
Shell-Shock: the precursor of PTSD

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Butler's Official History of the Army Medical Services in the War of 1914-1918 Volume 3 1943

CHAPTER II

MORAL AND MENTAL DISORDERS IN THE WAR OF 1914-18

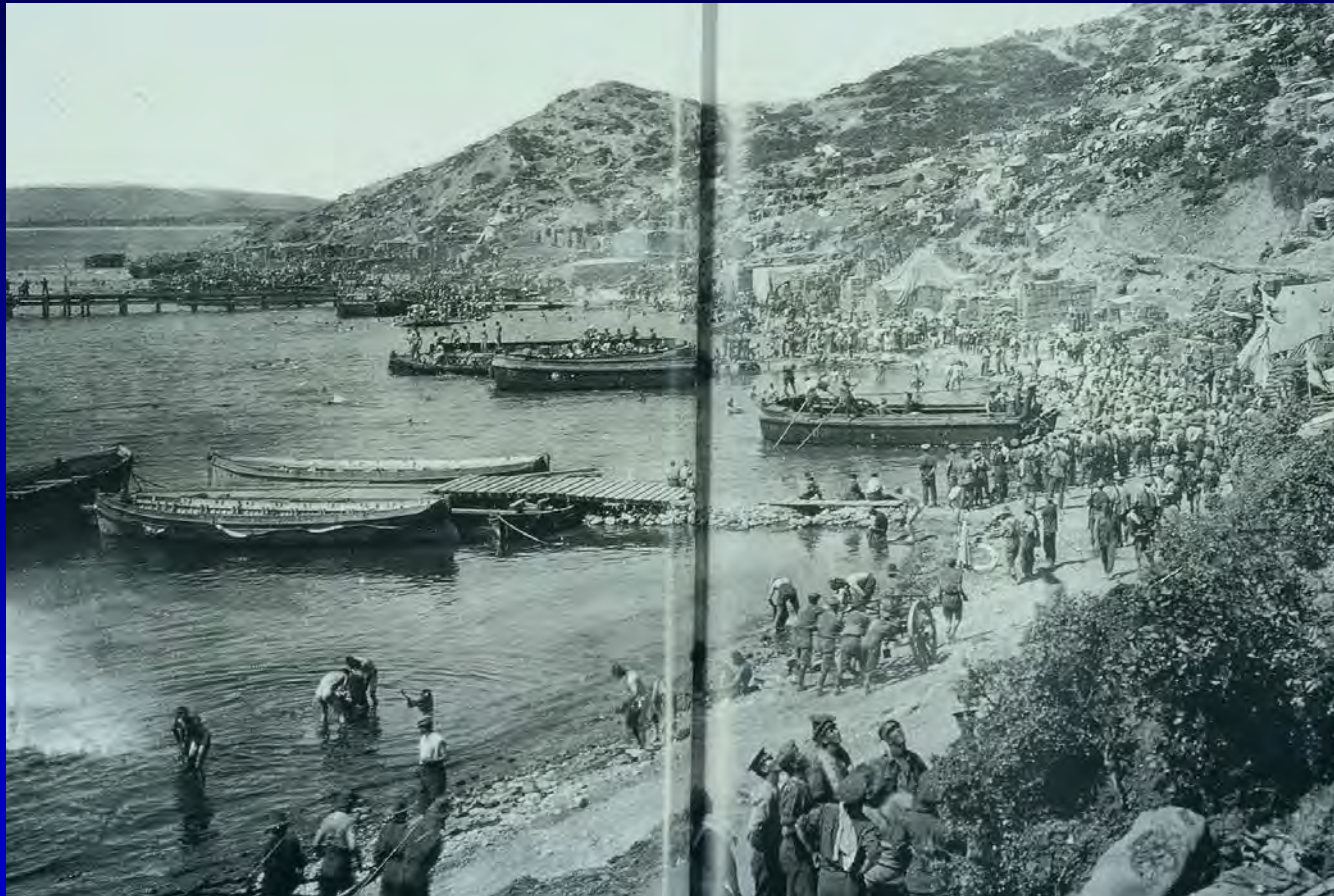
I

THE HISTORICAL BACKGROUND: THE REDISCOVERY OF MIND

PSYCHOLOGY, though the youngest of the sciences is one of the most ancient of human interests. It is older than Aristotle, who first christened it; and from his day onwards it remained, for nearly ten centuries, a department of philosophy rather than a branch of science.¹

The war of 1914-18 coincided broadly with the birth of a new era of philosophic thought on the nature, content and working of man's mind (psychology) and of its aberrations (psycho-pathology). The essential feature of this new era was, and is, the *application to the problems of the mind of the methods of inductive science*. It is essential to the proper understanding of the psychiatric history of the "Great" War that any account of it should be preceded by a *resumé* of the change in thought which had brought about this vast readjustment in the philosophic and the professional outlook of Medicine—a readjustment which (it is hardly an exaggeration to say) has "turned the medical world upside down".

The acute rate of disorder 2.4%



The Moral versus Mental Dilemma: Self inflicted wounds

- ❑ Large evacuations from psychophysical and psychosomatic breakdown, debility, indigestion and functional disorders
- ❑ Short epidemics of self-inflicted wounds by rifle or by exposure to enemy fire. These outbreaks were “a crude and instinctive reactions again a psychic impasse”
 - ❑ Butler

The primary cause is vulnerability ie the seed

The nervous and moral constitution of the force and of the individuals comprising it rather than the particular kind of strain to which they were subject-was the essential element in determining the total amount of nervous “breakdown” – the very heart of the problem of “war neurosis”

▣ Butler

The Gallipoli Experience— The problem constant battle

“Rest and recreation provided a respite from intolerable strain...such measures on the Western Front were found to be by far the most effective prophylaxis to avoidable nervous breakdown were probably impossible on Gallipoli.”

Butler



The Western Front

The story remains about the acute effects of war and their management.

Functional disorder or organic lesion? Lancet 1915

THE STUDY OF SHELL SHOCK.

FEB. 13, 1915

A CONTRIBUTION TO THE STUDY OF SHELL SHOCK.

BEING AN ACCOUNT OF THREE CASES OF LOSS OF
MEMORY, VISION, SMELL, AND TASTE, ADMITTED
· INTO THE DUCHESS OF WESTMINSTER'S WAR
HOSPITAL, LE TOUQUET.

BY CHARLES S. MYERS, M.D., Sc.D. CAMB.,
CAPTAIN, ROYAL ARMY MEDICAL CORPS.

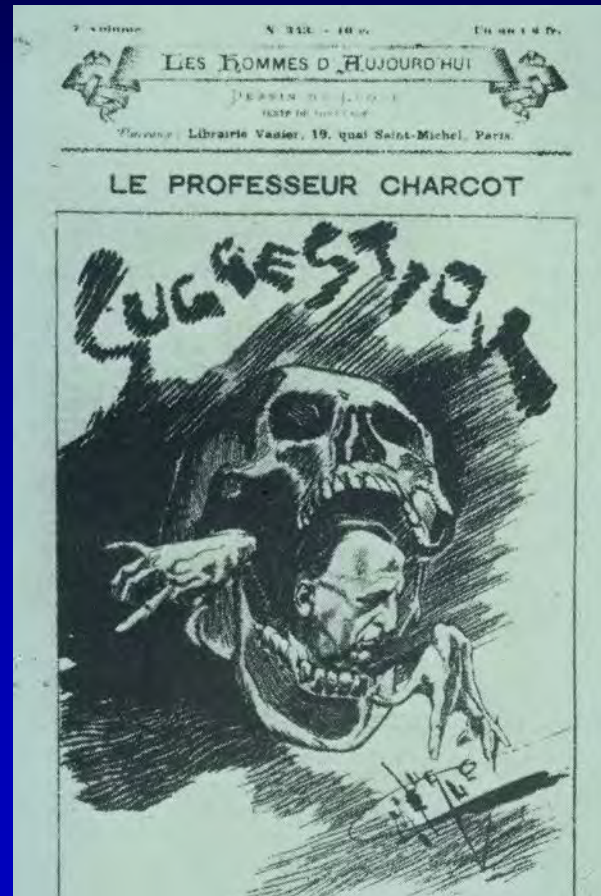
THE remarkably close similarity of the three cases which are described in this paper is shown in the following synopsis:—

The problem in 1914 on the Western Front

- ❑ The problem of 10% of battle casualties being mental
- ❑ Clash between the different schools of scientific thought with the consequence was the “inability of the medical services and profession to check the spread of a concept of war neurosis – the idea and the name of “shell shock”” ... “became-through military and social exploitation and mass suggestion-a devastating menace”

Butler

Shell-shock meant the attainment of “peace with honour”.







The Trauma of Poziere- the critical impact of combat

“Owing to the intensity of the bombardment and the pulverised nature of the soil, men were continually being buried and exhausted and they were fortunate who did not have that unpleasant experience. When it was repeated, as it often was several times, even the strongest collapsed and had to be evacuated.”

Butler

Capture of Somme Ancre Ridge at Poziere 7/8/1916 48th Battalion



The Critical Question

- ❑ Was this industrialized war and its scale of technologically administered violence beyond mere human endurance?
- ❑ Was this war like any other and the shell shocked soldier merely an individual who had failed the ordeal that his comrades and soldiers in previous wars had survived?

Immobilization

“Experience has shown that a high degree of nervous tension is commonest among men who have...to remain inactive while being shelled. For the man with ordinary self-control this soon becomes a matter of listening with strained attention for each approaching shell, and speculating how near it will explode; and behind this thought looms another, namely, how many seconds before he will be blown to pieces. An hour or so of this strain is more than most men can stand.” (Maxwell, 1923)

Correlates of Acute Neurosis

□ Degree of immobility

□ More so than

» intensity of battle

» length of service

» emotional predisposition

- W.H.R. Rivers, War Office Report, 1922

What is the treatment?

- ❑ “Men whose character was sufficiently resistant or resilient to ensure that, with suitable treatment they would recover.”
- ❑ “But the question what was the right treatment had not then been officially laid down; indeed a decision was only then crystallising out from the various conflicting theories, cults and interests.”

Medical officers ‘were left to work out their own salvation’









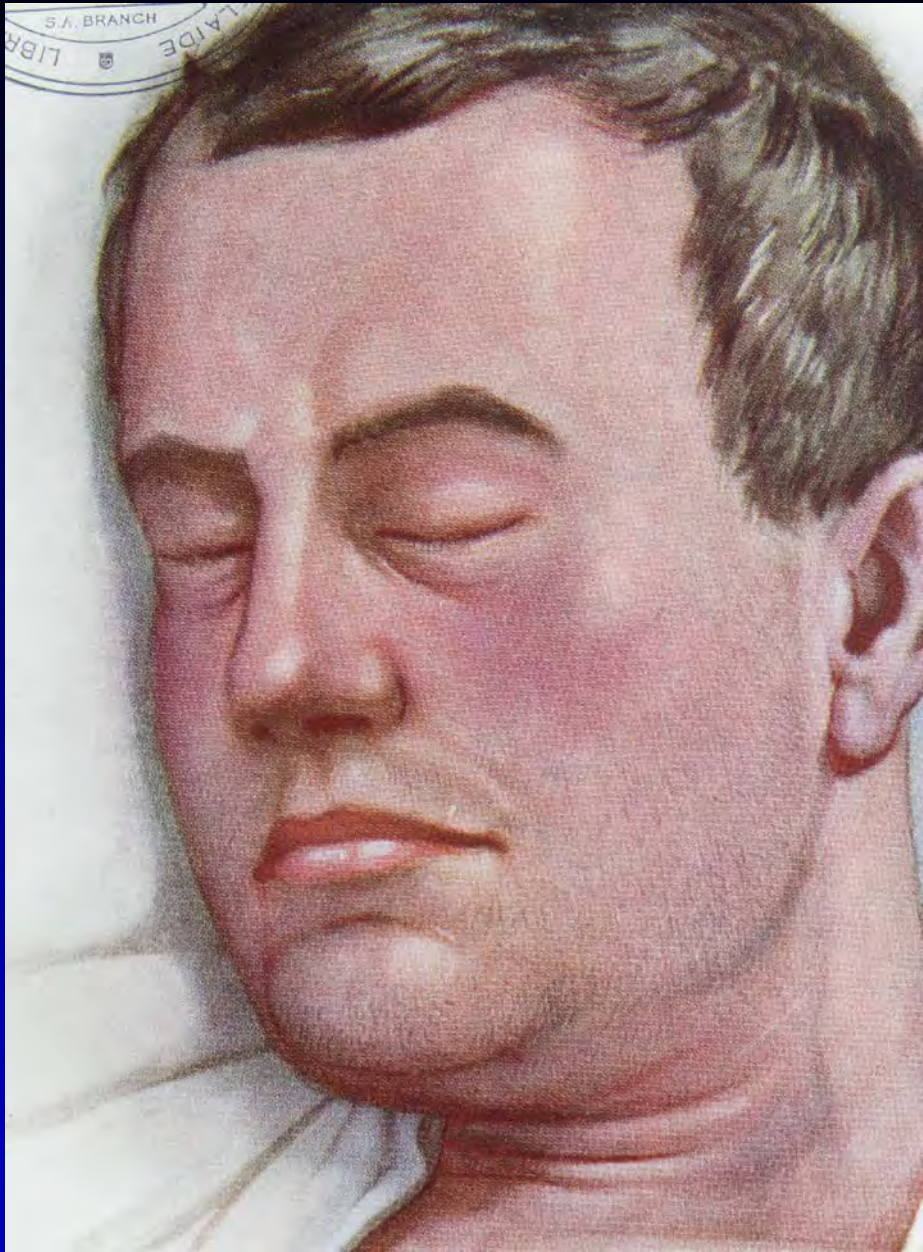






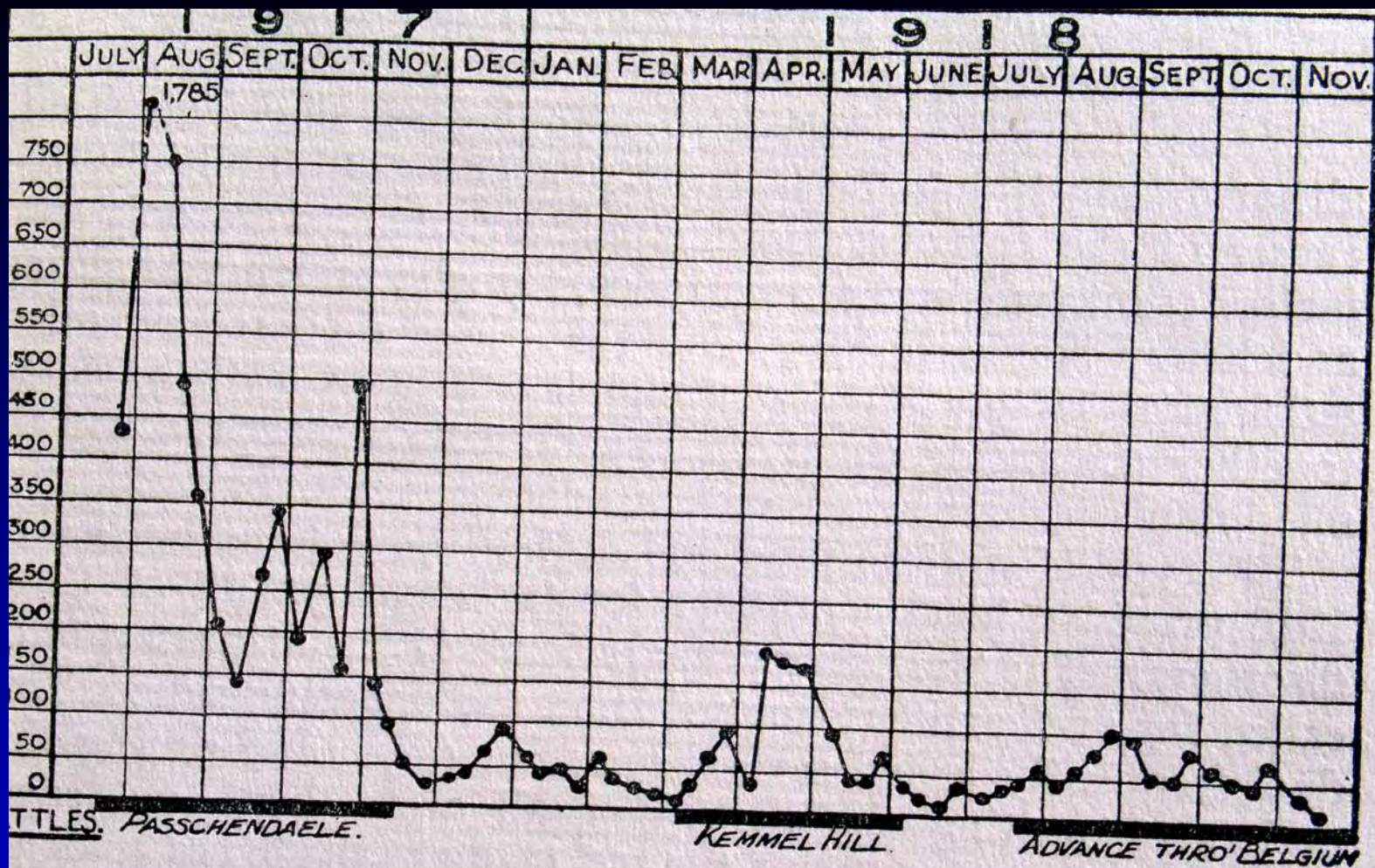
Gas in WW 1

- ❑ Second Battle for Ypres 22/4/15
- ❑ Medical staff identified chlorine as the gas within several hours
- ❑ Exploited for tactical surprise
- ❑ Risks to medical staff
- ❑ Need for vigilance and training
- ❑ Mixed with smoke shells to create fear
- ❑ Mixed with heavy high explosive barrages
- ❑ Liquids would persist in region



Presentations

- ❑ Only a small proportion had classical signs
- ❑ Diagnosis of exposure was a major problem
- ❑ Occult gassing with delayed presentation
- ❑ Impersonal and alchemic associations
- ❑ Yperite
 - » Acute irritation of nasolarynx
 - » Transient paralysis of parts of the nervous system
- ❑ Problem of gradient of exposure
- ❑ Chronic effects of fatigue and precordial pain associated with tachycardia and palpitations



Part I.—Showing the weekly admissions into the N.Y.D.N. centre in No. 62 Casualty Clearing Station from July 1917 to November 1918.



Frontline treatment

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Shell shock: an outcome study of a First World War ‘PIE’ unit

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Less than 20% returned directly to combat units, most going to other hospitals, convalescent depots or base duties.

Conclusions. Forward psychiatry was not effective in returning combat troops to fighting units but, by allocating soldiers to support roles, it prevented discharge from the armed forces. Uncertainties remain about relapses, including other routes that servicemen used to escape from a combat zone.

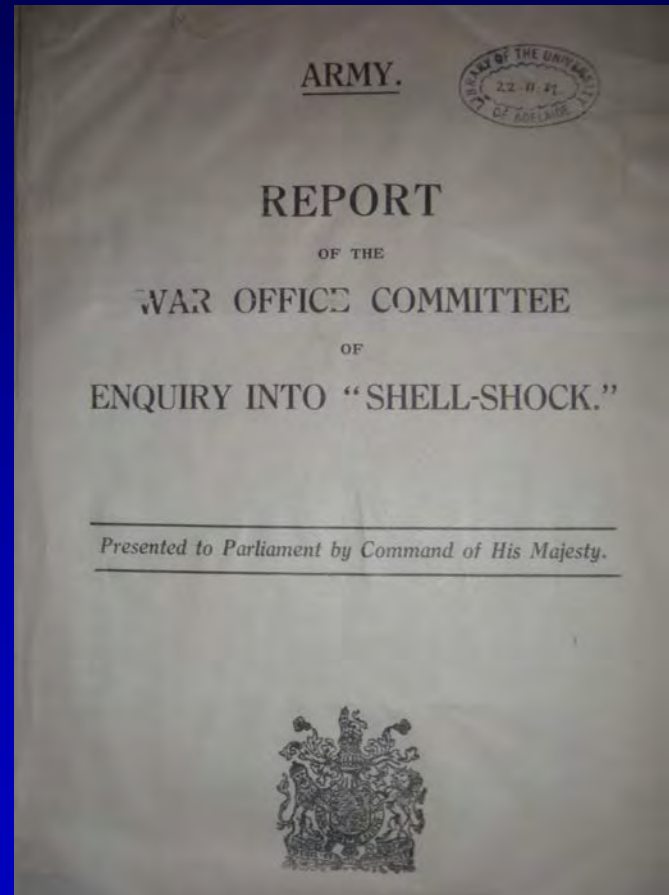
Ypres WW I Museum

The military organisation had given little thought to evacuation and the treatment of casualties at the beginning of the war-and in treatment too much of the emphasis was placed on military interests: military medicine endeavored to get the injured back to the front as soon as possible (where they get wounded again), whereas regular medicine purely aimed to make the patient better again.

It is the medical dilemma in the war-and the difference between a military physician and a civilian physician.



1922 War Office report into Shell Shock



Outcomes of World War I

- ❑ Shell shock was not due to the concussive blast of the explosion
- ❑ A functional or psychogenic disorder
- ❑ Discouraged a neurobiological focus





1938 Level of Post War Morbidity

- ❑ Over a quarter of a million Australians were being assisted through war pensions
- ❑ Only slightly less than the number receiving old age and invalid benefits
- ❑ Comprised just under a fifth of total Commonwealth spending.
- ❑ The Burnt Out Soldier – 13% greater mortality if had fought on the Western Front.

Extent of Psychiatric Morbidity

- ❑ Butler -80 per cent of the medical aftermath due to mental troubles
- ❑ Between 1924 and 1940 the number of successful pension claims for neurosis increased by 27 per cent by comparison with a five per cent rise in all accepted pensions.

War Neurosis Pensions

- ❑ Widespread popular acceptance of the mental damage caused by the war
- ❑ The minority of doctors between the wars, believed that mental damage was caused by the extreme conditions of war
- ❑ Lack of uniformity of assessment criteria
 - » In the mid-1920s cases of war neurosis were three time more likely to be accepted in Victoria than they were in New South Wales

Post- World War I

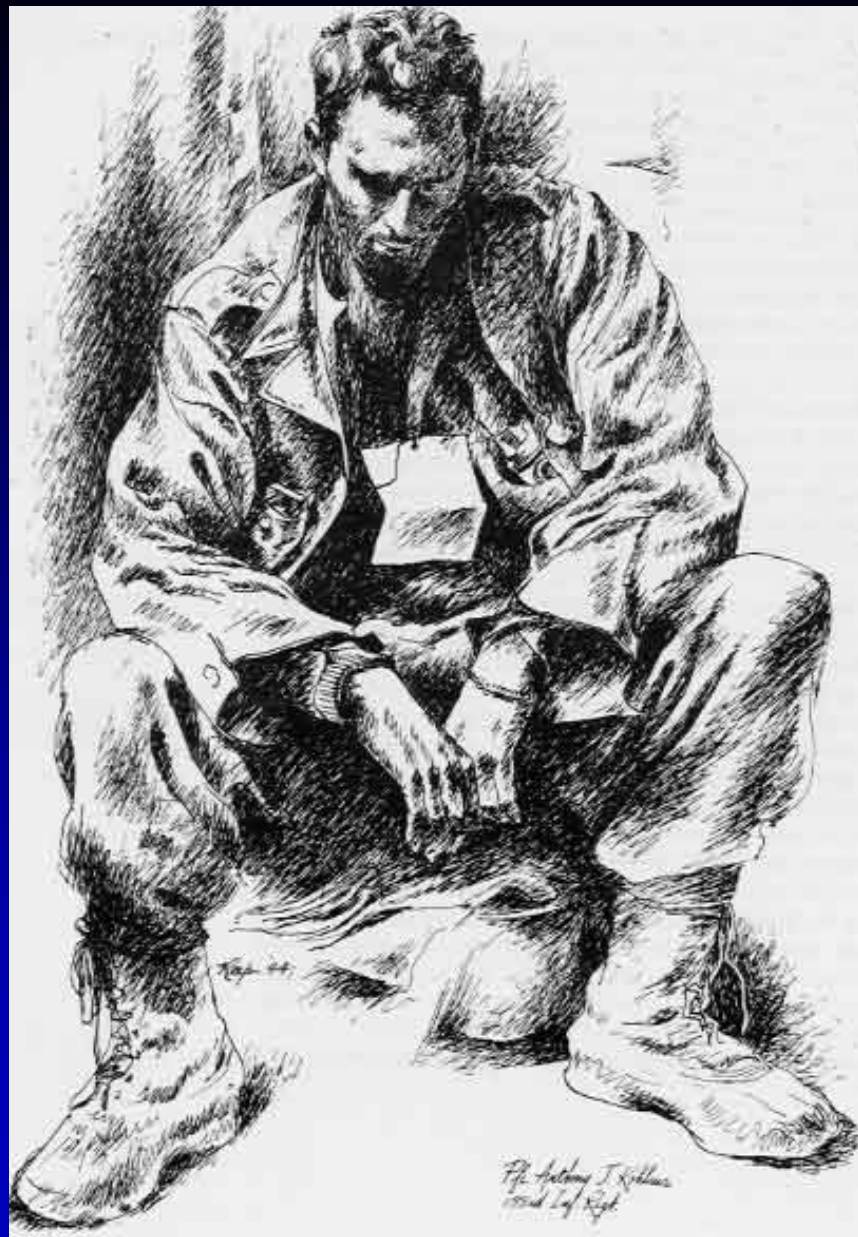
The limited ability to cope with combat was deemed the result of faulty personality development and thus conformed to the psychoanalytic model of the psychoneuroses and was so generally diagnosed.”

AJ Glass, 1974, p. 802



Kardiner and Spiegel (1947)

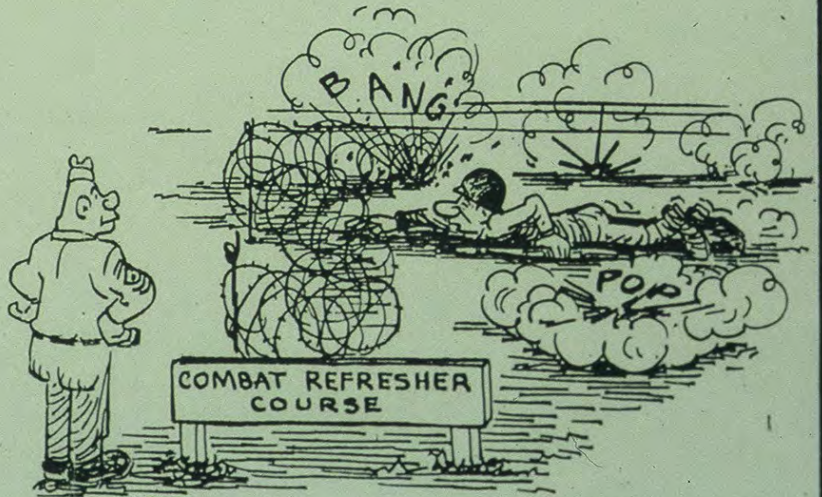
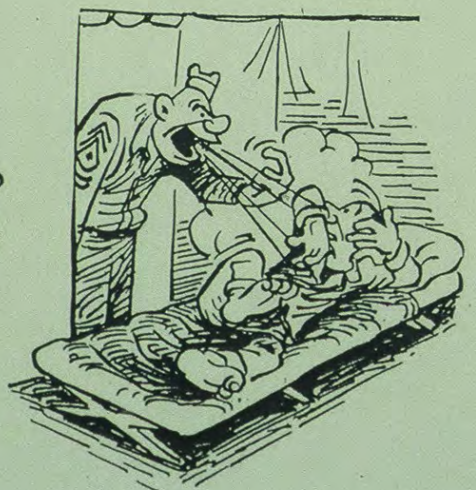
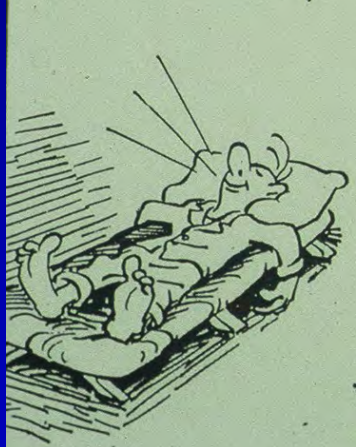
“The subject of neurotic disturbances consequent upon war has, in the past 25 years, been submitted to a good deal of capriciousness in public interest and psychiatric whims. The public does not sustain its interest, which was very great after World War I, and neither does psychiatry. Hence these conditions are not subject to continuous study...”



THE SAD SACK



"REST CURE"



Group Identification

“World War II clearly showed that interpersonal relationships and other situational circumstances were at least as important as personality configuration or individual assets and liabilities in the effectiveness of coping behaviour.”

AJ Glass, 1974, p. 804

Post-World War II

“Curiously, during the early postwar years, as following World War I, military psychiatry, like civil psychiatry, ignored the lessons of wartime experiences. Instead, attention was focused in the then prevalent psychoanalytic concepts and practice.”

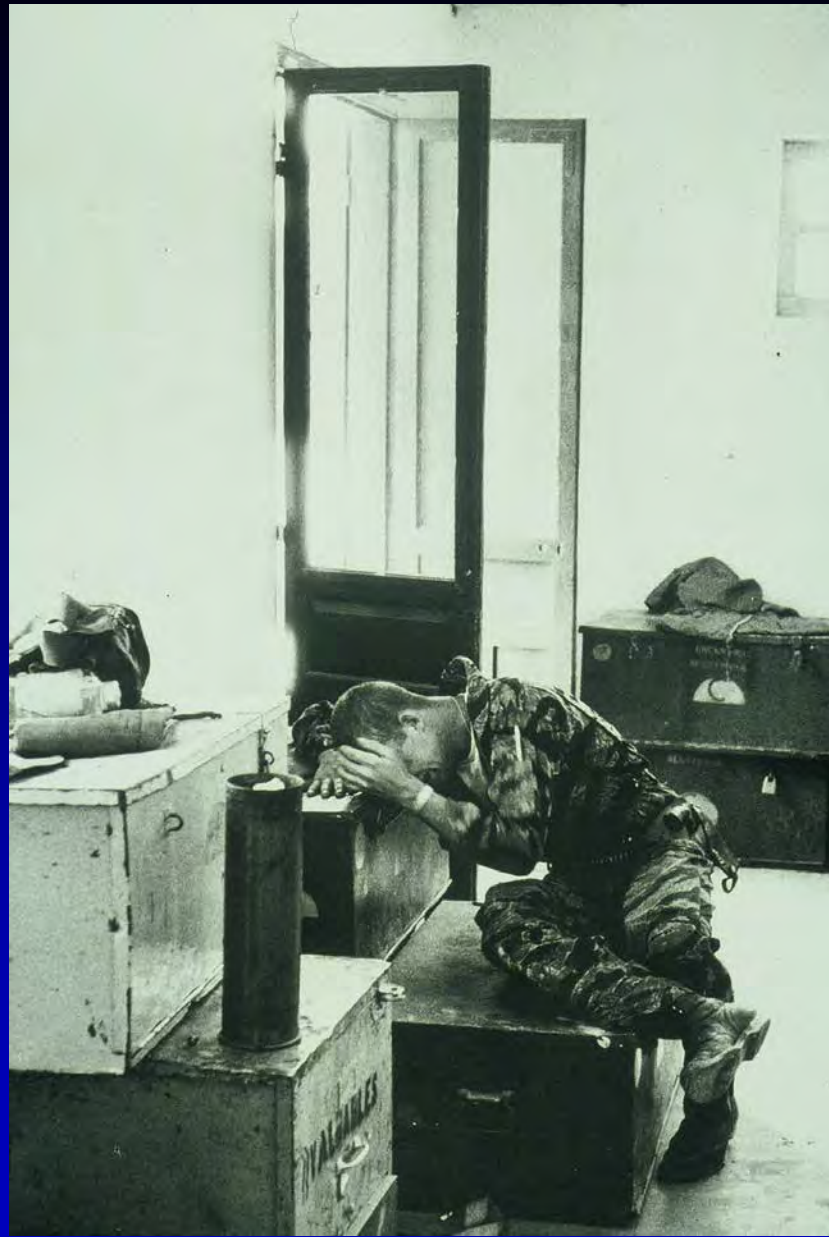
AJ Glass, 1974, p. 804



Vietnam

“As a result of forward divisional mental health services, so few psychiatric disorders had been evacuated to rear medical facilities as to create the impression that psychiatric casualties were rarely produced by ... combat in Vietnam.”

AJ Glass, 1974, p. 808



The importance of independent epidemiological evidence

The US Congress mandated National
Vietnam Veterans Readjustment Study

Vietnam Veterans Readjustment Study 1990

- ▣ 18.7% war-related PTSD during their lifetimes
- ▣ 9.1% current PTSD 11 to 12 years after the war
- ▣ “We found little evidence of falsification, an even stronger dose-response relationship, and psychological costs that were lower than previously estimated but still substantial.”

» Dohrenwend et al, Science 2006

National Vietnam Veterans Longitudinal Study

- ❑ 25 year follow up of NVVRS sample
- ❑ Rates of PTSD + subsyndromal PTSD
 - » Era veterans current 10.8% life-time 26.2%
 - » Combat zone veterans 14.5%
 - ❑ (Marmar et al JAMA Psychiatry, 2015)
- ❑ 271,000 veterans have current PTSD or subsyndromal PTSD 40 or more years after the end of the war

What History Demonstrates

- ❑ Psychiatry has been slow to understand
 - » the long-term effects of traumatic stress as the war time services focused predominantly on the acute disorders
 - » the importance of traumatic events as a driver of psychopathology rather than predisposition alone
- ❑ Challenge of emerging postdeployment syndromes
 - » mTBI
 - » Allostatic load and its multiple manifestations

Thank you