the recognition of PTSD, primary causation transferred to the terrifying experience and any exposed individual was largely absolved from blame or responsibility. The new concept of psychological trauma also saw the retreat into obscurity of "secondary gain", the attention and benefits that a patient received as a consequence of suffering from a recognized psychiatric disorder.

PTSD reflected a cultural shift from the group towards the subject. Psychological casualties in both World Wars were, in part, considered a failure of training, unit cohesiveness, leadership and morale (Wessely, 2006). PTSD was a product of a society in which the emphasis had moved from the duties of a citizen towards the rights of an individual. The new diagnosis was also designed to fill a gap created by loss of "gross stress reaction", a disorder introduced by DSM-I (American Psychiatric Association (APA, 1952) but not included in DSM-II (1966). Andreasen believed that a period of relative peace between the



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end of World War Two and the outbreak of the Vietnam conflict sixteen years later had led to a “foolish optimism” that such a category was no longer needed (Andreasen, 1980, p. 1518). In this paper, we explore how mental health professionals continually reinterpreted psychological trauma in response to wars, disasters and cultural undercurrents.

### 1. THE CONCEPTION OF PSYCHOLOGICAL TRAUMA IN THE EARLY 20TH CENTURY

During the 19th century, with the exception of psycho-analytical literature, the word “trauma” generally referred to an open wound or violent rupture to the surface of the skin; it carried no psychological connotations. If, for example, a soldier broke down on campaign, he was deemed either to have succumbed to major mental illness, such as melancholia or dementia praecox, or to be suffering from the side effects of climate or disease (Jones & Wessely, 2005). The idea that a soldier of previously sound mind could be so emotionally disturbed by combat that he could no longer function was not entertained; that he might suffer long-term psychological consequences of battle was also dismissed. As a result, it was believed by British military physicians that “no war neuroses were observed in the Boer War”, the first “traces” being detected by Royal Army Medical Corps’ doctors sent to observe the Russo-Japanese War of 1905 (Stanford Read, 1920, p. 143).

#### 1.1. TRAUMATIC NEUROSIS

The hypothesis that a terrifying event might have effects other than the purely physical had been proposed in the aftermath of the Franco-Prussian War (1870–1871). In 1882 wards dedicated to the treatment of men with hysteria were opened at the Salpêtrière. There Jean-Martin Charcot (1825–1893), a neurologist, identified a wide range of common but seemingly inexplicable symptoms including: palpitations, exhaustion, chest pain, dizziness and fainting, headache, back pain, trembling of the hands and neck, difficulty sleeping and mental disorientation. Among his patients were a number of ex-servicemen troubled almost a decade after the conflict had ended. One veteran, who he termed “D-ray”, had fought in the Mexican and Franco-Prussian Wars, and suffered from a range of symptoms including nightmares of his wartime experiences (Micale, 2001). Devising new diagnostic terms, “névrose traumatique” and “hystérie traumatique” to classify these cases, Charcot concluded that an event, such as a railway accident or war, could serve as a trigger (“agent provocateur”) in individuals with an inherited disposition or “diathèse”.

Pierre Janet (1859–1947), who studied under Charcot, suggested that subconscious fixed ideas (“*idée fixe subconsciente*”), established at earlier periods in the subject’s life, were responsible for neurotic symptoms seen after a traumatic event. The accident itself was not the “cause of the consequent illness, but it was necessary to assign a role to the memories left by the accident, to the ideas and to the concern that the invalid maintained in this connection” (Janet, 1924, p. 39).

In their 1893 paper on “Psychical mechanism of hysterical phenomena”, Joseph Breuer and Sigmund Freud expanded the concept of traumatic neurosis. Having identified fright, heightened by surprise, as the driving force, they too argued that the crucial factor was not the event itself but the “susceptibility of the person affected” (Breuer & Freud, 1893, p. 56). Freud distinguished traumatic neurosis from other forms of neurosis on the basis that its symptoms, including dreams of the frightening event, were not amenable to interpretation. Not being a product of the subject’s imagination, the symptoms had no unconscious meaning. Three outcomes were possible: the disorder resolved spontaneously, became chronic or was transformed into a psychoneurosis (explicable in terms of the subject’s personality and life history). The last was said to happen only if the symptoms were of some advantage to the patient, for example, making a soldier unfit for front-line duties or providing a patient with a claim for financial compensation.

Not only was the event itself relegated to a secondary role, it was suggested that the patient was unaware of the fact that the trauma had produced his symptoms (Borch-Jacobsen, 2000). Janet and Freud argued that treatment required the subject to call to consciousness the repressed traumatic memory and allow the cathartic expression of any associated emotions (Hart, 1927). Abreaction was considered therapeutic regardless of whether the subject understood the significance or any hidden meaning associated with the repressed experience. Once the emotion attached to the memory had been discharged, Freud believed, the patient would be cured.

In the UK, “railway spine”, or functional somatic symptoms experienced by travellers who had been caught in a train crash, was a textbook example of a traumatic neurosis (Harrington, 2003). Some passengers continued to suffer from unexplained pain or disability long after their wounds had healed and many sought recompense from the railway or insurance companies involved (Young, 1995). At first, it was thought that their symptoms were a result of a neurological lesion but research by Henry Page suggested that these claims had no basis in organic pathology. Such observations led to Freud’s concept of secondary or “epinotic” gain to describe any advantage that a patient might secure from his symptoms, the primary gain being a reduction in anxiety following the so-called “flight into illness” (Freud, 1909, pp. 99–100). At first, the gain was

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conceived as largely monetary, though in time it was elaborated to include suppressed wishes for sympathy, attention or revenge. It had to be an unconscious process because if symptoms were sustained as part of a carefully conceived plan, then the patient was considered a malingerer (Trimble, 1981). Ganser syndrome, characterized by approximate answers, clouding of consciousness and functional somatic symptoms, was first described in 1898 among prisoners. Secondary gain for such individuals, it was hypothesized, might include a reduced sentence or stay of execution.

When World War One began, doctors and administrators did not anticipate an epidemic of traumatic neurosis because battle was an expected outcome for soldiers. It was also believed that those with a predisposition to psychological disorder would not have volunteered or have been rejected during recruitment (Ross, 1941). Furthermore, an infantryman's training was designed to overcome fear, or at least to provide them with ways of managing it when in combat. The fact that thousands of soldiers broke down led physicians recruited by the military to re-examine concepts of traumatic neurosis.

## 2. SHELL SHOCK

The commitment of mass armies to a prolonged conflict of attrition almost guaranteed a steady stream of psychiatric casualties during World War One. A variety of terms were used by the various combatant nations: "shell shock" in the UK, "choc commotionnel" and "choc traumatique" in France, while German doctors referred to "kriegshysterie", "granatkontusion" (shell concussion) and "granatexplosionslähmung" (exploding-shell paralysis).

At first, doctors in the UK proposed an organic explanation: either a microscopic cerebral haemorrhage caused by the concussive or toxic effects of an exploding shell. When it became clear that many servicemen with the symptoms of shell shock had not been close to an explosion and some not even exposed to combat, other hypotheses were considered. Marr (1919) estimated that a physical lesion was responsible for only 20% of soldiers diagnosed with shell shock, while the majority, he believed, had an "inherent or constitutional disposition to nervous disease" (p.49).

Because the term shell shock had overtones of a neurological disorder and for a period had entitled sufferers to a wound stripe, military authorities officially discouraged its use. As a result, doctors were forced to consider other labels to describe soldiers who had broken down in battle. Many opted for the term "war neurosis" (MacCurdy, 1918; Mott, 1919) based on the assumption that the

conflict had evoked a pre-existing or latent psychological disorder. Elliot Smith and Pear, who had treated shell-shocked soldiers at the Red Cross Military Hospital in Maghull, concluded that “the manifestation of a severe psychological shock must necessarily be determined in a large measure by the nature of the mind upon which the injury falls” and any symptoms would be a function of the “individual patient’s ‘mental make-up’” (Elliot Smith & Pear, 1917, p. 16). Devine (1929) concurred with this explanation because many soldiers diagnosed with shell shock had broken down before they were exposed to actual danger, exhibiting “anticipatory neuroses” (p. 214).

Major Stanford Read, who commanded the British Army’s psychiatric unit at Netley Hospital during World War One, concluded that war neurosis depended on three causal factors: “heredity, early individual experiences, and the precipitating experience”. He was perhaps unusual in suggesting that

amid the horrors of modern warfare the precipitating situation is so fundamental and provocative that heredity and past nervous traces need be less necessary as adjuvant aetiological forces. This is where the psychoneuroses of war differ in origin from those of civil life (Stanford Read, 1920, p. 140).

Although Bartlett (1927) conceded that “every character, even the most stable, will crack and break under certain conditions of prolonged strain”; “some”, he added, “are more likely to be upset than others” (p. 10). Referring to what he called “the psycho-neuroses of warfare”, Bartlett argued that breakdown in combat was not essentially about the war but related to pre-service experiences and innate character. “A very important predisposing condition”, he argued, was “an unusual degree of shyness, or lack of sociability, or secretiveness” (p. 199). Bartlett divided cases into two diagnostic groups: conversion hysteria and anxiety neurosis; the former he thought more common among other ranks, while the latter principally affected officers and “the better class of officers too” (p. 188).

Indeed, war was not considered per se a traumatic event but could serve a therapeutic role. Janet (1924) argued that World War One, which may have done “much harm to many neuropaths, relieved some in an astonishing way and depressed subjects, sufferers from doubt and phobias became heroic soldiers” (p. 219). In Germany similar sentiments were expressed by Otto Binswanger who reported how “young men with weak nerves: anxious, timid, vacillating... who exhausted themselves in complaints about their physical and mental pain” were transformed by military service (Kaufmann, 1999, p. 128). There was also a suggestion of an inoculating effect: that having overcome a danger and fears on the battlefield, the individual was then protected against any further exposures.

**3. PRISONERS-OF-WAR AND COMBAT WOUNDED**

Evidence gathered in Germany about prisoners-of-war appeared to confirm that it was not combat itself but the personality of the soldier that was the determining factor in any form of war neurosis. Reports that they rarely exhibited hysterical symptoms suggested a functional basis for these disorders grounded in wishes and desires (Lerner, 2003). Only soldiers in the front line had need of such symptoms to give them cause for hospitalization and a possible claim for compensation. In 1920, Julius Wagner-Jauregg, the Viennese professor of psychiatry, was accused by veterans of the brutal use of electric-shock therapy to treat of German soldiers invalidated with functional somatic symptoms. He argued in his defence that war neurosis was rarely seen in prisoners-of-war, who had escaped the fighting without resort to such symptoms (Ellenberger, 1970). Wagner-Jauregg said that very few war neuroses originated in the front line and that most cases arose amongst soldiers in base units.

During World War One, medical officers argued that shell shock was rarely seen in soldiers with a wound: evacuated from the front line, they “did not need a neurosis” (Thom, 1943; Wiltshire, 1916). Subsequently, Freud offered a more elaborate explanation: a “wound or injury inflicted simultaneously works as a rule against the development of a [war] neurosis” (Freud, 1920, p. 281) because simultaneous physical injury binds “the excess of excitation” (Ibid, p. 305). Whereas the person who survives an unexpected and frightening experience unharmed finds it difficult to assimilate the experience. Follow-up evidence from World War One suggested that Freud’s hypothesis was unfounded. Although soldiers recovering from wounds appeared to be free of neurosis, once an injury had healed, psychological disorders often emerged. Millais Culpin, who had served as a military surgeon in France and later trained in psychiatry, observed that this was because such individuals had “a strong predisposition to such disorders, so that subsequent relapse was certain” (Culpin, 1920, p. 31). This interpretation stands in sharp contrast to current beliefs about prisoners of war who are considered at risk of psychological disorder (Wessely, 2006). Rather than list individual investigations, it is easier to say that we are unaware of any contemporary study, whether from Israel, United States, former Yugoslavia or elsewhere, that does not report psychiatric disorder in returning POWs, though rates are far from being uniformly high. Nice et al. (1996) found less than 5% of tortured POWs met PTSD symptomatic criteria.

How, then, can we explain the findings of the War Congress of the German Psychiatric Association held at Munich in September 1916 when a number of doctors including Robert Gaupp reported that French and British prisoners were virtually immune from psychological disorders (Lerner, 2003)? Retrospective study of UK veterans who had been POWs and been awarded a pension

for neurasthenia/shell shock or disordered action of the heart (DAH) showed that they were rarely free from psychological symptoms. Their pension files do not record when symptoms first arose but demonstrate that imprisonment did not confer long-term protection against psychological disorders. Furthermore, in 1945 a “neuroses centre” for repatriated POWs was opened at the Southern Hospital, Dartford, under the direction of Maxwell Jones. Operating for eleven months, it treated 1200 servicemen released from camps in north-west Europe (Jones, 1952, p. 16). Although no systematic study of outcomes was conducted, Tanner and Jones (1948) found that POWs had greater difficulty adjusting to civilian life than other soldiers, common symptoms being fatigue, loss of energy, anxiety and poor concentration. Rees estimated that 20% experienced “marked difficulty in the process of resocialization and reintegration into life in the army or life at home” (Rees, 1945, p. 102).

#### 4. WORLD WAR TWO AND PSYCHOLOGICAL TRAUMA

Meeting in July 1939 in an effort to prevent another epidemic of shell shock, the Horder Committee decided that an official acknowledgement of war neurosis opened a route to discharge from the forces and the prospect of financial compensation. As a result, the British government announced that no pensions would be awarded for psychiatric war injuries (Shephard, 1999). Henceforth, soldiers traumatized by the stress of combat were to be diagnosed as suffering from “exhaustion” and retained within the forces. The term was chosen to imply that this was not a serious medical disorder, but a condition that would recover naturally with rest and respite. Abreaction and the ventilation of emotion were questioned as effective treatments. The control of fear and restoration of physical well-being were emphasized. In practice, this behavioural approach to war neurosis could be sustained only in totalitarian states such as Germany and the Soviet Union. In the UK, public opinion and pressure from doctors, Trade Unions and MPs forced the government to abandon its embargo on war pensions for psychological disorders in June 1941 and 2 years later to transfer the onus of proof from the claimant to the Ministry (Jones & Wessely, 2005).

Sargant and Slater (1944) explained war neurosis by the “constitutional approach”. To the dramatic “stresses and strains” produced by war, they argued “the predisposed personality can react only along limited lines”. Although they acknowledged extreme stress could disturb even the “most secure and stable personality”, most of those who broke down in battle were “the psychopathic, the damaged, defective or constitutionally unstable” (p. 9). Once again, vulnerability factors, rather than actual traumatic events, were viewed as primary in determining psychiatric morbidity.

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When preparing for war, the government and its specialist advisers had predicted an epidemic of psychological casualties among civilians exposed to air-raids. When these failed to materialize even after the London Blitz of 1940, psychiatrists concluded that those with a predisposition to neurosis had evacuated the cities before the bombing began (Ross, 1941, p. 1). Other explanations included the strength of the herd instinct amongst people from the same locality gathered together in communal shelters and the fact breakdown did not provide a civilian an escape from danger or a claim for compensation (Kalinowsky, 1951, p. 343).

Based on evidence gathered from aircrew and elite army units, British doctors came to believe by 1943 that all servicemen, however carefully selected, well-trained or led, had a breaking point. Statistical studies conducted in the aftermath of the war confirmed these clinical observations. A study by Swank and Marchand (1946) of US infantry in north-west Europe found that after 60 days of continuous combat, 98% of surviving soldiers were likely to have become a psychiatric casualty of some kind, whether combat exhaustion, acute anxiety state or depression. In the remaining 2%, who were capable of enduring a sustained period of combat, they encountered a predisposition toward “aggressive psychopathic personality”. While it was now accepted that all could breakdown, orthodoxy continued to dictate that only those with a constitutional vulnerability would not recover quite naturally once removed from danger.

## 5. POST-1945

The Korean War (1950–1953) led to no major innovation in the conception or treatment of psychiatric battle casualties, which continued to be regarded as varieties of “war neurosis”. DSM-I, published in 1952, contained the new category “gross stress reaction”, though no operational definition was provided. It described the extreme behavioural responses of normal individuals to exceptional stressors such as war or natural catastrophes. Although the main causal factor was an overwhelming environmental stress, similar to “criterion A” in PTSD, the effects were described as transient. The prognosis for gross stress reaction was considered good.

A chapter by Kardiner (1959) in Arieti’s *American Handbook of Psychiatry*, entitled “Traumatic Neuroses of War” saw no new insights. Kardiner interpreted breakdown in terms of intra-psychic conflict and reached the startling conclusion that “traumatic neurosis is a disease very closely related to schizophrenia” (Kardiner, 1959, p. 256). In the UK, Henderson & Gillespie’s *Textbook of Psychiatry* made little reference to psychiatric trauma but identified hereditary and early life experiences as of importance: “if any doubts remained after the

First World War as to the share of pre-existing personality in the causation of war neuroses... they were removed in the Second one” (Henderson & Batchelor, 1962, p. 466). The authors did concede that “stable individuals” exposed to circumstances of overwhelming fear could develop a traumatic neurosis, though these “usually diminish and disappear”. The symptoms could, however, be revived by “analogous experiences”. Henderson and Gillespie quoted the case of a pilot on a country walk who found

his heart pounding suddenly although he felt no fear; he then noticed a smell of burning and realized that it reminded him of a plane crash in which he had been involved and some of his comrades had been burned (p. 475).

Re-experiencing, sometimes in the form of flashbacks, became a key element in the new diagnosis of PTSD, though in the example reported by Henderson & Gillespie the phenomenon was explicable rather than involuntary.

Published in 1966, while the Vietnam War (1961–1975) was in progress, DSM-II introduced the term “transient situational disturbance”. This included all acute reactions (even brief psychotic episodes) to stressful exposures. The emphasis remained with the individual rather than the event and received wisdom suggested that it would be short-lived:

If the patient has good adaptive capacity his symptoms usually recede as the stress diminishes. If, however, the symptoms persist after the stress is removed, the diagnosis of another mental disorder is indicated (APA, 1966, p. 48).

## 6. PTSD DEFINED

Codified in DSM-III (1980), PTSD was originally termed “post-Vietnam syndrome” or “delayed-stress syndrome”, having first been identified in veterans who had returned to the US. The treatment of acute combat fatigue had apparently been well managed by military psychiatrists attached to combat divisions. However, servicemen who had returned to civilian life presented with what appeared to be a range of delayed or chronic symptoms. Mental-health professionals, who were politically opposed to the Vietnam War, took up their case. Figley (2002), himself a veteran and anti-war protestor, completed a doctorate on PTSD as part of his aim to demonstrate that “the toll of war went far beyond the battlefield” (p. 19). Robert J. Lifton, a prominent anti-war campaigner, was a key member of the sub-commission for reactive disorders that proposed the formal recognition of PTSD by the American Psychiatric Association. In part,



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validation of the disorder's existence was a further way of undermining the US government's pursuit of the war. If it could be shown that the conflict caused long-term and widespread psychological injury to US servicemen, then this was further reason to call the campaign to a close. Hence, along with "rentenkampfneurosen" (pension struggle neurosis defined in pre-1914 Germany), PTSD was one of the few politically driven psychiatric diagnoses.

PTSD entered the psychiatric canon obliquely and the careful epidemiological or nosological research required to support the diagnosis came later (Scott, 1990). Observers located its origins less in the jungles of Vietnam and more in the socio-political climate of America in the Vietnam era (Marlowe, 2000). The intense and critical attention given to the conflict was novel, contrasting with the careful censorship employed during World War Two to maintain morale amongst civilians. As a result, veterans, apparently subjected to stresses never felt by returning servicemen from other wars, were said to have become profoundly alienated.

## 7. SECONDARY GAIN

Secondary gain was a major concern of both clinicians and government planners largely because it was seen as playing a major part in preventing patients from getting well and thereby increasing the cost of disability pensions and other forms of financial compensation (Ross, 1966). In July 1939, when setting parameters for psychiatric casualties from the impending conflict, the Horder Committee decided that no awards should be made for psychoneurosis because "the pension itself may become such a preoccupation that it lessens the natural incentive to recovery" (Kalinowsky, 1951, p. 340). It was popularly believed that the refusal from 1926 to make any payments to German veterans for psychological disorders had led to the virtual disappearance of "shell-shock cases with shaking, paralysis, mutism, Ganser syndrome, and so on" (Kalinowsky, 1951, p. 341). In the UK, a distinction was drawn between "true" and "false" war neuroses. The former were said to occur in those with minimal predisposition and disappeared rapidly once the soldier was removed from danger. "False" neuroses arose in men with a constitutional weakness and were only thought likely to resolve in a favourable environment; failure to find employment and the payment of a pension provided fertile ground for the continued existence of these "false" presentations (Shephard, 2000, p. 151).

This issue dominated policy towards psychological trauma throughout World War Two. In 1941, for example, Ross argued that one of the "great causes of prolongation" of psychoneurosis was "the gain to be derived from the illness"

(Ross, 1941, p. 17). After “hunting or skiing Accidents”, Ross believed, traumatic neuroses were non-existent but they arose

very markedly after motor accidents and after accidents arising out of a workman’s occupation, i.e. we have them after an accident where someone else is responsible and will have to pay, especially if that payment will be made not by an individual but by a company... This factor of gain through illness may be seen also in soldiers (pp. 26–27).

So long as a veteran or worker was receiving financial compensation for an industrial injury, he had little motivation to recover, particularly if that involved a return to an unpleasant or hazardous occupation.

In the period from the end of World War Two until the widespread acceptance of PTSD, secondary gain held an important place in psychiatric thinking about trauma. The American Handbook of Psychiatry, edited by Arieti (1966), for example, contained an entire chapter by Donald Ross entitled “Neuroses following trauma and their relations to compensation”. Henderson and Batchelor (1962) argued that the prognosis for traumatic neuroses was noticeably better when there was no prospect of financial reward. As late as 1983, the Oxford Textbook of Psychiatry had a section on “compensation neurosis”, which declared that “a single final settlement of the claim is often followed by an improvement in symptoms or disability” (Gelder, Gath, & Mayou, 1983, p. 358).

Not only had secondary gain been granted a causal role in traumatic neurosis, Miller (1961) argued that functional symptoms often disappeared once compensation had been awarded. A number of studies (Mendelson, 1982; Tarsh & Royston, 1985) undermined this suggestion and by the late 1980s, it was established that payment of a pension or a lump sum exerted little material effect on symptoms or function. More recently, a retrospective analysis of UK pension files for World Wars One and Two has suggested that long-term financial aid can “inhibit the natural process of recovery and consolidate distressing symptoms” (Jones, Palmer, & Wessely, 2002, p. 378).

At first, the concept of secondary gain appeared to have little relevance to PTSD. The trauma itself, rather than any subsequent management, was crucial in determining outcomes. Furthermore, implicit in the acceptance of PTSD was the idea that individuals without a predisposition to psychological disorder could suffer long-term psychological effects. Although secondary gain drifted into the background after the rise of PTSD it did not entirely disappear. A meta-analysis by Fishbain, Rosomoff, Cutler, and Rosomoff (1995) showed that 38 studies published between 1952 and 1994, employed the concept of secondary gain to analyze illness behaviour. In recent years, increased emphasis has

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been placed on the influence of compensation in the realisation that not just those with a vulnerability to psychological disorders are susceptible to financial pressures. Indeed, the issue of secondary gain found its way into DSM-IV guidelines for PTSD, which cautioned clinicians to be alert to malingering “in those situations in which financial remuneration, benefit eligibility, and forensic determinations play a role” (DSM-IV; APA, 1994, 467). Rosen argued that a systematic failure to rule out feigned cases, those motivated by pecuniary advantage, may have led to inflated rates of PTSD (Rosen, 2006). If PTSD is a culturally-conditioned response to adversity (Young, 1995), rather than a universal trauma reaction, then issues of compensation and other forms of reward will undoubtedly play a part in symptom formation and their duration.

### 8. GROUP VERSUS INDIVIDUAL

In the first half of the 20th century, theories of breakdown were framed in terms of the group rather than the individual. Soldiers were analysed not as single entities but as part of a hierarchical and structured organization. Hence, when the 1922 Southborough Committee attempted to prevent future episodes of shell shock, it made recommendations that referred to units rather than individuals. Training was to be designed to consolidate “the sense of collective responsibility and efficiency by securing the prompt and automatic obedience of orders”; while “military and medical witnesses were unanimous in insisting that good morale... is the first essential factor in diminishing the incidence of mental disorders” (Southborough, 1922, pp. 150–151).

Of crucial importance in understanding the role of the group was the primacy of ideas related to the “herd instinct”. Described in 1908, but given impetus by World War One, Trotter (1919) argued that an individual should not be conceived in isolation as an autonomous being but as a gregarious animal whose “cardinal mental characteristic... is his sensitiveness to his fellow members of the herd” (p. 148). External threats, such as war, he believed, gave an intense stimulus to the herd instinct, while the “virtues of the warrior”, courage, endurance and enterprise, were grounded in the “homogeneity of the herd” (p. 150). It followed, therefore, that those who broke down were in some fashion abnormal and some argued that a “weak herd instinct” could be detected in many soldiers who were diagnosed with shell shock (Culpin, 1920, p. 32). Writing of his experiences during World War Two, Hunter observed that the military psychiatrist’s patient “is the army rather than the individual... To consider the individual soldier as an isolate, entirely detached from his group, is to pave the way for erroneous theories and unwise decisions” (Hunter, 1946, pp. 127–28). Until the Vietnam War, war neurosis was often conceived as a failure of attachment and identification with the group.

These observations were given statistical and empirical credibility with the publication of the landmark study of US servicemen who had fought in World War Two, usually referred to as the “American Soldier” (Stouffer et al., 1949), and also by the accessible post-battle analyses of S.L.A. Marshall (1947). Scholars and those who organized the education of future generations of officers were also acutely aware of the analysis conducted by Shils and Janowitz (1948) of the fighting qualities of the Wehrmacht. All of these works had at their core the finding that men were motivated in combat by small group ties and loyalties. Conversely, breakdown occurred when that cohesion failed and soldiers reverted to being individuals as opposed to members of the primary group. As one US psychiatrist wrote at the end of World War Two “the main characteristic of the soldier with a combat-induced neurosis is that he has become a frightened, lonely helpless person whose interpersonal relationships have been disrupted... the soldier must function as part of a group and his resistance to the trauma of combat will vary directly with his ability to integrate himself within the group” (Weinstein, 1947, p. 307). The contrast between pre-1980 concepts of breakdown in war as a failure of group dynamics and the post-1980 view that it should be understood in terms of the individual and their specific exposure is notable (Wessely, 2006).

## 9. DISCUSSION

Since its formal recognition in 1980, PTSD has become a high-profile and politically sensitive psychiatric disorder (Vedantam, 2005). However, its international acceptance was not rapid or without controversy. It was slow to catch on in the UK where the disorder was initially considered specific to the US and Vietnam veterans. A study of Post-traumatic neurosis by Trimble (1981) never once mentioned the Vietnam War or PTSD. Similarly, the Oxford Textbook of Psychiatry, first published in 1983 and revised in 1986, made only the briefest of reference to a “post traumatic syndrome”. PTSD appears only in a table listing DSM-III labels and is not mentioned in the text at all (Gelder et al., 1983, p. 135). The authors, like most British psychiatrists, regarded it as a US phenomenon related to the Vietnam War (Mayou, personal communication).

Although acceptance of PTSD represented a dramatic break with earlier thinking about the psychological effects of a terrifying event, there had been a period when elements of the new definition were explored. Towards the end of World War One, some doctors conceded that everyone had a breaking point, though this discovery was lost in the findings of the Southborough Report, which concluded that breakdown in robust soldiers was wholly preventable by training, leadership, unit cohesion and morale. Not until 1943 was it accepted by

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military authorities that these protective forces were of limited capacity. However, it continued to be believed that those individuals not predisposed to mental illness would recover quickly if taken to a place of relative calm. Interventions, such as debriefing designed to prevent the development of chronic disorders, had no obvious role as they could only interfere with natural processes of recovery in the healthy and would do little to address more deep-seated psychopathology in the constitutionally vulnerable.

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# Chapter 4

## Appendix 5

### TRAINING FOR BATTLESHOCK

Colonel Peter Abraham

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*"Training for Battleshock,"* Text of a presentation at the USAREUR and Seventh Army Medical Surgical Conference at Garmisch, Germany, 18 May 1981.

*Colonel Peter Abraham was the senior psychiatrist in the British Army when he presented this lecture on training for "battleshock" in the context of a war involving NATO and the Warsaw Pact countries. Colonel Abraham was attempting to re-establish forward psychiatry as an important element in the medical services of the British Army.*

1. What followed is not the fruit of my own experience in battle. It is, however, distilled from the experience and writings of others to whom I am indebted.

### PROBLEMS

2. The author of "The Third World War, August 1985" Gen Sir John Hackett has said that "the result of every land battle is determined by the number of people who run away, and by nothing else". Are we then talking about craven cowardice?
3. One of history's most successful generals, Sun Tzu, writing on the Art of War about 350BC insisted that "courage or cowardice depends on circumstances".
4. Let us glimpse one of the circumstances that our troops might have to face. (There followed a one and a half minute extract from the training film "The effects of Artillery Fire"). Unfortunately you cannot feel the shock waves, smell the explosive, sense the imminence of annihilation, and one and a half minutes is far too short.
5. The Warsaw Pact Tactical doctrine provided for an artillery concentration of one gun for every eight metres along an eight kilometers front. Shell, of which at least one in four of the stockpile contain chemical agents, and rockets, would be delivered at the rate of 500 to 6000 rounds on a platoon position in 10 minutes, whereupon the barrage would advance to the next target line. The doctrine supposes that such a bombardment would inflict on the target troops no more than 25% casualties, but the remainder,

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for whom there would be no escape from the ordeal, would be rendered immobile for at least 2 minutes, sufficient for the first wave of tanks and infantry to dash the last 300 metres and overrun the forward anti-tank defences and machine gun posts. This condition affecting all for minutes, and some for hours or days, is termed by the Soviet Army “battlefield paralysis”. That the doctrine has some basis in fact is supposed by this historical account of the 1944 battle for Caen in Normandy in which battle hardened panzer troops displayed both temporary paralysis and in some cases total breakdown. (There followed six minutes of the film ‘Operation Goodwood’). The following is a transcript of the sound track:

‘Wave after wave of bombers came over, and dropped their bombs on the villages in front of us. It really did seem that nothing could live under the bombardment, but how wrong we were. Let Von Rosen, acting Company Commander of the 3rd Company of the 503 Heavy tank Battalion, was there. He recalls: “Early in the morning I was awakened by the thunderous sound of aircraft engine. As I crept out from under my tank I saw the first bomber waves approaching. From this moment on, our concentration area was subject to air bombardment which lasted for two and a half hours without interruption. We were located in the very same part as the bombardment area. It was like hell and I am still astonished that I ever survived it. I was unconscious for awhile after a bomb had exploded just in front of my tank almost burying me alive. I could see that another tank about 30 metres away had received a direct hit which had set it on fire instantly. A third tank was turned upside down by the blast, and when I tell you that the tanks weighed 58 tons and were tossed aside like playing cards you will see just what a hell we found ourselves in. It was next to impossible to see anything as so much dirt had been stirred up by the explosions. It was like being in a very thick fog. It was impossible to hear anything because of the unceasing crashing of explosions around us. It was as if we were deaf. It was so nerve-shattering that we could not even think. All one could say to oneself was “will there never be an end to these explosions?” After two and a half hours the air bombardment stopped suddenly and the following silence was uncanny. As far as my Company was concerned two turrets were completely neutralized, two others were so badly damaged that they couldn’t be employed. All the tanks were completely covered with earth and the gun turrets had been torn completely out of adjustment by the shock effect. Fifty men of the Company

were dead, two soldiers had committed suicide during the bombardment, and another had to be sent to a mental hospital for observation. The psychological shock of this terrible experience remained with us for a long time.

'It had been the heaviest air bombardment in support of a ground attack ever mounted to that date and it was hoped that any enemy in the path of the armour would have been effectively neutralized. It was to be followed by the artillery barrage behind which the 11th Armoured Division would advance. At 0745 hours the artillery opened up. Tank crews had strict orders to be in their tanks but these were not completely obeyed and a few short fall rounds falling among the leading tanks killed two of the regiment. We then set off as close behind the barrage as we could. We had been told to keep within 100 yards of the barrage. Soon we came across our first enemy. They were dazed, demoralized and they came out from cornfields attempting to surrender to the nearest tanks. By this time the dust, smoke and bomb craters were making control of the squadron more difficult and slowed our advance somewhat. However, I was able to open up the squadron to cover a frontage of about 500 yards. We saw a few enemy in the orchards to our front and in the bushes and trees on our right flank, and gave instructions to my right-hand troops to shoot up the forward edge of the orchard and the trees whilst on the move. When we came to the orchard I could see the German anti-tank gunners lying in their trenches or beside their guns completely dazed and taking no interest in the proceedings.'

6. We are talking then about men who, as the Duke of Wellington's gunner officer, Capt Mercer, put it, 'fled not bodily, to be sure, but spiritually, because their senses seemed to have left them'.
7. We call it 'battleshock'. By 'battleshock' we mean inability to fight which does not result from major physical injury or disease. Brig El Sudany El Rayes, a senior psychiatrist in the Egyptian army feels that, despite their diverse forms, it is logical to describe under one heading conditions which have a common aetiology in the unique circumstances of battle; affecting for the most part stable individuals; and which require similar management, namely early intervention, in the battle zone, with the expectation of rapid return to duty. This must have familiar ring to students of the subject of breakdown in battle in the two world wars. But the consensus following the 1973 Middle East War, held by many to represent on a limited scale much of what a major land battle in central Europe would be like, is that

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the principles of successful management of battleshock are as valid today as when they were first discovered in the 1914-1918 war. Equally valid is the yardstick by which we can predict the number of battleshock cases reaching the medical organization in any given sector at any turn reflects the intensity of battle. We also need to remind ourselves of the staggering total number of troops who are temporarily incapacitated in this way during fierce fighting. For example, the 6th United States Marine Division lost 2,662 wounded in 10 days of intensive action which also generated 1,287 psychiatric casualties. Between July and September 1944 the ratio of battleshock to wounded in the British Second Army in Northern France also reached over 20%. How often do we include 30% of battleshock cases amongst our simulated casualties during military exercises?

8. Are we to suppose that if we were attacked without warning by an enemy capable of launching a massive onslaught without overt preparation (enabling surprise to be total since distinguishing between an exercise, a feint, and an all-out attack, can be a conundrum soluble only when it is too late), an enemy with overwhelming superiority in numbers of men, planes and missiles, that the percentage of battleshock cases would be less than in World War II? This potential enemy believes in initial surprise, concentration of artillery, close air support, speed of maneuver and deep penetration with disruption of supply lines, continuous operations round the-clock made possible by infra-red and other imaging systems (but can replace his own tired and battered units by fresh ones), and also believes in the aggressive use of electronic, chemical and tactical nuclear weapons and, let us not forget, rumour. Are we to believe that the consequent terror and turmoil, the relentless hammering, the loss of friends being killed and injured on all sides, the frustration of not being able to fight back effectively, the isolation, exhaustion and despair, will result in fewer men so afflicted? If we include in the number who run away those who flee 'spiritually' as well as those who flee 'bodily' then General Hackett may well be right that they will determine the outcome of the battle.
9. Why then are we so ill prepared to deal with battleshock? Is it that we have been lulled into a false sense of security by the figures arising in the quite different circumstances of our respective experiences in, let us say, Aden, or Vietnam? Or do we rely on the hope that the need to fight in Europe will not arise? Few who have read the already mentioned fictional 'future history' of the third world war with its prophetic 6th chapter on Unrest in Poland I, and have been aware of the factual invasion of Afghanistan in 1980 by 85,000 Russians, can doubt that the Warsaw Pact has the ability, could have the motive, and would have the will to attack the West. The only thing that will ever be in doubt will be their intention.

10. Or do we suppose that our battleshock victims merely ride along the evacuation trail with their traumatized fellows? Not only is that a recipe for turning battleshock into chronic psychiatric disorder, as has been shown over and over again this century (most recently in Nigeria and Israel), but it is also an invitation to other weary and disheartened soldiers to find a legitimate way out of their ordeal by developing the 'evacuation syndrome' which has cropped up in so many forms in twentieth century warfare, from the epidemics of respiratory symptoms following a brief experience of gas in World War I, to the epidemic sleepwalking affecting soldiers in Vietnam. (The latter was, I believe, cured by putting the sufferers on guard duty at night until the condition subsided) The management of the battalions of battleshocked, and the streams of surgical stretcher cases who can no longer contribute to the cause, must be radically different, and the training and organization of field medical units must take account of these differences.
  
11. Another argument for doing nothing often heard is the statement 'it will all be over so quickly that the problem of battleshock is irrelevant'. Many charts have been drawn showing peaks and troughs of World War II casualty figures reflecting the fluctuating intensity of combat, and the chart for battleshock corresponding closely to the chart for trauma, with the battleshock lagging slightly behind, principally no doubt because of the lower movement priority accorded to such cases. A chart (Fig 1) from the 1973 Middle East War shows the same pattern. Not only do we see the numbers of battleshock casualties matching those of trauma but it illustrates the major lesson of that war in that the peak incidence of battleshock was in the first few days. Gone is the notion of battle 'exhaustion' developing after protracted exposure to the ordeals and terrors of modern warfare. The shock can occur on day one. A secondary lesson suggested by Levav and his co-workers is that 'a critical period of up to one week for the treatment of combat reactions established a dividing line between good and poor outcome' and 'it would be advisable to add another criterion, brevity, to the three already well established in the literature - immediacy, proximity and expectancy - to assure satisfactory outcome'. It thus becomes apparent that a battle intensive enough to be over quickly can also be so intense that it generates battleshock rapidly enough for the victims to be incapacitated, to recover and to return to fight before such an ultra-short war is over. We have already seen that we are talking about very large numbers of fighting men rendered ineffective by battleshock, sufficient, in a war with many killed and wounded as well, to affect the outcome of the battle. But what if we win even half of the battleshocked back, to carry on at least for a few days - we would then add a rider to Hackett's dictum. "The result of a land

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battle is determined by the number of people who run away (bodily and spiritually) and by the number of those who can be enabled to return to the fray." In battle, ladies and gentlemen, psychiatry is concerned with reinforcement. We are talking of the equivalent of a whole brigade per corps.

12. The best remedy is prevention and the surest is peace, but since we cannot always count on that we must look at other preventive measures.

## SELECTION

13. Much has been said about the hopelessness of eliminating battleshock by selection. This view derives from sources ranging from anecdotes of 'neurotics' who showed incredible toughness in combat and 'tough guys' who cracked under apparently minimal stress, to statistical studies of whole armies in World War II. Professor Rachman's study of British bomb disposal men who have been successful in their work despite being virtually unselected for the task tends to bear this out. Indeed the more ordinary these men were in terms of their psychological profile the more likely they were to gain an award for gallantry. They were not self-selected. The majority when they joined the ordnance branch from which the bomb disposal men were drawn did not know that they would be expected to carry out this work. However, one has to concede that same elementary selection was at work in the formation of the ordnance branch itself. If the men were criminal, illiterate, known psychotics, alcoholics or drug abusers they would not have been there in the first place. "Reverse selection" of course consists of eliminating from the Service those who develop such gross and continuing mental and behavioural disorders, especially those who may infect others. If a man cannot cope with life without massive recourse to drugs how can he cope with battle?
14. "Reverse selection", rigorously carried out, may engender fears of having too slim an army. In practice the drain on numbers is offset by increasing pride in their professionalism by the remainder, by an increase desire to belong or join when the entire army becomes a corps d'elite. This disapprobation of the group is then a powerful sanction against an erring individual which is expressed ultimately by expulsion, and discipline and morale are high. This does not of course absolve politicians, and the societies they represent, from the obligation to sustain the men and women who serve them. The contempt of the community at home or the need to rely on social security are hardly likely to encourage the best to enlist and serve on in a free society. Too often money is devoted to complex and expensive equipment

which is rendered useless when abandoned or misused by its bewildered operator, or is simply not used at all when his hand freezes on the trigger. People are our prime resource and must be our first priority. In the end it is the quality not the quantity, of people and not equipment, which will determine the outcome, or better still prevent the outbreak, of a land battle.

## COHESION

15. It is becoming axiomatic that the strongest bulwark against battleshock is group cohesion. By the same token integration into a cohesive group is a *sine qua non* for maintenance of recovery from battleshock. In the Soviet Army, group cohesion is achieved through company political officers developing common attitudes, and we would probably all agree that leadership plays a part, but most of all it is achieved by shared experience. The ancient Bantu went through life from the age of six or seven in a group called an Nitanga which herded cattle together, played together, fought together, went through ceremonies together. We on the other hand move individuals from unit to unit in peacetime, replacing others in turn, and rely on piecemeal reinforcements in war with little hope of the individuals concerned being able to integrate rapidly enough into a cohesive group.
16. Organization, therefore, can create the conditions for cohesion to develop. Arduous training accelerates the process, the shared first experience of battle sets the seal.
17. If it was circumstances not selection which made heroes of the bomb disposers, it was training that enabled them to do it. Most of this was achieved during their training course, but disposing of the first successful real explosive device represented for the individual a watershed in his training and confidence-building from which he never looked back.

## HARDENING

18. Arduous military training has four main aims:
  - a. It expands the boundaries of a man's accomplishment giving him both satisfaction and confidence.
  - b. By rehearsing his tasks over and over again under the testing circumstances of wearing full NBC protective clothing, of sleeplessness, of not



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knowing when (or whether) the exercise will end, the probability that he can function automatically in the supreme test of battle is increased.

- c. It enhances group cohesion not only because sharing an ordeal binds people together, but also more specifically in the case of NBC clothing, because unless soldiers learn to overcome the barriers to personal communication and even mutual identification imposed by those un-earthly suits the basis on which cohesion actually works is destroyed.
- d. It toughens a man's ability to face particular stresses, such as bombardment. In this connection we may expose a man to fear during parachuting, rock climbing or live firing, but how often does a man see dead or dismembered soldiers, even in simulation or on close-up film of real accidents? Isn't this also part of training for battleshock?

## TREATMENT

19. A growing number of army doctors, even some with lengthy service, will not have encountered battleshock and will have only a hazy idea of the ways in which it presents. The following examples taken from a 1944 training film give some indication of what we are talking about.
20. (There followed a seven minute extract from "Field Psychiatry for the MO"). Personnel with experience in clinical psychiatry are surprised to discover how quickly deeply shocked soldiers recover. Teams newly exposed to combat casualties tend to err on the pessimistic side. They also discover the impossibility of predicting outcome reliably at the first encounter.

## FIRST AID

21. The standard procedure for all battleshock cases is:
  - a. Retention as near as possible to the man's unit location consistent with removal from the worst effects of the battle.
  - b. An initial period of rest. The entire 27th Regiment of Foot, the Iniskillins, slept during the beginning of the Battle of Waterloo at the rear of the battleground, three quarters of a mile behind the front line (which may have helped them subsequently to take the heaviest casualties from artillery as they stood for the next four hours in the

forefront of the battle without giving ground: 450 out of 750 officers and men were killed or wounded).

- c. Treatment as a soldier not as a patient.
  - d. Work, which can be of value to a hard pressed medical unit coping with a flow of casualties generated by the same intensive battle which produced the battleshock.
  - e. Rapid return to duty if possible to his original unit, or if not with a small group of others to another unit.
22. Maybe half will not fulfill the expectation of recovery at the first medical location but the process can be repeated at the next and some more will make it.

## **MEDICATION**

23. You will notice that the treatment outlined above does not include medication other than with the universal remedies of tea, coffee and tobacco. Some would argue that in a chaotic fast-moving war in which medical staff are swamped with casualties one cannot afford to turn a man who can at least move, and will soon care for himself and others, into a stretcher case who would then, like all stretcher cases, become a drain on resources instead of a contributor to them. Nor can one afford to remove the last vestige of control from an overwrought individual by disinhibiting drugs. The majority of battleshock cases are subdued, not overactive, and only a few of the latter type will fail to respond to firm handling. (This is worth remembering, by the way, when briefing exercise battleshock casualties who in the past have tended to be represented by a single conspicuous disruptive idiot). If psychotropic medication is deemed imperative, haloperidol is the drug of choice.

## **AETIOLOGICAL FACTORS**

24. Consideration of aetiology suggests refinements of treatment.
25. Fear - A large number of battleshock cases are explicable in terms of fear, expressed by a sympathetic overactivity beyond that which is inevitable in battle and compatible with continued effectiveness. Such cases are recognizable, and in theory susceptible to management by behaviour therapy.

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This usually involves temporary removal from the overwhelming stress, reassertion of the soldier's control, his determination to overcome his crippling reaction, mental rehearsal of the traumatic events with group support, and finally actual re-exposure to the original stress.

26. Fugue – This can be seen as a cerebral rather than somatic response to overwhelming fear in which the memory of the experience is so painful that, along with a good deal of the soldier's awareness of the outside world, it is excluded from consciousness. Abreaction, that is mental recreation of the traumatic experiences together with their full emotional accompaniment, is a well-tried therapeutic technique often applied in such cases.
27. Conversion - A small number are driven by their fear into the loss of some faculty such as the use of a hand or, in its subtler form, to be unduly incapacitated by minor trauma or illness. The important first step here is recognition of the condition by the clinician; to be followed during a temporary respite from the precipitating stresses by recovery aided by suggestion; and eventually recognition of the condition by the sufferer. Incidentally shooting, or the threat of it, is a method of suggestion often tried, particularly for those who have opted out of the battle in a more obvious way by drug abuse or desertion. It has, however, never really been shown to succeed in promoting fortitude, as opposed to preventing flight, and it is certain that those shot will not renew the fight against the enemy.
28. Bereavement - I would like to suggest, bearing in mind the first example in the film, which represents one of the commoner forms of battleshock, that the role of bereavement in generating depressive reactions is underestimated. The fundamental fact is that battleshock occurs when death and mutilation are imminent. It is assumed unfairly that this implies that the sufferer merely fears his own extinction. But surely in a truly cohesive unit there is also inevitably loss of close companions?

In everyday life one may adjust to this in a day or two. In battle the adjustment has to be made perhaps several times in a day and without a chance to fulfill the human need to mourn. The corollary of this is that there is a case for employing guided mourning in treatment, as described by Mawson and his co-workers, as well as, in some cases, electro-convulsive therapy.

29. Endorphins - It has been suggested that formation of morphine-like substance, endorphins, in the central nervous system in response to stress, resulting in prolonged inhibition of CNS activity (for minutes or hours, rather than the more usual milliseconds or seconds of inhibition engendered by neuro-transmitters) may explain what happens in at least some

cases of battleshock, and account for those anecdotes in which one officer remarks to another “You seem to have lost your leg, Sir” to which the other replies “By jove Sir, so I have”. If this model is correct there are several implications: it can happen to the most stalwart, it is strictly temporary and will disappear spontaneously in the absence of continuing extreme stress, and may even be susceptible to specific parenteral treatment.

## ORGANIZATION

30. There is no reason why first aid and even the principles or more specific treatment should not be applied within the battalion. In practice, though, only small numbers who respond readily can be dealt with in this way.
31. The first location at which casualties can be held for up to two days and managed by medical personnel will be a divisional administrative area. Here must be located the first Battleshock Rehabilitation Unit (BRU) manned by a section of the medical battalion and supported by a Field Psychiatric Team (FPT).
32. Dr. Shabtai Noy, a reserve officer of the Israeli Defence Force, argues cogently from history and the likely nature of a Central European war that the Divisional FPT will be swamped by a gush of casualties just when they are in a position to be most effective in arresting the rearward flow and bringing about recovery and return to duty. He suggests deployment of mobile FPT's from the rear. Given the chaotic scenario and communication problems we are considering, a safer solution is initial deployment of FPTs forward with the option of withdrawing then rearward subsequently. Even so there is still a need to have additional BRUs alongside the general hospitals in the rear combat zone to take the overflow, while still fulfilling the four criteria for successful outcome - immediacy, proximity, expectancy and brevity. Indeed, bearing in mind that battleshock cases will occur locally, will be included willy nilly in the casualty stream without any guarantee of immediate evacuation, and battleshock will in any case affect a significant number of trauma cases (about 30% in one Israeli study) it is necessary to have some psychiatric support in every medical facility.

## ROLE OF THE FIELD PSYCHIATRIC TEAM

33. With literally hundreds of battleshock cases held in BRUs, the psychiatric teams can hardly engage in formal behaviour therapy, much less, analytical

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psychotherapy. What they must do is recognize battleshock cases and prevent their evacuation, assess and re-assess their progress towards return to duty or eventual removal from the combat zone, have an eye open for the development of 'evacuation syndromes' and initiate or nominate therapy to be carried out by others, even by the battleshocked themselves, such as group recapitulation of the events of the recent battle.

### TRAINING

34. Is it not a bit late to be instructing soldiers after the battle has started? Should not every soldier be taught the elements of the management of battleshock together with the maintenance of airway and the arrest of haemorrhage as part of his basic training? Is there anything which I have said which cannot be understood by a layman?
35. If combat troops require this training, how much more do medical personnel, specialist and non-specialist, at all levels, need to be versed in the principles and rehearsed in the practice of dealing with battleshock? Unless in every exercise up to one third of the casualties, suitably briefed, represent the battleshocked element, how can either the army as a whole, both staff and rank and file, or the medical organization, learn to accept and cope successfully with this inescapable aspect of intensive war?
36. Finally medical personnel themselves are not immune from battleshock, though being wholly occupied with casualties helps. Medical personnel too need those elements of hardening, over-learning of skills, increasing confidence and cohesion introduced by arduous training.
37. Ladies and gentlemen, by way of training for battleshock there is much to be done.

# Chapter 4

## Appendix 6

### HEALTH STUDY 2005: AUSTRALIAN VETERANS OF THE KOREAN WAR

Australian Government

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Department of Veterans Affairs. "Executive Summary," *Health Study 2005: Australian Veterans of the Korean War*, n.d., pp. 11-13, [http://dva.gov.au/media/publicat/2005/health\\_study\\_2005/](http://dva.gov.au/media/publicat/2005/health_study_2005/), accessed 25/2/2008.

*The Australian Government commissioned a number of studies of the health of war veterans in response to public concern about health problems among such men. The Executive Summary reproduced here offers an introduction to one of the largest, best designed studies available.*

#### EXECUTIVE SUMMARY

##### STUDY BACKGROUND AND METHODS

The Australian Korean War Veterans' Health Study was designed to complement the recently completed Australian Korean War Veterans' Mortality, and Cancer Incidence Studies. Together, these three studies constitute a major study program of health in this Australian veteran population. This study program represents one of the most comprehensive investigations of health in an entire veteran group ever conducted internationally.

The major aim of the Health Study was to compare Australia's surviving, male Korean War veterans with similarly aged Australian men, who resided in Australia at the time of the Korean War, on several measures of physical and psychological health, quality of life and life satisfaction. Further, the study aimed to investigate whether specific service-related characteristics of the Korean War deployment were associated with current health.

The Health Study was commissioned by the Department of Veterans' Affairs (DVA) and was undertaken by Monash University in consultation with the Study Scientific Advisory Committee and Consultative Committee. The DVA and Monash University Human Research Ethics Committees provided approval for the research.

The study commenced in March 2004 and included 7,525 male Korean War veterans thought to be alive and residing in Australia. Approximately 57% of

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Australia's original 17,872 Korean War veterans were deceased at this time. The study also included a general population sample of 2,964 Australian men aged 65 years and above drawn from the Australian Electoral Roll.

Participants completed a self-report questionnaire which included instruments measuring life satisfaction, depression, anxiety and posttraumatic stress disorder, smoking and alcohol consumption, several dimensions of quality of life, medical conditions and hospitalisations, and Korean War service characteristics including severity of combat experience, and war-related injury. Data on additional Korean War service characteristics such as Navy, Army or Air Force Service, rank, age and duration of deployment, were obtained from the DVA Korean War Nominal Roll.

Australia's surviving Korean War veteran population enthusiastically supported the Health Study, with over 81% participating and providing high quality, complete questionnaire data. Recruitment in the population sample was lower at 64%, but also satisfactory and their data quality was excellent.

Study participants ranged in age from 66 to just under 100 years old.

### RESULTS

Overall, the results of the study showed that surviving Australian Korean War veterans, approximately five decades after the Korean War, are experiencing significant excesses in several measures of psychological ill health, lower life satisfaction and poorer quality of life, and excess medical conditions and hospitalisations compared with a group of similarly aged Australian men who were residing in Australia at the time of the Korean War.

Korean War veterans have also experienced a lifetime pattern of alcohol and cigarette consumption in excess of that reported by the comparison group. 79% of Korean War veterans report being current or former smokers, compared with 60% of the comparison group. Korean War veterans are one and a half times more likely to meet criteria for current hazardous alcohol consumption, and three times more likely to meet criteria for a history of alcohol related problems at some point in their lifetime.

The proportions of veterans meeting criteria for posttraumatic stress disorder (PTSD), anxiety, and depression are substantially elevated, with veterans five or six times more likely to have these disorders than the comparison group. Up to 33% of Korean War veterans meet criteria for PTSD, 31% meet criteria for anxiety and 24% meet criteria for depression.

Korean War veterans report poorer overall life satisfaction than the comparison group. Taking into account what has happened to them in the last year and what they expect to happen in the future, Korean War veterans are less likely than the comparison group (18% versus 40% respectively) to report feeling delighted or pleased about their life as a whole, and more likely (11% versus 3%) to report feeling unhappy or terrible.

Korean War veterans also report poorer quality of life on multiple dimensions, including physical health, psychological functioning, social relationships and environment. Korean War veterans are more likely than the comparison group (22% versus 6% respectively) to report their quality of life as poor or very poor, and less likely (45% versus 80%) to report their quality of life as good or very good.

Fifteen medical conditions investigated in the study are all reported one and a half to three times more frequently by Korean War veterans than the comparison group. These include asthma, high blood pressure, stroke (or after effects of stroke), heart attack or angina, rapid or irregular heart beat, liver disease, arthritis, kidney disease, diabetes, melanoma, other skin cancer, other cancer (not skin), stomach or duodenal ulcer, partial or complete blindness (not corrected by glasses) and partial or complete deafness. The study did not attempt to independently validate the self-reported medical conditions, however the overall pattern of excess medical conditions reported by Korean War veterans is consistent with the findings of the Australian Korean War veterans' Mortality and Cancer Incidence Studies, and also with the likely health effects of excessive lifetime exposure to cigarettes and alcohol.

Korean War veterans report an increased rate of hospitalisation in the previous 12 months, consistent with their overall pattern of increased psychological and physical ill health.

Two service-related characteristics of the Korean War deployment are most strongly associated with poorer psychological health, lower life satisfaction and poorer quality of life in Korean War veterans. They are:

**Combat exposure:** Veterans who reported experiencing heavy combat during Korea, using the Combat Exposure Scale (CES), were 15 times more likely to meet criteria for PTSD, six times more likely to meet criteria for anxiety, or depression, and two times more likely to meet criteria for a history of alcohol problems, compared with veterans who report no combat exposure. Further, veterans reporting heavy combat also report lower life satisfaction, and poorer quality of life, than veterans reporting no combat exposure.

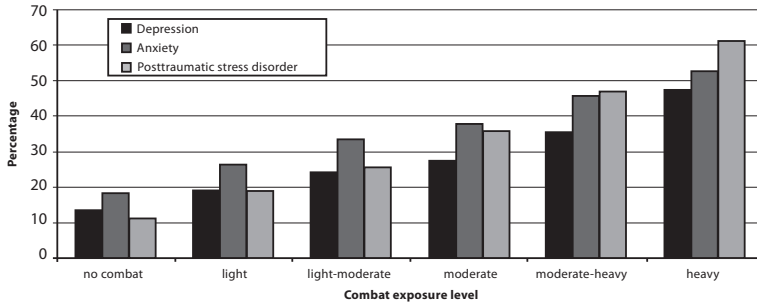


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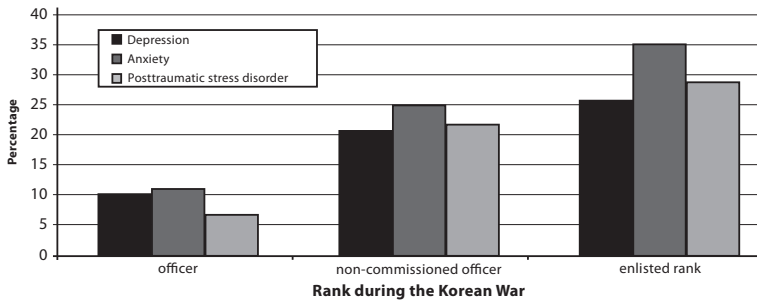
**Rank during the Korean War:** Lower ranked Korean War veterans are much more likely, than higher ranked veterans, to have poor health. There is a 54% increase in the prevalence of PTSD, a 56% increase in the prevalence of anxiety, a 43% increase in the prevalence of depression, and a 26% increase in the prevalence of having a history of alcohol problems, per categorical decrease in rank from officer, to non-commissioned officer, to enlisted rank. Further, veterans who served with an enlisted rank report lower life satisfaction, and poorer quality of life than veterans who served as non-commissioned officers, or officers. These findings are independent of the effects of age and education.

These associations between Korean War related combat exposure, and rank, and current PTSD, anxiety and depression are demonstrated in Figures A and B.

**Figure A. Percentage of Korean War veterans with PTSD, anxiety, or depression across levels of combat exposure**



**Figure B. Percentage of Korean War veterans with PTSD, anxiety, or depression across levels of rank**



There are also other service-related characteristics of the Korean War associated with some health outcomes. They include:

**Service branch:** PTSD, anxiety, depression and history of alcohol problems are most prevalent in Army veterans (prevalences of approximately 30%, 34%, 26% and 39% respectively), less prevalent in Navy veterans (22%, 29%, 21% and

36%), and least prevalent in Air Force veterans (14%, 22%, 17% and 29%). Army veterans also consistently report the poorest life satisfaction and quality of life, however the magnitude of these differences across Service branches is small.

***Being wounded in action:*** Veterans who report being wounded in action during Korea are approximately two times more likely to have PTSD, and 1.6 times more likely to have anxiety or depression, than veterans who report not being wounded. The type of evacuation reported for the injury or illness, which may be indicative of severity, was not associated with these health outcomes.

***Age at time of deployment:*** Veterans who were aged 20 years or less at the time of deployment to the Korean War are approximately two times more likely to have PTSD, and 1.4 times more likely to have anxiety or a history of problem drinking, than veterans who were aged 31 years or older.

***Years of previous Australian armed forces service:*** Veterans who had fewer years of service experience prior to the Korean War are more likely to have PTSD, anxiety, and a history of alcohol problems than veterans who were more experienced. There is a 14%-16% increase in the prevalence of these disorders per categorical decrease in years of previous service experience from 4 or more years, to 1 to < 4 years, to < 1 year.

***Duration of Korean War deployment:*** Veterans who deployed for more than 12 months are 1.5 times more likely to have PTSD, 1.2 times more likely to have anxiety, and 1.3 times more likely to have a history of alcohol problems, than veterans who deployed for less than 6 months.

***Korean War deployment era:*** Veterans who first deployed to Korea during the mobile, or static, phases of the Korean War are more likely to have PTSD, anxiety and depression than veterans who first deployed after the armistice.

## DISCUSSION AND CONCLUSIONS

The Health Study has demonstrated that the long-term health effects of war service can be severe, and can still be present fifty years after the end of hostilities.

The combined results of the Australian Korean War veterans' Mortality, Cancer Incidence and Health Studies show that Korean War veterans have experienced post-war mortality and some cancers at excessive rates compared with similarly aged Australians, and that survivors continue to experience extremely poor psychological and physical health and a low level of life satisfaction and quality of life.

Our observed group differences in the direction of poorer health in veterans in the study are likely to represent an underestimation of the true magnitude of

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the health differences which could be attributable to Korean War service. This is due to two possible factors. Firstly, the “healthy soldier” effect literature suggests that veterans are likely to have been healthier than the comparison group prior to the Korean War. Secondly, because it was limited to survivors, this Health Study has been unable to detect excess morbidity and adverse health outcomes likely to have been experienced by deceased veterans.

Smoking and alcohol consumption data collected in the Health Study assist in the interpretation of the findings of the Australian Korean War veterans Mortality and Cancer Incidence Studies. For example some, but not all, excesses in cancer incidence observed in Korean War veterans in the Cancer Incidence Study, can be explained by the level of smoking reported by veterans in the Health Study. A pattern of excessive alcohol consumption may also partly explain increased mortality among veterans from specific causes including accidents and suicide, alcoholic liver disease and other digestive diseases found in the Mortality Study.

The major methodological strengths of the study relate to the inclusion of the entire population of surviving Australian male Korean War veterans residing in Australia, the direct comparison of their health with that of an appropriately matched comparison group, and the use of well-validated data collection instruments, where possible.

Methodological weaknesses in the study include the reliance on self-reported health measures, particularly self-reported medical conditions which could not be medically validated, and the necessity for retrospective assessment of some lifestyle and deployment-related factors fifty years after the Korean War. The study was also unable to investigate possibly important Korean War environmental and chemical risk factors, and additional military and non-military characteristics, which may have contributed to post war illness. These limitations highlight the advantages of utilising longitudinal study designs which commence shortly after war deployment and follow veterans forward in time.

The adverse impact of psychological disorders, such as PTSD and depression, and chronic medical conditions, upon the lives of sufferers can be severe. Effective treatment in the elderly will require integrated intervention approaches which reflect the complexity of veterans’ prevailing symptoms. Importantly, elderly sufferers from long-standing conditions can achieve symptomatic and functional improvement.

It is clear that some of the ill-health experienced by veterans is attributable to the severity of combat associated with Korean War service. Other service-related factors include lack of seniority, inexperience, perhaps youthfulness

and war-related injury. Other military, and non-military factors such as socio-economic disadvantage, may have also contributed to veterans' vulnerability to illness and the persistence of symptoms over time. Excessive consumption of cigarettes and alcohol in the post-war period has also contributed to poor health, including cancer, and excess mortality.

While we cannot change the war-related experiences, and lifestyle risk factors, of the past, health interventions have been shown to be effective in alleviating significant ill health experienced by ageing veterans. The results of this study should be useful in identifying the most appropriate types of health interventions, and levels of service provision, required by surviving Australian Korean War veterans.

Importantly, the results of the study should also be useful in identifying those veterans of more recent conflicts who may be at greatest risk of adverse health outcomes, and in developing appropriate strategies to prevent or reduce long-term ill-health in these younger veteran groups.

More than fifty years after the war, less than 45% of Australia's Korean War veterans remain alive. The deceased Korean War veterans cannot benefit from health interventions, or changes to health service provisions, which may arise from the findings of this study. Younger veterans of more recent conflicts, however, may benefit more from future studies if these can investigate deployment-related risk factors and health outcomes in closer proximity to the time of the deployment.

Combined, the Australian Korean War veterans' Mortality, Cancer Incidence, and Health Studies contribute substantially to the existing international body of knowledge on the long-term health effects of war deployment. The results should assist in improving the health of future generations of military personnel, both in Australia and abroad.

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Korea, June 1952. The troops of 1RAR, take time for a welcome cup of tea at the end of their task of shifting camp. (AWM image HOBJ3191)



Korea, December 1950. Men and vehicles of 3RAR, attempt to make their way through a deep snowdrift in the Korean countryside. (AWM image PO2201.077)



Hill 335 area, Korea. March 1952. Members of A Company 3RAR wait in line to attend a church service at the Company Aid Post which consists of a simple thatched structure erected on a crude timber frame on Cemetery Ridge. (AWM image PO2208.022)



Korea, 21st June 1952. The whaler from the destroyer HMAS Wararamunga. (AWM image 302083)

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## Appendix 7

### HISTORICAL AND CONTEMPORARY INTERPRETATIONS OF COMBAT STRESS REACTION

Allan D. English

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*Historical and Contemporary Interpretations of Combat Stress Reaction, (Board of Inquiry: Croatia, 26 October 1999).*

*Dr. Allan D. English, an Adjunct Professor of History at Queen's University, Kingston, Ontario is the author of *Cream of the Crop*. He has also prepared a number of studies for the Canadian Government, including this valuable survey of the development of ideas about Combat Stress Reaction.*

#### INTRODUCTION

The recognition that stress affects those who are called upon to serve their people in combat is almost as old as recorded history. The leaders of the ancient Israelites exempted from their armies those who were about to be married, those who had just built a house, or those who had just planted a vineyard. These people were temporarily excused from combat because their leaders understood that such people would probably feel the effects of the stress of battle more acutely than their comrades. In addition, the Israelites knew that fear could be contagious, and the officers of their army were directed to speak to their soldiers thus: "What man is there that is fearful and fainthearted? Let him go and return to his house, lest his brethren's heart faint as well as his heart."<sup>1</sup>

This paper has been written to give members of the Board of Inquiry - Croatia some historical background to contemporary interpretations of stress and the results of stress caused by exposure to combat or intensive operations, commonly referred to as Combat Stress Reaction (CSR).<sup>2</sup> By examining certain themes, such as symptoms, diagnosis, and treatment; noncombat stress; reactions of soldiers to stress; and the reactions of society and health care professionals to CSR, it will be demonstrated that interpretations of CSR have varied over time based on such factors as the nature of the combat environment, attitudes of society towards psychological illness, and the attitudes of health care professionals and researchers towards stress-induced illnesses. This poses problems for those trying to distinguish between environmental (or physical) causes and stress-related causes for symptoms exhibited by those who have been exposed to combat on intensive operations.

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There are a number of definitions of CSR, but the most comprehensive definition, and the one that accounts for the most non-physical casualties is: “all soldiers who negotiate evacuation with a reason other than being hit by a direct enemy projectile or explosive are CSR casualties.”<sup>3</sup> Since the Board is primarily concerned with the effects of CSR in land warfare, this discussion is restricted to the evolution of CSR in that element.

### **SYMPTOMS, DIAGNOSIS AND TREATMENT**

The earliest antecedent to CSR in the medical literature can be found in an article by Johannes Hofer published in 1678. He described a disease that afflicted Swiss mercenaries serving in France who exhibited various symptoms described as: dejection, continuing melancholy, incessant thinking of home, disturbed sleep or insomnia, weakness, loss of appetite, anxiety, cardiac palpitation, stupor and fever. Unless the soldiers could be returned home they sometimes died or went mad. Hofer’s clear description of these cases led to the acceptance of “nostalgia,” based on the most conspicuous symptom, by the medical profession as a recognizable disease of soldiers serving far from their homes. By the 19th century many physicians, believing that symptoms of nostalgia were caused by pathological changes in patients’ internal organs, noted alterations in the brain and other structures after death when none existed because, for the most part, they were grappling with problems beyond their capacity to solve.<sup>4</sup> Nevertheless, the diagnosis of “nostalgia” was widely accepted until the First World War, when dramatic changes took place in the diagnosis and treatment of non-physical battle casualties.

At first those who could not cope with mental strain of combat in the British and Canadian armies were categorized as suffering from hysteria, a disease believed to be caused by a lack of will power, laziness, or moral depravity.<sup>5</sup> Casualties were treated as they would have been in a civilian clinical setting. They were evacuated to Britain where, given “rest and sympathy,” some had their symptoms disappear, but most ended up institutionalized and became chronic cases.<sup>6</sup> These losses took their toll on both armies but became critical when, after the first battle of the Somme in July 1916, “several thousand soldiers” had to be withdrawn from battle due to nervous disorders; many of these were permanently lost to the military. A new treatment regime was quickly instituted that by 1918 had evolved to the point where it was very similar to the present-day treatment for CSR near the front line, emphasizing the principles of immediacy, proximity, and expectancy. However, according to Lieutenant-Colonel Colin Russel, a leading Canadian neurologist, those who were evacuated to Britain and Canada were subjected to a variety of treatments aimed at

“persuading” them to return to the front or to become productive members of society. The treatments ranged from forceful counselling to electric shocks administered to those less willing to be convinced by words.<sup>7</sup>

These treatments were based on a paradoxical theory of the illness that existed at the time. On the one hand, since the discovery in the late 19th century of bacteria as the cause of many diseases, a new ideology swept the scientific community and the medical profession that held that almost all human afflictions had physical causes. On the other hand, many physicians at the turn of the century believed that any mental illness was caused by a lack of control over the baser human instincts, and that it was their duty to help patients overcome their moral lapses to cure any such illness.<sup>8</sup> These two principles were soon applied to those evacuated from combat with no physical wounds because, as a leading British Army psychiatrist in the Second World War put it, society could not countenance “the idea that the British soldier or ‘hero’” could possibly show “mental” symptoms because they were “shameful evidence of ‘moral weakness.’”<sup>9</sup> Instead it was hypothesized that the concussive force of exploding shells had caused physical damage to the nervous systems of sufferers, and, therefore, they had an acceptable reason to be removed from combat. The new diagnosis “shell shock” was used to provide a suitable label for large numbers of soldiers who suffered from some sort of psychological disorder during the First World War. By the end of the war, even though it was admitted that concussive shock did not produce these disorders, many in the medical profession, trained to believe that almost all illnesses had a physical cause, were convinced that these disorders had an as yet undetermined physical origin.<sup>10</sup>

During the Second World War the symptoms of those with stress-induced illnesses were similar to those seen in 1914-18, but by 1939 attitudes toward what were called neuropsychiatric (NP) disorders in soldiers had changed significantly.<sup>11</sup> But not necessarily for the better, because the treatments given to those with NP symptoms were actually less effective in returning soldiers to combat than those used in 1918. As in the First World War with the rush to mobilize, neither the British nor Canadian armies paid much attention to the selection, especially for psychological fitness, of recruits early in the war. Therefore, many unfit men ended up in uniform.<sup>12</sup> Despite large numbers of men likely to be susceptible to NP problems, the British and Canadian armies seemed to have forgotten the lessons of the First World War and early in the Second World War planned to evacuate NP casualties to the rear for intensive therapy, with its concomitant low return-to-combat rates.<sup>13</sup> Like its British and Canadian allies, the US Army initially identified NP problems as a clinical, or medical, phenomenon due primarily to a personality defect in the soldier, but because of their delayed entry into the war the American armed forces were able to



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implement a rigorous selection system.<sup>14</sup> Statistics of their Selective Service organization showed that about 40 percent of all inductees were eventually rejected on emotional, psychiatric or behavioural grounds.<sup>15</sup> Working on the assumption that most of those predisposed to psychiatric breakdown in combat had been weeded out, the US Army based their treatment on civilian models of developmental psychology and Freudian psychiatry. These models tended to ignore the forward treatment found to be so effective by the end of the First World War, and endorsed hospital-based treatment regimes employing long psychotherapy sessions, often preceded by heavy sedation of the patient, focussing on inner change and growth in the patient.<sup>16</sup> The result was similar to the First World War experience, where very few of those treated in rear facilities ever returned to combat. For example, during the US Army's campaigns in North Africa and Sicily, 35 percent of all nonfatal casualties were diagnosed as "psychiatric" however, because most of them were evacuated 90 miles or more from the front lines for treatment, no more than three percent were ever returned to combat.<sup>17</sup> Despite the preference of many psychiatrists for their usual hospital-based treatment methods, the manpower crisis of the Northwest Europe campaign (1944-45), with combat units suffering an average ratio of 25 percent of casualties classified NP, finally forced the Allied armies to return to the proven forward treatment methods of the First World War.<sup>18</sup>

Based on its Second World War experience, the US Army accepted that after 35 days of sustained combat, 98 percent of soldiers exhibited "adverse psychiatric symptoms." Therefore, during the Korean War US forces were better prepared to deal with NP casualties, which occurred at about the same rate as in the Second World War. The US Army again validated the concept that unit cohesion and morale was one of the key supports that allowed soldiers to deal with combat stress; however, an individual rotation and replacement program often interfered with the maintenance of group cohesion.<sup>19</sup>

The modern Israeli experience mirrors the experience of the Allies in the Second World War. During the catastrophic early days of the Yom Kippur War in October 1973, the Israeli Defence Forces (IDF) reported that CSR casualties comprised 60 percent of total casualties. As Israeli forces regained the upper hand in the conflict, CSR casualties fell to 30 percent of total casualties. During the 1982 Lebanon conflict, early Israeli successes and a conviction that their cause was just meant that the IDF suffered very few CSR casualties. As the IDF's advance became bogged down, and doubts were expressed about the righteousness of the Israeli action, CSR casualties of 23 percent of total casualties were reported.<sup>20</sup> During the Yom Kippur War, the IDF CSR treatment followed a hospital-based civilian developmental psychology model, similar to the one used by the Allies at the beginning of the Second World War, with the

same disappointing results in returning soldiers to combat. After the 1973 War, Israeli CSR treatment was based on the more successful doctrine of forward treatment.<sup>21</sup>

Since the Second World War concepts of social psychology have gradually come to prevail in the treatment of CSR. In the armed forces of western countries CSR casualties are explained as primarily a group phenomenon tied to the collapse of the social network of support (e.g., leadership, cohesion, and morale) found in the unit. Unlike some medical models that predominated in the past that equated CSR symptoms with a psychological disorder based on individual weakness, the social psychology model views CSR symptoms as perfectly normal reactions to the collapse of a group support system designed to help the individual survive in combat. Therefore, this approach focuses on restoring the support systems that permit the individual to function effectively in combat.<sup>22</sup>

However, even if group support systems are not optimal, high CSR casualty rates are not inevitable. Despite the practice of individual replacements that disrupted unit cohesion, the Vietnam War produced relatively few CSR casualties in the American Army. A number of explanations have been advanced for this. One is that if all cases of drug and alcohol abuse (which was quite high), psychosis, and “fragging” were reported as CSR, then the CSR rate would have been much higher.<sup>23</sup> Another reason put forward for the low CSR rate is the relatively small number of combat troops in theatre (at its peak of 565,000 the US Army could only muster 88,000 combat troops) meant that, proportionally, not many American soldiers actually came in contact with the enemy. It is revealing that during the set-piece battles of the Tet offensive launched by North Vietnam in 1968, US forces suffered CSR rates that approached the Second World War and Korean War rates.<sup>24</sup>

In the aftermath of the Vietnam War, when large numbers of Vietnam veterans (estimated at between 500,000 and 1,500,000) reported severe stress-related symptoms after returning home, a new disorder appeared in the medical literature – Post-Traumatic Stress Disorder (PTSD).<sup>25</sup> It has been suggested that the rapid release of Vietnam veterans from the service was responsible for this phenomenon, whereas in the Second World War the slow discharge process either diminished or hid symptoms of PTSD.<sup>26</sup> PTSD appears to be a common form of illness among veterans of Low Intensity Conflicts (LICs), due, some believe, to the highly personal nature of the violence, the uncertainty and ambiguity as to who is a combatant, the necessity of limiting aggressive action, and feelings of guilt over the inability to intervene effectively. Therefore, the prevention and treatment of CSR casualties from LICs may be more complex than treating those from mid- or high-intensity conflicts.<sup>27</sup>

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### NON COMBAT STRESS

When the Korean war settled into a stalemate, the US maintained large forces in the country, nevertheless soldiers were still in a hostile environment deprived of many of the comforts of home. Despite the lack of combat, US forces continued to experience relatively high numbers of “psychiatric casualties.” The old symptoms of “nostalgia” reappeared, including secondary reactions of frostbite, alcohol abuse, and complaints of lower back pain and general malaise. A similar situation seems to have existed during the Vietnam War because, with most American soldiers employed in non-combat jobs, the majority of “psychiatric casualties” were of the nostalgia variety, now termed “disorders of loneliness.”<sup>28</sup>

A study by the Walter Reed Army Institute of Research of a US battalion deployed in the Sinai in 1982 with the multinational force and observers (MFO) noted that the lack of action and the defensive posture of the peacekeeping mission was potentially more stressful than active operations for elite troops. The study concluded that the health of the battalion was worse in theatre than it had been in the US, and that a number of physical illnesses were probably a result of psychosocial stress.<sup>29</sup>

The experience of Canadian peacekeepers since 1947 has been consistent with those of the US MFO battalion. A recent study concluded that those going on peacekeeping missions needed to be carefully screened to avoid taking those who could not cope with the stress of the mission; that maintenance of cohesion and morale in theatre requires more attention; and that while improvements have been made to the personnel support system there is still dissatisfaction among those surveyed with the support they have received.<sup>30</sup>

Researchers in the field Noncombat Stress have concluded that a great deal of study still needs to be conducted in this area. However, it appears that, as with combat stress, high levels of unit cohesion and morale assist soldiers in withstanding operational stress, and that post-deployment stress-related illness should be expected.<sup>31</sup>

### REACTIONS OF SOLDIERS TO COMBAT STRESS

Prior to the First World War, the most common reaction to the stress of campaigns and battles was desertion. Sometimes it reached “epidemic proportions,” as occurred in some campaigns of the French Revolutionary armies at the end of the 18th century, and the Union and Confederate Armies during the American Civil War. For example, Lee’s hard pressed Army of Northern Virginia had lost about 20 percent of its effective strength to “stragglers” before the battle at

Antietam (1862) and it was reported that among “the thousands of stragglers were a considerable number of men who had simply had enough.”<sup>32</sup> This was an accepted reaction to the strain of war and the officers of that time accepted that large parts of their armies would leave the ranks when the stress of a campaign became too great. In an apparent return to a pre-20th century model, the US armed forces, particularly the army and navy, have reported that desertion rates have increased by up to 50 percent in the last five years. Just as in previous centuries, when there was no great stigma attached to desertion, some of today’s youth are reacting to the stress of military service by abandoning their posts.<sup>33</sup>

The pre-20th century attitude towards desertion changed with the static nature of trench warfare and the more efficient staff organizations of the First World War that could now control troop movements more effectively. Faced with the threat of court martial and even execution,<sup>34</sup> many soldiers withdrew mentally from combat and this spawned the diagnosis of “hysteria,” later “shell shock,” which quickly replaced that of “nostalgia.” Instead of physically leaving the trenches, soldiers developed symptoms that had been seen before, like cardiac palpitations and depression, and some new ones, including psychologically-induced paralysis of limbs and deafness, which allowed the medical system to remove them from combat without the stigma, or penalties, attached to desertion. In fact, once the phenomenon of shell shock was described in the British popular press, large numbers of replacement troops reported the symptoms and were evacuated from the theatre of operations before they had even reached the front line or been under fire.<sup>35</sup>

As with the secondary symptoms exhibited by some soldiers in the First World War, the Korean and Vietnam Wars showed that CSR can be indicated by other illnesses (e.g., frostbite, alcohol and drug abuse, sexually transmitted diseases, and complaints of lower back pain and general malaise), or its symptoms can be delayed and appear as PTSD.

It is now generally accepted in the literature that the symptoms of CSR will vary according to the combat or operational environment. The chief of research for mental health in the IDF, Shabtai Noy, has suggested that intense combat (termed “massed stress”) usually results in dramatic psychiatric symptoms (like those seen in the First and Second World Wars), while exposure to intermittent stress (termed “sporadic stress”) usually leads to such problems as substance abuse, depression, anxiety, or amnesia and an increase in administrative removals, whereas exposure to relatively low but constant levels of operational stress (termed “intermediate stress”) tends to result in evacuations for fatigue and physical illness (vomiting, digestive system disturbances, lack of appetite, diarrhea, and muscular tremors with no readily identifiable cause similar to symptoms associated with nostalgia over 300 years ago).<sup>36</sup>

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Noy argues that, being a reaction to trauma, CSR changes over time. This appears to be true because, as we have seen, there is no simple set of CSR symptoms that can be attributed to all wars, and that soldiers who could not cope with the stress often exhibited whatever symptoms would get them out of combat.<sup>37</sup> The mechanism of this behaviour was explained as early as the First World War, and is still accepted by many today, as an inner conflict within those soldiers placed in situations that are perceived to be a threat to their survival. Some of these soldiers, faced with the choice of “fight or flight,” will elect “flight.” When prevented from physically leaving the combat environment, these soldiers may exhibit genuine clinical symptoms, caused by their subconscious conflict. The symptoms often take the form of those signs that are accepted either by society or the medical profession as bona fide reasons for being removed from the stressful situation. But how society and the medical profession has interpreted these symptoms has varied over time and between cultures.<sup>38</sup>

### SOCIETY AND CSR

The treatment of CSR casualties has changed, sometimes dramatically, in this century, and some of the reasons for these changes will be discussed here. At the beginning of the First World War, the “manly courage” of its soldiers was taken for granted by the Canadian populace and the Canadian Army Medical Corps. Nonetheless, the large number of “shell shock” casualties persuaded Canadian authorities to take a more sympathetic view of those who suffered from “nervous disorders.”<sup>39</sup> Free medical care was provided for all returned soldiers for one year after the war, but then it was restricted to pensioners with permanent injury or recurring sickness. The change in Canadian attitudes was slow in coming, however, as shell shock victims were denied pensions, on the advice of Russel and other leading medical professionals, until at least 1925. Eventually two purpose-built veteran’s hospitals were constructed for those suffering from mental illnesses, and by 1928 they represented one quarter of all disabled veterans. By the eve of the Second World War that proportion was close to one half.<sup>40</sup> But it was an anathema to many people in Canadian society, who believed that any illness whether shell shock or pneumonia was evidence of personal shortcomings, that thousands of veterans in apparent good physical health should be drawing pensions or receiving free hospital care for a mental illness. Our military pension system’s policies, first devised in 1916 on the principle of the rehabilitation of veterans to lead productive lives, reflected this attitude. Based on the experiences of the Americans after their Civil War and the French Army early in the First World War both of which ended up giving generous pensions to thousands of veterans, Canadian pension officials were “generous on paper but tight-fisted in practice.” Medical boards and examiners

rarely gave full pensions, and by 1920 only 5,000 of 70,000 pensioners had been awarded full disability benefits.<sup>41</sup>

A great deal of research remains to be done on the effect of society's attitudes to the treatment of veterans since the First World War, but the case of American Vietnam veterans and the current Gulf War Syndrome (GWS) controversy indicates that in many cases there is a perception that, like their First World War forebears, recent generations of soldiers are not suffering from any real disease. As a recent Rand Corporation report on GWS put it:

The scientific study of stress and its impact on health has made enormous advances in recent years. Unfortunately, these scientific strides have generally not been accompanied by an evolution in popularly held misconceptions about stress. The societal stigma associated with stress as an explanation of poor health and disease has contributed greatly to the politicized environment that sometimes characterizes public discourse concerning the health problems suffered by Gulf War veterans.<sup>42</sup>

## THE HEALTH CARE COMMUNITY AND CSR

Changes in society's attitudes towards stress-induced illness has been mirrored in the attitudes of the health care community towards CSR. However, despite the changes over the past one hundred years, interpretations of psychological disorders by physicians and others responsible for the health care of soldiers have followed a number of well-defined paradigms. The significance of physical causes of CSR (and PTSD) often varies according to the background and training of the observers. Even the First World War diagnosis of shell shock was resurrected by Iranian psychiatrists trying to explain the psychological effect of artillery on Iranian soldiers in the Iran-Iraq War (1980-88 ).<sup>43</sup> Recently some toxicologists and experts in environmental medicine have declared that organophosphates can cause both neuropsychological and neuropsychiatric damage that could be responsible for many symptoms of GWS.<sup>44</sup> Others believe that GWS is a "hysteria," based almost exclusively on emotional reactions to stress and similar to the type of mental condition commonly diagnosed by physicians in the late 19th and early 20th centuries.<sup>45</sup> Between these views are a whole range of interpretations that combine the effects of the mind and the environment on physical health.

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### CURRENT INTERPRETATIONS OF CSR

Whatever the competing views about how to interpret various possible stress-induced symptoms in soldiers, the concept of CSR that has been accepted by the Canadian and most western armies is summarized in an essay by Noy.

He addresses the difficulty of distinguishing between the physical symptoms of the illness and the psychology of the label of illness, with its attendant social stigma. In practical terms, however, in order to deal with the psychological issues in a normal military setting he describes return to the unit as the essence of an “active coping” CSR treatment regime. This allows the victims to see the manifestations of their trauma as a temporary and normal reaction to an extreme situation. Noy cautions that perceiving post-traumatic reaction as a disease increases the likelihood of soldiers viewing themselves as continuously traumatized or helpless, and this may lead to chronic PTSD. He goes on to say that abreaction (when the victim re-experiences the trauma in dreams, thoughts, images and sensations) is a natural response to the trauma, part of the healing process, and should be encouraged. Noy states that the forward treatment regime now espoused doctrinally by most western armed forces focusses on getting the soldier to function and back to his or her unit again in as short a period of time as possible. This treatment regime assumes that abreaction and social support will be given at the unit level once the soldier returns to duty. Noy concludes by emphasizing that prevention of CSR by selection is generally unsuccessful because no single factor distinguishes a potential CSR casualty from those who do not become casualties and that stress inoculation has limited effectiveness. He reminds us that strength of leadership and unit cohesion are the only factors with “demonstrated merit” in reducing CSR casualties.<sup>46</sup>

The philosophy for the treatment of CSR casualties described above focuses on in-theatre treatment. The issues of post-deployment treatment of potential sufferers are still being debated. But both types of treatment are dependent upon the attitudes of those medical professionals in uniform who are given the responsibility of caring for our soldiers before, during, and after deployments to areas of operations.

### THE MEDICAL PROFESSION AND CSR

In the US military a debate has arisen about the adequacy of medical care for their troops when deployed on operations. The debate is based on the difference between “medicine in the military” and “military medicine.” According to one argument, medicine as practiced in the military in peacetime resembles health

care as managed in a civilian clinical setting, while military medicine is only very distantly related to “medicine in the military.”<sup>47</sup> Unlike medicine in the civilian sector, which tends to put the well being of the patient first, military medicine takes a different first principle. Based on the experience of past wars, some commentators see the fundamental goal of military medicine to be the conservation of human resources for military purposes. This implies a return to duty as soon as possible, even if this means likely death or injury for the individual, or, where return to duty is impossible, discharge at the earliest possible moment.<sup>48</sup>

This became a contentious issue in both the First and Second World Wars and could still be troublesome today as illustrated by this statement by a retired US Naval Reserve medical flag officer:

In the comparative luxury of the Vietnam war, many medical officers were shocked by the occasional need to change the pattern of patient care from that practiced in civilian life. Physicians are generally a rigid, compulsive group, and in many cases the cultural, professional, and emotional shock of having to compromise or modify patient care actually immobilized or rendered unfit the physician suddenly placed in the combat zone.<sup>49</sup>

This issue re-surfaced in the Gulf War when the US Navy estimated that less than 10 percent of its physicians being deployed could treat battle casualties, including the naval infantry of the US Marine Corps, properly.<sup>50</sup> This may also be a problem for the Canadian Forces (CF) as the following extract from current CF Health Services Support (HSS) doctrine illustrates: “HSS must conform to the constraints imposed by the physiology and pathology of the sick and injured, and be governed by the highest standards of medical and dental practice and ethics. In addition, HSS must conform to operation plans and requirements.”<sup>51</sup> The problem comes when the highest standard of medical practice conflicts with operation plans and requirements. In the context of CSR, treatment by those trained in a civilian model of care could be problematic because in dealing with psychological illness, the civilian practitioner usually focuses on the abnormal reactions of patients to normal environments, whereas the military practitioner often treats the normal reactions of service personnel in the abnormal situations of combat or intense operations.

The various frameworks used by the medical profession to interpret stress-induced casualties have a profound influence on the treatment of the individual and the effectiveness of the military force. From a historical perspective, these interpretations have changed, and probably will continue to change, as society’s attitudes evolve and as scientific research provides new evidence for competing interpretations of human behaviour in battle.



### CONCLUSIONS

CSR can be a serious problem for military forces. In the past, units engaged in intense combat have suffered CSR casualties amounting to as much as one third, or more, of the entire force.<sup>52</sup> In these cases, CSR casualties have frequently comprised the majority of the total casualties suffered by these units. Overall, US forces lost 504,000 men to “psychiatric collapse” in the Second World War, enough to man 50 combat divisions.<sup>53</sup> In addition, PTSD has been a serious health problem after the soldiers have returned home. Both types of casualty represent a great waste to our society. CSR casualties can be an immediate problem to the commander in the field. However, those who may suffer from the long term effects of stress from operational service represent a loss not only to the armed forces, which must replace experienced and well-trained soldiers, but also to society as a whole, which instead of a productive and contributing member may have to deal with someone who is unable to work and who must depend on social assistance or a pension after his or her military service is concluded. This situation is further complicated by the prejudice that still exists in western societies against anyone suffering from diseases that are believed to have “mental” causes.

History shows that difficult challenges confront those who try to distinguish between physical and mental causes for illnesses suffered by soldiers whose physical health has been affected after exposure to significant stress in combat or on intensive operations. As we have seen, the interpretation and treatment of the illnesses of those returning from combat or operations varies according to the attitudes of society, health care professionals, and military leaders. The ongoing controversy over GWS demonstrates that these issues are with us in much the same form as in the past. The US Department of Defense has spent \$100 million on Gulf War health research since 1994, and while those charged with overseeing the research express confidence in the outcome, a recent study of only one chemical agent reveals how complicated these questions can be. This particular study reviewed about 1,000 published investigations on the drug, pyriostigmine bromide (PB), and concluded that exposure to it might produce lingering symptoms years afterwards, but that “This does not imply that it is necessarily a causal factor, only that the possibility cannot be dismissed...” Another \$17 million has been allocated to further studies on the effects of PB.<sup>54</sup>

The GWS debate is a clear example that the issues surrounding illnesses that may have been caused by exposure to combat or intense operations are far from resolved. The opinions expressed in the debate run the whole gamut of beliefs about the subject, and most are based on paradigms that have been used in the past to try to explain the various illnesses not directly related to physical injuries that have afflicted soldiers. For those investigating perplexing subjects

like CSR, they will continue to encounter many competing explanations based on the paradigms of the experts providing each interpretation. To date, we can only say that no explanation has been generally accepted to account for the precise causes of illnesses that may result from the stress of combat or intense operations. It may be that, like our predecessors, we are still grappling with problems beyond our capacity to solve.

## NOTES

1. Deuteronomy, Chapter 20, verses 5-8, King James Version.
2. Combat Stress Reaction (CSR) has been described in a number of different ways. In this essay I shall use the definition most often used in the psychological literature (see note 3 below) and common in the Canadian Forces. In civilian clinical terms, CSR could be diagnosed as either Post Traumatic Stress Disorder or Acute Stress Disorder depending on how long the symptoms take to appear and how long they persist. For a more complete explanation see American Psychiatric Association [APA], *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, (Washington, DC: APA, 1994), 424-31.
3. Shabtai Noy, "Combat Stress Reactions," in *Handbook of Military Psychology*, Reuven Gal and A. David Mangelsdorff, eds. (Chichester: John Wiley, 1991), 508.
4. George Rosen, "Nostalgia: a 'Forgotten' Psychological Disorder," *Psychological Medicine* 5 (1975), 340-54.
5. Michael J. Clark, "The Rejection of Psychological Approaches to Mental Disorder in Late Nineteenth-Century British Psychiatry," in *Madhouses, Mad-Doctors, and Madmen*, Andrew Scull, ed. (London: Athlone, 1981), 293-7.
6. Sidney I. Schwab, "The War Neuroses as Physiologic Conversions," *Archives of Neurology and Psychiatry* 1 (1919), 593; and Arthur F. Hurst, "Hysteria in Light of the War Experience," *Archives of Neurology and Psychiatry* 2 (1919), 565.
7. Colin K. Russel, "War Neurosis," *Archives of Neurology and Psychiatry* 1 (1919), 34-5.
8. Andrew Scull, "The Social History of Psychiatry in the Victorian Era," in *Madhouses, MadDoctors, and Madmen*, Andrew Scull, ed. (London: Athlone, 1981), 25; and Clark, 274, 295, 297, 300.
9. Robert H. Ahrenfeldt, *Psychiatry in the British Army in the Second World War* (London: Routledge and Kegan Paul, 1958), 6. Emphasis in original.
10. H.C. Marr, *Psychoses of the War* (London: Henry Frowde, 1919), 46-7.
11. Many terms were used in the Second World War to denote CSR casualties, including "Not Yet Diagnosed (Nervous)," psychoneurosis, anxiety neurosis, and battle stress. Copp and McAndrew, 22. To avoid having soldiers labelled "psycho," in 1943 senior officers in the US Army insisted that the only term "exhaustion" be used for these casualties. Richard Gabriel, *No More Heroes: Madness and Psychiatry in War* (New York: Hill and Wang, 1987), 39-40, 41.
12. Terry Copp, "The Development of Neuropsychiatry in the Canadian Army Overseas 1939-1943," in *Canadian Health Care and the State*, David C. Naylor, ed. (Montreal and Kingston: McGill-Queen's Univ. Press, 1992), 68.
13. Terry Copp and Bill McAndrew, *Battle Exhaustion: Soldiers and Psychiatrists in the Canadian Army, 1939-1945* (Montreal and Kingston: McGill-Queen's Univ. Press, 1990), 47.
14. Shabtai Noy, "Combat Psychiatry: The American and Israeli Experience," in *Contemporary Studies in Combat Psychiatry*, Gregory Belenky, ed. (Westport, CT: Greenwood Press, 1987), 71.
15. The Selective Service initially rejected 1,686,000 of 5,250,000 inductees (32 percent) for emotional or educational disorders or deficiencies. Between 1942-45 an additional 504,000 were separated on psychiatric or behavioural grounds, bringing the total to almost 42 percent. Gabriel, 9.
16. Noy in "Combat Stress Reactions," 509; and Allan D. English, *The Cream of the Crop: Canadian Aircrew 1939-1945* (Montreal and Kingston: McGill-Queen's University Press, 1996), 68, 69, 74, 79.
17. Gabriel, 117-18.
18. Copp and McAndrew, 58, 81, 114, 135, 149-50; and Gabriel, 46.

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19. Gabriel, 121.
20. Stasiu Labuc, "Cultural and Societal Factors in Military Organizations," in *Handbook of Military Psychology*, Reuven Gal and A. David Mangelsdorff, eds. (Chichester: John Wiley, 1991), 484-5.
21. It was found that 70 percent of soldiers who received forward treatment were returned to combat, whereas rear-based treatment returned only 16 percent of similar casualties, Noy in "Combat Stress Reactions," 520.
22. Noy, in "Combat Stress Reactions," 510; and Gregory Belenky, Shabtai Noy, and Zahava Solomon, "Battle Stress, Morale, Cohesion, Combat Effectiveness, Heroism, and Psychiatric Casualties: The Israeli Experience," in *Contemporary Studies in Combat Psychiatry*, Gregory Belenky, ed. (Westport, CT: Greenwood Press, 1987), 18.
23. Gregory Belenky and Franklin D. Jones, "Combat Psychiatry - An Evolving Field," in *Contemporary Studies in Combat Psychiatry*, Gregory Belenky, ed. (Westport, CT: Greenwood Press, 1987), 4; Noy in "Combat Stress Reactions," 508-9.
24. Gabriel, 122.
25. Gabriel, 123; and Noy in "Combat Stress Reactions," 516.
26. Noy in "Combat Stress Reactions," 509.
27. Belenky and Jones, "Combat Psychiatry - An Evolving Field," 5; and Belenky and Jones, "Conclusions: The Future of Combat Psychiatry," in *Contemporary Studies in Combat Psychiatry*, Gregory Belenky, ed. (Westport, CT: Greenwood Press, 1987), 254.
28. Gabriel, 120-1, 122. Another indicator that something was wrong is found in the statistic that in 1985 among the 14,000 men stationed in Korea no fewer than 12,000 cases of sexually transmitted diseases (STD) were reported.
29. Joseph M. Rothberg, et al., "Illness and Health of the US Battalion in the Sinai MFO Deployment," *Armed Forces and Society* 11, no. 3 (Spring 1985), 413-4, 421-2.
30. Franklin C. Pinch, "Lessons from Canadian Peacekeeping Experience," unpublished report prepared for DND, November 1994, viii-xiii.
31. Tomi S. MacDonough, "Noncombat Stress in Soldiers," in *Handbook of Military Psychology*, Reuven Gal and A. David Mangelsdorff, eds. (Chichester: John Wiley, 1991), 548-9; and Pinch, XI, XIV.
32. Stephen W. Sears, *Landscape Turned Red: The Battle of Antietam* (New York: Popular Library, 1983), 186, 194, 339.
33. "Statistics show that the Army recorded 1,821 deserters in 1996 and 2,438 in 1998. The latest figure is about double the number of deserters recorded five years ago. Most defecting soldiers are in their first three years of service. The Navy reports the number of deserters increased from 1,737 in 1997 to 2,086 this year, a bump up of 20 percent among an enlisted force of 320,000...Desertion is defined as an intent to permanently stay away, while A WOL means the soldier intended to return." Rowan Scarborough, "US Military Hurt by Rise in Deserters," *The Washington Times* (1 October 1999), <http://www.washtimes.com/nation/nation.html>.
34. British courts-martial convicted 3000 soldiers for cowardice, and of that number 346 were executed. A considerable number were suffering from war-induced mental illness. Ted Boacz, "War Neurosis and Cultural Change in England 1914-22: The Work of the War Office Committee of Enquiry into 'Shell-Shock'" *Journal of Contemporary History* 24 (1989), 228.  
Twenty-two of 25 Canadians convicted of desertion were executed in the First World War, and one was executed for cowardice, while many others had their sentences commuted. Desmond Morton, "Military Medicine and State Medicine: Historical Notes on the Canadian Army Medical Corps in the First World War 1914-1919," in *Canadian Health Care and the State*, David C. Naylor, ed. (Montreal and Kingston: McGill-Queen's Univ. Press, 1992), 50.
35. "Report of the War Office Committee of Enquiry into 'Shell-Shock,'" Cmd 1734, (London: HMSO, 1922), 46.
36. Noy in "Combat Stress Reactions," 510, 522.
37. Gabriel, 41 42-3.
38. The effects of culture on the interpretation of the symptoms of mental disorders has generated an on-going debate in the medical profession. Recent articles in the literature show that the debate continues to be lively. See for example, Peter J. Guarnaccia and Lloyd H. Rogler, "Research on Culture-bound Syndromes: New Directions," *The American Journal of Psychiatry* 156, no. 9 (September 1999), 1322-1327; and Gary J Tucker, "Putting DSM-IV in Perspective," *The American Journal of Psychiatry* 155, no. 2 (February 1998), 159-161.

39. Morton, 48; and Copp, 69. In the First World War the Canadian army admitted to 15,500 “neuro-psychiatric disabilities,” of which 9,000 were diagnosed as “shell shock and neurosis.”
40. Morton, 50; and Russel, 36-7. In Britain, two years after Armistice 65,000 ex-servicemen were drawing disability pensions for neurasthenia, and of those 9,000 were still undergoing hospital treatment, Bogacz, 227. Russel was highly critical of the British and French propensity to grant pensions to “war neurosis” cases.
41. Morton, 50, 56, 57, 59.
42. “RAND Stress Report,” released 21 May 1999, [http://www.gulfink.osd.mil/library/randrep/stress/mr1018\\_4\\_chap1.html](http://www.gulfink.osd.mil/library/randrep/stress/mr1018_4_chap1.html).
43. Belenky and Jones, “Combat Psychiatry - An Evolving Field,” 2.
44. See for example, Professor Andrew Watterson, Centre for Occupational and Environmental Health, De Montfort University, Leicester, “Letter: Stress did not Cause Gulf War Illnesses,” *Independent* (5 August 1997), <http://www.elibrary.coms/edumark/>; and Laura Beil and George Rodrigue, “Gulf War Illness Genuine, Dallas Researchers Say Neurological Damage Suspected,” *The Dallas Morning News*, 9 January 1997, p.1A, <http://www.elibrary.coms/edumark/>.
45. Scott Owens, “Gulf War-related Illness, Chronic Fatigue are Modern Hysterias, Author Says,” *Gannett News Service* (12 May 1997), <http://www.elibrary.coms/edumark/>.
46. Noy, 517, 519, 520. For a similar view on the selection issue see Gabriel, 8-9. However, other researchers claim that some individuals may have attributes that make them more resistant to stress, for example, Kenneth D. Allred, and Timothy W. Smith “The Hardy Personality: Cognitive and Physiological Responses to Evaluative Threat,” *Journal of Personality and Social Psychology* 56, (January 1989), 257-66.
47. Ronald F. Bellamy and Craig H. Llewellyn, “Preventable Casualties: Rommel’s Flaw, Slim’s Edge,” *Army* 40, no. 5 (May 1990), 52-6.
48. Morton, 55.
49. Arthur M. Smith, “The Influence of Medicine on Strategy,” *Naval War College Review* 41, no. 2 (Spring 1988), 31.
50. Arthur M. Smith, “Joint Medical Support: Are We Asleep at the Switch?” *Joint Force Quarterly*, no. 8 (Summer 1995), 104.
51. B-GG-005-004/ AF-000, “Canadian Forces Operations,” (15 May 1997), Chapter 19 Health Services Support, Article 1903, para 2, <http://www.dnd.ca/dcds/drs/pubs/cfdocl9e.htm>.
52. Noy in “Combat Stress Reactions,” 508.
53. Gabriel, 4.
54. David Brown, “‘Gulf War Syndrome’ Study Looks at Nerve Gas Protection,” *Washington Post* (19 October 1999), p. A03, <http://www.washingtonpost.com/>. According to this article, about 697,000 men and women served in the Gulf in 1990 or 1991. The number with chronic symptoms since then is unknown.



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## Appendix 8

### THE HEALTH EFFECTS OF PEACE-KEEPING IN THE UK ARMED FORCES: BOSNIA 1992-1996 – PREDICTORS OF PSYCHOLOGICAL SYMPTOMS

Dr. Matthew Hotopf, A.S. David, L. Hull, K. Ismail, I. Palmer, C. Unwin and S. Wessely

*"The Health Effects of Peace-Keeping in the UK Armed Forces: Bosnia 1992-1996. Predictors of Psychological Symptoms," Psychological Medicine 33 (2003): 155-162.*

*This article offers a careful analysis of evidence on the mental health consequences of deployment on a peacekeeping mission. Using the concept of post-traumatic stress reaction rather than PTSD the authors employed a standard questionnaire to assess rates of reported stress across a number of variables. From the Gulf War Illness Research Unit, Guy's, King's and St. Thomas' School of Medicine, King's College, London; and Royal Defence Medical College, Gosport, Hampshire.*

#### INTRODUCTION

The role of the modern military has changed considerably over the past 50 years, with a far greater emphasis on providing humanitarian aid, peace-keeping and peace-enforcement in trouble spots, as opposed to war fighting (United Nations, 1996). Although we have reported that British peace-keepers deployed to Bosnia had no increased risk of symptoms akin to post-traumatic stress disorder or anxiety and depression (Hotopf et al. 2002), there are numerous – largely anecdotal – accounts of the stressful effects of peacekeeping (Weisaeth & Sund, 1982; Lundin & Otto, 1996; Weisaeth et al. 1996; Miller, 1997; Vogelaar et al. 1997; Orsillo et al. 1998). The little evidence on the UK armed forces in Bosnia suggests that mental health problems during deployment were uncommon, and generally pre-dated deployment (Winfield & Lafferty, 1997; Croft et al. 1999), and that since deployment there have been relatively low levels of stress symptoms (Deahl et al. 2000). However, there is an urgent need to understand better the effects of peace-keeping duties on psychological health. While peace-keeping might be less likely to place military personnel in direct combat scenarios than conventional warfare, obviously stressful and life-threatening situations do occur regularly. A few of the personnel deployed to Bosnia witnessed atrocities perpetrated by the warring parties on each other, or civilians. A few more will have witnessed the aftermath of such events at varying times afterwards. In the early stages of the campaign, the operation was

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criticized for the inability of peace-keepers to prevent atrocities, and there was confusion regarding the rules of engagement of the UN peace-keeping force. Peace-keeping usually involves a multinational force, where the chains of command are complex. Such complexity may have led to confusion, and lack of confidence in the command structure (Shawcross, 2001; Stankevic, 2001).

Post-traumatic stress disorder is the most widely reported disorder related to peace-keeping in both lay accounts and published research. This disorder, which entered the classification systems after the Vietnam War, was previously restricted to those who had experienced very severe trauma 'outside the range of normal human experience'. However, in DSM-IV the criteria for severity of trauma has been relaxed, and a wide variety of common civilian life events have been linked with the diagnosis. One of the main problems for researchers interested in PTSD is that for the diagnosis to be made, the supposed index event or trauma and psychological symptoms must both be present. This approach leads to a tautology where the exposure (trauma) is automatically linked to the outcome (symptoms). We have attempted to overcome this problem by defining a stress syndrome (which in other papers we have published has been labelled as a 'post-traumatic stress reaction') that consists of similar symptoms to PTSD, but does not require the reporting of traumatic events. We also used a widely validated and conventional outcome, namely being a case on the General Health Questionnaire (GHQ-12) (Goldberg, 1972).

The aim of this paper was to test a series of hypotheses regarding the relationship between these outcomes and a range of exposures, including deployment related traumatic events, demographic characteristics, other features of deployment (such as having a period of leave following deployment, duration and place of deployment), and features of previous deployments. We aimed to test the following hypotheses.

- 1) There would be an association between reported traumatic exposures and stress symptoms, and this would be greater for the stress syndrome than GHQ-caseness.
- 2) Previous deployments to Northern Ireland would be protective against stress symptoms and psychological distress in Bosnia veterans (the so called 'stress buffering' or 'stress inoculation' hypothesis). We hypothesized therefore that there would be an interaction between previous deployments, whereby they attenuated any effect of stressful events reported in Bosnia on the stress syndrome.
- 3) Short periods of leave post-deployment would be more protective against stress symptoms and psychological distress than having either no leave,

or prolonged leave, because short periods away from deployment may enable personnel to come to terms with their experiences, without undue rumination and avoidance of other stressful exposures.

- 4) Personnel who were deployed to areas where there were known atrocities would be at highest risk.

## METHOD

The study was originally set up to describe the health of service personnel who had served in the Persian Gulf War 1990-1991. The sampling for this study is described in previous papers (Unwin et al. 1999). A random stratified sample of 4250 Gulf War veterans was identified. Any military personnel who had served in the Gulf were eligible, apart from Special Forces who were excluded for security reasons. Two comparison groups were identified. The first consisted of personnel who were deployed in Bosnia, the second of personnel who were not deployed in either Gulf or Bosnia (Era). The two comparison groups were selected in order to re-create as far as possible the demographic structure of the Gulf group. Random stratified sampling was used to generate the Era group stratified on age, rank, service (Royal Navy, Army, Royal Air Force), gender, fitness and reservist status. The force deployed to Bosnia was exclusively from the regular army, and therefore the match with Gulf could not be so precise. The analyses presented in this paper are solely from the group who were deployed to Bosnia. Once questionnaires were returned it became clear that a minority of service personnel who were identified in the Bosnia group had also served in the Gulf. In the present study we excluded this group because their health status was dissimilar to those personnel who had only been to Bosnia (data for this group are presented elsewhere (Hotopf et al. 2002)).

## FOLLOW-UP

We obtained addresses from the Ministry of Defence. For personnel still in service we obtained current addresses and for those who left the forces (discharged) we obtained the last known addresses in the UK or overseas. We used multiple-tracing mechanisms for non-responders. For personnel who had left the services we used the National Health Service Central Registry to obtain health authority ciphers and current addresses. We used the electoral register to check for current addresses. For those still in service, various service bodies provided regularly revised addresses, including discharge and pension address sources. Several media appeals were made by the research teams, and we posted



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a study website on the Internet. We had three mailings, and in the third, for participants who were still serving, we sent questionnaires in batches to unit commanding officers with a letter asking them to facilitate the delivery of the questionnaires to servicemen and women. After 1 month we again approached the commanding officers with the highest non-response rates.

### QUESTIONNAIRE

The questionnaire contained several measures of current health status, including a checklist of 50 symptoms and 39 medical disorders, the 12-item General Health Questionnaire (Goldberg, 1972). From the symptom questionnaire we devised an outcome 'stress syndrome' that had some similarities to the symptoms of post-traumatic stress disorder (see Table 1).

We asked about a number of demographic, occupational and exposure variables. Demographic variables included age, ethnicity and education. Occupational variables included: previous deployments (for example 'tours' of Northern Ireland, or being deployed in the Falklands War of 1981); rank; main duties on deployment to Bosnia and place of deployment in Bosnia. Exposures included a range of traumatic events including witnessing someone dying, seeing maimed or seriously injured soldiers, and suffering combat related injuries; environmental exposures such as exposure to diesel smoke or oil. Data on the date and duration of deployment were obtained from the Ministry of Defence.

**TABLE 1.**

*Diagnosis of the stress syndrome: subjects had to endorse at least one symptom in each of the first four groups, plus two of the associated symptoms listed in (5)*

		Symptom
(1)	Intrusive thoughts	Distressing dreams
(2)	Avoidance: at least one of,	Feeling distant or cut off from others Avoiding doing things/situations
(3)	Arousal: at least one of,	Feeling jumpy/easily startled Sleeping difficulties Increased sensitivity to noise
(4)	Irritability	Irritability/outbursts of anger

(5)	Associated behaviours (two or more required)	Feeling unrefreshed after sleep Fatigue Intolerance to alcohol Forgetfulness Loss of concentration Loss or decrease in appetite Loss of interest in sex
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## ANALYSIS

We assessed relationships between individual exposures and the stress syndrome and GHQ caseness using univariate analyses, and logistic regression to control for confounding.

## RESULTS

Using three mailings, we obtained a response rate of 61.9% in the Bosnia group. We found that non-responders tended to be younger and still in service. We assessed rates of the stress syndrome and GHQ cases across different demographic groups. Table 2 shows the demographic associations of the stress syndrome. In the univariate analyses female gender was, if anything, protective of developing the stress syndrome. However, subsequent multivariate analyses (not shown) suggest that this may be due to confounding by the experience of stressors, and when total stressors were controlled, there is no gender difference. We did not detect any relationship between age and either outcome, but rank and educational status were associated, with those with more extensive education and higher rank, having lower experience of the stress syndrome. One explanation for this might be that privates and non-commissioned officers have higher levels of exposure, but we found that when total reported exposure were controlled, the association with the stress syndrome increased (odds ratio 13.5, 95% CI 1.9-97.3).

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TABLE 2.

*Relationship between demographic variables and psychiatric disorder*

Variable	%	Stress syndrome (N=1958) OR (95% CI)	GHQ (N=1908) OR (95% CI)
Gender			
Male	89.4		
Female	10.6	0.6 (0.2-1.6)	1.4 (1.0-1.9)
Age			
<24	26.6	1.0	1.0
25-29	34.7	1.3 (0.8-2.2)	1.0 (0.8-1.3)
30-34	18.4	0.7 (0.3-1.4)	1.0 (0.7-1.3)
35-39	11.5	0.8 (0.3-1.7)	0.9 (0.6-1.3)
040	8.7	0.5 (0.2-1.8)	1.1 (0.7-1.7)
Rank			
Officers	13.7		
Other ranks	86.3	7.3 (0.9-58.6)*	1.8 (1.2-2.7)
Education			
Below O levels	15.7	1.0	1.0
O levels or GCSE	61.9	0.8 (0.4-1.3)	0.9 (0.7-1.2)
A levels or degree	22.4	0.4 (0.2-1.1)**	0.9 (0.6-1.4)
Ethnicity			
White	98.6		
Non-white	1.4	1.8 (0.4-8.0)	1.4 (0.6-3.5)

\* P = 0.06. \*\* P = 0.07.

Table 3 shows the associations between the two outcomes and various self-reported exposures, controlled for the main demographic variables shown in Table 2. Eighteen of the 23 exposures were associated with the stress syndrome (at  $P < 0.05$ ) and 19 were associated with being a case on the GHQ-12. The effect sizes were generally larger for the stress syndrome group (only one of the associations had an OR  $< 2.0$ ) than the GHQ group (where 16 of the associations were OR  $< 2.0$ ). There was no specific pattern between the nature of exposure and the stress syndrome. While the strongest relationships appeared to be with witnessing severe injuries, death, or handling prisoners of war, other less specific exposures were also strongly associated, including experiencing exhaust fumes and suffering heat-related illness.

TABLE 3

*Relationship between specific military exposures and psychiatric disorder*

Exposure	Exposed %	Stress syndrome OR (95 % CI)*	GHQ OR (95% CI)**
Exhaust from heaters/generators	75.5	4.8 (1.9-11.9)	1.9 (1.5-2.5)
Diesel fumes	74.3	3.4 (1.5-7.4)	1.7 (1.3-2.3)
Ate local food	67.2	2.3 (1.3-4.2)	1.2 (0.9-1.5)
Diesel or petrochemicals on skin	58.5	2.1 (1.2-3.6)	1.4(1.1-1.8)
Burning rubbish or faeces	58.5	4.8 (2.5-9.5)	1.6 (1.3-2.1)
Personal pesticides	55.8	2.0 (1.3-3.2)	1.2 (1.0-1.5)
Saw dead animals	51.9	5.0 (2.6-9.3)	1.5 (1.2-1.8)
Other paints, solvents or other petrochemicals	50.4	2.2 (1.3-3.6)	1.3 (1.0-1.6)
Came under small arms fire	49.4	3.0 (1.8-5.0)	1.6 (1.3-2.0)
Saw dismembered bodies	40.1	4.0 (2.4-6.8)	1.6 (1.3-2.0)
Handled POWs/displaced refugees	32.4	4.9 (3.0-8.0)	1.7 (1.3-2.1)
Saw maimed or seriously injured soldiers	31.9	5.7 (3.4-9.5)	1.5 (1.2-1.9)
Have artillery rockets/mortars explode in air or ground close by	31.2	2.2 (1.4-3.6)	1.4 (1.1-1.8)
Bathed in local pond or river	29.2	1.2 (0.7-1.9)	1.1 (0.9-1.4)
Pesticides on clothing/bedding	22.0	1.9 (1.2-3.1)	1.1 (0.8-1.4)
Microwaves	18.8	1.2 (0.7-2.1)	1.4 (1.1-1.9)
Witnessed anyone dying	18.2	4.1 (2.5-6.6)	1.6 (1.3-2.2)
Suffered from heat related illness	14.6	4.9 (3.0-7.9)	2.5 (1.8-3.3)
Bathed in or drank water contaminated with smoke, oil, or other chemicals	13.2	3.5 (2.0-5.9)	2.3 (1.7-3.1)
Food contaminated with smoke oil or other chemicals	10.2	4.1 (2.4-7.1)	2.4 (1.7-3.4)
Chemical agent resistant compound paint	7.5	1.2 (0.5-2.7)	1.4 (1.0-2.2)
Suffered combat related injury	7.1	1.4 (0.6-3.1)	1.8 (1.2-2.7)
Depleted uranium	1.4	1.2 (0.8-1.9)	1.3 (0.6-2.9)

\* Time deployed median 108 (66-108) mean 116 days.

\*\* Adjusted for age, gender, rank, education and ethnicity.

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Table 4 describes the association between other features of deployment and the two outcomes. The majority of our sample were deployed in or after 1995. There is some indication that those deployed early (before the Dayton Accord) had higher rates of the stress syndrome, but no indication of an association with GHQ scores. Duration of deployment was not associated with either outcome. We found a striking and powerful association between total number of reported exposures and the stress syndrome. There was a highly statistically significant association between total exposures and GHQ caseness, but the effect size was much smaller. The main self-reported duty during deployment was associated with outcome: we compared each type of duty with 'logistic' because this was the most common. The main finding was that personnel deployed on 'combat duty' were more likely to have the stress syndrome, and those on staff duties suffered both from higher GHQ scores and stress symptoms.

**TABLE 4.**

*Relationship between military exposures and psychiatric disorder*

Variable	Exposed %	Stress syndrome OR (95 % CI)*	GHQ OR (95% CI)*
Date of deployment			
1992	3.8	3.0 (1.0-8.8)	1.0 (0.6-1.7)
Jan-June 1993	3.4	1.4 (0.3-6.5)	1.1 (0.6-2.0)
July-Dec 1993	3.6	4.0 (1.4-11.2)	0.9 (0.5-1.7)
Jan-June 1994	5.2	1.4 (0.5-4.6)	1.0 (0.6-1.6)
July-Dec 1994	7.8	2.4 (1.0-5.9)	1.1 (0.8-1.7)
Jan-June 1995	8.7	1.3 (0.5-3.4)	0.9 (0.6-1.4)
July-Dec 1995	20.2	1.9 (0.9-4.0)	0.9 (0.7-1.2)
Jan-Jun 1996	23.3	2.2 (1.1-4.5)	1.0 (0.7-1.3)
July 1996 onwards	24.0	1.0	1.0
Duration of deployment (quintiles), days			
0-60	19.9	1.0	1.0
61-92	19.4	1.2 (0.6-2.6)	0.8 (0.6-1.2)
93-144	20.4	1.2 (0.6-2.5)	1.1 (0.8-1.6)
145-179	20.1	1.0 (0.5-2.2)	1.0 (0.7-1.5)
180-521	20.3	1.3 (0.6-2.7)	1.0 (0.7-1.5)
Number of exposures (quartiles)			
0-4	23.6	1.0	1.0
5-7	23.2	1.9 (0.6-6.4)	1.3 (0.9-1.8)

8-10	23.6	4.6 (1.6-13.8)	1.8 (1.3-2.5)
11	29.6	11.4 (4.1-31.8)	2.5 (1.9-3.4)
Bases deployed to in theatre			
Split	30.8	1.4 (0.9-2.1)	1.0 (0.8-1.3)
Kisseljac	11.0	1.9 (1.1-3.4)	1.2 (0.9-1.7)
Omis	0.9	1.5 (0.2-11.4)	1.9(0.7-5.1)
Gornji Vakuf	26.8	1.6 (1.0-2.4)	1.1(0.8-1.3)
Tuzla	5.0	1.6 (0.7-3.6)	1.0(0.6-1.6)
Sarajevo	15.7	1.6 (0.9-2.7)	10 (0.7-1.3)
Ploce	8.6	0.9 (0.4-2.0)	0.9 (0.6-1.2)
Tomislavgrad	14.0	1.5 (0.9-2.6)	13 (1.0-1.7)
Gorazde	6.5**	1.6 (0.8-3.3)	13 (0.8-1.9)
Self-reported nature of duties			
Logistic	27.7	1.0	1.0
Combat	18.5	2.3(1.1-5.1)	1.3 (0.9-1.9)
Signals	12.6	1.3(0.5-3.4)	1.3 (0.9-1.9)
Medical	5.7	3.0(1.0-9.2)	1.3 (0.8-2.2)
Staff	8.0	4.5 (1.7-11.7)	2.3 (1.5-3.6)
Other	27.5	1.3 (0.6-2.9)	1.0 (0.7-1.4)

\* Controlled for age, gender, ethnicity, rank and education.

\*\* Total does not add up to 100%, because personnel could have been deployed to more than one base.

Table 5 shows the association between the outcomes and experiences before and after the deployment. We found that previous deployment to the Falklands was associated with higher GHQ scores (controlled for age), but not the stress syndrome, but that there was no association between number of tours to Northern Ireland and either variable. We did not find an interaction between previous deployments to Northern Ireland or the Falklands and total exposures. In other words, there was no evidence that previous deployments protected or predisposed the individual to the effects of new exposures. We did not find an association between duration of time off following deployment and either outcome.

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**TABLE 5.**

*Relationship between pre- and post-deployment factors and psychiatric outcomes*

Exposure	Exposure %	Stress Syndrome OR (95% CI)*	GHQ OR (95% CI)*
Time of following deployment			
0	24.9	1.0	1.0
<2 weeks	25.6	1.5 (0.8-2.8)	1.1 (0.8-1.5)
>2 weeks	49.5	1.1 (0.6-2.0)	0.9 (0.7-1.1)
Previous deployment to Falklands	1.4	6.0 (1.6-23.2)	1.6 (0.7-3.7)
Previous tours of Northern Ireland			
0	47.7	1.0	1.0
1	27.8	0.8 (0.5-1.4)	0.9 (0.7-1.1)
2	12.9	1.0 (0.5-2.0)	1.1 (0.8-1.5)
3	6.0	0.6 (0.2-2.0)	1.0 (0.7-1.7)
>4	5.6	1.8 (0.7-4.4)	0.8 (0.5-1.3)

\* Controlled for age, gender, ethnicity, rank and education.

Because many of the exposure variables are inter-related, we performed a stepwise logistic regression analysis for each outcome, to determine which variables were most strongly predictive of each outcome. The results for the stress syndrome and GHQ are shown in Tables 6 and 7 respectively. The variables which most strongly predicted the stress syndrome were younger age, being on staff duties, lower rank, reporting more exposures and previously having been deployed to the Falklands. For GHQ, staff duties, multiple exposures and lower rank were also predictive. Female gender was also associated, but age was not.

### *PEACE-KEEPING IN BOSNIA*

**TABLE 6.**

*Results of stepwise logistic regression analysis for the stress syndrome – statistically significant independent predictors*

Variable	OR (95 % CI)	P
Age*	0.94 (0.89-0.99)	0.021
Staff duties	4.2 (1.8-10.0)	0.001
Non-officer status	13.9 (1.6-118.2)	0.016

Exposure*	1.28 (1.20-1.36)	< 0.001
Previous deployment to Falklands	7.9 (1.7-36.3)	0.008

\* For age and exposure, the odds ratio refers to the effect of an increase of one unit.

**TABLE 7.**

*Results of stepwise logistic regression analysis for GHQ – statistically significant independent predictors*

Variable	OR (95% CI)	P
Female gender	1.6 (1.1-2.3)	0.01
Staff duties	2.5 (1.7-3.8)	< 0.001
Non-officer status	2.2 (1.5-3.3)	< 0.001
Exposure*	1.09 (1.07-1.13)	< 0.001

\* For exposure, the odds ratio refers to the effect of an increase of one unit.

## DISCUSSION

The main finding of this paper is that there were powerful associations between total reported military exposures, lower rank, being deployed on staff duties, and both outcomes. Being a case on the GHQ was associated with female gender, and the stress syndrome was associated with younger age and previous deployment to the Falklands. We found strong evidence for our first hypothesis (i.e. the relationship between total deployment related exposures and both outcomes), but no evidence for the other three hypotheses. Experience of other deployments may independently be associated with psychological symptoms, but these data do not support the ‘stress inoculation’ hypothesis.

Post-traumatic stress disorder was not the main focus of the study for which these data were collected, and our stress syndrome measure is a post hoc outcome, which should not be seen as synonymous with post-traumatic stress disorder. The measures of exposure are based upon recall of events that took place 2-6 years before. They are therefore subject to recall bias, and it is likely that individuals who are significantly symptomatic might put more effort into recalling traumatic events, or may recall them more easily due to context dependent recall effects, than those who are well. There is some contradictory evidence of recall effects from other studies, with one demonstrating such effects (Southwick et al. 1997), and another not showing them (Bramsen et al. 2001).



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However, the powerful associations between total exposures and the stress syndrome suggests that recall bias may not be the sole explanation. The finding that there was a strong association between PTSD-like symptoms and military exposures is strongly in agreement with most other studies assessing military personnel post-deployment, however in contrast to much of this previous work we were able to dissociate PTSD symptoms from the alleged triggering event. Our response rate was just over 60 %, which means that there may have been significant biases due to non-participation. Response rates are usually lowest in younger subjects and males, which causes problems when tracing a population almost entirely composed of young men (Eaker et al. 1998).

The relationship between symptoms and rank are striking. This relationship was not because officers reported fewer exposures; indeed when we controlled for the total number of exposures reported, the association became even stronger. In the civilian literature there is good evidence that higher socio-economic status is associated with reduced risk of common mental disorders (Weich et al. 1997), so some excess of psychiatric disorder in other ranks is expected. There may also be more specific buffering effects which act via officer selection, training or social support which make them less vulnerable.

We were surprised that the deployment duties most strongly associated with both outcomes was staff duties. Although combat and medical duties were also associated with the stress syndrome, the association with these forms of duty were largely explained by associated military exposures. This was not the explanation for the stronger association of staff duties. Many of the accounts of the Balkan conflict stress the frustrations of negotiating between warring parties and other peace-keeping forces, and indeed peace-keeping in general (Miller, 1997; Shaw-cross, 2001; Weisaeth & Sund, 1982) and it may be these exposures (which were not captured in our list of military exposures) that account for the high rates of distress in those on staff duties. Staff duties may be stressful in others ways – they are often carried out in cramped and busy accommodation, and personnel employed on such duties have major responsibilities. Another alternative explanation is that those experiencing minor degrees of anxiety or depression were selected into non ‘front-line’ roles.

We were unable to show a relationship between the length of leave following deployment and subsequent illness. However, it is important to note that these non-randomized data say little about the optimal period of leave following a deployment. It may be that one or more confounders may be acting to obscure genuine relationships. For example those who are symptomatic may be given longer periods of leave, which will obscure the positive effects of leave on those without psychological symptoms. This is an important area for future study, since if speed of repatriation and leave post-deployment was an important

mediator of post-deployment ill-health, relatively straightforward procedures could be used to protect service personnel.

Similar processes may apply to our data on the effect of previous deployment. It may be, for example, that previous deployment has two opposite effects – to ‘immunize’ some and ‘sensitize’ others. Thus, depending on the experiences involved and other contextual factors previous deployment could act on different individuals with quite opposite effects. Previous deployment is a crude proxy measure for stressful events, and clearly there will be a lot of variability in each soldier’s experience of deployment to, say, Northern Ireland. However, our finding that stress symptoms were especially common in veterans of the Falkland war is remarkable: we might have anticipated that the small number of Falkland’s veterans still serving at the time of the conflict in the former Yugoslavia would have shown a form of ‘healthy warrior’ effect in that only the fittest would have been expected to remain in the military. Without prospective studies monitoring symptoms before and after deployments it is difficult to draw firm conclusions.

Although we have concentrated on the specific psychological effects of service in the former Yugoslavia, we emphasize that the rates of psychological distress in this sample are similar to those of non-deployed military personnel (Hotopf et al. 2002). Although there have been many warnings and some data on the possible psychological sequelae of peace enforcement duties (Litz & Bolton, 2000), and anyone who has spent time talking to those who have participated in such duties will be in no doubt about the difficulties, dangers and frustrations of this role, overall the results of our previous paper suggest that long-term psychiatric sequelae are unusual. Other studies have also been reassuring (Ballone et al. 2000; Lundin & Otto, 1989) and many Swedish personnel who served in Bosnia generally had a positive view of the deployment (Johansson, 1997). It may be that as peacekeeping becomes a more frequent role for the armed forces, there will be greater acceptance of, and preparation for, these duties. Furthermore, our results may reflect the particular expertise of the British Armed Forces in these operations.

Since we obtained these data, there has been much talk in the media of the so-called Balkan or Bosnia syndrome, while the BBC screened a powerful drama (‘Warriors’) revolving around the psychological traumas suffered by the British Armed Forces in Bosnia. In 1998/9 when our data were collected, we found no evidence of such a syndrome, and little to substantiate the psychological (as opposed to operational) picture painted by ‘Warriors’. We are now conducting a follow-up study of this cohort to detect any later effects, and to assess the impact of the recent media portrayals on the current psychological state of the servicemen and women.

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This study was supported by funding from the US Department of Defense.

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## Appendix 9

### IS THERE AN IRAQ WAR SYNDROME? COMPARISON OF THE HEALTH OF UK SERVICE PERSONNEL AFTER THE GULF AND IRAQ WARS

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*"Is there an Iraq War Syndrome? Comparison of the Health of UK Service Personnel after the Gulf and Iraq Wars," Lancet 267 (2006): 1742-1746.*

*This contribution to the ongoing study of Gulf War syndrome includes references to research in other Commonwealth countries as well as the United States. The authors recognize that a substantial increase in ill-health was reported by Gulf War veterans but are unable to attribute the problems encountered by veterans to specific causes.*

#### INTRODUCTION

Not long after the end of the 1991 Gulf war, reports started appearing in the USA and subsequently in the UK of non-specific ill health in members of the armed forces who had served in the conflict. Large-scale epidemiological studies confirmed an increase in general symptomatic ill-health in service personnel from the USA, (1) UK, (2, 3) Canada, (4) Denmark, (5) and Australia. (6) However, no increase was noted in mortality, (7, 8) cancer registrations, (9) or well defined physical outcomes, (10) with the possible exception of an increase in the incidence of motor neuron disease. (11, 12) This phenomenon became widely known as Gulf war syndrome, although no compelling evidence existed of a range of symptoms or signs uniquely associated with Gulf service. Irrespective of the label applied, the increase in ill health was substantial, was associated with disability, caused great concern, resulted in political controversy, cost substantial resources in terms of war pensions and disability payments, and has not yet been resolved. (13) Among the more plausible suggested explanations were psychological stress, side-effects of medical counter-measures such as vaccinations or pyridostigmine bromide, unobserved exposure to nerve agents, and cultural and media pressures. (14) Despite an intense research effort, no explanation has proved compelling.

Many of the concerns that had surfaced in the context of the controversy over Gulf war syndrome were not resolved by the start of the 2003 invasion of Iraq. However, the need was recognised for an improved system of health surveillance and research in the aftermath of the 2003 War.

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We report the results of a large-scale epidemiological study of the physical and psychological health of a random sample of UK Armed Forces personnel, of which half took part in the 2003 invasion of Iraq. In this paper we address specifically the question of whether or not there has been an increase in symptomatic ill health similar to that observed after the 1991 Gulf War.

## METHODS

### *STUDY DESIGN AND POPULATION*

We defined two populations of UK armed forces personnel: those that were deployed on the first phase of the Iraq war, where major combat duties took place (Operation TELIC 1; group designated TELIC 1), and those that were serving at the time but did not deploy on this operation (designated Era). Random samples of a comparable size were provided from each of these populations by the Ministry of Defence. A separate report (15) provides a detailed description of the sampling, methods used to contact respondents, and measures. We report here on the sections of the survey related to symptomatic ill health: the occurrence of any of 50 nonspecific symptoms in the past month (using the same checklist used in our previous cohort study of Gulf war veterans), (2) fatigue (assessed with a validated 13-item fatigue scale), (16) and a single item indicating general health taken from the SF-36 questionnaire (“In general, how would you rate your health?”, options: Poor/Fair/Good/Very Good/Excellent); (17) We only compared respondents from the TELIC 1 and Era cohorts that were regular armed forces personnel at the time of the Iraq war (Jan 18, 2003, to June 28, 2003); an effect of deployment had been noted in the reserve armed forces, as reported in the companion paper. (15) The present analysis was exploratory, in so far that we could not predict the shape and form that a new syndrome might take. We also restricted this analysis to men, to make results comparable to those from our previous Gulf war survey. (2) The demographic characteristics of this subsample were similar to those of the entire sample described in our companion paper. (15)

Our Gulf war survey (2) comprised three randomly sampled groups: personnel who served in the Gulf region between Sept 1, 1990, and June 30, 1991 (Gulf war group); personnel who served in Bosnia between April 1, 1992, and Feb 6, 1997 (Bosnia group); and a comparison group who were serving on Jan 1, 1991, but had not been deployed to the Gulf war or Bosnia (Era group). Special forces were not included for security reasons, and only men were included in the analyses.

## ANALYSIS

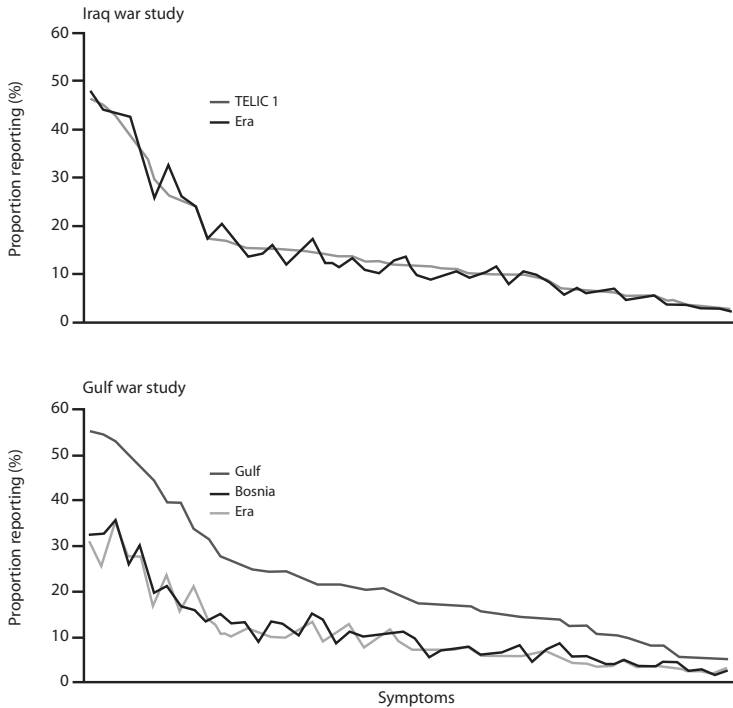
The proportions of respondents who had each of the 50 symptoms in two groups were presented in a graph to show differences and similarities in the pattern and frequencies of symptoms. This graph was then assessed alongside its equivalent from our previous Gulf war cohort study (2) to show any differences in the deployment effects on symptomatic ill health between the two studies. The rank ordinal positions of all symptoms were tabulated and compared between the studies. The frequencies of the 15 most common symptoms from each survey were tabulated and odds ratios (ORs) with 95% CI were computed by logistic regression to express differences between the groups within each survey. ORs were also calculated for the proportion of cases of fatigue (scores >3) (16) and for the proportion of respondents reporting their health to be fair or poor on the general health perception item, in each survey. The ORs in the analyses relating to the Iraq war survey were calculated adjusting for medical downgrading status only (medical downgrading refers to the system of assessment of fitness and employability, including deployability, of UK Armed Forces personnel, on the basis of a medical examination). However, there was a slight difference in the sample selection for the 1991 Gulf study, in that the individuals in the deployed and non-deployed samples were all graded as fit to fight—ie, downgraded personnel who could not deploy were excluded. For this reason, adjustment was not necessary for the Gulf war survey sample. All statistical analyses were done with SPSS for Windows (version 13).

## ROLE OF THE FUNDING SOURCE

The UK Ministry of Defence funded this project. They had no role in the design, analysis, interpretation, or decision to submit this paper. The Ministry of Defence provided us with the names and contact details of potential participants in the study. We disclosed the paper to the Ministry of Defence at the point when we submitted it for publication, and any errors of fact identified by the Ministry were corrected at the same time as addressing the comments of reviewers. The corresponding author had full access to all the data in the study and had final responsibility for the decision to submit for publication.



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**Figure: Frequencies of symptoms**

Details of follow-up rates are described in the companion paper. (15) 10 272 (61%) of our contacted sample responded to the questionnaire, of which 7937 regular servicemen were included in these analyses (all regulars who were not included were women). The figure shows the proportion of TELIC 1 ( $n=3642$ ) and Era ( $n=4295$ ) respondents who experienced each of the 50 symptoms, along with these proportions for each of the three groups in our previous Gulf war study: Gulf war ( $n=3293$ ), Bosnia ( $n=1835$ ), and Era ( $n=2422$ ). The symptoms were ordered by descending frequency according to the deployed sample in each graph (so that the patterns of symptoms were not directly comparable between the two studies). The raised frequencies of symptoms in the deployed group observed in the Gulf war study were not evident in the Iraq war survey. We also did the same analyses for servicewomen, and compared those who deployed after TELIC 1 (when the nature of the operation changed to counter-insurgency) with those not deployed. No effect of deployment was shown for either analysis (data available from authors).

	Gulf study, ordinal position	Iraq study, ordinal position	Change in rank order
Feeling unrefreshed after sleep	1	1	0
Irritability/outbursts of anger	2	5	3
Headaches	3	2	-1
Fatigue	4	4	0
Sleeping difficulties	5	3	-2
Forgetfulness	6	6	0
Joint stiffness	7	7	0
Loss of concentration	8	9	1
Flatulence or burping	9	8	-1
Joint pain, without swelling or redness	10	11	1
Feeling distant or cut off from others	11	14	3
Avoiding doing things/situations	12	15	3
Chest pain	13	13	0
Tingling fingers and arms	14	17	3
Feeling jumpy/easily startled	15	20	5
Nightsweats that soak bedsheets	16	16	0
Itchy or painful eyes	17	18	1
Sore throat	18	10	-8
Distressing dreams	19	19	0
Numbness in fingers/toes	20	32	12
Ringing in ears	21	25	4
Inability to breathe deeply enough	22	26	4
Wheezing	23	22	-1
Diarrhoea	24	12	-12
Unintended weight gain >10lb	25	27	2
Dry mouth	26	21	-5
Tingling legs and toes	27	34	7
Loss of interest in sex	28	24	-4
Dizziness	29	31	2
Rapid heartbeat	30	23	-7
Feeling short of breath at rest	31	36	5
Increased sensitivity to light	32	41	9
Increased sensitivity to noise	33	38	5

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Persistent cough	34	29	-5
Passing urine more often	35	35	0
Stomach cramp	36	28	-8
Loss or decrease in appetite	37	30	-7
Intolerance to alcohol	38	33	-5
Shaking	39	37	-2
Faster breathing than normal	40	39	-1
Feeling disoriented	41	43	2
Constipation	42	40	-2
Feeling feverish	43	42	-1
Nausea	44	44	0
Lump in throat	45	45	0
Unintended weight loss >10lb	46	49	3
Double vision	47	47	0
Pain on passing urine	48	48	0
Burning sensation in sex organs	49	50	1
Vomiting	50	46	-4
Symptoms ranked by frequency in the deployed sample in each study.			
<b>Table 1: Ranked order of self-reported symptoms</b>			

Most symptoms showed little or no change in rank order of frequency between the Gulf war and Iraq war studies (0-2 ordinal positions; table 1). Table 2 shows ORs for the 15 most frequent self-reported symptoms by deployment status in the studies. Personnel deployed to the Gulf war were significantly more likely to experience all the 15 most common symptoms than their non-deployed counterparts (table 2). By contrast, in the Iraq war survey, two symptoms were significantly less common in those deployed on TELIC 1 (joint pain and joint stiffness) than in the non-deployed group, and five symptoms (irritability, forgetfulness, feeling distant or cut off, chest pain, and night sweats) were significantly more common. The rank order of all 50 symptoms between the deployed groups both the studies was very similar ( $r=0.96$ ,  $p<0.0001$ , data available from authors). Personnel deployed to the Gulf war had significantly higher ORs for being a fatigue case than their non-deployed colleagues; this was not the case in the Iraq study (table 3). Whereas personnel deployed to the Gulf war were more likely to report their health as fair or poor compared with the non-deployed group, no significant difference was noted between the deployed and non-deployed groups in the Iraq war sample.

	1991 Gulf war		2003 Iraq war		OR (95%CI)
	Number (%)	Era (n=2408)	Number (%)	Era (n=4295)	
Feeling unrefreshed after sleep	1842 (56%)	761 (32%)	1712 (47%)	2066 (48%)	1.00 (0.91-1.09)
Irritability or outbursts of anger	1813 (55%)	621 (26%)	1296 (36%)	1458 (34%)	1.12 (1.02-1.23)
Headaches	1757 (54%)	857 (36%)	1646 (45%)	1891 (44%)	1.08 (0.99-1.18)
Fatigue	1665 (51%)	667 (28%)	1444 (40%)	1825 (43%)	0.93 (0.85-1.01)
Sleeping difficulties	1576 (48%)	684 (28%)	1562 (43%)	1879 (44%)	1.01 (0.93-1.11)
Forgetfulness	1475 (45%)	412 (17%)	1078 (30%)	1102 (26%)	1.27 (1.15-1.40)
Joint stiffness	1314 (40%)	566 (24%)	974 (27%)	1405 (33%)	0.80 (0.72-0.88)
Loss of concentration	1304 (40%)	364 (15%)	894 (25%)	1043 (24%)	1.07 (0.96-1.18)
Flatulence or burping	1120 (34%)	518 (22%)	940 (26%)	1118 (26%)	1.02 (0.92-1.13)
Pain without swelling or redness in several joints	1057 (32%)	347 (14%)	628 (17%)	874 (20%)	0.87 (0.78-0.98)
Feeling distant or cut off from others	923 (28%)	265 (11%)	561 (15%)	602 (14%)	1.19 (1.04-1.35)
Avoiding doing things or situations	880 (27%)	248 (10)	558 (15%)	685 (16%)	1.01 (0.89-1.14)
Chest pain	831 (25%)	284 (12%)	565 (16%)	574 (13%)	1.23 (1.08-1.40)
Tingling fingers and arms	811 (25%)	267 (11%)	545 (15%)	619 (14%)	1.10 (0.97-1.25)
Nightsweats	808 (25%)	238 (10%)	552 (15%)	525 (12%)	1.32 (1.16-1.50)
Sore throat	n/a	n/a	632 (17%)	748 (17%)	1.01 (0.90-1.13)
Diarrhoea	n/a	n/a	596 (16%)	719 (17%)	0.99 (0.88-1.12)

OPs for Iraq war survey adjusted for medical downgrading status only. Sore throat and diarrhoea were not of the 15 most frequent symptoms in the Gulf war survey; they were of the 15 most frequent symptoms in the Iraq survey (reported for the latter only).

**Table 2. 15 most frequent self-reported symptoms by deployment status**

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	Number (%)	OR (95%CI)
<b>Fatigue</b>		
Gulf war survey		
Era (n=2361)	485 (21%)	Reference
Bosnia (n=1761)	450 (26%)	1.33 (1.15-1.54)
Gulf (n=3174)	1483 (47%)	3.39 (3.00-3.83)
Iraq war survey		
Era (n=4232)	1296 (31%)	Reference
TELIC 1 (n=3554)	1119 (32%)	1.08 (0.98-1.19)
<b>Fair or poor general health</b>		
Gulf war survey		
Era (n=1564)	239 (15%)	Reference
Bosnia (n=960)	125 (13%)	0.83 (0.66-1.05)
Gulf (n=2735)	724 (27%)	2.00 (1.70-2.35)
Iraq war survey		
Era (n=4268)	533 (13%)	Reference
TELIC 1 (n=3590)	381 (11%)	0.94 (0.82-1.09)
OPs for Iraq war survey adjusted for medical downgrading status only.		
<b>Table 3: Relationship between deployment and fatigue and between deployment and perceived fair or poor general health</b>		

## DISCUSSION

Our results show that no substantial increase in symptomatic ill health has occurred in members of the regular UK Armed Forces who took part in the 2003 invasion of Iraq, compared with those who did not take part. This finding is in marked contrast to the situation after the 1991 Gulf war, when a substantial increase in symptomatic ill health was noted. Comparison of the two control groups showed that overall, symptoms have increased in frequency between the two wars. This increase is clearly not an effect of deployment, and is more probably a further manifestation of a general increase in reporting of symptoms. (18)

Our study has several strengths. It is representative of all three branches of the services, and includes serving and ex-serving personnel. The test sample was compared with an appropriate military control group, identical except that they did not deploy during the invasion of Iraq. Numbers are large. The questions we asked were the same as those we asked after the 1991 Gulf war, making direct comparisons possible.

In a separate analysis using the same data (15) we showed a small increase in total physical symptoms in people deployed to Iraq, and we report that five of the most common 15 symptoms were reported more frequently in deployed than in non-deployed personnel. However, these symptoms are, by definition, common; the sample size is large; and multiple outcomes have been tested; so there is a risk of type 1 error. The effect size for each symptom is small, and no symptom was very much more frequent than others.

We do not know exactly when the increase in ill health after the 1991 Gulf war developed. Although anecdotal reports emerged quite swiftly, systematic surveys did not commence until at least 2-3 years after the conflict. Thus, although we can confidently say that 2 years after the invasion of Iraq there is little, if any, evidence for an increase in physical ill health, it will be prudent to continue health surveillance for a further period. We report our results in regular forces men only, which made up 93% of the deployment. Because of a differential response rate and interaction by deployment, (15) we have elected to analyse reservists separately. In our Gulf war studies (2) we noted no difference between the health of reservists and that of regulars, with both being equally affected by the rise in frequency of symptoms. This is no longer the case.

Our results will serve to allay concerns raised by sporadic media reports of a new Iraq war syndrome, or Gulf war syndrome II. But do they shed any light on what happened after the 1991 Gulf war? All wars are different, and the 1991 war differed from the 2003 invasion in many respects. Nevertheless, both the similarities and differences allow us to draw some tentative conclusions. First, no one can disagree that war is stressful to many combatants. The fact that before 1991, similar syndromes to Gulf war syndrome had been observed after many of the major conflicts of the 20th century involving the British military (19) had seemed to many commentators, ourselves included, as arguing that at least part of the Gulf war syndrome story was the nonspecific stress of war. Yet in military terms the 1991 and 2003 conflicts were similar—fought over similar terrain, involving similar forces, being relatively brief in historical terms, and the initial fighting period being free from mass casualties amongst the coalition forces. Yet one led to prolonged ill health in a substantial minority, and the other has not yet done so.

Second, before both conflicts, the UK Armed Forces used medical countermeasures to counteract the threat from biological and chemical weapons. However, there were differences in the measures used. Although pyridostigmine bromide was issued in both conflicts, the pattern of vaccination changed. In 1991, personnel were offered the combination of vaccinations against anthrax (linked with pertussis as an adjuvant) and plague. In 2003, anthrax and plague vaccines were given without pertussis. Efforts were also made to space out the time scale

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in which vaccinations were given, and the nature of the consent and information procedures changed. Observational data such as ours do not permit any definitive conclusions about whether or not these changes made any difference, although we will be looking in more detail at the associations and persistence of side-effects in further follow-up of the cohort. If we had found an increase in morbidity after the Iraq war equivalent to that after the Gulf war we could say that these changes were not related to the occurrence of symptoms; all we can now say at this stage is that our new data add to the evidence that there was some relation between the specific pattern of medical countermeasures used in 1991 and ill health. (20) Additionally, the true threat from chemical and biological weapons was different between the 1991 and 2003 conflicts. Finally, it is possible that one factor that amplified, even if it did not create, the Gulf war syndrome crisis, was the perceived neglect of health surveillance and research on both sides of the Atlantic, allowing rumour and conjecture to flourish. The implementation of improved health surveillance, including but not restricted to the present study, might also have reduced some health concerns.

## CONTRIBUTORS

O. Horn managed electronic aspects of data collection for the study, did the analysis, and was involved in the writing of the paper. L. Hull co-ordinated the study. M. Jones, D. Murphy, and T. Browne were involved in data collection and tracing. N. Fear and M. Hotopf gave epidemiological advice, and commented on previous drafts. M. Hotopf was also principal investigator, alongside R. Rona and S. Wessely, who all planned, designed, and supervised the study. S. Wessely is the grant holder, and also contributed to the writing of the paper and its supervision.

## CONFLICT OF INTEREST STATEMENT

S. Wessely is honorary civilian adviser in psychiatry to the British army. All other authors declare that they have no conflict of interest.

## ACKNOWLEDGMENTS

We thank the UK Ministry of Defence for their cooperation in this study; in particular we thank Defence Medical Services Department, the Defence Analytical Services Agency, the single services, the Armed Forces Personnel

Administration Agency and the Veteran's Policy Unit. This study was funded by the UK Ministry of Defence.

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## Appendix 10

### THE MOD PTSD DECISION: A PSYCHIATRIC PERSPECTIVE

T. McGeorge, J. Hacker Hughes and S. Wessely

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*"The MoD PTSD Decision: A Psychiatry Perspective," Occupational Health Review 122 (July/August 2006): 21-28.*

*The class action brought by British veterans of recent conflicts against the Ministry of Defence (UK) generated a great deal of publicity as did the decision of the High Court which rejected the claims. Dr. Simon Wessely who testified on behalf of the Ministry of Defence and his associates provided a balanced summary of the legal debate in this 2006 article.*

In 2003, the High Court of England and Wales handed down judgment in what has come to be known as the Ministry of Defence (MoD) post-traumatic stress disorder (PTSD) case (1). This was a class action brought by more than 2,000 British military personnel (the claimants) who had served in a number of major operations prior to 1996 (defined as the relevant period) including Northern Ireland, the Falklands, the Gulf War, and Bosnia. The claimants argued that the MoD was negligent in failing to take measures to prevent, detect, or treat the development of psychiatric illness in general and PTSD in particular. Hence the case dealt with a number of issues relevant to psychiatry. These issues ranged from pre-recruitment screening, briefing for, and debriefing after combat, and the treatment of both acute stress reactions and PTSD.

That combat can result in psychiatric injury was not at issue in this case as this was accepted by both sides. Nor was it argued that the MoD did not have a "duty of care" to look after psychiatrically injured personnel. The claimants did not, and could not, argue that the MoD was at fault for sending them to war. Morally, the claimants did not make that argument as they accepted that as an "all volunteer" force they knew the risks of war when they joined the services. Legally the MoD could claim what is known as "combat immunity", a legal framework which means that during a time of war, personnel cannot sue the military for exposing them to danger.

The judgment outlined the current state of knowledge of PTSD and its prevention, and defined standards of management. The case brought together (16) leading experts in the field, eight instructed by each side, and then subjected their evidence to scrutiny and cross examination. What emerged was arguably the most comprehensive review of the historical PTSD literature to date. Although the case was concerned with issues around the standard of care owed by

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the MoD to its service personnel for psychiatric injury, the judgment has repercussions for the way in which psychiatric services are provided, not just within the military but also in the wider field of employment, particularly within the emergency services and the public sector.

In this article we will examine the arguments that were presented by the parties, together with the findings of the court in order to extract the issues of significance to psychiatry and mental health care. The article draws on those aspects of the case that define the standard of care expected of the MoD in protecting against and dealing with the psychiatric consequences of combat-related stress.

### STANDARD OF CARE

No one doubts that joining the armed forces exposes a person to risks above and beyond those encountered in normal employment. Ultimately the job of the armed forces is to fight and win wars. In so doing there is always a risk of physical injury and death. That is the nature of the “military contract” (2). Many jobs involve an element of risk and danger, but there are few in which this is an inherent part of the profession. But if that is the case, does that mean that such an employer must take special care of personnel, over and above the normal “duty of care” that any employer owes to its employees? The judgment in this case establishes that the answer is clearly no. In other words, we cannot expect employers such as the MoD and, by implication, other organisations including the emergency services, to have a higher duty of care than any other employer.

Mr Justice Owen cited the decision of the House of Lords in *McLaughlin v O’Brien* (3) as clearly establishing that there may be liability for psychiatric injury. In defining the standard of medical care owed by the MoD to its service personnel in the provision of psychiatric services he adapted the “Balam test”, quoting: “I myself would prefer to put it this way, that he is not guilty of negligence if he has acted in accordance with a practice accepted as proper by a reasonable body of medical men skilled in that particular art ... Putting it the other way round, a man is not negligent if he is acting in accordance with such a practice, merely because there is a body of opinion who would take a contrary view.” (4) He held that the test in this case was whether or not the specialist psychiatric advice given to the MoD fell below the standard accepted by a reasonable and responsible body of military psychiatric opinion (5). The claimants submitted that where service personnel were concerned, a higher practical standard of care was required than might be the case in other situations. However, Justice Owen agreed with the defendant that this argument was misconceived.

## STATE OF KNOWLEDGE

### ISSUES

The MoD did not at any stage deny that war can cause psychiatric injury. Nor did it deny that it had a duty of care to look after those who suffered such injury. But there were critical questions about these two issues. Exactly what type of psychiatric disorder could be caused by war? Were these only short-term illnesses, or could they become prolonged? Alternatively could their onset be delayed? And if the answer to these questions was positive, when exactly was such knowledge acquired? Likewise, accepting that the MoD had a duty to provide treatment, what treatments should these have consisted of and had knowledge of any new treatments become available?

### ARGUED

The claimants submitted that it had long been known that combat causes both acute and chronic psychiatric injuries, that their onset may be delayed, and that there were robust predictors of both. They argued that the MoD had available to it, by the end of the Second World War the knowledge to prevent or ameliorate the psychological consequences of combat. They criticised the MoD for failing to heed that knowledge and for paying insufficient attention to the data that had emerged from the Vietnam War.

In response, the defendant contended that it had remained informed of the nature and treatment of combat-related psychiatric disorders. In doing so, it submitted that psychiatric thinking for most of the 20th century was of the view that the determinants of prolonged psychiatric disorder are established in early life, either by genetic or developmental processes. War can cause acute breakdown in almost anyone if the stress is severe enough. This is epitomised by the phrase in Lord Moran's *Anatomy of Courage* that "every man has his breaking point" (6). However; provided that a person was reasonably "normal" before he or she went to war, and provided that psychiatrists observed the principles of so called "Forward Psychiatry", this breakdown would be short-lived. If this was not the case then the cause was not really the war at all, but a person's predisposition and personality (7). This was the general view of the neurotic disorders, as outlined in all the leading textbooks and classification systems, until it was fundamentally challenged by the recognition of PTSD by the American Psychiatric Association and its inclusion for the first time in the 1980 edition of its *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)*.

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### *HELD*

Justice Owen reviewed the evolution of the understanding of trauma-related psychiatric injuries by reference to the various wars of the 20th century. In doing so he traced the development of the modern diagnoses of combat stress reaction and PTSD from earlier concepts such as shell shock. In summarising the current state of knowledge he found that there were three types of psychiatric condition that required consideration.

The first of these was the acute reaction to combat. It was known that a linear relationship exists between the acute reaction to combat stress and the duration and intensity of combat. There is also a linear relationship between the number of acute psychiatric casualties and the number of physical casualties. Application of the key doctrines of Forward Psychiatry; which had been identified during the First World War and are sometimes known as the Salmon, or “PIE”, principles, was believed to increase the rate of recovery from acute reactions to combat stress. These acute reactions have gone under various labels, such as battle fatigue and combat stress reaction, largely to emphasise that they were not seen as medical conditions and were expected to have a good prognosis once the source of the stress, i.e. combat was removed. Such reactions were also observed, albeit rarely in civilian life - as in the category of “gross stress reaction” introduced in DSM-I in 1952, which likewise occur in people of normal personality who have a good prognosis.

The second type of condition was a chronic one, now known as PTSD, which was absent from DSM-I and II. Its development as a psychiatric construct emerged from the Vietnam War. A group of honourable psychiatrists, of which the most famous were Robert Jay Lifton and Mardi Horowitz, who were passionately against the Vietnam War; did not accept that chronic psychiatric disorders observed in some veterans, were not related to the war. Politically it was advantageous to demonstrate that even “normal” American “boys” were being psychiatrically damaged in the long term by the war - it was the war that was insane, not the soldiers. They developed the concept of a post-Vietnam syndrome, which stood psychiatric orthodoxy on its head by suggesting that this was nothing to do with personality genetics or predisposition, and everything to do with the dishonourable circumstances of the war. Within little more than five years, this became incorporated into DSM-III as PTSD (8). So by 1980 there was a new concept. Like all major changes in thinking, this was greeted with scepticism across the Atlantic, as was established in testimony given at the trial. However: by the late 1980s it had received wider; but not universal, acceptance.

The next point was the claim that not only could war result in long-term as well as short-term psychiatric casualties, but these might not appear immediately. Justice

Owen ruled that there had been some awareness of this type of condition - delayed PTSD - prior to 1980, but there had been little research to go on and no understanding of its scale or nature. While the Vietnam studies, which started to appear after the introduction of PTSD into DSM-III in 1980, seemed to demonstrate a high incidence of delayed onset of the condition, or at least its reporting, these were widely regarded as attributable to factors unique to the Vietnam War and its aftermath. Justice Owen ruled that, even to this day, there is a legitimate dispute as to exactly what the Vietnam data meant and that it was perfectly reasonable to be sceptical that it was directly relevant to the different situation of the UK armed forces. Even though delayed-onset PTSD was clearly recognised in DSM-III, and defined as an onset occurring more than six months after the traumatic event, Justice Owen was persuaded by the data provided by a prospective series of studies from Israel, associated predominantly with the name of Professor Zahava Solomon, who gave evidence in the case, that true delayed onset is uncommon.

The orthodox view since the Second World War, supported by detailed statistical analyses carried out largely in the US, was that a clear relationship existed between acute physical and acute psychiatric casualties. This was known, was not controversial, and was not undermined by Vietnam - at least not at first. Given that the numbers of psychiatric casualties in theatre were small, and nothing like on the scale that had been seen in Korea or the Second World War, it was reasonable not to expect many long-term psychiatric problems either. The emergence of considerable numbers of people with long-term psychiatric problems after Vietnam was therefore a surprise to most. The reasons postulated for why that happened continue to be controversial. Justice Owen ruled that it was reasonable for the MoD to assume that this was due to factors specific to that war, or indeed not so much the war itself, but America's reaction to it. The claim by the defendant that no conclusions of general application could be drawn from the Vietnam War was held to be justified. The MoD was held to be reasonably well informed both as to the acute reactions to combat stress and to the chronic condition, and so the claimants failed in their contention that the MoD's state of knowledge of the psychiatric consequences of exposure to combat during the relevant period was deficient.

## CULTURE

### ISSUES

Military culture emphasises courage, bravery, stoicism and resilience. It discourages displays of emotion. Its *raison d'être* is to fight wars and its culture is designed to further this end. None of this was disputed by either side. Neither was it disputed by the MoD that a by-product of this culture was to make it

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harder for people to admit to psychological disorders, which might be seen as an expression of weakness. The MoD accepted that psychiatric disorders are stigmatised within military culture. What was therefore at issue was whether or not the MoD had a duty to change this culture of stigma towards psychiatric disorder and by so doing, to make it easier for service personnel to seek help for combat stress-related disorders.

### *ARGUED*

The claimants argued that military culture was antipathetic to psychiatric problems. This militated against their prevention, detection and treatment. Given the hierarchical nature of the organisation, they claimed that the military could have instituted change more effectively than is the case in the wider community.

The MoD argued that bringing about a change in the prevailing attitudes of its organisation was problematic for a number of reasons. It is large, complex, and inherently conservative. While the military has unique values and behaviour, it also reflects the predominant values of wider society. The stigma attached to psychiatric disorder within the armed forces reflects attitudes widely held in society at large. Given the primary purpose of the military, a culture of toughness is necessary (9). Nevertheless, they argued that a change in culture did occur within the military during the relevant period.

### *HELD*

In his judgment, Justice Owen agreed that stigma did attach to psychiatric disorder within the military. It was seen as a sign of weakness and was perceived, whether rightly or wrongly, to threaten a career. However, there was evidence that a softening of attitude toward psychiatric disorders in the military did take place during the relevant period. He acknowledged that this was a slow process with “pockets of resistance” and little to suggest that the change in attitude “percolated down the ranks”. However, he recognised that the ultimate function of the military is to fight and win in battle. This meant that there will always be a necessary culture of toughness. It is a culture of mutual dependence in which the interests of the individual are subordinated to those of the organisation.

Within these parameters the judge held that commanders were genuinely concerned for the psychological welfare of their troops. He also accepted the MoD’s argument that, in any event, it was not clear what a responsible employer could do to change the culture. This is demonstrated by the fact that examples of successful de-stigmatisation of psychiatric disorders by civilian employers, and indeed within civilian society, are few and far between. Accordingly, the MoD was

not in breach of duty for failing to take adequate steps to change the prevailing attitude towards psychiatric disorder.

## SCREENING

### *ISSUE*

Screening programmes for various illnesses have been the subject of considerable debate over the years. However, given the nature of psychiatric diagnoses and the fact that the understanding of psychiatric illnesses remains far from complete, screening for a predisposition towards them is perhaps more controversial still. The issue was whether or not a pre-recruitment screening programme that took account of “vulnerability” factors should have been employed by the MoD to identify and exclude from military service individuals who would subsequently go on to develop PTSD.

### *ARGUED*

The claimants argued that the MoD should have excluded from military service anyone who was not reasonably fit to withstand the psychological stresses of combat or service life in general. It should have identified these potential recruits by screening for low intelligence and for a personal or family history of any psychiatric illness or personality disorder. Those with an IQ of less than 80 should have been automatically excluded from service. Those with other relevant positive findings should have been referred for psychiatric assessment where significant personal or family history should then have led to rejection.

The defendant argued that the claimants’ contention was inherently flawed. Screening had been tried in the Second World War and had proved a disaster. The predictors were too weak to be of any practical use. Screening had been found to be insensitive and to lack any predictive power. It argued that screening would result in a system that would exclude far more people who would not breakdown under the stresses of combat than those who would. Any such programme of pre-employment or pre-deployment screening would cause serious disadvantage to the military by depriving it of manpower at a time when this was at a premium. It would also discriminate against the large numbers of potential recruits inappropriately assessed as being likely to break down (10). Accordingly the MoD contended that there is no duty to exercise skill and care in the recruitment of potential employees (11), and no obligation to carry out the screening for which the claimants had argued.



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### *HELD*

In reaching his decision, Justice Owen examined the recruitment practices of the MoD during the relevant period as well as the expert evidence before the Court in relation to pre-recruitment screening. Evidence from US experts demonstrated that predictions on the behaviour of soldiers in combat were susceptible to inaccuracies. After excluding more than 2 million people from military service because of psychiatric vulnerability the US abandoned their screening programme in 1944 because no less important a person than George C Marshall (then US chief-of-staff) decided that it was costing them the war. Many of those previously excluded were then re-enlisted and made satisfactory soldiers. Experience and follow-up studies dating back to the Second World War, have subsequently shown that people who have previously been considered “weak” have gone on to perform admirably in combat, and vice versa. Justice Owen held that given the current state of knowledge, screening was unreliable, and would lead to the exclusion of large numbers of potential recruits.

This view has recently been endorsed by National Institute for Health and Clinical Excellence (NICE) guidelines. These state that at present there is no accurate way of screening for the later development of PTSD, as all the current predictive screening tools for PTSD “suffer from limited overall efficiency” (12).

In fact, these arguments in relation to screening proved to be academic, since Justice Owen accepted the legal argument that the MoD was not under a duty of care to recruits in relation to pre-recruitment screening (13).

## BRIEFING

### *ISSUES*

Intuitively it seems reasonable to suggest that a fuller awareness of the nature and effects of stress in battle should help soldiers to deal better with stress encountered in actual combat. The corollary of this, presumably would be a decrease in the incidence and severity of PTSD in combat veterans. The issue here was whether or not the MoD had a duty to brief all personnel routinely prior to combat on the effects of stress and fear. This depended on whether or not pre-combat briefing could actually be shown to have a positive effect in reducing the impact of stress and fear in soldiers and enabling them to cope better with its effects.

*ARGUED*

The claimants argued that the MoD was negligent in that it failed to train all service personnel in the nature of the psychiatric consequences of combat stress. They identified two forms of preparation, which they contended would help personnel avoid the damaging consequences of trauma: thorough and realistic training, that would simulate actual combat conditions, and additional briefing about the effects of stress and fear in combat, which would minimise their effects. The claimants did not, however, contend that the MoD's general training was inadequate.

The defendant's case was that the best way to prevent psychiatric breakdown was through time-honoured methods such as morale, leadership and, above all, combat training. The MoD argued that specific "fear training" had never been shown to reduce combat breakdown and that, in practice, informal briefings on fear was widespread, although not mandatory. The decision as to whether or not to provide such briefings should be left to the judgment of individual commanders. The defendant submitted that the lack of such briefing could not be shown to have had adverse consequences.

*HELD*

Justice Owen considered the expert evidence on the issue of whether or not fear training should have been mandatory. During the case the claimants' experts acknowledged that there was no conclusive or empirical evidence that fear training was beneficial. Experts stated that the US army had never had a formal policy of training soldiers to deal with fear associated with combat, nor was fear briefing routinely carried out in Israel. On the contrary, there was a body of opinion that considered fear briefing to have a potentially sensitising effect (14). In summarising the evidence, Justice Owen made a number of points: any serving soldier knows that they will encounter fear in combat; there is not a uniform approach to fear within the military hierarchy; it is not possible to be prescriptive about fear training; and many officers undertook fear briefing on an informal basis anyway. He held that the MoD was not negligent if it had failed to brief individual soldiers on fear, and that it was reasonable to leave the decision about fear briefing to individual commanders. While accepting that there is "probably some benefit to be derived from addressing the question of fear and how to cope with it", he stated that this had not been proven.

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# FORWARD PSYCHIATRY

### ISSUES

The concept of Forward Psychiatry refers to a set of guiding principles for the delivery of psychiatric care in armed conflict. It emerged during the First World War and was based upon the PIE principles referred to above. The issue here was whether or not the MoD had breached its duty of care in failing to provide an early intervention system for combat-related psychiatric injuries that operated on the Forward Psychiatry model. Central to resolving this issue was the question as to whether or not there was any actual therapeutic benefit to be gained from this approach.

### ARGUED

The claimants submitted that the MoD was negligent in failing to employ a system of early intervention based on the principles of Forward Psychiatry for those suffering from acute stress reactions. A key tenet of this argument was that the MoD had failed to deploy forward psychiatric teams in a number of the theatres under consideration.

The MoD argued that acts or omissions in the provision of Forward Psychiatry were subject to combat immunity, as implementation of the PIE principles was dependent on operational considerations. However, even if that was not the case, the defendant claimed that it did not owe a duty to individual soldiers to implement the PIE principles, because despite the general acceptance of the principles of Forward Psychiatry they have never been shown to be of therapeutic benefit to the individual.

Justice Owen accepted that the nature of modern combat was dramatically different to the static warfare in which the principles of Forward Psychiatry had evolved. He recognised that in some situations it would not be practical to apply PIE in the conventional sense. The PIE principles had evolved in the static conditions of attrition-based warfare that characterised the first half of the 20th century. With the evolution of modern military technology and doctrine, the traditional concept of the “front line” had begun to break down. Modern warfare often employed smaller groups of soldiers in operations acting well forward of their areas of control. In these conditions the PIE principles became increasingly impractical and unworkable. They were better suited to more stable or fixed campaigns such as the Western Front or Korea.

The judge then reviewed the evidence for the effectiveness of Forward Psychiatry. The key paper was a study of the outcome of Forward Psychiatry as practised by the Israeli military during the invasion of Lebanon in 1982 (15). This paper showed that those who had been managed according to the principles of PIE did better in the short and medium term than those who had been evacuated to base hospitals in the rear (16). However, while accepting the data Justice Owen found that the paper did not provide sufficient evidential grounds to conclude that the treatment of combat stress reaction casualties by application of the PIE principles resulted in a reduction of subsequent PTSD. Given this relative absence of reliable evidence as to their therapeutic effect there was a further question mark over whether or not it was even ethical to implement the principles of Forward Psychiatry at all (17).

Accordingly, and setting aside the issue of combat immunity, the MoD was under no obligation to provide treatment in accordance with the PIE principles for a number of reasons: the weakness of the evidence as to their therapeutic effect; the primacy of maintaining the fighting force; and the doubt surrounding the ethical basis for such interventions. Even so, Justice Owen held that the MoD had not lost sight of the principles. This was true despite the fact that in the conditions of modern fast-moving warfare, such as the 1982 invasion of the Falklands and the 1991 Gulf War, it had been almost impossible to employ them. The MoD was not found to be in breach of its duty of care by failing to implement the PIE principles, even though they remained the standard doctrines of military psychiatry.

In conclusion, Forward Psychiatry is an attractive concept, and few can doubt the negative influence of labelling someone suffering from short-term combat-induced exhaustion with a psychiatric illness. This is illustrated by Spike Milligan's description of his treatment in rear facilities after sustaining a breakdown during the Italian campaign, which is filled with loathing, not just of the military but also of himself (18).

On the other hand, critics who point to the risks of re-traumatisation of already vulnerable personnel by insisting that they return to active duty and who argue that Forward Psychiatry is really just a way of conserving manpower may also have a point. Only a randomised trial could ever answer this question, and it is highly unlikely that such a study could ever be conducted.

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# DEBRIEFING

### ISSUES

It is a common, albeit modern, misconception that the opportunity for emotional ventilation of traumatic experiences after a stressful event is always beneficial. Emotional ventilation is thought, in some way to facilitate the psychic acceptance of trauma and so to decrease the amount of emotional discomfort that results. Debriefing sessions became common practice after any event that carried the possibility of subsequent distress among those who experienced it. However recent research has fundamentally questioned the validity of this assumption (19, 20). In this part of the case, the issue under consideration was whether or not the failure to formally train officers in debriefing skills amounted to a breach of duty and if so, whether or not this breach resulted in any actual injury.

### ARGUED

The claimants argued that the MoD ought to have trained commanders to carry out operational debriefing (21) after their personnel were exposed to traumatic events. Operational debriefing was defined by the claimants as: “non-medical/specialist intervention, including the opportunity for the reliving of traumatic experiences and the reactions these have provoked, (the ‘ventilation’ or ‘defusing’ of what has occurred) carried out on a routine basis within the unit or subunit, usually by immediate commanders, but in an emergency by anyone present who has an understanding of what the individual has been through.

It was submitted that operational debriefing would facilitate the detection of those suffering from an acute stress reaction and those at increased risk of developing post-traumatic disorders. Their original contention that “psychological debriefing” was effective and should have been deployed by the defendant was abandoned. This was because a series of recent reviews had shown that there was no reliable evidence that it was effective and, in fact, that it could even be potentially damaging (22). A fundamental difference between psychological and operational debriefing is that, in the latter no attempt is made either to ask people to relive their emotions or to provide any post-traumatic education.

The MoD argued that there was no evidential basis for the claimant’s contentions. In any event, while the MoD did not formally train its commanders in debriefing, it was often undertaken on an informal basis by its commanders.

*HELD*

Despite the initial pleading, it became clear during the case that the claimants were no longer arguing for the effectiveness of debriefing in reducing psychiatric injury. Justice Owen reviewed the evidence for this (23). He stated that the “assembled experts agreed that there was no empirical evidence supporting the efficacy of interventions by way of psychological debriefings shortly after exposure to trauma”. He pointed out that there was even some evidence to the contrary i.e. that those who received debriefing were at a significantly increased risk of developing PTSD. He held that the claimants had failed to prove that operational debriefing would have been effective in reducing the risk of post-traumatic disorders, or that it would have assisted in the detection of those at risk for “increased and longer-term reactions”.

**DETECTION***ISSUES*

This became a key question in the case. For any psychiatric disorder to be treated it first has to be detected and it was here that there was a considerable divergence of opinion. The issue here was whether or not the MoD had developed and maintained a satisfactory system for the detection of the psychiatric consequences of combat-related trauma.

*ARGUED*

The claimants submitted that the MoD was negligent for failing to implement effectively the battleshock component of an important directive in the training of officers (24). They further proposed a system for the detection of PTSD that involved: the flagging of medical records; a record of exposure to combat; a medical six to 12 months after return from a combat theatre for “high-risk” veterans; the training of medical officers in structured interviewing techniques; and/or the administration of questionnaires for the detection of post-traumatic disorders.

The defendant accepted that commanders had a duty to “know their men”. It argued that its commanders were broadly educated as to the possible psychiatric effects of combat and that the nature of the military environment meant that significant changes in personality and behaviour would come to its attention.

This was called “man management”, and was central to the detection of any disorder or other difficulties. However the defendant submitted that not all such

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changes would or should come to the attention of even an experienced commander as one of the key features of PTSD is avoidance. In any event, medical and other support staff were also in a position to identify those suffering from mental health problems.

Justice Owen held that the officer training directive did include a description of battleshock and its management but that there was a systemic failure to provide adequate instruction in its delivery to medical officers. A contributory factor was the prevailing culture that existed in the army towards psychiatric disorder. The question was raised as to whether or not the failure to deliver the battleshock component of the directive had adversely affected the detection of the acute reaction to stress and PTSD.

The judge analysed the evidence on commanders' awareness of psychological reactions to combat stress. He agreed with the MoD that commanders were indeed expected to have a thorough knowledge of their troops, and that the nature of service life meant that they were well placed to observe any changes in their behaviour. Nevertheless, he also acknowledged that difficulties may exist: commanders may not always be in a position to observe their troops closely in the heat of battle; the reaction to stress varies from soldier to soldier; and individuals may suffer a wide range of symptoms. The judge was not persuaded that a more systematic and effective implementation of the training directive's battleshock component would have made a material difference to the detection of the acute reaction.

The detection of PTSD relies on either the self-referral of the individual soldier or on a referral by a commander to the medical officer. Justice Owen took the view that, in the latter case, it should be for the commander to make a judgment based on his or her knowledge of the individual and on the nature and extent of the problem.

The evidence did not establish a systemic failure in the threshold for referral to medical officers. However, it was apparent that many soldiers were capable of concealing their conditions while continuing to discharge their duties in an acceptable manner. A number of reasons were identified for their failure to seek help, prominent among which was the issue of the stigma attached to psychiatric disorders within the military. This raised the question of whether or not the MoD was under a duty to devise and implement a system for the detection of psychiatric disorders in those who did not seek help. This, of course, was contingent on such a system being possible at all.

Justice Owen referred to the evidence of a number of the experts which demonstrated the inherent problems in the identification of PTSD (25). He then

considered the system for detection that had been proposed by the claimants. He agreed with the MoD that establishing a system for recording exposure to combat was not mandatory and would have achieved little. He pointed to the evidence of one of the claimants' witnesses who said that flagging the records of every veteran from a conflict simply because they had been there would have been self-defeating (26). This is demonstrated by the fact that virtually every member of the British army would have undertaken a hazardous tour of duty in Northern Ireland during the period in question, often more than one, and to mark their records would serve little purpose. In technical terms exposure was nearly ubiquitous. Justice Owen referred to the "obvious difficulties" in recording individuals of "high-risk status" and asked, but could not answer, by what criteria and by whom should this assessment be made?

The claimants failed in their contention that the MoD was under a duty of care to provide a screening programme for the identification of service personnel with an existing psychiatric disorder. They did so because of their inability to provide any evidence that screening for existing psychiatric disorders actually reduces psychiatric morbidity and/or improves outcome.

The key issue remained the question of detection: how accurate can it be? Psychiatric measures are not perfect, even if they are improving, and there will also always be false positives and negatives. The proportion of these is determined by the prevalence of the condition being detected, and it is known that PTSD is not, in fact, a common disorder in the armed forces, despite public perception to the contrary. It is relevant that one does not screen for a disorder in which there is substantial natural improvement. Cervical cancer, for example, does not go away with time unless detected and treated. However, psychological symptoms that have been caused by acute adversity often do indeed go away spontaneously and PTSD is an unusual outcome. Both of these factors (imprecise measurement of a low-prevalence condition and a natural history that tends towards recovery) mean that screening for psychiatric disorders arising after traumatic events, such as combat, has to overcome considerable hurdles before it can be considered to be effective. There is now consensus that the only way in which one can be sure that screening is indeed effective in improving outcome (its only purpose) is via properly conducted randomised controlled trials (27). The recent Cochrane review concluded that there is at present no evidence to support routine mental health screening (28). While the recent NICE guidelines acknowledge that there may be a case for screening to detect PTSD in certain high-risk groups in certain situations, they refer to a study of the British army in 2004 which found that a proposed mental health screening programme was unacceptable to service personnel (29).



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The MoD had accepted that there had been individual failures in the detection of combat-related stress disorders and in the provision of care to affected service personnel. Some of these individuals subsequently received substantial compensation for their psychiatric injuries. While holding that the MoD had failed to train medical officers adequately in the delivery of the battleshock component of officer training, Justice Owen concluded that, in all other respects, the claimants had failed to establish that the MoD had breached its duty with regard to providing a system of detection of either the acute or chronic reactions to stress.

## TREATMENT

### *ISSUES*

A great deal of effort has gone into developing relevant treatment approaches for PTSD since its inception as a formal psychiatric diagnosis in 1980. This has involved both the adaptation of existing therapies used in other psychiatric illnesses and the development of entirely new therapeutic techniques designed specifically for use in PTSD. This knowledge base had expanded rapidly. Given that the MoD had accepted a duty of care to provide appropriate treatment for psychiatric illness, it had a duty to remain reasonably well informed of developments in treatment. The issues were, first, whether or not the treatments that the claimants had called for were available to, and used by military psychiatrists and, second, whether or not any of these treatments were mandatory during the relevant period.

### *ARGUED*

The claimants argued that the MoD was negligent in failing to employ a system of early treatment for combat-related psychiatric disorders. During the first part of the relevant period (which was, approximately from the end of the Korean War to the beginning of the Falklands War) the mainstay of treatment involved individual non-specific or psychoanalytic psychotherapy various forms of abreaction, group therapy and the use of various medications.

Not surprisingly the MoD argued that it had been up-to-date with regards to treatment options and had not shown any undue delay in introducing new treatments. But while the MoD's medical services had used all of these (some of which, such as group therapy had originally been pioneered by British military psychiatrists), none of these developments had any particular effectiveness on the conditions that would later be labelled as PTSD.

It was agreed by both sides that the arrival of Cognitive Behavioural Therapy (CBT) had changed the picture and that it was now not disputed that CBT represented the treatment of choice for PTSD. This was agreed even before the publication of the NICE guidelines that came to the same conclusion. However, what was not agreed was the question of when this knowledge became widely known, such that it could be considered a requisite standard of care.

With the exception of CBT Justice Owen agreed that the MoD had used the treatments specified by the claimants. He took the view that there was broad consensus in the expert evidence on a number of issues: that failure by the MoD to treat diagnosed psychiatric illness would amount to a breach of its duty of care; that good practice involved a clinical judgment on which treatments to offer based on the individual circumstances of the case; and that failure to use any single treatment or combination of treatments did not amount to a breach of duty (30). In other words, until the acceptance of CBT by the wider mental health community Justice Owen held that there had been no clear single standard of care required of the MoD.

As for the efficacy of CBT itself, Justice Owen accepted that knowledge was not available until the middle or end of the 1990s, that CBT was the treatment of choice and that it represented an improvement on previous treatments. This did not mean that CBT had not been used successfully before then, merely that there was insufficient evidence for its effectiveness to be able to say that the MoD had a duty to use it in the treatment of PTSD in service personnel. Accordingly the claimants failed in their contention that there was a systematic failure with regard to the use of the available treatments.

Another question was whether or not it was reasonable to extrapolate from civilian studies of PTSD to the military or was the military environment so unique that this would be unwise? There was evidence that combat-related PTSD was more difficult to treat and had a worse prognosis than its civilian counterpart (31). What was not at issue was that, during the relevant period, no studies had been reported that demonstrated the effectiveness of any preventative or therapeutic intervention for combat-related PTSD (32). In fact, Justice Owen concluded that this was not the case. Given the degree of comorbidity such as with substance abuse and the difficulties inherent in the “macho” culture that is part of the armed forces, some might be surprised by this conclusion, but, as it was, it had no impact on the case.

Justice Owen then considered the treatments. He found common ground between most of the assembled experts that treatment gains were, in fact, at best modest regardless of the type of treatment applied. He referred to a number of studies (33) in reaching his conclusion that CBT was likely to have been an

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effective treatment for combat related PTSD and that those forms of psychotherapy that contain an element of exposure were also likely to have been an effective treatment (34). As to the evidence for pharmacotherapy the judge found that there was strong evidence that certain drug treatments for combat-related PTSD (SSRIs) were likely to have been effective. Other drug treatment (MAOIs and TCAs) were also likely to have been effective, although to a lesser degree, and the effects of benzodiazepines were unlikely to have been of sufficient benefit to outweigh their side effects.

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## CONFLICT OF INTEREST

Simon Wessely gave evidence in the PTSD class action on behalf of the MoD. He is an unpaid civilian consultant adviser in psychiatry for the army. Jamie Hacker Hughes is a consultant clinical psychologist for the Defence Medical Services.

## ACKNOWLEDGEMENTS

We thank Mr Robert Jay QC and Mr Stephen Irwin QC, who were the lead counsels in the case, for several helpful discussions. Professor Edgar Jones has likewise been a source of advice. We also thank Mr Nick Hanna QC for comments on the final manuscript. All the views expressed are our own.

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24. Army Training Directive 5; in 1985 the army’s annual training directive for health was revised to include training in battleshock for all officers and NCOs down to the rank of corporal. In 1990 it was extended to all ranks (see [2003] EWHC 1134 at paras 12.1, 12.14 and 12.18).

25. For example, at para 12.68 he quoted Professor Solomon: “the connection between many (if not most) PTSD symptoms and the trauma that gave them birth is indirect and remote . . . even where the wartime origin of the symptoms is apparent, some symptoms, such as recurrent nightmares, are suffered by nearly all soldiers to one degree or another.”; see also paras 12.69 and 12.70.
26. Dr Deahl, quoted at p. 371.
27. Conducted under the guidance of the National Screening Committee.
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## Appendix 11

### THE WAY AHEAD – WHITHER NOW?

L. Stephen O'Brien

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*"The Way Ahead – Whither Now?" In *Traumatic Events and Mental Health*, (Cambridge: Cambridge University Press, 1998).*

*The conclusion to L. Stephen O'Brien's well-received 1998 book is reproduced here as an introduction to this important study. O'Brien raises necessary questions about the diagnoses of PTSD and uses the term Post Traumatic Illness (PTI) to identify individuals whose symptoms do not reach the threshold for a formal diagnosis of PTSD.*

Thus far this book has been intended to present the case for the importance and relevance of PTI in general and PTSD in particular. The aim of this chapter is to present some personal ideas and questions, and to try to consider the future direction of work on the psychological effects of trauma and the postulated physical effects in the brain of psychological trauma. It is unashamedly a personal view and is intentionally written without references, although hopefully the sources of most of the questions and problems have been detailed in the text thus far.

Trauma and mental illness are a subject which has inevitably preoccupied me over the years because of my employment. As a trainee psychiatrist in the army it seemed inevitable that I would be confronted with the history of battle shock and the future of combat stress in the anticipated battlefields of North West Europe. In the event the first case of PTI which I met was from one of the sad series of airline crashes which have come to be known by the name of the relevant city, or airfield, or flight number. What it taught me was the power of trauma and the intransigence of avoidance symptoms. A series of individual cases from Northern Ireland and from the Falklands taught me about PTI and then about PTSD. What they taught me was not so much the uniformity and the commonality of post-traumatic illnesses, but the variety of post-traumatic responses. What was interesting was not so much that some people got PTSD, as that not everybody did. Why was it that most people seemed not to get PTIs, some did but got better quickly, and a few seemed to stay disabled come what may?

Then as I began to study Falklands veterans and others, it became clear that not all of those who responded positively to questions about PTSD symptomatology seemed actually to be ill. It was not that they seemed to be telling lies, but that some of those who reported intrusive symptomatology in particular seemed quite unaffected by it, living their lives apparently successfully despite these reported symptoms. Many of them did not see themselves as ill.



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Then there were the older patients, the ex Far East prisoners of war and other World War II veterans who came for assessments for pensions or seeking treatment. Some were presenting with what seemed to be PTSD but it was the first time that they had reported it, some 40 years after the event. It seemed not so much that they had simply ignored serious disability for 40 years, but that symptoms had not really been troublesome before and that some other event such as loss of work, of a supportive relationship, or of health, had led to their becoming ill.

Increasingly, through the eighties and early nineties I saw my role as championing the cause of PTI and PTSD. It seemed to be my job, along with my leaders, to have the concept and the consequences accepted as important by the medical services, the army management, and the population. This last was done for everyone most effectively by the media following Zeebrugge, Hillsborough, Lockerbie etc. etc. These events and experiences in Northern Ireland and elsewhere also influenced the army authorities, and it was considered appropriate that the opinions of psychiatrists including myself, were sought. The plans for the North West Europe scenario were extended and modified and the psychological effects of trauma became important, or at least recognised in standard procedure planning. Dealing with psychological injuries became part of the annual training objectives of all qualified soldiers.

With the recognition of the existence and significance of PTI came an acceptance of a number of other things, including the ubiquitous role of counselling. There was an implicit acceptance of debriefing and an open expression, in the army and elsewhere, of its value in prevention of PTI. Elsewhere, PTSD was being described after a wider and wider range of traumatic incidents. It seemed that anything and everything could cause PTSD, and that anyone and everyone not only could have, but did have, PTSD. It was an inevitable consequence of the media exposure.

Gradually doubt began to rise. Did all of these people really have PTSD? Did all of these events cause PTSD? Was PTSD the best explanation of all the problems that could follow trauma?

Much of the book has been devoted to a justification of the concept of PTI and of PTSD. However, there is some doubt. It is actually possible to construct arguments which bring into question many of the apparent facts and clear opinions about PTSD. Perhaps there is some value in a healthy cynicism.

First of all, trauma without physical injury is not only associated with PTSD. It has been associated with battle shock, which some equate with PTSD, but it has also been associated with conversion hysteria, with depression, with substance abuse, and with personality change, to name a few.

PTSD was only defined in 1980, which suggests that it is a new concept but an argument central to the concept, and the status of PTSD is that it is not new but has simply been renamed. Various ancient case histories are quoted, but inevitably none of them fit current diagnostic criteria. Is this because the right details were not recorded or are the conditions actually not coterminous? There are similarities between post-traumatic reactions over the centuries and that defined after Vietnam, but what is the justification for saying that they are the same? There are also differences. It has been suggested that PTSD is a new concept that has developed over the past hundred years or so, not because trauma is new, but because the way in which we remember things and the possession of memories are relatively new and newly developed concepts, not present previously. It is realized that individually owned memories are an essential prerequisite to PTSD it is seen now, but such memories are a relatively recent development. Whatever the explanation, is there really any justification for saying that the problems experienced by the Swiss women trapped in an avalanche, by the World War I soldiers with hysterical paralyses and shell shock, by those with railway spine and soldier's heart, and those who are preoccupied with the content of their psychotic illness are fundamentally the same problems as that of the Vietnam veterans with their 'post-Vietnam syndrome'? Were Edmund Blunden and Siegfried Sassoon really the same as Rambo and the stars of *The Deerhunter*?

In the second half of the twentieth century and before Vietnam, there was some interest in post-traumatic neurosis and related problems, but it was often somewhat specialized. There was work into the state of the Holocaust survivors and their condition is really not that similar to that of Vietnam veterans after all. The other source of interest was rape victims and at the same time as there was a call for a post-Vietnam syndrome there was also a call for a rape trauma syndrome, this last with the three variants of typical, compounded or silent. Probably this was nearer to PTSD than the Holocaust response, with the silent variation being nearest to predominantly avoidant symptoms. Some of the work being done at this time however, was perhaps less than mainstream, with published work like that investigating the effect of using psychedelic drugs to treat the psychological effects of industrial accidents.

It seems all the more surprising that the problems of the Vietnam veterans have led to the development of this apparently almost universal condition when one realises that the thrust of the whole Vietnam argument was that the Vietnam War was different from other wars and trauma, so that they had different problems and different needs. It was only when Congress accepted this difference that readily accessible services were provided for Vietnam veterans which had not been, and were not, provided for veterans of other wars. However, the next year PTSD was defined, explicitly emphasising the commonality of responses to varied trauma.

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One of the curiosities of this 'different' war was that, unlike previous wars, there was an apparently very low rate of acute psychiatric illness during the war but then an apparently very high rate of chronic illness after the conflict was over. Bersoff studied the Rorschach ink blots of 1500 of those who actually were evacuated from Vietnam for psychological or psychiatric reasons and stated that only two of them had traumatic neuroses of war! This contrasts sharply with the First World War, which had troublingly high acute rates of illness followed by relatively high chronic rates.

While it is clear that there were some extremely good and very extensive studies of veterans, some of the initial work leading the way to them was less robust. A very frequently reported study by an influential writer seems to report a less than 10% response rate to a postal questionnaire and to base its conclusions on a far smaller subgroup numbering 39. Some of the papers suggested that many of the cases they reported had been diagnosed by others as having psychotic illnesses. This interests me as there does not appear to be a lot of more recent literature about significant numbers of cases of PTSD presenting as psychosis or being misdiagnosed as schizophrenia. It is interesting that schizophrenia is one of the few diagnoses not generally associated with PTSD as a comorbid or dual diagnosis.

One of the interesting but seldom quoted papers on veterans questioned the frequency with which post-Vietnam problems were detected and suggested that investigator priming might have had an effect. The study neatly demonstrated that if the investigators expected to find that subjects saw a negative effect of the war, that is what they got. If they expected a positive view of the experience the subjects would oblige. One of the interesting things about PTSD and the Vietnam veterans, which is conveniently forgotten about when considering other causes of PTSD, is the forensic implication. Rightly or wrongly, one of the most prevalent perceptions of the Vietnam veteran with PTSD was of violent behaviour, with or without law-breaking. Nobody has suggested an increase in violent crime in victims of road traffic accidents, in the survivors of natural disasters, or in the 46% of people with a recent psychotic illness who are said to have PTSD.

In a lecture I once, jokingly, compared PTSD with a unicorn. It is a mythical beast. It would be nice if it existed and it certainly should exist. It is a bit hard to work out what it is in such a way that it is easily recognised as being different from horse, giraffe and rhinoceros. It would be extremely helpful if there was a more practical way of finding it than having a virgin sit in a clearing in the forest and wait for it to put its head in her lap!

In truth, PTSD is a condition in which certain stressors produce certain symptoms in certain people. The problem is that there is still doubt about which stressors produce which symptoms in which people. Can we answer these questions?

The criterion which describes the stressor has not been too stable since the definition of PTSD. Interestingly, the historical examples purporting to be cases of PTSD have always been from fairly impressive natural and man-made disasters like being trapped under the snow for days, or in the trenches of the First World War, or in the Great Fire of London. DSM-III initially considered PTSD to be a sequel of catastrophic experiences and focused on the universality of the effect, talking about events which would be likely to cause great distress in almost anyone. However, there was an almost immediate interest in small numbers of people who apparently had similar symptomatology following less catastrophic events. DSM-III-R then talked of events outside the range of usual human experience.

Even if you do research into catastrophic experiences it rapidly becomes clear that there is no universal catastrophic-type event. If you look at a group of people involved in the same incident, it becomes clear even before you start to look at meaning and interpretation that not everybody has had the same experience. If you look at several hundred victims of a major fire, some will have nearly been killed, some will have lost relatives, some will have lost their belongings, some will have been temporarily inconvenienced. When soldiers go into battle some will be wounded, some will kill at close range, some will have near misses, some will have days and weeks of fear and boredom. There is almost inevitably a range of experience, even in a single incident.

When we then go on to take into account the individual's perception, it becomes even more complicated. If three men are in an armoured vehicle and the vehicle next to them bursts into flames, one may feel that witnessing the probable death of close peers is terrible. A second may see this as an indicator that they too will inevitably be killed, heightening his fear. The third may see it, as a lucky escape and proof of personal invulnerability.

Given that there appears at first glance to be some difficulty with recognising definitive PTSD-generating trauma, it is hardly surprising that a wider and wider range of stimuli came to be promoted. Indeed there has, of course, been a mildly vociferous argument about the possibility of disposing of the stressor criterion as a hurdle altogether. Thus, if people had intrusive, avoidant and arousal symptoms and some degree of disability for more than a month after anything happened, then they would have post 'whatever it was' disorder.

In fact, as we know, the DSM-IV committee steered a middle course and defined the stressor hurdle as requiring some form of 'exposure' to real or potential harm to someone, plus intense fear or horror. However, this does seem to be a really rather wide goal-mouth. The increasing list of trauma producing events seems to move further and further away from the initial triumvirate of

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combat exposure, rape, and concentration camp experience. Is it really only me that finds it a little odd that things like near-miss car crashes are seen to be in the same league? Are people sitting at home who work for ferry companies and hear that a ferry belonging to another company has sunk with many lives lost, really in the same position as the Vietnam veterans? Does the apparently normal process of childbirth have the same meaning? Can the distress caused by suffering a psychotic illness, or the pressure of a bullying line manager really have the same effect as being in a concentration camp?

It seems to me that there are still many questions to be asked about the nature and meaning of the stressor criterion. Can these things all be equivalent? Is there any significance to the fact that some types of stressful events can have the same effect on disparate communities as regards conditions such as depression, but widely differing effects as regards PTSD? What is the importance of who the individual is and what their previous life experience has been?

There are occasions when we seem to shoot ourselves in the foot in the search to have the importance of psychological effects of traumatic incidents recognised. For example, a paper extolling the value of including mental health professionals in disaster response teams stated: 'the less serious the accident, or the closer the near-miss, the more likely the worker will develop neurotic symptoms'. Is this really what is meant, that the less the stress the more likely the psychological response? I hope not. If it were true it would suggest that there was a directly opposite effect in accidents from that seen in combat. It is a matter of some concern that it is really only in combat that exposure has been consistently shown to account for much of the variance of PTSD, and then only for about 35%. We really do not know what dictates who will get PTSD. If 35% of the variance is accounted for by the trauma, then presumably the rest is accounted for by things like previous trauma history, previous illness, family history, personality, experience, support networks, and subsequent experience. Nevertheless, people have thus far failed to come near explaining the whole, or nearly the whole, of the variance. We do not really know why some people get PTSD and some do not. All of the features mentioned have some bearing but you cannot predict or explain it.

Having decided that it is very difficult to come to any firm decisions about which stressors can cause PTSD because apparently nearly everything can, we now look at the symptom profile. Here we are on steadier ground. DSM-III, DSM-III-R and DSM-IV have changed the symptoms somewhat but have essentially consolidated the idea that there are three groups of symptoms, intrusive, avoidant and arousal. There is even some statistical analytic support for these three groups of symptoms, at least in Vietnam veterans. It seems a pity that the World Health Organisation has decided effectively to call the intrusive

symptoms essential and the others common but not necessary. This is particularly disappointing if one looks at the influential work by Horowitz and the effectively confirmatory recent opinions supporting the theory of a phasic nature of the condition, with intrusive symptoms intermittently predominating or intruding against a background of avoidance.

Unfortunately none of the symptoms is pathognomonic. However, this is not that surprising as there is a limited number of possible psychiatric symptoms. The most specific seem to be the intrusive symptoms, but even if they do not appear specifically in other diagnostic criteria sets, most of them do occur elsewhere.

DSM, of course, unlike the ICD, is quite specific about the number of symptoms required to make the diagnosis. Various investigators have gone further and used the total number or the frequency and severity of symptoms as a specific measure of the severity of disease. However, are either of these sets of assumptions justified?

Why does DSM require one symptom from one group, two from another, and three from a third? The empirical basis for this distribution has not been widely demonstrated. What the criteria mean is that if a person has all but one of the necessary symptoms they do not fulfill diagnostic criteria for PTSD. It does not matter which one of the required six is missing. Logically this suggests that the various symptoms must be free from overlap both within the three groups and across the groups. They must all be distinct and valid if they carry equivalent weight in the diagnostic process. However, simple study of the various symptoms does not really support the contention that they are actually 17 separate entities.

- If you get intrusive memories which cause distress, are you not likely to become distressed if exposed to reminders?
- Do not frequent distressing dreams result in sleep disturbance?
- Is avoidance of thoughts and feelings really separate from and distinguishable from avoiding reminders?
- Can many patients reliably differentiate between feelings of detachment or estrangement and a restricted range of affect with inability to have loving feelings?

While the idea of the three separate groups of symptoms does seem to have validity as noted above, the same is not proven for each of the symptoms. They do not necessarily separate within the groups and there is some overlap across groups. Indeed, some of the symptoms may not necessarily always be

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symptoms. Is an inability to remember an important element of the incident necessarily a symptom of PTSD?

Anyway, even if some of the symptoms do seem to overlap to some degree, at least it is clear that PTSD is a distinct stand-alone illness which is separate from other illnesses, or at least it should be.

One of the strange things about PTSD is how often there is another comorbid condition. It is clear that the Epidemiological Catchment Areas have shown that the presence of almost any one psychiatric disorder seems to predispose to the concurrent presence of a wide range of others. However, at least in those presenting for any form of treatment, the rate of comorbidity in patients with PTSD is enormous, perhaps 80%. This seems a difficult finding to assimilate into a concept of PTSD as a distinct, identifiable illness. Surely the majority of cases should be in a pure form. Of course, because most of the PTSD symptoms are also found in other conditions, they can generally be 'used' more than once, so that the same individual symptoms are seen as fulfilling the diagnostic criteria for more than one condition. The absence of the hierarchical approach means that all possible diagnoses are applied and none is considered paramount. It is certainly possible that in some cases there can be doubt about what the diagnosis of PTSD adds to the management of the case, for example if the other diagnosis is of specific phobia of driving.

The symptoms of PTSD may not be such that PTSD can be easily separated from other disorders on clinical criteria on all occasions, and the stressors can be variable. It seems appropriate to consider how many people get PTSD and whether there is anything specific about which people do and do not get the disorder.

The suggestion that the findings for rates of PTSD are surprisingly consistent despite significant differences in methodology is surprising when one considers that two of the biggest studies have shown current rates with a sevenfold difference, and lifetime rates with a twofold difference. Even more surprising, both of these studies were looking at the same group, Vietnam veterans. For various other classes of stressors rates have varied from 0% to 90%, from 4% to 81%, from 1% to 38% etc. The contention that the prevalence rates are surprisingly congruent only applies if you provide explanations which exclude the ones which do not fit. The rates are all the same except for those which are different, and they are wrong!

The reason why rates vary from stressor to stressor is presumably because stressors do not all have the same effect in producing PTI. The reasons why rates vary within the same class of stressor may be about a differential effect of different subclasses or severities of stressor, but may also be about both individual variation and the diagnostic method.

There has been a lot of interest in the failure of people to report their symptomatology, even when asked to do so. It is generally held that this shows the importance of persistent enquiry. However, it may also show that many cope well despite some symptoms. If they do not complain of their problems, appear to function well, do not see the need of help, and do not want to speak to psychiatrists, is it not possible that they are actually generally healthy? Surely there is some inherent danger in investigators labeling people as ill if they do not see themselves as ill and do not act as if ill. There may also be some danger inherent in labeling them as cases of PTSD when this may not be the most appropriate explanation of the situation.

It is a less popular area of study but there has also been some over-reporting of PTSD. Apart from the individual cases of people misguidedly thinking that PTSD explains their problems, or hopefully seeking medical or financial input by claiming that it does, there have been a few fascinating legal cases of apparent fabrication. Obviously there is no suggestion that these particularly infamous cases are representative, but they do highlight the fact that dissimulation is possible. While the use of questionnaires and psychometric instruments will improve diagnostic reliability, most of them presume that the subject will report honestly. Questionnaires simply ask questions that could be put in interview. They contain no internal magic ingredient for diagnosis. Some of the more complicated instruments have been tested in 'staged' dissimulation, but until there is some independent way to diagnose PTSD it is impossible to know how good any of the measures are at detecting faking.

What is needed is a simple and reliable objective test for PTSD, like a blood test. There is little doubt that the most hopeful at present concerns physiological response to exposure in vivo or in vitro. While there is good evidence of biochemical and neurochemical changes in the brain in certain cases of PTSD, the testing is not yet at a stage where it could be used for actual diagnosis in individual cases. The work on physiological changes seems relatively further advanced and nearer to application in diagnosis. However, I have two concerns about this. The theoretical one is that this seems, at first glance, to tap only one aspect of PTSD, the arousal symptomatology. We would need to be quite sure that it was not possible to get, say, avoidance without arousal, or distressing intrusive symptoms without arousal, before we could be sure that the test was diagnostic. My more practical concern is that this has really only been investigated to any significant extent on one group of sufferers thus far. We have already seen that the assumption that there is complete homogeneity across stressors and patient groups is based more on belief than upon evidence. It has been shown that Vietnam veterans can be differentiated from other veterans with and without other psychiatric disorders by physiological response.



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However, apart from a little work in road traffic accidents, there is no evidence yet that these results are universal. This seems necessary if physiological response is to be seen as a method of specific diagnosis.

If we were able somehow to come across a single diagnostic test, then we would effectively redefine, at least temporarily, PTSD as that condition which resulted in a positive test. We could then examine the disparate presentations of PTSD in different groups at different times. Do the acutely distressed patients whose lives are disrupted by distressing reminders of a robbery, who avoid traveling, and who are in a constant state of arousal six months on have the same fundamental condition as the embittered and distrusting veteran ten years on who, far from avoiding reminders, is almost totally preoccupied with his experiences and with his grievances? I am not suggesting that either is not suffering, but it does seem to take quite an effort of will to suggest that they have the same problem. If they do have the same condition, how does the veteran get to that position when, on the balance of probabilities, the robbery victim will return to normal function, affected by the incident, but no longer disabled? It seems to me that we have to find some common substrate other than the simple idea of a 'major stressor' if they are to be the same.

Alternatively, perhaps they are not the same. Perhaps we have worked too hard over the past 20 years to push everyone into the same pigeon-hole. People are beginning to question this. ICD-10 has given us the concept of an enduring change in personality and, while I have concerns about this idea, it does suggest that all that glitters is not PTSD. The proposed DSM disorder of DESNOS (disorders of extreme stress not otherwise specified) was not accepted, but reflects a perception that there is more to specific post-traumatic illness than PTSD. People like Marmar have suggested that there is a concept of uncomplicated as opposed to complicated PTSD, that there is more than one predictable course, and therefore perhaps more than one entity. It seems that there is a growing perception that not all specific post-traumatic illness is PTSD, that there are variations on a theme. There is a need to start trying to separate out these variations and to look at who gets them, and after which trauma.

Identifying variants of PTSD or other PTI may help us to allocate treatment logically. There is no doubt that certain types of treatment have a positive effect: behavioural treatments, antidepressants, probably psychotherapeutic treatments. The perception is that the condition generally has a good prognosis and ICD-10, at least, states this openly. However, the published trials of treatment, while recognising some response, are far less positive. They show problems in the very definition of improvement, with differences between patient, therapist, and observer perception. They show a tendency for symptom levels to return to a pre-treatment baseline after treatment whether intervention is initially

followed by improvement or deterioration. Certainly for established and chronic cases there is a high relapse rate. It is difficult to find any definite empirical evidence, but a perception is that combat veterans do rather worse than many other victims, particularly those who have been exposed to brief, even if catastrophic, trauma. Perhaps response to treatment will help us to sort out variants of PTSD. The treatment studies carried out thus far have been surprisingly small. We need more, and collaborative, probably multicentre, studies.

While further examining the treatment response in PTSD, there is also a very urgent need for further examination of the concept of prevention of ongoing disability after the traumatic event. There has been a general acceptance that the influx of 'specially trained counsellors' after any traumatic event is both necessary and inevitable. A few communities have anecdotally complained about the intrusion, but nevertheless there has grown a whole industry of counselling or debriefing. Thankfully, in recent years important players such as Raphael have started to point out that for all its blind acceptance, there is no substantiated evidence at all that debriefing in its various forms prevents PTSD. What evidence there is suggests no significant effect of debriefing, even though many victims are supportive of it. In addition, we cannot simply assume that such intervention is necessarily harmless. There has certainly been some suggestion that some intervention in PTI or PTSD can actually aggravate matters. There is a real need, not only for the larger-scale studies of treatment of PTSD, but also for such studies of the much-vaunted prevention measures and early interventions.

## SUMMARY

When an illness is present the diagnosis is often a 'standard' one. There is some objective evidence of particular symptom clusters after certain forms of trauma which seem to correspond to PTSD symptomatology. However, not all of the individual symptoms have been demonstrated to be independent of each other or of equivalent importance. None of them is pathognomonic of PTSD. We need an objective measure which can be used to diagnose PTSD and does not rely upon response to questions in whatever form. At present comparison of diagnoses is necessarily theoretically based. There is a circular relationship between diagnosis and definition which could only be broken if there were a pathological test.

There is a need for more knowledge about course and about response to treatment. There is an urgent need for more knowledge about the effect of debriefing and early intervention. PTSD is a useful concept, but we still need a healthy skepticism and some more research. If you do not need 'abnormal' or 'unusual'

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or 'extreme' or 'catastrophic' stresses to cause PTSD then perhaps some redefinition and new description are required. In the meantime, we need to keep trying to find out which stresses cause which symptoms in which people, and what happens then.

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## Appendix 12

### SUPPORT FOR VETERANS AND OTHER VICTIMS OF POST TRAUMATIC STRESS DISORDER AND OTHER OPERATIONAL STRESS INJURIES

Government of Canada – Standing Committee on Veterans Affairs

*Support for Veterans and Other Victims of Post Traumatic Stress Disorder and Other Operational Stress Injuries, 39th Parliament, 1st Session. <http://cmte.parl.gc.ca/Content/HOC/committee/391/acva/reports/rp3042769/acvarp06-e.html>, 2007. 25/2/2008.*

*The Standing Committee on Veterans Affairs of the Canadian House of Commons produced this report in 2007 as one of several studies on veterans health care. The report concludes with 12 recommendations which reflect the current consensus on the preventions and treatment of PTSD in Canada.*

The Standing Committee on Veterans Affairs undertook its Veterans Independence Programme and Health Care Review study in February 2007 to examine the veterans health care review carried out by the Department of Veterans Affairs. The main focus of this departmental review is on the long term care and related services provided to Canada's War Service veterans who served during the Second World War and the Korean War. Canada's pledge in the original Veterans Charter of 1944 to meet the health services needs of its War Service veterans remains in place, but those needs have evolved with the advancing age of these veterans and the health services have to be updated to provide the most effective and timely services possible. The well-being of our elderly War Service veterans remains a major preoccupation of this Committee and the final report of this study will concentrate on this issue.

However, as part of this study, the Committee decided to hold a few meetings focusing on the health services provided to another group of veterans, the Canadian Forces veterans who have left the military in the last few years and who are dealing with Post Traumatic Stress Disorder (PTSD) or other operational stress injuries. A significant number of current and former members of the Canadian Forces are suffering from the effects of operational stress injuries following their participation in peacekeeping and combat operations around the world.<sup>(1)</sup> In a speech on May 8, 2007, at the Second National Symposium on Operational Stress Injuries held in Montreal, Quebec, the Minister of Veterans Affairs, Greg Thompson, pointed out that the number of operational stress injuries cases has increased by more than 400% over the last five years. He also stated that Veterans Affairs Canada has over 10,000 clients receiving disability benefits for a

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psychiatric condition.(2) The 10,000 total includes 6,469 clients with a PTSD condition, of which 4,026 are Canadian Forces veterans, 1,522 are War Service veterans, and 921 are from the Royal Canadian Mounted Police (RCMP).(3)

These numbers do not include individuals dealing with PTSD who are not yet clients of Veterans Affairs Canada or who are not seeking treatment or disability benefits at this time. In other words, a considerable number of individuals are dealing with PTSD and not all of them have obtained disability benefits or the treatment they need for a variety of reasons. Whatever the actual number of veterans dealing with PTSD, a number which will likely increase given the tempo of operations in recent years and the anticipated higher tempo in the coming years, there is no doubt that these injuries are having a significant impact on the quality of life of not only members of the Canadian Forces and veterans who have recently left the military, but also their families. With this in mind and in order to promote a better understanding of the issues, the Committee decided to communicate its findings at this time in an interim report rather than waiting until the completion of the whole study. Indeed, given the importance of these issues and the increased understanding gained every day through research on the subject, the Committee may issue another report on operational stress injuries in the near future.

### **THE COMPLEXITIES OF OPERATIONAL STRESS INJURIES**

One of the barriers to a better understanding of these injuries is the complexity of the issues. For example, various terms have been used during the major conflicts of the last two centuries to describe the effects of traumatic experiences on the mental health of military personnel. Since the Vietnam War, mental health specialists in the United States have used the term PTSD to describe a group of symptoms which can be diagnosed hours or many years after an individual has experienced a traumatic situation or a series of such events. However, PTSD is only one of many types of operational stress injuries, as they are called by the Canadian Forces. Others include anxiety, depression, and alcohol or substance abuse. Combat operations can obviously feature a whole range of traumatic events which may leave some military personnel dealing with operational stress injuries. However, other types of military operations such as peacekeeping or rescue missions within Canada can also cause such injuries. Given the ever-increasing complexities of modern conflicts, Canadian military personnel can experience many traumatic experiences during peacekeeping operations, including a feeling of helplessness in the face of overwhelming human tragedies. No matter what kind of traumatic events are experienced, such injuries can

reduce the ability of individuals to carry out military or other duties while straining their relationships with family members, friends, and colleagues.

One of the psychologists who testified before the Committee, Doctor Pascale Brillon, stated that there are in general three types of symptoms when someone is dealing with PTSD.(4) The first type is avoidance where individuals try to ignore anything related to the traumatic event they have experienced. For some individuals in the military, this could go as far as shunning their duties and anything else such as their base or unit which can remind them of their traumatic experience. Such avoidance behaviour complicates the psychotherapy because the individuals do not want to talk about their experiences. In the second type of symptoms, memories of the traumatic event cause flashbacks, nightmares, or other intrusive thoughts which can be provoked many months after the event by unrelated situations such as a noise heard while walking down a street. The third type involves hypervigilance where someone who, for example, lived through a violent incident, is constantly monitoring potential threats in the surrounding area and, as a result, often has difficulty sleeping and keeping an even temper.(5)

One of the many complexities of stress-related injuries is the fact that individuals may have been diagnosed with symptoms similar to these, but they are not necessarily dealing with PTSD. Doctor Stephane Guay, a psychologist who is the Director of the Centre d'étude sur le trauma of the Louis-H. Lafontaine Hospital in Montreal, Quebec, stated that individuals with acute stress response are often diagnosed within a month of the traumatic event they experienced. However, Doctor Guay pointed out that between 50% and 60% of individuals with symptoms of acute stress response subsequently have PTSD symptoms.(6) Predicting which individuals will be grappling with the effects of PTSD is difficult because of the similarity of the symptoms, so acute stress response is not a perfect predictor. Indeed, the whole issue of predicting who is resilient enough to deal with traumatic events without any problems and who might suffer from PTSD or another stress-related injury still requires considerable research. Doctor Guay also highlighted some of the questions raised about the value of what is called debriefing, a form of intervention that generally occurs 24 to 48 hours after a traumatic event.(7) He stated that there is a growing international consensus following a number of research studies that universal early intervention or debriefing does not prevent the development of PTSD.(8) However, Doctor Guay also noted that on this issue, little research had been done specifically on military personnel. In any case, while debriefings may not prevent PTSD, this does not necessarily mean that debriefings do not help individuals who have faced a traumatic event.

Doctor Guay is also an associate researcher for Veterans Affairs Canada at the Ste.-Anne Centre and has participated in research projects funded by the

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department with other experts. He noted that the published results of these research projects indicated that veterans and others who experienced PTSD waited, on average, seven or eight years before obtaining treatment.<sup>(9)</sup> This was not because of a lack of treatment services, but rather the result of the reticence of some veterans to seek treatment because of the stigma attached to the condition or because of the time needed to understand what was happening to them. Doctor Guay stated that PTSD can become chronic if not treated over a period of years. Indeed, Doctor Brillon and others have pointed out that the sooner treatment begins after a traumatic event, ideally within 24 hours, the better the chances of coming to grips with the condition. However, since one of the symptoms is avoidance of anything related to the traumatic experience, there is a tendency to delay seeking treatment where the experience in question will have to be dealt with.

### **INCREASED AWARENESS OF OPERATIONAL STRESS INJURIES**

Family members and friends of individuals with such symptoms often notice a change in the way these individuals deal with them and others, but they, like the injured persons, often do not understand at first what is happening. Over the last decade, the attitudes of military commanders, colleagues, and the public towards individuals dealing with stress-related injuries have evolved, though not always as rapidly as the progress made by psychologists in understanding and treating the injuries. In Canada, some of the prejudices faced by individuals dealing with stress-related injuries have disappeared thanks in large part to the courage of individuals such as Lieutenant-General (Retired) Romeo Dallaire, appointed to the Senate, who explained in public their personal experiences with PTSD. Various reports have also contributed to a better understanding of the impact of stress-related injuries on veterans and members of the military, notably those issued by the Ombudsman for the Department of National Defence and the Canadian Forces.

As a result of changing attitudes and the increasing number of individuals dealing with operational stress injuries, the Department of Veterans Affairs and the Department of National Defence have recognized the need to cooperate in establishing a number of programs designed to provide help and support. While this Committee is mainly preoccupied with the problems faced by veterans, the measures taken to help currently serving members of the Canadian Forces are inevitably of interest because these individuals will be veterans when they leave the military.

## **MEASURES TAKEN TO ASSIST MILITARY PERSONNEL AND VETERANS DEALING WITH OPERATIONAL STRESS INJURIES**

For example, in response to a request by the Department of National Defence, in 2002 the Department of Veterans Affairs established the Ste. Anne National Centre for Operational Stress Injuries at Ste. Anne's Hospital in Ste-Anne-de-Bellevue, Quebec, which it administers. The Ste. Anne Centre is the hub of the Veterans Affairs network of five Operational Stress Injury Clinics located in major urban centres across Canada which provide evaluations and treatment to injured veterans and members of the Canadian Forces. The Ste. Anne Centre also promotes research, for example, by sponsoring conferences such as the Symposium held in May 2007. In order to meet the demand for care and services for individuals with stress-related injuries, the 2007 Federal Budget announced funding for five additional centres. Meanwhile, since the late 1990s, the Department of National Defence has developed its own network of five Operational Trauma and Stress Support Centres located on major military bases to assist injured military personnel.

Another example of the cooperation between the two departments is the joint funding for the Operational Stress Injury Social Support (OSISS) programme established in 2001. Social support is important because individuals with stress-related injuries can become uncomfortable dealing with other people and become reclusive. Some individuals do not always understand what is happening to them and have difficulty communicating with others unless they have shared experiences or similar attitudes. For example, a veteran will find it easier to discuss issues with other veterans with similar experiences. Thanks to the pioneering efforts of a number of persons, notably Lieutenant-Colonel Stephane Grenier who was himself dealing with an operational stress injury following his participation in the United Nations operation in Rwanda in 1994, the need for peer support was recognized by the departments and a network of peer support coordinators has been established across Canada. Many of the coordinators have dealt with operational stress injuries themselves. In short, while the medical and mental health specialists provide treatment, OSISS fills a gap by providing social support.

In addition to bolstering the services available to help injured individuals, often with the assistance of Veterans Affairs Canada, the Department of National Defence has taken measures to improve the preparation of Canadian Forces personnel prior to deployments overseas and to monitor their health after their return to Canada. The aim of these efforts is to raise the awareness of Canadian Forces members about operational stress injuries so that they can determine



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more quickly if they or their colleagues are showing signs of such injuries. More education on the issue also helps to change attitudes and to remove the stigma still attached by some to these injuries which discourages some individuals from getting the help they need. However, the Committee believes that much more can be done to prepare military personnel, starting as soon as they are recruited into the Canadian Forces, for the traumatic events they may face during training and deployments overseas. The number of hours provided for training and education on how to deal with stressful situations and how to help others dealing with operational stress injuries should be increased.

### THE VALUE OF THIRD LOCATION DECOMPRESSION

Steps have also been taken to ensure that military personnel, at the end of a deployment overseas, have a more gradual transition from the turmoil of a conflict zone to the peace and tranquility of home. Such measures do not by themselves prevent stress-related injuries, but they can give individuals more time to evaluate their situation upon leaving the theatre of operation as well as easing their reintegration with their families and friends back home. In the 1990s, military personnel often ended their tours of duty in difficult peacekeeping operations such as the one in Bosnia with a direct flight to Canada which in a matter of hours transported them from the intensity of a theatre of operation to the comforts of home.(10) While happy to be back in Canada, some soldiers found reintegration with their families and the daily routine of life in Canada more difficult than they expected. When Canada began to deploy troops to Afghanistan in 2002, senior military officers recognized that soldiers needed a transition period between operations in Afghanistan and their return to Canada. At first, some soldiers were not happy about delays in reuniting with their families. The military ombudsman at that time, Andre Marin, also had reservations at first, but after some study, he recognized the merits of the stopover and issued a report on the issue.(11)

For the current operations in Afghanistan, military personnel returning to Canada spend approximately five days in Cyprus for what the military calls third location decompression before completing their journey. After compulsory arrival briefings, the soldiers who were part of a recent rotation attended two mental injury sessions chosen out of the five offered to them. The topics of these sessions included critical incident stress debriefing, healthy relationships, and coping with stress and anger. Furthermore, mental health professionals met with approximately 300 individuals.(12) The mental health team included peer support coordinators from the Operational Stress Injury Social Support (OSISS) team. In addition to the mental health sessions, the soldiers were offered a range of half-

day and full-day recreational activities arranged by the Canadian Forces Personnel Support Agency (CFPSA). Even when the soldiers arrive back in Canada, the gradual reintegration process continues since they often work for three half-days before going on extended leave. For example, the 99 soldiers of the Lord Strathcona's Horse who returned to Edmonton on March 12, 2007 after four months in Afghanistan were scheduled to work three half days before starting their leave. (13) The reintegration process with its various phases has been described as a "deliberate effort to ease them back into home life".(14)

Indeed, family members also play an important role in helping a soldier dealing with PTSD, notably during the reintegration process. As Colonel Randy Boddam, then Director of Mental Health Services, Department of National Defence, noted in 2002, the presence or lack of support can be a factor in the development of PTSD after a Canadian Forces member has experienced a traumatic event. He added: "the better the member reintegrates with the family, the more likely the family will be able to recognize changes. Being better aware of problems can help the member or his or her family take advantage of resources. Earlier intervention means better long-term outcome."(15) However, family members also need to be prepared for the reintegration process especially since one soldier dealing with an occupational stress injury can affect an average of 3.8 immediate family members. As a result, further emphasis is now being given to post-deployment programs for family members.(16)

## THE NEED FOR CONTINUED SUPPORT

The emphasis on new post-deployment programs for family members highlights the importance of helping military personnel and veterans dealing with operational stress injuries to recognize the need for and to have access to treatment. The impact of such injuries on an individual is significant, but the effects on the well-being of others such as family members and friends are also substantial. Canadian society in general loses out when individuals dealing with a stress-related injury do not seek treatment or cannot obtain it. These injuries can greatly hamper the ability of these individuals to do their work, to contribute to their communities, and to help ensure the well-being of their family members. In short, it is in the interest of all Canadians to ensure that all individuals dealing with such injuries obtain the care and support they need. At the same time, it must also be recognized that their families need care and support. In an article written by persons involved with the OSISS programme, it was noted that it is now generally accepted that in order for individuals with PTSD to attempt a meaningful recovery, their family must also be included in, not to mention provided with, the necessary treatment.(17)

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Over the last decade, considerable progress has been made in establishing various programmes to assist and support injured individuals and their families. However, the testimony the Committee heard also indicates that much more remains to be done. Because of the nature and complexity of stress-related injuries, individuals often have difficulty realizing that they are suffering from such injuries and that they need to seek treatment. There is also a tendency by such individuals to rely on self-assessments where the extent of the injuries is minimized or it is assumed that self-treatment will take care of the problem. In general, only between 40% and 50% of people with mental health problems seek help and these individuals often delay getting treatment, sometimes for years. As Doctor Stephane Guay noted, this is the situation in society in general, not just within the ranks of military personnel.(18)

The tendency towards self-assessment also creates problems even if individuals seek treatment because they often decide that they have received enough help and can stop seeing a psychologist even if the latter still considers more treatment sessions necessary. Other factors come into play such as the problems faced by veterans and others who live some distance from the treatment centres which are located mostly in large urban areas or near military bases. Some reservists and a number of veterans who live in areas far from large urban centres can become discouraged by the frequent trips to areas with treatment centres. Thus, the Committee welcomes the announcement made in the 2007 Federal Budget concerning the funding provided for five additional operational stress injury clinics, but in a country the size of Canada, more resources are needed to ensure that veterans can have reasonable access to treatment no matter where they live. (Veterans and members of the Canadian Forces and their families can obtain information on the services available from the Department of National Defence-Veterans Affairs Canada Centre for the Support of Injured Members, Injured Veterans and Their Families by calling 1(800)883-6094 (during office hours). Members of the Canadian Forces and their families also have access to a confidential service, the Member Assistance Program, offered by the Employee Assistance Services of Health Canada in partnership with the Canadian Forces, which has a 24 hours a day number, 1(800)268-7708, or a hearing impaired number, 1(800)567-5803.

Even if injured individuals have relatively easy access to treatment centres, they may face other problems such as the limited number of psychologists available to provide treatment. The health care system in many parts of Canada is dealing with a shortage of doctors and nurses. Psychologists also appear to be too few in number to deal with the demand for specialised treatment not only from military personnel and veterans, but also from members of police forces and firefighters as well as other citizens. A number of witnesses have indicated that

there is a need for more trained psychologists in general and for psychologists who are knowledgeable about the kind of situations military personnel and veterans have experienced.

People can react differently to a traumatic event, but individuals serving or who have served in the military have certain common personality traits or experiences which make them react in certain ways. For example, soldiers dealing with a series of traumatic events can develop a cold and macho attitude in an attempt to protect themselves against the psychological effects of such exposure. As one expert described it, soldiers often build a wall around their “tender emotions” in order to function in a combat environment or other stressful situations.(19) However, there is no guarantee that this attitude will prevent chronic PTSD months or years later and it can hamper relations with loved ones and friends upon the return to Canada. Thus, psychologists have to understand the different influences on the attitudes of military personnel in order to give them the best treatment and advice possible. Furthermore, as explained by Doctor Robert Belzile, a doctor with experience in occupational medicine who for a number of years dealt with members of the RCMP deployed overseas to participate in peacekeeping operations, it is sometimes necessary to indicate if a soldier or RCMP member should not be deployed because they are likely to suffer a stress-related injury.(20)

However, for some injured members of the military, exclusion from their units can sometimes do more harm than good because it removes a major element of support either because they identify with the unit or because their colleagues can help them come to grips with their stress-related injuries. As Doctor Brillion noted, many who join the military do so because of the esprit de corps or team spirit they find within the organisation, so if admitting that they have a stress-related injury means the end of their military career, they will likely avoid doing this, especially if the military is their whole life.(21) There was some controversy recently about the fact that some military personnel dealing to some extent with stress-related injuries may have been deployed to Afghanistan for another tour of operation, but in a few cases, this could help some individuals who, while dealing with a mild form of stress-related injury, would still have difficulty dealing with their situation if they felt abandoned by their colleagues or if they were viewed as a burden. There may also be cases where military personnel with a stress-related injury deployed on another tour of operation in Afghanistan either do not realize that they are dealing with such an injury or are hiding the fact because they are afraid of what other people will think of them or of being forced to leave the military.

While this is mostly a military issue, it is important to recognize that the attitudes of others are still a major influence on what injured individuals, whether

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they are in the military or have become veterans, think about their situation. If there is still a stigma attached to people who seek treatment for an operational stress injury, it is almost certain that many injured individuals will remain reticent to seek treatment or to even admit that they should consult a psychologist. The fact that, for example, the stairs leading up to offices dealing with operational stress injury at CFB Valcartier, are called by some the “stairs of shame” indicates that there is still work to be done to educate persons within and outside the military and to change attitudes.

### **THE NEED FOR MORE SUPPORT FOR FAMILIES AND ESPECIALLY FOR THE CHILDREN OF VETERANS AND MILITARY PERSONNEL**

More support for the families is also an important issue and as some witnesses pointed out, notably Doctor Guay who has done research on the issue, the spouses of injured military personnel can play a crucial role in the treatment process, although more research is needed. However, support for the families also implies assistance to the children. When a large number of soldiers from CFB Petawawa in Ontario were deployed to Afghanistan, there were reports of an increase in the level of stress among some of their children. Many of the children became more agitated and had more difficulty with their school work. As a result, increasing demands were put on the mental health services provided by the regional centre near CFB Petawawa, the Phoenix Centre for Children and Families in Pembroke, Ontario, and frustrated by delays in receiving additional resources from provincial authorities, the centre’s director lodged a complaint with the Ontario Ombudsman, Andre Marin. The Ombudsman’s investigation in the spring of 2007 attracted media attention and in the wake of his recommendations, the government of the Province of Ontario announced a significant increase in funding for mental health services for children.(22) The federal government also announced increased funding to help resolve the problems faced by military families seeking assistance for their children.

This issue illustrates the complexities of military life where military personnel can obtain most if not all of their health care from the military while their family members have to rely to a large extent on provincial services for their mental and other health care needs. In a backgrounder on the issue, the Ontario Ombudsman quoted an expert who noted that one of the most traumatic events for a child is to have a parent in a far away war zone. The situation does not necessarily cause PTSD, although children can suffer from such injuries.(23) However, it does cause stress which affects the well-being of the child and can lead to a stressful situation for the parent away in the theatre of operation. This is another

reason why the reintegration of military personnel returning from a deployment with their family has to be given careful attention. However, above all, it demonstrates the need for all involved, including federal and provincial authorities as well as the military, to ensure that there are no gaps in the mental health services provided to military personnel, their spouses, and their children. The fact that many members of the military and their families do not live on military bases because they prefer to buy homes in the neighbouring communities or live near large urban communities offering many housing choices besides those available on the base complicates the task of ensuring that the children of military personnel have access to the mental health services they need.

Many witnesses and published studies have noted the importance of the family which can provide assistance and support to an individual with an operational stress injury. Much of the impact of the efforts deployed to help injured military personnel and veterans could be lost if their family members, including their children, have limited access to the mental health services they need. Thus, more should be done to ensure that the mental health needs of not only the individuals dealing with a stress-related injury, but also their family members are taken into consideration when developing and expanding the operational stress injury programmes and services.

Finally, the Committee welcomes the federal government's commitment to the establishment of the Canadian Mental Health Commission as announced in the 2007 Federal Budget. The Commission will play an important role in improving the mental health services available to all Canadians and in promoting much needed additional research in all aspects of mental health. It is the Committee's hope that the Commission will keep in mind the problems faced by Canadian military personnel and veterans dealing with operational stress injuries, not to mention those of their families, especially their children, and that it will contribute to the development and improvement of treatment and support programs designed for individuals who are serving or who have served in the Canadian Forces.

## **CONCLUSION**

The mental health needs of the children of military personnel deployed overseas are yet another example of the complexities of operational stress injuries. This interim report does not claim to provide the answers to all the issues related to this complicated but important subject. The major points it is trying to make is that there is a need for continued support at all levels of government for the measures put in place to help individuals dealing with operational stress

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injuries, for more resources for these measures, for more research, and, above all, for strong efforts to continue the progress being made in changing attitudes, including those of every individual in and outside of the military and those of Canadian society in general. The Committee believes that a proactive approach is required to ensure that all veterans with operational stress injuries obtain the care they need. Future veterans, as well as present and future members of the Canadian Forces and their families, and members of the RCMP can benefit from the lessons learned in recent years and, if injured, they should seek treatment as quickly as possible to significantly improve their chances for recovery.

### **LIST OF RECOMMENDATIONS**

#### *RECOMMENDATION 1*

The government provide more resources to the Department of Veterans Affairs and the Department of National Defence in addition to the increased funding announced in the 2007 Federal Budget to improve and expand mental health programs and services for veterans, military personnel, and their families dealing with operational stress injuries.

#### *RECOMMENDATION 2*

The Department of Veterans Affairs advise the Department of National Defence that the testimony heard by the Committee indicates that more robust and intensive training should be provided to prepare military personnel prior to deployments overseas in order to improve their awareness of operational stress injuries and to improve their ability to help colleagues identify the need to seek early treatment for such injuries.

#### *RECOMMENDATION 3*

The Department of Veterans Affairs increase the resources available as part of its mental health strategy in order to ensure the availability of mental health treatment and services to all veterans and their families dealing with operational stress injuries, including those living outside of major urban centres.

#### *RECOMMENDATION 4*

The Department of Veterans Affairs work with the Department of National Defence to continually improve their coordination of services and records sharing

to ensure as smooth a transition as possible from military service to veteran status for any individual dealing with operational stress injuries.

***RECOMMENDATION 5***

The Department of Veterans Affairs and the Veterans Review and Appeal Board examine their policies to ensure that assistance is provided during the application process to veterans dealing with operational stress injuries so that they can obtain disability benefits and other veterans services as soon as possible after making an application.

***RECOMMENDATION 6***

The Department of Veterans Affairs work with the Department of National Defence to continue their joint support of the Operational Stress Injury Social Support (OSISS) programme with significant additional funding to expand the network of peer support coordinators while improving the coordination of their joint efforts.

***RECOMMENDATION 7***

The Department of Veterans Affairs increase its promotion of research in Canada on the problems and needs of Canadian veterans, military personnel and their families, especially with regard to operational stress injury while strengthening its cooperation with the United States National Centre for Post Traumatic Stress Disorder.

***RECOMMENDATION 8***

The Department of Veterans Affairs work with the Department of National Defence to increase the emphasis on the programmes and services designed to help the families, in particular the spouses and children, of veterans and military personnel dealing with operational stress injuries.

***RECOMMENDATION 9***

The Department of Veterans Affairs advise the Department of National Defence to maintain its commitment to third location decompression for military personnel completing their tour of duty in an overseas theatre of operation before their return to Canada while seeking ways to improve the mental health services available to the personnel and their reintegration with their families.



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### *RECOMMENDATION 10*

The Department of Veterans Affairs work with the Department of National Defence to examine measures and undertake discussions with provincial authorities to ensure that the mental health needs of the children of military personnel and veterans are met in all regions of Canada.

### *RECOMMENDATION 11*

The Department of Veterans Affairs work with the Department of National Defence to increase their efforts in cooperation with Health Canada and the Canadian Mental Health Commission to provide more information to all Canadians, including Parliamentarians, on the complexities of operational stress injuries and to promote changes in attitudes towards individuals seeking mental health care.

### *RECOMMENDATION 12*

The Department of Veterans Affairs work with the Department of National Defence together with Health Canada and the Canadian Mental Health Commission to seek ways to encourage more Canadians to become psychologists and other mental health professionals in order to eliminate the shortage of such specialists while helping existing mental health professionals to better understand the mental health care required by veterans and members of the Canadian Forces.

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## Appendix 13

### POSTTRAUMATIC STRESS DISORDER AND ASSOCIATED RISK FACTORS IN CANADIAN PEACEKEEPING VETERANS WITH HEALTH-RELATED DISABILITIES

J. Don Richardson, James A. Naifed, John D. Elhai

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*"Posttraumatic Stress Disorder and Associated Risk Factors in Canadian Peacekeeping Veterans with Health-Related Disabilities," Canadian Journal of Psychiatry 52 no. 8 (August 2007): 510-518.*

*This is the most comprehensive study to date of the incidence of PTSD in Canadian veterans who served in peacekeeping/peacemaking missions. The results-based and survey research and a wide literature review include an unusually high incidence of depression among the veterans surveyed.*

Voluminous literature has been published on risk factors for PTSD among combat and war zone veterans; however, little work on the associations with PTSD has been conducted with peacekeepers—an important military population with ongoing chronic stressors. In the post-1990s, with the end of the Cold War and a rise in intrastate conflict, ethnic cleansing, and global terrorism, the United Nations Security Council established more complex peacekeeping missions to help implement comprehensive peace agreements. (1) Traditional peacekeeping changed to more closely resemble traditional warfare, and the terms peacemaking or peace enforcement have been used to more accurately reflect the recent UN involvements in countries such as Rwanda, Somalia, Bosnia, Kosovo, and the former Yugoslavia. This new role of the UN peacekeeper in conflict zones may produce even more stress than traditional peacekeeping or even traditional warfare. The peacekeeping principles of impartiality and restraint in the use of force (2-3) may not lend themselves well to traditional military training. In fact, soldiers often relay that the most stressful event of a peacekeeping mission was not the inability to defend their personal safety; rather, it was witnessing many extreme atrocities they were helpless to prevent, such as the death of civilians, including children. (4-5)

Many studies have investigated the mental health consequences of combat and war zone exposure, including those resulting from the First and Second World Wars, the Korean War, (6-7) the Vietnam War, (8-11) the Gulf War, (12) and more recently, from combat duty in Afghanistan and Iraq. (13) However, we have limited studies specifically investigating PTSD in peacekeeping veterans, especially those with documented health problems.

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PTSD is one of the significant psychiatric conditions resulting from exposure to trauma such as war zone exposure, and the few available studies have demonstrated that an estimated 3% to 20% of peacekeepers have PTSD. (14-19) The large variation in PTSD rates may be a function of the time lapse between the end of a mission and the start of a mental health evaluation. It may also be related to the nature and frequency of potentially traumatic events, which vary tremendously within each peacekeeping mission, from benign observer operations (for example, in Sinai) to highly dangerous peace-enforcement missions (such as the Somalia and Bosnia missions). (20)

PTSD and depression often occur together, (21-24) and more than 50% of PTSD patients have diagnosable major depressive disorder. (21) In the veteran population, possibly owing to delayed treatment seeking, comorbid depression rates might be much higher than reported. (25-26) There are several explanations for the association of PTSD with major depressive disorder. A history of preexisting major depressive disorder could be a risk factor for developing PTSD in veterans exposed to one or more traumatic events; PTSD may also increase the risk that veterans will develop depression. (27) However, when PTSD and depression occur together, it may reflect a shared vulnerability (28) or independent sequelae to trauma exposure. (29) Despite the different explanations and significant overlap of symptoms between PTSD and depression, Franklin and Zimmerman (30) found that this comorbidity continued, even with controlling for the overlapping, diagnostic symptoms.

Many risk factors have been identified for PTSD, including pretrauma risk factors, such as a family and (or) personal history of mental illness, and past trauma, including childhood abuse. (31) Although women are twice as likely to develop PTSD, men are more likely to be exposed to traumatic events and vastly outnumber women in the military, especially in trades that involve combat. (21, 32)

Peritraumatic risk factors for PTSD include the type and severity of the trauma. Trauma severity is a stronger predictor when the trauma involves combat. (31) Bodily injury in combat veterans, regardless of severity, is another major risk factor. (33) A recent Canadian study (18) examining the impact of trauma severity demonstrates a significant relation between the number of operational deployments and the development of PTSD. This dose-response effect was confirmed in a recent reanalysis of PTSD prevalence among US Vietnam veterans (11) and in US soldiers deployed in Afghanistan. (13) Of particular importance in peacekeeping operations, soldiers are expected to show restraint and neutrality, which, in turn, can increase both their sense of helplessness and their feelings of being unable to control a situation during a traumatic event—identified as significant peritraumatic risk factors. (31, 34, 35)

Posttrauma risk factors for PTSD include inaccessible treatment, stigmatization, ongoing life stressors, and a lack of social support. (31, 36, 37) Deployed soldiers are frequently exposed to long separations from their families and friends, and the financial strain on soldiers and their families can add to the distress they face during and after a deployment. (38) This concept is important and applies to the veteran population, especially to those with service-connected health disabilities. Further, there is a significant association between soldiers diagnosed with psychiatric conditions and high attrition rates in the military. (39)

Canada has a proud history of peacekeeping. Since 1947, the CF have completed more than 72 international operations. (40) Currently, more than 3000 CF personnel are deployed overseas on operational missions, (40) and a significant number will develop psychiatric conditions related to deployment and will require psychiatric care. This study investigates PTSD and its associated risk factors and depression in a random, national, Canadian sample of UN peacekeeping veterans with service-related disabilities. VAC provides health care benefits and other resources to veterans with service-connected health disabilities and (or) difficulties reintegrating into civilian life. The issue of veterans with PTSD is important but not well-studied in peacekeepers, especially in those who are medically ill; thus, it is important to study risk factors for the disorder to help identify and screen veterans returning to civilian life. From the literature and evidence that posttrauma risk factors are most detrimental to PTSD development, (31) we expected to find significant pre- and peritrauma risk factors for PTSD but also to find that posttrauma risk factors would add most variance to predicting PTSD severity and a probable diagnosis in peacekeeping veterans.

## **METHODS**

### *PARTICIPANTS AND PROCEDURE*

Participants consisted of 1016 male veterans serving in the CF from January 1990 to October 1999. The veterans in this study were selected from a random, national, stratified sample of 1968 CF male veterans (age < 65 years) who had served or were actively serving in the CF and were in receipt of or entitled to a disability pension from VAC after their release from the CF as a result of a service-related medical condition. The sample was obtained from an anonymous general health survey, completed by mail in October 1999 and consisting of 2760 VAC clients from a total membership of 18 443. The response rate for the survey was 71.30% (1968/2760). (41) At the time of the survey, the most common disability pension from VAC was for musculoskeletal conditions; only

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about 4% of disability pensions were for psychiatric conditions, and of these, one-half were for PTSD. The post-1990 sample was derived by including all veterans (in the sample) who were still serving in the CF; for veterans who were no longer serving, we used the release date and years of service to determine whether the veteran had served in the required time frame. We chose the post-1990 sample because at this time peacekeeping changed significantly from benign observer operations to highly dangerous peace-enforcement missions. (20) Veterans consented to the study, and we had Institutional Review Board approval to use the data.

### *INSTRUMENTS*

The survey inquired about sociodemographic characteristics, military service history, significant life events during the past year, and current stress. Life events were calculated by summing the number of affirmative responses to various significant stressful life experiences during the past year (“a family member seriously ill or injured,” “a serious illness or disability,” “death of a close friend,” “changed or lost job,” “death in the family,” “changed residence,” “having a person move into or out of the house,” and “being separated from a spouse for reasons other than work”). Scores ranged from 0 to 8.

Current stress was calculated by summing scores for responses provided to the statements (“I am trying to take on too many things at once,” “There is too much pressure on me to be like other people,” “Too much is expected of me by others,” “I don’t have enough money to buy the things I need,” “My work around the home is not appreciated,” “My friends are a bad influence,” “I would like to move but I cannot,” “My neighbourhood or community is too noisy or too polluted,” “I have a parent, a child or partner who is in very bad health and may die,” “Someone in my family has an alcohol or drug problem,” and “People are too critical of me or what I do”). A 3-point Likert response format (0 = not true, 1 = somewhat true, 2 = very true) was used. The statements were derived from Statistics Canada’s National Population Health Survey. (42) Scores ranged from 0 to 22, with higher scores reflecting a higher degrees of current stress.

To measure symptoms of PTSD, the PCL-M (43) was used. The PCL-M is a 17-item, DSM-IV-based, PTSD symptom measurement tool with a 5-point Likert response format (from 1 = not at all, to 5 = extremely) that assesses the extent to which symptoms of PTSD related to any stressful military experience have been experienced over the previous month. The PCL-M has been widely used as a continuous measure in research studies to identify cases of PTSD. (13, 23, 44) Consistent with previous research studies and with the PCL-M authors’ findings, (43) the PCL-M cut-off score of 50 was used to establish the presence

of probable PTSD. Weathers and colleagues (43) found that this cut-off score yields PTSD diagnostic sensitivity of 0.82 and specificity of 0.83 in a combat veteran sample. This cut-off score was also used in a study by Forbes and colleagues, (23) who found an 80% diagnostic power in detecting PTSD.

	<b>Never deployed, %</b>	<b>Deployed once, %</b>	<b>Deployed more than once, %</b>
Probable PTSD (PCL-M $\geq$ 50)	3.99 <sup>a,b</sup>	10.92 <sup>a</sup>	14.84 <sup>b</sup>
Probable clinical depression (CES-D $\geq$ 16)	21.74 <sup>c,d</sup>	30.35 <sup>c</sup>	32.64 <sup>c</sup>
Percentages within a row that share a superscript ( <sup>a,b,c,d</sup> ) indicate a statistically significant difference between percentages.			
<sup>a</sup> <i>P</i> = 0.001			
<sup>b</sup> <i>P</i> < 0.001			
<sup>c</sup> <i>P</i> = 0.013			
<sup>d</sup> <i>P</i> = 0.003			

To assess symptoms of depression, the 20-item, self-report CES-D was used. (45) Likert-scaled, using 4 points, its cut-off score of 16 indicates high-end depressive symptoms and identifies individuals with clinically significant depression. (46) Demonstrating excellent reliability, with internal consistency of 0.84 to 0.90, (45) it also shows good test-retest reliability (0.51 for 2 weeks and 0.67 for 4 weeks). (45) Adequate construct validity is reported, with moderate correlations with the Hamilton Depression Rating Scale and the Raskin Rating Scale for Depression (0.44 to 0.54) at admission and higher correlations after 4 weeks of treatment (0.69 to 0.75). (45) Depression severity is measured by summing item responses (reverse-scoring 4 items).

## RESULTS

### *DESCRIPTIVE AND DIAGNOSTIC ANALYSES*

Participants' ages ranged from 20 to 65 years (mean 45.86, SD 10.03). The majority were either married or in common-law relationships (85.28%, *n* = 863), while 14.72% (*n* = 149) were single. Education level primarily constituted those who completed at least some college or other postsecondary education (53.91%, *n* = 530) or graduated from high school (29.09%, *n* = 286). In Canadian currency, the yearly household income of the sample was as follows: less than \$20 000 (5.68%, *n* = 49), \$20 000 to \$39 999 (31.44%, *n* = 271), \$40 000 to \$59 999 (33.76%, *n* = 291), and \$60 000 or more (29.12%, *n* = 251).

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The number of unique deployments ranged from 0 to 5 (mean 1.18, SD 1.00). Only 27.17% ( $n = 276$ ) of veterans had never been deployed, while most had 1 (39.67%,  $n = 403$ ), 2 (23.03%,  $n = 234$ ), 3 (8.37%,  $n = 85$ ), 4 (1.38%,  $n = 14$ ), or 5 (0.39%,  $n = 4$ ) unique deployments. Out of 30 military theatres, most were deployed to Cyprus (36.81%,  $n = 374$ ), the former Yugoslavia (25.20%,  $n = 256$ ), Egypt (15.16%,  $n = 154$ ), the Golan Heights in Israel, (11.81%,  $n = 120$ ), the Persian Gulf (5.61%,  $n = 57$ ), and Somalia-Rwanda (4.82%,  $n = 49$ ). The majority of participants (72.83%,  $n = 740$ ) were not currently serving in the military. Of those who were serving, 19.98% ( $n = 203$ ) were in the regular force and 7.19% ( $n = 73$ ) were in the reserves.

The number of life stressors reported by participants ranged from 0 to 8 (mean 1.58, SD 1.42). Current stress ratings ranged from 0 to 16 (mean 3.50, SD 3.13).

The CES-D total score, measuring depression, ranged from 0 to 58 (mean 12.95, SD 11.41). With a CES-D cut-off score of 16, (46) 28.77% of the sample ( $n = 292$ ) met criteria for probable clinical depression. Rates of probable clinical depression by deployment history were as follows: never deployed (21.74%,  $n = 60$ ), deployed once (30.35%,  $n = 122$ ), and deployed more than once (32.64%,  $n = 110$ ) (see Table 1).

PTSD symptom severity was indicated by the PCL-M total score, which ranged from 17 to 85 (mean 28.52, SD 14.98). With a cut-off score of 50, (43) 10.33% of the sample ( $n = 105$ ) met criteria for probable PTSD. Rates of probable PTSD by deployment history were as follows: never deployed (3.99%,  $n = 11$ ), deployed once (10.92%,  $n = 44$ ), and deployed more than once (14.84%,  $n = 50$ ) (see Table 1).

In contrast to those who were never deployed, participants who were deployed at least once were significantly more likely to have probable PTSD ( $\chi^2 = 16.49$ ,  $df = 1$ ,  $P < 0.001$ ,  $\phi = 0.13$ ,  $n = 1016$ ) and probable clinical depression ( $\chi^2 = 9.14$ ,  $df = 1$ ,  $P = 0.003$ ,  $\phi = 0.10$ ,  $n = 1015$ ). There was no difference in probable PTSD or clinical depression between participants who were deployed only once and those who were deployed multiple times (Table 1). Additionally, self-reported depressive symptoms were significantly greater among those with probable PTSD (mean 33.71, SD 11.02) than without (mean 10.56, SD 8.71) ( $F_{1,1014} = 627.21$ ,  $P < 0.001$ , Cohen's  $d = 2.03$ ).

### UNIVARIATE ANALYSES

The univariate relation between pretrauma (age and education), peritrauma (number of deployments), and posttrauma (marital status, serving status, number of life stressors, and current stress) variables with the PCL-M total score were

evaluated with Pearson correlations for continuous variables and ANOVA for categorical variables. An adjusted alpha level of 0.01 was used to protect against type I error. Significant individual associations were found for younger ages ( $r = -0.26, P < 0.001$ ), an increased number of deployments ( $r = 0.20, P < 0.001$ ), unmarried status ( $F_{1,1010} = 22.99, P < 0.001, \text{Cohen's } d = 0.42$ ), more life stressors ( $r = 0.33, P < 0.001$ ), and greater current stress ( $r = 0.50, P < 0.001$ ).

<b>Table 2 Final sequential regression of pretrauma, peritrauma, and posttrauma variables on PCL-M total score</b>			
Variables	B	$\beta$	P
<b>Pretrauma</b>			
Age	-0.232	-0.159	<0.001
Education	-1.028	-0.035	0.20
High school or less = 1			
At least some college = 2			
<b>Peritrauma</b>			
Number of deployments	2.534	0.172	<0.001
<b>Posttrauma</b>			
Marital status	1.492	0.036	0.20
Married = 1			
Not married = 2			
Serving status	3.182	0.097	0.001
Serving = 1			
Not Serving = 2			
Life stressors	1.758	0.168	<0.001
Current stress	1.867	0.396	<0.001

Next, we evaluated the univariate relation between the same pretrauma, peritrauma, and posttrauma variables with probable PTSD (PCL-M cut-off = 50), using ANOVA for continuous variables and chi-square analyses for categorical variables. After we adjusted alpha for multiple comparisons ( $\alpha = 0.01$ ), significant univariate associations with probable PTSD included age ( $F_{1,1014} = 35.51, P < 0.001, \text{Cohen's } d = 0.60$ ), number of deployments ( $F_{1,1014} = 22.94, P < 0.001, \text{Cohen's } d = 0.49$ ), marital status ( $\chi^2 = 7.70, \text{df } 1, P = 0.006, \text{phi} = 0.09, n = 1862$ ), life stressors ( $F_{1,971} = 47.90, P < 0.001, \text{Cohen's } d = 0.73$ ), and current stress ( $F_{1,981} = 127.55, P < 0.001, \text{Cohen's } d = 1.12$ ). Participants classified as having probable PTSD were younger (mean age 40.43 years, compared with 46.49 years), deployed more times (mean 1.62 times, compared with 1.13), unmarried (16.79%, compared with 9.27%), reported more life stressors (mean 2.51 life stressors,



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compared with 1.48) and higher levels of current stress (mean 6.65 stress levels, compared with 3.14).

### MULTIVARIATE ANALYSES

We examined the multivariate association between PTSD symptom severity and pretrauma, peritrauma, and posttrauma variables, using sequential linear regression. The PCL-M total score served as the dependent variable, while the same pretrauma, peritrauma, and posttrauma variables as reported above were entered sequentially in predictor blocks. Pretrauma variables were entered first (Model 1), followed by peritrauma (Model 2) and posttrauma (Model 3) variables. Small amounts of missing continuous data were replaced with series means, and listwise removal of cases owing to missing categorical data resulted in 96 excluded cases, with 920 remaining. Model 1 pretrauma variables accounted for a small but significant amount of the PCL-M's total variance, ( $F_{2,918} = 34.49, P < 0.001, R^2 = 0.07$ ). Model 2 peritrauma variables incrementally added variance in predicting PCL-M total scores above Model 1 ( $F_{1,917} = 37.53, P < 0.001$ ), adding a modest 3.7% variance. The addition of posttrauma variables in Model 3 significantly added variance above Model 2 ( $F_{4,913} = 80.90, P < 0.001$ ), adding 23.4% variance. The final model (see Table 2) accounted for 34.0% of the variance in, and correlating 0.58 with, PCL-M total scores ( $F_{7,913} = 61.21, P < 0.001$ ). Age was the only significant pretrauma predictor variable ( $P < 0.001$ ), with number of deployments significant as a peritrauma predictor ( $P < 0.001$ ) and serving status ( $P = 0.001$ ), number of life stressors ( $P < 0.001$ ), and current stress ( $P < 0.001$ ) significant as posttrauma predictors.

Variables	B	SE	Wald*	P	OR
<b>Pretrauma</b>					
Age	-0.072	0.015	21.406	<0.001	0.931
Education	0.005	0.260	0.000	0.99	1.005
High school or less = 1					
At least some college = 2					
<b>Peritrauma</b>					
Number of deployments	0.678	0.129	27.44	<0.001	1.970
<b>Posttrauma</b>					
Number of deployments					
<b>Posttrauma</b>					

Marital status	-0.029	0.330	0.008	0.93	0.971
Married = 1					
Not married = 2					
Serving status	0.755	0.310	5.945	0.015	2.128
Serving = 1					
Not Serving = 2					
Life stressors	0.232	0.086	7.265	0.007	1.261
Current stress	0.252	0.037	47.430	<0.001	1.286
*df1					

Multivariate prediction of probable PTSD was evaluated by means of sequential logistic regression, with the same pretrauma, peritrauma, and posttrauma predictor variables described above entered sequentially in blocks. The pretrauma Model 1 accounted for a significant but modest proportion of the variance ( $\chi^2 = 31.91$ ,  $df\ 2$ ,  $P < 0.001$ , Nagelkerke's  $R^2 = 0.07$ ,  $n = 921$ ). The peritrauma Model 2 contributed a small but significant amount of variance above Model 1 ( $\chi^2 = 23.39$ ,  $df\ 1$ ,  $P < 0.001$ ,  $R^2 = 0.05$ ,  $n = 921$ ). The posttrauma Model 3 contributed a significant and moderately large amount variance above Model 2 ( $\chi^2 = 88.33$ ,  $df\ 4$ ,  $P < 0.001$ ,  $R^2 = 0.18$ ,  $n = 921$ ). The final model predicted 30.9% variance in probable PTSD classification, with (alpha of 0.01) younger age ( $P < 0.001$ ), number of deployments ( $P < 0.001$ ), number of life stressors ( $P = 0.007$ ), and greater current stress ( $P < 0.001$ ) significant (see Table 3). Classification of probable PTSD was significantly predicted by age (7% less likely with each increase in year), number of deployments (97% more likely with each deployment), no longer serving (112% more likely than if still serving), life stressors (26% more likely with each stressor endorsed), and current stress (29% more likely with each 1-point increase).

## DISCUSSION

This study attempted to increase our understanding of the psychiatric impact of modern peacekeeping and risk factors for developing PTSD. The observed rates of probable PTSD of 10.92% in veterans deployed once and 14.84% in those deployed more than once is consistent with results from other studies (13, 19, 47, 48) and further demonstrates the mental health impact of operational deployment. The observed dose-response relation between deployment (serving as a proxy indicator of the peritraumatic risk factor of trauma severity) and probable PTSD is consistent with other studies of combat veterans. (11, 13) Consistent with other studies, (13, 19) veterans with probable PTSD and greater PTSD severity were more likely to be younger and have a history of

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more deployments. These findings are also consistent with the literature demonstrating that the lack of social support is a posttrauma risk factor for developing PTSD (31) because individuals with probable PTSD and greater PTSD severity were more likely to be unmarried (serving as a proxy indicator of decreased social support).

The rate of probable PTSD of 3.99% in veterans who had never been deployed was also elevated when compared with the rate of PTSD of 1.7% for men in the general Canadian population (49, 50) This increased rate in veterans who have never been deployed may identify the inherent risk of working within the military, such as the potential impact of traumatic exposure during military exercises or another preexisting risk factor. However, the higher observed rate of probable PTSD in our sample of veterans who had been deployed, compared with the rate of PTSD found in a Statistics Canada survey, (18) may also reflect a sample bias in our survey, which consisted of veterans with service-related medical disabilities. Even though the most common service-related medical disability was musculoskeletal in nature, this injury type might also contribute to symptoms of PTSD. (33)

The study also identified that those veterans who have been deployed suffer from increased rates of depression. This may support the hypothesis that trauma exposure is associated with an increased risk of other mental health conditions, such as major depressive disorder. (13, 51, 52) As expected, and consistent with previous studies, (13, 53) self-reported depressive symptoms were significantly greater among those with probable PTSD. Further evaluation of the data would be necessary to determine whether increased rates of depressive symptoms observed in this sample were independent of PTSD-induced effects and independent of the musculoskeletal conditions and associated pain that also often present with comorbid depression. (54) The high rate of depression may also be related to the delays often involved in seeking medical-professional help, due to the significant military-instilled mental health stigma. (13) When new veterans ultimately present seeking treatment, they have often been suffering for many years and have frequently already developed the common mental disorders associated with PTSD, such as depression, alcohol-substance abuse, and other anxiety disorders. (21, 23, 25 , 55)

This study has important clinical implications because many veterans have identified significant symptoms of PTSD years after their deployment, and therefore, their response to treatment might be significantly affected by the severity and chronicity of PTSD. (56) Understanding such risk factors can help predict morbidity among trauma-exposed veterans. Veterans with PTSD also show higher functional impairment, compared with veterans without PTSD. (57) The high rates of depression have a significant impact on treatment

because depression must be aggressively treated to help patients respond more effectively to psychotherapy. (58)

There are several limitations within this study. Although representative of peacekeeping veterans with service-connected medical disabilities, the results cannot be generalized to the entire military veteran population because the sample included only veterans with pensions for service-connected medical disabilities. Veterans who might have been deployed but not pensioned by VAC for medical conditions were not included; therefore, it was impossible to determine the rates and potential risk of developing psychiatric conditions such as PTSD resulting from specific deployments. Another potential limitation is that, even though self-rating measures such as the PCL-M have been extensively used in research to identify cases of PTSD, (13, 23, 41, 44, 59) the diagnosis of PTSD in this study was not confirmed by a diagnostic clinical interview. Because this was an anonymous survey, another limitation is that we did not have access to the data on the nonresponders. Despite a response rate of more than 70%, it is possible that those who responded to the survey are slightly different, demographically and (or) symptomatically, from those who did not respond.

## CONCLUSION

PTSD and depression are important health concerns in the veteran population. Understanding such risk factors for PTSD as younger age and unmarried status can help predict morbidity among trauma-exposed veterans. Because many veterans are no longer serving in the military but living and working in the community as civilians, it is important that primary care physicians and psychiatrists become knowledgeable about the emotional impact of peacekeeping deployment, inquire about military service, and screen for possible PTSD.

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## Appendix 14

### PSYCHOLOGICAL MORBIDITY DURING THE 2002 DEPLOYMENT TO AFGHANISTAN

B.H. Campion, J.G.H. Hacker Hughes, M. Devon and N.T. Fear

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*"Psychological Morbidity During the 2002 Deployment to Afghanistan," Journal of the Royal Army Medical Corps 152, no. 2 (2006): 91-93.*

*Studies of the impact of the war in Afghanistan on the mental health of veterans are beginning to report a predictable incidence of PTSD. This interesting study of the effects of the deployment of an elite unit concludes that, "the mental health of these soldiers did not deteriorate over the course of this deployment despite regular action and austere conditions". The authors attribute the result to the brief, six-month deployment.*

#### OVERVIEW

In 2002 the UK's Air Assault Brigade was deployed to Kabul, Afghanistan to stabilise a rapidly deteriorating political situation. This elite brigade formation had earlier completed a psychological risk assessment conducted by the military Department of Community Mental Health (DCMH) in their home location of Colchester, following a rapid deployment to Sierra Leone in 2001, which had demonstrated the unit's fitness for purpose (1). The Brigade deployed to Afghanistan with DCMH staff embedded and they initiated a comparable risk assessment process.

From early in the deployment a secure airhead at the partially destroyed Kabul International Airfield was established. On arrival in theatre troops were briefed at the airhead on the environmental, political and military situation before moving on to base areas. By early February 2002, the military situation had settled such that a psychological element could be added.

This paper reports the results of this process.

#### METHODS

At their arrival briefing, personnel were asked to complete a questionnaire incorporating the General Health Questionnaire (GHQ 28)(2), the Alcohol Use Disorders Identification Test (AUDIT)(3) and some demographics. The questionnaire was designed as a single A5 page, double-side printed, making it sufficiently non-threatening to ensure a high response rate. On departure

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from Afghanistan, personnel were asked to complete a second copy of the questionnaire. Soldiers were informed that military mental health practitioners would contact them confidentially if results revealed any cause for concern, and that commanders would be informed only about pooled results. Participation was voluntary and informed signed consent was requested.

A long wait in the air terminal resulted in near universal completion of the questionnaires. Overall, 1,696 personnel completed the questionnaire on arrival (94%) and 1,134 on departure (96%) of which 113 personnel completed both questionnaires. The demographic characteristics of those completing the questionnaires are shown in Table 1.

Characteristics	Arrivals sample (n=1696)		Departures sample (n=1134)		Personnel completing both (n=113)	
	N	%	N	%	N	%
<b>Gender</b>						
Males	1523	94	1026	98	108	96
Females	92	6	25	2	5	4
Missing	81		83		-	
<b>Rank</b>						
Soldiers	574	34	467	41	30	27
Non-commissioned officer	892	53	511	45	56	58
Officers	230	14	151	13	17	15
Missing	-		5		-	
Mean age (standard deviation) (years)	28.0 (7.1)		27.3 (6.6)		29.4 (7.4)	

Score	Arrival		Departure		Difference	
	N	Mean (95% CI)	N	Mean (95% CI)	N	Mean (95% CI)
AUDIT	113	7.2 (6.3-8.0)	113	6.8 (5.8-7.8)	113	-0.39 (-1.25-0.47)
GHQ	109	0.63 (0.33-0.94)	113	1.23 (0.66-1.80)	113	0.55 (-0.07-1.17)

**Table 3. Mean AUDIT and GHQ scores on arrival and departure, and associated 95% confidence intervals (CI.)**

Score	Arrival		Departure		Difference		
	N	Mean (95% CI)	N	Mean (95% CI)	t	Degrees of freedom	P-value
AUDIT	1680	7.2 (7.2-7.4)	1134	9.1 (8.7-9.4)	-9.63	2812	<0.001
GHQ	1654	0.95 (0.85-1.05)	1126	1.63 (1.47-1.80)	-7.27	2778	<0.001

Means and mean differences (for the paired data) for GHQ and AUDIT scores together with the corresponding 95% confidence intervals were calculated. Unpaired t-tests were performed to compare all arrival and departure questionnaires. Statistical significance was defined at the  $P < 0.05$  level. All analyses were conducted using the statistical software package, STATA (version 8.2).

### RESULTS

Table 2 shows the results of the analysis of the 113 personnel who completed both the arrivals and departures questionnaire. AUDIT scores were lower on departure whilst GHQ scores were slightly higher – these differences did not reach statistical significance.

Further investigation of the four components of the GHQ score revealed that GHQ A (which covers psychosomatic items) accounted for the increase (GHQ A mean difference = 0.22, 95% CI = 0.33 - 0.47).

Analysis of all arrival and departure questionnaires revealed a different picture with statistically significant increases in both AUDIT and GHQ scores on departure (Table 3).

Of the 113 personnel who completed both, 4% were female ( $n=5$ ), 27% were soldiers ( $n=30$ ), 58% non-commissioned officers (NCOs) ( $n=66$ ) and 15% officers ( $n=17$ ) with a mean age of 29.4 years (standard deviation = 7.4 years).

### DISCUSSION

This study was completed for command to demonstrate fitness for purpose of soldiery, and to offer a confidential method of requesting mental health support outreach within the chain of command. Consequently, only a small sample could be analysed for research purposes, which is accepted as a fundamental flaw. The evidence gained did demonstrate a psychologically healthy unit on return from deployment. This evidence, reinforced by other military performance indicators, provided command with confidence to engage in

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further deployments to Macedonia and Northern Ireland for the unit soon after their return from Afghanistan.

The principal finding of this audit was that the mental health of these soldiers did not deteriorate over the course of this deployment, despite regular action and austere conditions. These findings reinforce those of Campion (4), Shapland (5) and Hacker Hughes (6) but differ from those of Hoge et al (7). All of these studies were of front line 'elite' units. Our measures were administered in theatre, rather than at a period following return to home base.

For those who have undertaken operational deployments, a finding of 'no change' or even reduced psychological ill-health on return from deployment is an entirely expected result. We would question a soldiers' mental health if they were not happier coming back than going. If that is the case, why do Hoge et al (7) report different reactions of American troops on their return home?

The US practice of deployments between 6 and 12 months, outlined by Hoge et al (7), is generally accepted by UK commentators as the major source of the mental ill-health associated with the late Vietnam War and the current Iraq deployment (8-10). British forces have evolved a current maximum deployment period of 6 months over the long experience of Northern Ireland. History informs us of the dangers of longer term deployments (11).

Wessely (10) highlights 'the seduction of screening'. No serving soldier will argue with the assertion that the only viable form of psychological screening is a robust basic training package, with an attrition rate that forces those 'not up to it' to be rejected. It could be argued that the GHQ and AUDIT are inappropriate measures to add confidence to command of their units 'fitness for purpose'. Whilst this is accepted, this audit was not looking for post traumatic stress disorder (PTSD) – accepted as being rare in the British military – but focused on health.

It has long been known that austere conditions result in physical degradation; from the Crimean War to the Gulf War, minor illness rates have been found to be considerably higher than in home bases. Living in tented accommodation in Kabul in winter, set at 2,000m, with temperatures dipping to -26°C could be considered 'austere' (8, 9). Thus the GHQ 28. A mean difference is surprisingly low and could be considered as evidence of the robustness of this elite unit.

Alcohol was available from mid-February, covering the bulk of the period of the study, but was controlled. The US practice of making all deployments 'dry' has had a positive effect on alcohol use rates, but this practice has resulted in many US deployed units to be relatively isolationist, as all other NATO contingents

have more liberal drinking policies. To commanders, their concern is not a soldier's occasional binge, as long as it does not result in disciplinary action, but in ensuring that safety-critical tasks are not carried out under the influence of alcohol. Both the US and UK approaches have merit; we believe it should be a commander's decision as to which approach should be taken.

The GHQ 28 was designed for use in general practice and so is, arguably, among the most valid of all psychological measures for use in a healthy population. The Hoge et al study (7), whose outcomes included major depression, generalized anxiety, and PTSD, could be seen as fundamentally flawed in that it was using measures designed for mentally ill patients in a healthy population. We know that the soldier will invariably complete scripts to demonstrate what he wants to demonstrate. US troops returning from long deployments in Iraq may be inclined to exaggerate in case there will be compensation available in the future. This situation is supported by Wessely (10), where he describes 'the paradox of health'. Similarly, our audit's greatest achievement is to give a confidential means of soldiers ticking the highest score for everything, knowing that this will result in one of the mental health team offering some help. Those not wanting help will be inclined to tick 'no' for everything.

### *CONCLUSION*

Our results reinforce the findings of Hacker Hughes et al (6), in that it is premature to conclude that any operational deployment will have serious adverse psychological damage on all those deployed. Indeed, these results again remind us that where highly trained, selected units with high morale are deployed on focussed operations with positive outcomes, soldiers do not have to develop mental illness, regardless of what the media would have us believe. After all, British Forces are volunteers; they volunteer to go on deployment because that is what they have decided they want to do with their lives.

### *DECLARATION OF INTEREST*

BC, JHH and MD are employed by UK Defence Medical Services. NTF is employed by King's College London, Institute of Psychiatry.

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# Glossary

&c.	Etcetera
1 Br Corps	1st British Corps
1RAR	1 Royal Australian Regiment
2 Cdn Inf Div	2nd Canadian Infantry Division
2 Ech	2 Echelon
2NZEF	2nd Infantry Division New Zealand Expeditionary Force
3 Cdn Inf Div	3rd Canadian Infantry Division
3RAR	3 Royal Australian Regiment
4 Bn CBRD	4th Battalion Chemical Biological Radiological Defence
4 Cdn Armd Div	4th Canadian Armoured Division
4 Cdn FDS	4th Canadian Field Dressing Station
4 RWF	4 Royal Welsh Fusiliers
7 Cdn FDS	7 Canadian Field Dressing Station
11 Armd Div	11 Armoured Division
11 (Br) Inf Div	11th British Infantry Division
12 Cdn FDS	12 Canadian Field Dressing Station
15 (S) Div	15 Sussex Division
19 Cdn Spec Empl Coy	19 Canadian Special Employment Company
43 (Wx) Inf Div	43rd Wessex Infantry Division
48 Highrs	48th Highlanders

## GLOSSARY

49 (Wr) Inf Div	49th West Riding Infantry Division
115 Welsh	115th Welsh Infantry Division
A/S Type	Anti-social Type
AAG (Discipline)	Assistant Attorney General
AAG 1 Echelon	Assistant Attorney General
AAI	Allied Armies Italy
ADMS	Assistant Director of Medical Services
A.D.S.	Advanced Dressing Station
A.E.C.	Assessment and Evaluation Centre
AFHQ	Air Force Headquarters
APA	American Psychiatric Association
AQMG	Assistant Quarter Master General
AUDIT	Alcohol Use Disorders Identification
AWL	Absent Without Leave
AWM image	Australian War Memorial
BC	Battle Casualty
BEF	British Expeditionary Force
BLA	British Liberation Army
BN & PS hospital	Basingstoke Neurological and Plastic Surgery Hospital
BNAF	North Africa
BRU	Battleshock Rehabilitation Unit

C2 (category)	Classification for men entering hospital
C&YR	Carleton and York Regiment
CA(O)	Canadian Army (Overseas)
CAC	Canadian Armoured Corps
C.A.M.C.	Canadian Army Medical Corps
CBH / CB Highrs	Cape Breton Highlanders
CBT	Cognitive Behaviour(al) Therapy
C.C.P.	Casualty Collecting Point
CCS	Casualty Clearing Station
CES	Combat Exposure Scale
CFPSA	Canadian Forces Personnel Support Agency
CI	Critical Incident
CIC	Cadet Instructors Cadre
CIS	Critical Incident Stress
CISD	Critical Incident Stress Debriefing Process
CMF	Central Medical Forces
CMHQ	Canadian Military Headquarters
CNS	Central Navigation School
C.Q.M.S.	Company Quarter Master Sergeant
CSR	Combat Stress Reaction
DAAG	Deputy Assistant Adjutant General
D.A.G.	Deputy Adjutant General
DAH	Disordered Action of the Heart



## GLOSSARY

DCMH	Department of Community Mental Health
DDMS	Deputy Director of Medical Services
Dep	Depression
DESNOS	Disorders of Extreme Stress Not Otherwise Specified
DMS	Director of Medical Services
DRB	Defence Research Board
DSM-I	<i>Diagnostic and Statistical Manual, 1<sup>st</sup> Edition</i>
DSM-II	<i>Diagnostic and Statistical Manual, 2<sup>nd</sup> Edition</i>
DSM-III	<i>Diagnostic and Statistical Manual</i>
DSM-III	<i>Diagnostic and Statistical Manual of Mental Disorders</i>
DSM-III-R	<i>Diagnostic and Statistical Manual of Mental Disorders - Revised edition</i>
DSM-IV	<i>Diagnostic and Statistical Manual, 4<sup>th</sup> Edition</i>
DVA	Department of Veterans' Affairs
EMS	Emergency Medical Services
FDS	Field Dressing Station
FGCM	Field General Court Marshal
FPT	Field Psychiatric Team

GHQ	General Headquarters
GHQ	General Health Questionnaire
GOC	General Officer Commanding
GWS	Gulf War Syndrome
H.U.'s	Holding Units
H&Per	Hastings and Prince Edward Regiment
HSS	Health Services Support
i/c	In Charge
I.A.T.	Intra-arterial Thrombolysis
ICD	International Classification of Diseases
ICD-10	International Classification of Diseases-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diag- nostic Guidelines
IDF	Israeli Defence Forces
I.H.C. sepoy	Indian Hospital Corps, Sepoy Regiment
Inad. Type	Inadequate Type
Irish R	Irish Regiment
L. of C.	Lines of Communication
L Edm R	Loyal Edmonton Regiment
LAC	Library and Archives Canada
LICs	Low Intensity Conflicts
L.O.B.	Left out of Battle

## **GLOSSARY**

MAOIs	Monoamine Oxidase Inhibitors
MD	Medical Doctor
MFO	Multinational Force and Observers
M.D.S.	Medical Squadron
MFM 6's	MFM6 forms
MoD	Ministry of Defence
MOs	Medical Officers
NAAFI canteen	Navy, Army and Air Force Institutes
NAD (N)	No Acute Distress Noted
NBC clothing	Nuclear Biological and Chemical
NCOs	Non-Commissioned Officers
NICE	National Institute for Health and Clinical Excellence
NP casualties	Neuropsychiatric casualties
NP Ratio	Neuropsychiatric ratio
NSRs	North Shore Regiment
NYD(N)	Not Yet Diagnosed – Nervous
NZEF	New Zealand Expeditionary Force
O.C.	Officer Commanding
OCTU	Officer Cadet Training Unit
OIC	Officer In Command
O.P.D.	Officer Professional Development

O/R	Other Ranks
OSISS	Operational Stress Injury Social Support
PB	Pyriostigmine Bromide
PCL-M	PTSD Checklist – Military Version
Perth R	Perth Regiment
“P.I.E.”	Psychological Impacts and Effects
PPCLI	Princess Patricia’s Canadian Light Infantry
P.S.O.	Personnel Selection Officer
P.T.	Physical Training Instructor
PT Instructor	Physical Training
PTI	Post Traumatic Illness
PTSD	Post Traumatic Stress Disorder
PUHLEMS	Physical; Upper & lower locomotion; Hearing/ears; Eyes; Mental capacity; Stability
“Q”	Queer
Q.M.	Quartermaster
QMG	Quartermaster General
R 22° R	Royal 22° Régiment
RAMC	Royal Army Medical Corps
RAP	Regimental Aid Post
RCA	Royal Canadian Artillery

## **GLOSSARY**

RCAMC	Royal Canadian Army Medical Corps
RCASC	Royal Canadian Army Service Corps
RCCS	Royal Canadian Corps of Signals
RCE	Royal Canadian Engineers
RCOC	Royal Canadian Ordnance Corps
RCR	Royal Canadian Regiment
RCMP	Royal Canadian Mounted Police
R.H.U.	Rehab Unit
RMO	Regimental Medical Officer
R.M.P.A.	Royal Military Police Association
R.T.C.	Returned to Corps
RTU	Returned To Unit
S4	Stability Category for PUHLEMS Scale
S5	Stability Category for PUHLEMS Scale
S/Sgt.	Staff Sergeant
S.E.C.	Special Employment Company
SEQ	Service Experience Questionnaire
Seaforth	Seaforth Highlanders
S.I.W.	Self-Inflicted Wounds
SPO	Selection of Personnel Officer
SPSS (for Windows)	Data Analysis software
SSRI	Selective Serotonin Reuptake Inhibitor
SUS	Soldiers Under Sentence

TCAs	Trichloroacetic Acid
UK	United Kingdom
VAC	Veterans' Affairs Canada
VD	Venereal Disease
W.E.	War Establishment
WNSR	West Nova Scotia Regiment



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This book is designed to introduce readers to the history of the ways in which combat stress reaction and its aftermath have been interpreted by soldiers and psychiatrists in the British Empire and Commonwealth. The term “combat stress reaction” (CSR) is used here to describe various manifestations of disabling anxiety that occur during or subsequent to combat or combat-like situations. Historically these reactions have been labelled “nostalgia”, “shell shock”, “battle exhaustion”, “battle shock”, and “Post Traumatic Stress Disorder (PTSD)” among others. A phrase used in both the First and Second World Wars, “Not Yet Diagnosed (Nervous)”, may best sum up the complexity and uncertainty of labelling combat-induced mental illness.

The authors share the view that while combat stress is a universal phenomenon, practices varied greatly between individuals and cultures and changed over time. The “practices” surrounding combat stress are the ways in which doctors, patients, governments, and the military defined, experienced, and interpreted war-related mental illness. Patient experience and medical knowledge are thus inseparable from historic cultural and social contexts. The practices surrounding “shell shock” in the First World War differed from those of “Battle Exhaustion” in the Second World War and from later variants of combat stress reaction despite the similarity of the sources of stress. These paradigm shifts were the result of the waxing and waning of trends in medical thought and concepts of entitlement among patients. Medical knowledge and the patient experience cannot be separated from their specific socio-cultural contexts.

The decision to focus on the Commonwealth experience is a reflection of Canada’s experience in the wars of the 20<sup>th</sup> century and a belief in the value of a comparative dimension. The authors are historians, not medical professionals or psychiatrists, and their purpose is to illustrate the various approaches psychiatrists have employed in their attempts to understand causation, prevention and treatment of both immediate and delayed combat stress reactions.

