

WAR & Military Mental Health

The US Psychiatric Response in the 20th Century

| Hans Pols, PhD, and Stephanie Oak, BMed, FRANZCP



Involvement in warfare can have dramatic consequences for the mental health and well-being of military personnel. During the 20th century, US military psychiatrists tried to deal with these consequences while contributing to the military goal of preserving manpower and reducing the debilitating impact of psychiatric syndromes by implementing screening programs to detect factors that predispose individuals to mental disorders, providing early intervention strategies for acute war-related syndromes, and treating long-term psychiatric disability after deployment.

The success of screening has proven disappointing, the effects of treatment near the front lines are unclear, and the results of treatment for chronic postwar syndromes are mixed.

After the Persian Gulf War, a number of military physicians made innovative proposals for a population-based approach, anchored in primary care instead of specialty-based care. This approach appears to hold the most promise for the future. (*Am J Public Health*. 2007;97:2132–2142. doi:10.2105/AJPH.2006.090910)

WITNESSING ACTS OF WARFARE, including killing, torture, and widespread devastation, can be severely upsetting. It can also have significant mental health consequences for military personnel. Witnessing death, destruction, and torture; experiencing unexpected and at times continuous threats to one's life; or participating in hostilities and killing can potentially lead to mental health problems. During the 20th century, psychiatrists offered their assistance to the military to mitigate the effects of these and other traumatic experiences inherent in warfare. Military officials everywhere have displayed a strong ambivalence toward the involvement of psychiatrists in military affairs. For example, they have often labeled soldiers suffering from psychiatric symptoms as cowards lacking moral fiber.¹ Military officials have also been concerned that the presence of psychiatrists encouraged the display of psychiatric symptoms. However, military officials have been interested in psychiatric issues whenever they were perceived to affect the primary mission of the armed forces. When psychiatrists were perceived to be able to contribute to the primary goal of all army medical services, which is to conserve the fighting strength, their contributions were appreciated.²

We examine the attempts of US psychiatrists during the 20th century to treat and prevent the psychiatric consequences of war by implementing screening programs, providing early intervention strategies for acute war-related syndromes near the front lines ("forward psychiatry"), and mitigating the symptoms of long-term psychiatric disability after deployment.³ The involvement of psychiatrists in military conflicts not only resulted in the development

of extensive expertise in the management of war-related psychiatric syndromes but also profoundly affected the development of the entire discipline of psychiatry, which incorporated new theoretical perspectives, diagnostic categories, and treatment strategies first proposed and developed by military psychiatrists.

SCREENING PROGRAMS

The screening programs in the US armed forces during World Wars I and II were based on the assumption that vulnerability for "nervous breakdown" was related to relatively stable characteristics within the individual, including constitution, genetic makeup, and temperament, or the effect of early childhood experiences. The challenge of screening was to detect those traits that indicated vulnerability for mental health problems during deployment.

Screening During World War I

The psychiatrist Thomas W. Salmon was the main architect of the US program of military psychiatry during World War I. He was the medical director of the National Committee for Mental Hygiene, an organization that promoted the modernization of psychiatry by advocating prevention, treatment in outpatient clinics, and research into the causes of mental illness. Salmon advised the US armed forces to screen recruits and exclude "insane, feeble-minded, psychopathic, and neuropathic individuals."⁴ These individuals included those with schizophrenia and mental retardation, conditions that would clearly limit the ability to provide adequate service. The US armed forces rejected approximately 2% of inductees on this basis.⁵ Unfortunately, no evaluation of the efficacy of this

screening program was undertaken. However, by the end of the war, the general opinion among both psychiatrists and military officials was that there had been too many cases of mental breakdown and that this was because screening had not been sufficiently stringent.

Screening During World War II

Even before the United States became involved in World War II, a number of leading US psychiatrists were contemplating how they could contribute to the war effort.⁶ They focused their attention on selection because they believed that the thorough screening of volunteers and inductees would weed out those individuals predisposed to breakdown, which would reduce or even eliminate mental health problems during deployment.⁷ In December 1940, Harry Stack Sullivan, a psychoanalyst, joined the Selective Service System as a consultant to develop a screening program. Sullivan believed that the US armed forces should exclude not only individuals suffering from mental illness but also those with neurosis or maladjustment.⁸ He reasoned that individuals who had been unable to adjust to the demands of American society would never adjust to the demands of army life. Military officials were particularly interested in detecting homosexuality, which they believed destroyed combat effectiveness and morale.⁹ In addition, homosexuality was an offense for which one could be court-martialed.

Initially, military officials approved of screening programs because they promised that the armed forces would be made up of the most able men. Between 1941 and 1944, Sullivan's screening methods excluded 12% (almost 2 million) of 15 million men

The face of a soldier from Ghost Troop, 2nd Armored Cavalry Regiment, shows strain in the aftermath of the Battle of the 73 Easting during Operation Desert Storm, Iraq, February 26, 1991.

Source. Photo by Vince Crawley. Reprinted with permission from *Stars and Stripes*, 1991, 2006.



Thomas W. Salmon in his office in France during World War I.

Source. Courtesy of Oskar Diethelm Library, Institute for the History of Psychiatry, Weill Medical College of Cornell University.

examined, which was about 6 times the rejection rate of World War I.¹⁰ Of all men rejected for medical reasons, 37% were excluded on neuropsychiatric grounds.¹¹ However, the expected effects of screening did not materialize during World War II: the reported incidence rate for war neurosis in the US armed forces was at least double the rate during World War I. The unexpected and dramatic failure of selection combined with the pressing military need for manpower led military officials to severely criticize psychiatrists.¹² An order of Gen George C. Marshall abolished screening in 1944.¹³ At that time, a number of men who had been recommended for rejection on psychiatric grounds were inducted after all. Of this group, a mere 18% was later discharged on neuropsychiatric grounds. Of the remaining group, a surprising 80% gave satisfactory service (the percentage for the army as a whole was 92%).¹⁴

In retrospect, it is not surprising that screening programs for psychiatric disability had poor predictive power. Even today, the mental health consequences of war are poorly defined, with ever-shifting diagnostic categories, an uncertain theoretical foundation, and a lack of consensus on the relative contribution of predisposing and contextual factors. The failure of selection provided a serious challenge to the notion that predisposing factors were critical to the development of mental health problems during deployment. It challenged psychiatrists to explore other causes, such as the stresses of warfare.

EARLY INTERVENTION PROGRAMS

Aware that screening for ill mental health would not prevent psychiatric problems in the US armed forces, military psychiatrists also devoted considerable attention to the management of psychological distress during deployment. During World War I, British psychiatrists saw a puzzling condition initially named shell shock.¹⁵ Its symptoms comprised physical and psychological components, including stuttering, crying, trembling, paralysis, stupor, mutism, deafness, blindness, anxiety attacks, insomnia, confusion, amnesia, hallucinations, nightmares, heart problems, vomiting, and intestinal disorders. Soldiers suffering from shell shock were unable to fight and posed difficult problems for the medical corps, morale, and military discipline. Initially, military officials were convinced that they were malingerers or cowards. Military physicians, on the contrary, viewed this condition as neurological in nature and believed that it was related to direct effects of exploding shells (hence

“shell shock”). A number of leading British psychiatrists and psychologists, including Charles S. Myers and W. H. R. Rivers, believed the condition was psychological in nature and introduced psychotherapeutic interventions for its treatment.¹⁶

Early Intervention During World War I

In May 1917, before the United States became involved in World War I, Salmon visited the United Kingdom to survey the treatment methods British physicians had developed for shell shock.¹⁷ At that time, 15% of British soldiers had been discharged because of the condition. Salmon's comprehensive report became the basis for military psychiatry in the US armed forces during World War I.¹⁸ He viewed war neurosis as an unconscious escape from an intolerable situation characterized by a conflict between the instinct of self-preservation and the demands of one's duty. Shell shock was a psychological reaction to the stresses of warfare rather than the expression of a predisposition to mental illness. Salmon devoted the greatest part of his report to plans for hospital facilities that would deal with the problem. He argued that psychiatrists should be placed “as near the front as military exigency will permit.”¹⁹

Salmon proposed a 3-tier system for the treatment of shell shock or war neurosis. He recommended that treatment commence as soon as possible after the onset of symptoms. Treatment was ideally applied in or near casualty clearing stations, which were located a few miles behind the lines. Here, nervous soldiers were given a period of rest, sedation, and adequate food. Through relatively simple forms of supportive psychotherapy imbued with optimism

and characterized by persuasion and suggestion, military physicians explained to soldiers that their reaction was normal and would disappear in a few days. One front-line psychiatrist estimated that up to 65% of soldiers returned to the fighting lines after 4 or 5 days.²⁰ The second tier consisted of psychiatric and neurological wards in base hospitals, which were located 5 to 15 miles behind the front lines. There, soldiers were treated for up to 3 weeks. Salmon himself was associated with the third tier, Base Hospital 117, about 50 miles from the front line, where severe types of shell shock were treated for up to 6 months. If there was no improvement during this period, soldiers were repatriated.²¹

Treatment near the front lines achieved a dual purpose. First, it gave a clear message to soldiers that shell shock did not provide an easy route home. In this way, psychiatrists played a significant role in fighting so-called evacuation syndromes, in which the display of a specific set of symptoms led to evacuation and repatriation, which often increased the symptoms' incidence.²² Second, psychiatrists initiated treatment as soon as possible after symptoms appeared. From the British experience, Salmon had learned that the symptoms of mental distress commonly became ingrained and resistant to treatment when left untreated. Immediate treatment promised to result in high recovery rates and the prevention of long-term psychiatric disability. In line with military demands, Salmon's aim was to return as many men as possible to the front line.²³

Early Intervention During World War II

Salmon's plans for forward psychiatry were not considered relevant during the first years of

World War II because the military was convinced that screening would eliminate postcombat psychiatric disorders. During the Tunisian campaign in early 1943, however, up to 34% of all battle-related disorders were labeled neuropsychiatric.²⁴ Because US Army policy dictated that soldiers with psychiatric disorders had to be repatriated, attrition rates became alarmingly high. As a consequence, military officials were receptive to the ideas of a small but outspoken group of psychoanalytically oriented psychiatrists, including Roy G. Grinker and William C. Menninger, who proposed to implement programs of forward psychiatry that resembled those of Salmon.

In 1943, Grinker and John P. Spiegel introduced psychotherapeutic treatment near the front lines for the US Air Force.²⁵ They injected traumatized soldiers with sodium pentothal, which induced a dream state, and subsequently encouraged their patients to reexperience their traumatic experiences, which thereby would loosen the experiences' stranglehold on their minds. Many soldiers recovered; Grinker and Spiegel claimed that

the stuporous become alert, the mute can talk, the deaf can hear, the paralyzed can move, and the terror-stricken psychotics become well-organized individuals.²⁶

They wrote a manual on the treatment of war neuroses containing several illustrative case histories that was widely distributed among military medical officers.²⁷ Unaware of Salmon's initiatives during World War I, the neurologist Frederick R. Hanson, who was working in Tunisia and Algeria, introduced simple and straightforward treatments (rest, good food, hot showers, and

sedation), which he claimed were successful in returning men to the fighting line in just a few days.²⁸

According to Grinker and Spiegel, soldiers who broke down after extended exposure to battle were neither cowards nor weaklings—rather, they were normal individuals who could no longer cope with the unremitting and horrendous stresses of war. They argued that “it would seem to be a more rational question to ask why the soldier does not succumb to anxiety, rather than why he does.”²⁹ According to them, every man had his breaking point; they estimated this breaking point to occur anywhere between 100 days and 1 year of active combat duty. Two leading psychiatrists later argued that one of the most important lessons of World War II was that it required psychiatrists “to shift attention from problems of the abnormal mind in normal times to problems of the normal mind in abnormal times.”³⁰

William C. Menninger, the chief of the division of neuropsychiatry in the Surgeon General's Office of the US Army starting in December 1943, was a tireless advocate of psychoanalysis, scientific research within psychiatry, and a wider application of psychiatric knowledge in the solution of personal and social problems. He informed all military medical officers of the principles of forward psychiatry.³¹ Psychiatrists claimed that they were able to return 40% to 50%, and at times even up to 80%, of neuropsychiatric cases to duty within a week.³² After the war, these figures were adjusted downward, when it was acknowledged that the percentage of personnel able to return to the front lines was disappointingly low (generally, such personnel could only function in noncombat roles).³³ In total, there were more

than 1 million neuropsychiatric admissions to the medical services of the US armed forces, constituting 6% of all admissions.³⁴

The research of social scientists reinforced the shift in psychiatry's theoretical focus from individual predisposition toward broadly influential environmental factors (such as the stresses of warfare). Herbert X. Spiegel, one of the first psychiatrists to observe soldiers suffering from war neurosis in Tunisia, was convinced that soldiers were not primarily motivated by hatred for the enemy or the ideals of liberty and democracy, but by the bonds with their buddies and regard for their officers.³⁵ He believed that group cohesion was an essential factor in maintaining morale. These views were confirmed by a team of social scientists led by Samuel Stouffer, who investigated motivational and social factors in the US Army. Stouffer concluded that morale was inversely related to breakdown incidence and intimately linked to the trust soldiers had in their officers, their training, their outfit, their weapons, and their fellow soldiers. Morale was also associated with the degree of perceived support from the home front. Most significantly, it was related to the strength of the emotional bonds among soldiers and between soldiers and their commanders.³⁶ This research led the US military psychiatrist Albert Glass to conclude that

perhaps the most significant contribution of World War II military psychiatry was recognition of the sustaining influence of the small combat group or particular members thereof, variously termed 'group identification,' 'group cohesiveness,' 'the buddy system,' and 'leadership.'³⁷

Research conducted after World War II demonstrated that

only around 40% of all cases of nervous breakdown took place overseas (and only a fraction of these in personnel at the front lines), whereas around 60% occurred in the armed forces within the United States.³⁸ These findings indicate that psychiatric disorder was not primarily related to extended frontline duty but to a variety of other factors, including lack of morale. African American soldiers, whose battalions were segregated from the rest of the armed forces, recorded a high incidence of psychiatric syndromes, which was most likely related to their low status and the discrimination they suffered in the army.³⁹ These findings are further reinforced by recent research into the etiology of post-traumatic stress disorder (PTSD), which has deemphasized the role of the original traumatic event and has highlighted the importance of a variety of contextual factors, among them the perception of social support, preexisting anxiety or depression, and a family history of anxiety.⁴⁰

Early Intervention in Korea and Vietnam

In the initial phase of the Korean War, military officials reported very high rates of neuropsychiatric casualties (250 per 1000 per year).⁴¹ Because of the nature of the conflict, characterized by quickly shifting front lines and widely dispersed battle fields, it was difficult to implement programs of forward psychiatry. After the determined implementation of these programs, however, more than 80% of neuropsychiatric victims returned to battle.⁴² From the inception of the Vietnam War, extensive and well-equipped psychiatric services were available to treat mentally distressed soldiers.⁴³ During that conflict, the incidence of combat

stress was reported to be very low (less than 5% of all medical cases). On the recommendation of military psychiatrists during World War II, Vietnam War soldiers had a tour of duty limited to 1 year and frequent periods of rest and relaxation. Military psychiatrists believed that both factors decreased the incidence of mental breakdown.⁴⁴

Since the Vietnam War, mental health teams have become an integral part of the fighting forces. On the basis of the experience of military psychiatrists of previous wars, the US armed forces have implemented extensive strategies to target combat stress, in line with the belief that all service personnel are potential stress casualties. "Combat stress control teams" staffed by specialist mental health professionals are responsible for prevention, triage, and short-term treatment with the purpose of retaining manpower and maintaining operational efficiency. These teams provide a range of services, including conducting surveys of the interpersonal climate within units, educating unit command, providing briefings on suicide prevention and reintegration advice for returning home, and providing informal support to soldiers.⁴⁵ Critical incident stress debriefing (specialist intervention as soon as possible after potentially traumatic events) has also been enthusiastically incorporated by modern stress control teams, which are deployed after natural disasters or terrorist action. Unfortunately, research has not adequately supported approaches with a focus on frontline intervention.⁴⁶ Recent critical reviews have shown that critical incident stress debriefing does not decrease the development of symptoms and that, in some cases, it exacerbates them.⁴⁷

TREATMENT PROGRAMS

Treatment After World War I

After World War I, Salmon worked closely with the American Legion and recommended the establishment of specialized treatment facilities for neuropsychiatric war casualties. He strongly advised against placing these soldiers in mental hospitals because of the stigma attached to these institutions and because the veterans were not affected by severe forms of mental illness. He believed that outpatient treatment was more appropriate.⁴⁸ In 1921, 27% of all hospitalized ex-servicemen were defined as neuropsychiatric cases (in 1927, this number was estimated to be 46.7%).⁴⁹ The American Legion was convinced that these soldiers deserved the best possible treatment and were entitled to a pension. After 1925, however, psychiatrists began to doubt the wisdom of providing pensions, because they believed pensions reinforced disability. Psychiatrists wondered whether their efforts had contributed to the problem of the large number of ex-servicemen who still suffered from psychiatric disability after the war.⁵⁰

Treatment After World War II

After World War II, most psychiatrists considered aiding returning soldiers to integrate into society primarily a job for families and the local community. The benefits of the GI Bill of Rights (the Servicemen's Readjustment Act),⁵¹ which included funding for higher education and easier access to mortgages, aided many veterans. In addition, the booming postwar economy provided full employment. As psychiatrists later theorized explicitly, the development of psychiatric problems after wars could be counteracted by



the presence of an understanding and supportive community, a perceived appreciation of the service that had been rendered, and above all, employment and the perception of social support.⁵²

In 1945, Gen Omar N. Bradley, who was greatly respected among soldiers and veterans, was appointed as the head of the Veterans Administration. Bradley hired Paul Hawley, the chief surgeon of the European Theater of Operations, to direct the Division of Medicine. Hawley hired more than 4000 physicians and initiated an extensive hospital-building program. Under the policies of Hawley and Bradley, new Veterans Administration hospitals were established in affiliation with medical schools, guaranteeing that the best medical services would be provided to veterans. The Veterans Administration system also encouraged clinical psychologists to become psychotherapists and provided a large number of training positions.⁵³ In June 1947, a little less than half a million patients

with neuropsychiatric disabilities received pensions from the Veterans Administration, and approximately 50 000 of these were treated in Veterans Administration hospitals. Many of these suffered from chronic conditions that did not respond well to treatment.

Treatment After the Vietnam War

Before the Vietnam War, psychiatric consensus held that soldiers who recovered from an episode of mental breakdown during combat would suffer no adverse long-term consequences. Psychiatric disability commencing after the war was believed to be related to preexisting conditions.⁵⁴ As a consequence, military psychiatrists devoted relatively little attention to postwar psychiatric syndromes. A major shift in psychiatric interest in war-related psychiatric disability took place after the Vietnam War. Fifteen years after the United States withdrew from Vietnam, an epidemiological survey concluded that

A soldier relieves tensions during a psychiatric interview.

Source. US National Archives and Records Administration, Washington, DC.

480 000 (15%) of the 3.15 million Americans who had served in Vietnam were suffering from service-related PTSD. In addition, between one quarter and one third (nearly 1 million ex-service personnel) displayed symptoms of PTSD at one time or another.⁵⁵

The recognition that many veterans suffered from chronic psychiatric disorders was the outcome of a long process that began in 1970 when Chaim Shatan and Robert J. Lifton adopted the cause

and *Statistical Manual of Mental Disorders* at the 1980 annual meeting.⁵⁷ The criteria for this diagnostic category included the concept of delayed onset: psychiatric symptoms could appear several years after the initial trauma.

A range of explanations have been offered to explain the extraordinarily high rate of PTSD after the Vietnam War. Media portrayals emphasized that soldiers entered and left the war as individuals instead of in close-knit units, returning to a polarized United States where they were often reviled instead of celebrated as heroes, in addition to suffering the pains of stigma and high unemployment. There are several reasons to develop a more nuanced explanation of this situation. Since 1980, the PTSD diagnosis has remained controversial; disagreements over its definition and measurement persist. Estimates of the incidence of PTSD in Vietnam veterans range from 3.5% to 50%. Some critics have argued that providing veterans with a diagnostic label was the only way to give poor Americans, who were recruited in unusually large numbers in the Vietnam conflict compared with earlier 20th century US wars, an entitlement to a pension and medical care and that, after a diagnosis was conferred, symptoms were solidified and disability ingrained to maintain these entitlements.⁵⁸

Because of the perceived size of the problem, US psychiatrists and psychologists have initiated an impressive number of research projects on treatment strategies for PTSD. Proposed specialist treatments have included the use of antidepressant medication and individual and group psychotherapies. There is now an extensive evidence base for the efficacy of trauma-focused cognitive behavior

therapies administered to individuals or groups of veterans.⁵⁹ Nevertheless, there is still debate among psychiatrists whether PTSD constitutes a separate diagnostic entity that is independent from other anxiety and depression states.⁶⁰

Treatment After the Persian Gulf and Iraq Wars

During the past few years, a number of studies have reported prevalence rates between 15.6% and 17.1% for PTSD among those who have returned from the Persian Gulf War and the Iraq War.⁶¹ Surveys have indicated that military personnel are not taking full advantage of the medical and psychiatric resources at their disposal. Within the military, the view that displaying psychiatric symptoms indicates weakness of character or cowardice is still generally held.⁶² Soldiers most in need of mental health care do not seek it because of fear of embarrassment, difficulties with peers or officers, or interference with career opportunities within the military. It appears that the accumulated wisdom of psychiatry and increasingly efficient and sophisticated psychiatric treatment methods generally do not reach those who need them most.

After the conclusion of the Persian Gulf War, the media mainly focused on Gulf War Syndrome and gave relatively little attention to PTSD. After returning from service, a number of Persian Gulf War veterans reported symptoms of fatigue, cognitive impairment, headaches, depression, anxiety, insomnia, dizziness, joint pains, and shortness of breath, which they related to the specific conditions of that conflict, including exposure to environmental hazards such as burning oil wells and depleted uranium, pesticides, and



Operation Georgia, in which US Marines blew up bunkers and tunnels used by the Viet Cong.

Source. US National Archives and Records Administration, Washington, DC.

of a group called Vietnam Veterans Against the War. In their meetings, they discussed veterans' health and well-being, which they considered to be poor.⁵⁶ Shatan and Lifton lobbied for increased mental health services for Vietnam veterans. Their efforts were reinforced by the acceptance of the diagnostic category of post-traumatic stress disorder in the 3rd edition of the American Psychiatric Association's *Diagnostic*

the side effects of vaccinations. In the United States, \$250 million has been spent on research, yet no specific set of symptoms indicating the existence of a war-related syndrome has been found and no clear cause has been identified.⁶³

Some psychiatrists have suggested that the symptoms experienced by veterans have a significant and persistent psychogenic component, although the specific symptoms seem to vary from war to war and most veterans, like patients in general, tend to resist psychogenic explanations for their condition and prefer somatogenic ones. In an interesting study, the historian Edgar Jones compared the reported symptoms of nearly 1500 veterans who received pensions for postcombat disorders from 1900 to the Korean War with those of 400 veterans of the Persian Gulf War. No syndrome specific to any war could be identified.⁶⁴ According to Jones, the explanation given to war-related syndromes reflects broader cultural concerns as well as the state of medical knowledge and the way physicians categorize and interpret functional somatic presentations. After the Persian Gulf War, a number of outspoken veteran groups aspired to gain recognition for the medical problems of veterans by claiming that they were related to a number of specific conditions related to that deployment rather than subsuming them under a diagnosis of PTSD.

Because no specific set of medical symptoms can be identified after each war, and because each war has given rise to an increase in unexplained medical symptoms among service personnel, Engel et al. have argued that investigating the exact nature of postwar syndromes will not yield constructive results.⁶³ Instead, they propose the introduction of a population-based

health care model to mitigate their impact. Because the majority of veterans first seek medical attention in primary care settings, the mitigation of the symptoms of postwar medical syndromes should be provided there instead of being based on specialist intervention, psychiatric or otherwise. Care should be patient centered and focus on regaining and maintaining functioning, thereby avoiding medicalizing traumatic distress and reinforcing illness behavior. If symptoms persist, specialists will become involved. Engel's model introduces graduated levels of care, which offer a range of interventions, including preclinical prevention, symptom mitigation in routine primary care, symptom reduction and disability prevention in collaborative primary care, and intensive rehabilitation with specialist intervention only if significant disability persists.⁶⁵ It is a significant deviation from the emphasis on specialist care by psychiatrists developed after the Vietnam War. It is likely that this model will deliver medical care that is more comprehensive to veterans.

IMPLICATIONS

As with all branches of medicine, psychiatry's involvement with the military during the wars of the 20th century had a significant effect on the discipline.⁶⁶ It stimulated the development of new perspectives that were subsequently adopted by the discipline as a whole and suggested new models of mental health care. Before World War I, virtually all American psychiatrists worked within mental asylums, which institutionalized individuals with severe and persistent forms of mental illness. At the time, there were no specific treatment methods

available for these conditions and the professional status of psychiatry as a medical specialty was low.⁶⁷ On the basis of his experiences during World War I, Salmon proposed to expand the scope of psychiatry to include the treatment of individuals with a wide variety of mental disorders in community-based clinics and primary care settings.

Recognizing that the majority of individuals with early symptoms of mental illness would not attend specialist physicians or psychiatrists, Salmon suggested that all general practitioners should be educated in the principles of psychiatry to improve their skills in treating these patients.⁶⁸ In addition, he emphasized the importance of holistic or patient-centered health care over disease-centered and specialist health care.⁶⁹ At the time, his proposals were not implemented.

In 1940, the majority of American psychiatrists were still based in mental hospitals. In the opening days of World War II, only 35 psychiatrists were involved in the US armed forces. By the end of the war, this number had risen to nearly 1000, just short of one third of all American psychiatrists.⁷⁰ As Edward A. Strecker noted in his presidential address to the American Psychiatric Association in 1944, "Practically every member not barred by age, disability or ear-marked as essential for civilian psychiatry is on active duty."⁷¹ During the war, a great number of physicians received 6-month training courses in psychiatry that equipped them to treat soldiers suffering from war neurosis. Because of the perceived success of forward psychiatry during the war, the participation in World War II had a tremendous effect on postwar American psychiatry. As a consequence of the

efforts of Menninger and a number of psychoanalysts, psychoanalysis and psychodynamic explanations became the dominant theoretical perspective of American psychiatry. In addition, there was a strong interest in psychosomatic medicine. The concept of stress was central in Grinker and Spiegel's reinterpretation of their war experience.⁷² Because of its widespread use in the work of military psychiatrists, the concept of stress became enormously popular in the medical profession and among the public. These changes in perspective stimulated a shift from treatment and care in mental hospitals to psychotherapeutic treatment on an outpatient basis in community clinics.⁷³ For 2 to 3 decades after World War II, American psychiatrists focused on the psychotherapeutic treatment of relatively benign states in relatively normal individuals. Several programs were initiated to train general practitioners in psychotherapeutic methods.⁷⁴ Some psychiatrists even argued that psychiatry should provide the foundation for all medical education.⁷⁵

The Vietnam War inspired a revision of the views on the nature of acute war neurosis and long-term psychiatric disability. Before the Vietnam War, psychiatrists generally focused on acute psychological reactions and expected soldiers to recover relatively quickly. Psychiatrists believed long-term psychiatric disability reflected individual factors that predated the war, such as a predisposition for mental illness. The emergence of the diagnostic category of post-traumatic stress disorder changed that by linking long-term psychiatric disability to the trauma of war. A wide variety of specialist treatment strategies have been developed for its treatment. However,

since its introduction to the *DSM* classification system of psychiatric diagnosis, PTSD has remained a controversial diagnosis that appears to be applied to an ever-increasing number of conditions, leading to its trivialization. Critics have labeled Western society a society enamored and obsessed with trauma.⁷⁶ We can now expect counselors to be deployed after terrorist acts or other major upheavals.

After the Persian Gulf War, a number of physicians and psychiatrists abandoned the attempt to identify specific war-related medical or psychiatric syndromes. Instead, they proposed an approach anchored in primary health care settings to replace the emphasis on specialist medical intervention. Interestingly, many of the proposals made by Engel and his colleagues resemble those made by Salmon after World War I and a number of American psychiatrists after World War II. These proposals emphasized the importance of educating general practitioners in the principles of psychiatry, thereby integrating psychiatric approaches in primary health care settings.

Military psychiatrists have generally been concerned with the mental health of the fighting forces rather than that of civilians in areas affected by war, even though the extent of civilian trauma significantly exceeds that of military personnel.⁷⁷ There has been a dearth of research on the mental health of civilians in areas affected by war; only a handful of preventive or treatment programs have been developed. As an alternative to providing specialist medical care, aid to rebuild infrastructure and fostering naturally occurring communal processes of healing and social support appear to be the most promising strategies.

Extrapolating from the work of Engel and his colleagues, supporting or promoting primary health care systems could provide the best response to the psychiatric syndromes in civilian populations.

About the Authors

Hans Pols is with the University of Sydney, Sydney, Australia. Stephanie Oak is with the Hunter New England Mental Health Services, Newcastle, Australia, and the School of Medicine and Public Health at the University of Newcastle, Newcastle.

Requests for reprints should be sent to Hans Pols, Unit for History and Philosophy of Science, Carslaw F07, University of Sydney NSW 2006, Australia (e-mail: h.pols@usyd.edu.au).

This article was accepted October 23, 2006.

Contributors

Both authors conceptualized ideas, interpreted historical developments, and reviewed drafts of the article equally.

Acknowledgments

H. Pols was supported by a Discovery Project grant of the Australian Research Council (DP0450751).

Human Participant Protection

No protocol approval was needed for this study.

Endnotes

1. Lack of moral fiber was introduced by the British Royal Air Force at the beginning of World War II to stigmatize and discharge aircrew that refused to fly missions without a medical excuse. We use the phrase here in its more general meaning. For the British Royal Air Force use, see Edgar Jones, "LMF: The Use of Psychiatric Stigma in the Royal Air Force During the Second World War," *Journal of Military History* 70 (2006): 439–58.

2. The dual role of military psychiatrists who serve the military and treat their patients can lead to ethical conflicts. These ethical conflicts for military physicians in general are explored in: Victor W. Sidel and Barry S. Levy, "Physician-Soldier: A Moral Dilemma?" in *Military Medical Ethics*, ed. T.E. Beam and L.R. Sparacino (Washington, DC: Borden Institute, Walter Reed Army Medical Center, 2003).

3. For general overviews see: Edgar Jones and Simon Wessely, *Shell Shock to PTSD: Military Psychiatry from 1900 to*

the Gulf War (London: Psychology Press, 2005); Ben Shephard, *A War of Nerves: Soldiers and Psychiatrists, 1914–1994* (London: Jonathan Cape, 2000); and Rock et al., "U.S. Army Combat Psychiatry."

4. Thomas W. Salmon, *The Care and Treatment of Mental Diseases and War Neuroses ("Shell Shock") in the British Army* (New York: War Work Committee of the National Committee for Mental Hygiene, 1917), 47.

5. Edward A. Strecker, "Military Psychiatry: World War I, 1917–1918," in *One Hundred Years of American Psychiatry*, ed. J. K. Hall (New York: Columbia University Press for the American Psychiatric Association, 1944).

6. For a short overview see Albert Deutsch, "Military Psychiatry: World War II," in *One Hundred Years of American Psychiatry*, ed. J. K. Hall (New York: Columbia University Press for the American Psychiatric Association, 1944). For a comprehensive overview, see Albert J. Glass and Robert J. Bernucci, eds., *Neuropsychiatry in World War II*, vol 1, *Overseas Theaters* (Washington, DC: Government Printing Office, 1966); Albert J. Glass and Robert J. Bernucci, eds., *Neuropsychiatry in World War II*, vol 2, *Zone of the Interior* (Washington, DC: Government Printing Office, 1966).

7. See, for example, William C. Porter, "Military Psychiatry and the Selective Service," *War Medicine* 1, no. 3 (1941): 364–71; and other articles in the special issue on psychiatric aspects of military medicine published in the second issue of *War Medicine* in 1941.

8. Harry Stack Sullivan, "Mental Hygiene and National Defense: A Year of Selective-Service Psychiatry," *Mental Hygiene* 26, no. 1 (1942): 7–14; Harry Stack Sullivan, "Psychiatry and the National Defense," *Psychiatry* 4 (1941): 201–17.

9. Nevertheless, a significant number of homosexual men and women were able to enlist. See Allan Berube, *Coming Out Under Fire: The History of Gay Men and Women in World War Two* (New York: Free Press, 1990).

10. Albert J. Glass, Francis J. Ryan, Ardie Lubin, C. V. Ramana, and Anthony C. Tucker, "Psychiatric Prediction and Military Effectiveness, Part I & II," *US Armed Forces Medical Journal* 7, no. 10 (1956): 1427–43, 1575–88; see also Eli Ginzberg, James K. Anderson, Sol W. Ginsburg, and John L. Herma, *The Lost Divisions* (New York: 1955).

11. John W. Appel, "Incidence of Neuropsychiatric Disorders in the United States Army in World War II (Preliminary Report)," *American Journal of Psychiatry* 102, no. 3 (1945): 434.

12. Carl H. Jonas, "Psychiatry Has

- Growing Pains," *American Journal of Psychiatry* 102, no. 6 (1946): 819–21.
13. For a historical overview of screening in the military that draws the same conclusion, see Edgar Jones, Kenneth C. Hyams, and Simon Wessely, "Screening for Vulnerability to Psychological Disorders in the Military: An Historical Survey," *Journal of Medical Screening* 10, no. 1 (2003): 40–46.
 14. John R Egan, Lionel Jackson, and Richard H. Eanes, "A Study of Neuropsychiatric Rejectees," *Journal of the American Medical Association*, 145 (1951): 466–69.
 15. The literature on shell shock is voluminous. See, for example, Peter Leese, *Shell Shock: Traumatic Neurosis and the British Soldiers of the First World War* (New York: Palgrave MacMillan, 2002); and Martin Stone, "Shell-Shock and the Psychologists," in *The Anatomy of Madness*, ed. William F. Bynum, Roy Porter, and Michael Shepherd. *The Anatomy of Madness: Essays in the History of Psychiatry* (London: Tavistock, 1985).
 16. W. H. R. Rivers, "An Address on the Repression of War Experience," *The Lancet* 1 (1918): 173–77; Charles S. Myers, "A Contribution to the Study of 'Shell Shock,'" *The Lancet* 188 (1915): 316–20; Charles S. Myers, *Shell Shock in France, 1914–1918, Based on a War Diary* (Cambridge: Cambridge University Press, 1940).
 17. For Salmon, see Earl D. Bond and Paul O. Komora, *Thomas W. Salmon: Psychiatrist* (New York: Norton, 1950). For a comprehensive overview of American psychiatry and World War I, see Thomas W. Salmon and Norman Fenton, eds., *Neuropsychiatry: In the American Expeditionary Forces*, vol 10, *The Medical Department of the United States Army in the World War* (Washington, DC: US Government Printing Office, 1929); Pearce Bailey, Frankwood E. Williams, and Paul O. Komora, eds., *Neuropsychiatry: In the United States*, vol X, *The Medical Department of the United States Army in the World War* (Washington, DC: US Government Printing Office, 1929).
 18. Salmon, *Care and Treatment of War Neuroses*; parts of this report appeared as Thomas W. Salmon, "War Neuroses ('Shell Shock')," *Military Surgeon*, Dec 1917; Thomas W. Salmon, "Care and Treatment of Mental Diseases and War Neuroses ('Shell Shock') in the British Army," *Mental Hygiene* 1, no. 4 (1917): 509–47.
 19. Salmon, *Care and Treatment of Mental Diseases*, 42.
 20. Edward A. Strecker, "Experiences in the Immediate Treatment of War Neuroses," *American Journal of Insanity* 76 (1919): 45–69.
 21. Thomas W. Salmon and Norman Fenton, eds., *Neuropsychiatry: In the American Expeditionary Forces*; see also Strecker, "Military Psychiatry: World War I."
 22. Strecker, "Military Psychiatry: World War I."
 23. Salmon's approach could be characterized by the principles of proximity, immediacy, expectancy, and simplicity (or PIES, as the principles of forward psychiatry were summarized after the Korean War). Recently, these principles have been reformulated as BICEPS, which stands for brevity, immediacy, centrality or contact, expectancy, proximity, and simplicity. US Department of the Army, *Combat Stress: Field Manual 6-22.5* (Washington, DC: Department of Defense, 2000).
 24. John W. Appel, Gilbert W. Beebe, and David W. Hilger, "Comparative Incidence of Neuropsychiatric Casualties in World War I and World War II," *American Journal of Psychiatry* 103, no. 2 (1946): 196–99.
 25. The interest of the American military in psychotherapy is described, from the military's perspective, in Elliot Duncan Cooke, *All But Me and Thee: Psychiatry at the Foxhole Level* (Washington, DC: Infantry Journal Press, 1946). The chapters of this book had appeared as articles in the *Infantry Journal*. Roy Grinker had been in analysis with Sigmund Freud under a stipend of the Rockefeller Foundation. For his career, see Daniel Offer and Daniel X. Freedman, *Modern Psychiatry and Clinical Research: Essays in Honor of Roy R. Grinker, Sr.* (New York: Basic Books, 1972). For an excellent overview of the role of psychoanalysts during and after World War II, see Nathan G. Hale, *Freud and the Americans, 1917–1985: The Rise and Crisis of Psychoanalysis in the United States* (New York: Oxford University Press, 1995), 187–210.
 26. Roy R. Grinker and John P. Spiegel, *War Neuroses* (Philadelphia: Blakiston, 1945), 82.
 27. Roy R. Grinker and John P. Spiegel, *War Neurosis in North Africa: The Tunisian Campaign, January–May 1943* (Washington, DC: Josiah Macy Foundation, 1943). This manual was later printed, with a number of changes, as Grinker and Spiegel, *War Neurosis*.
 28. Frederick Hanson, ed., *Combat Psychiatry: Experiences in the North African and Mediterranean Theaters of Operation, American Ground Forces, World War II*, vol 9 supplement, *Bulletin of the US Army Medical Department* (Washington, DC, 1949).
 29. Grinker and Spiegel, *War Neurosis*, 115.
 30. Malcolm J Farrell and John W. Appel, "Current Trends in Military Neuropsychiatry," *American Journal of Psychiatry* 101, no. 1 (1944): 19.
 31. Deutsch, "Military Psychiatry: World War II."
 32. Leo H. Bartemeier, Lawrence S. Kubie, Karl A. Menninger, John Romano, and John C. Whitehorn, "Combat Exhaustion," *Journal of Nervous and Mental Disease* 104 (1946): 358–89; 489–525.
 33. Normal Q. Brill, Mildred C. Tate, and William C. Menninger, "Enlisted Men Discharged from the Army Because of Psychoneurosis: A Follow-up Study," *Journal of the American Medical Association*, June 30, 1945; Normal Q. Brill and Gilbert W. Beebe, *A Follow-up Study of War Neuroses* (Washington, DC: Veterans Administration, 1955).
 34. Appel, "Incidence of Neuropsychiatric Disorders," 434.
 35. Herbert X. Spiegel, "Preventive Psychiatry With Combat Troops," *American Journal of Psychiatry* 101, no. 3 (1944): 310–15. See also Herbert X. Spiegel, "Silver Linings in the Clouds of War: A Five-Decade Retrospective," in *American Psychiatry after World War II*, ed. Roy W. Menninger and John C. Nemiah (Washington, DC: American Psychiatric Press, 2000).
 36. Samuel A. Stouffer, Edward A. Suchman, Leland C. DeVinney, Shirley A. Star, and Robin M. Williams, *The American Soldier: Adjustment During Army Life*, vol 1, *Studies in Social Psychology in World War II* (Princeton, NJ: Princeton University Press, 1949); Samuel A. Stouffer, Edward A. Suchman, Leland C. DeVinney, Shirley A. Star, and Robin M. Williams, *The American Soldier: Combat and Its Aftermath*, vol 2, *Studies in Social Psychology in World War II* (Princeton, NJ: Princeton University Press, 1949).
 37. Albert J. Glass, "Mental Health Programs in the Armed Forces," in *Child and Adolescent Psychiatry, Sociocultural and Community Psychiatry*, ed. Gerald Caplan, *American Handbook of Psychiatry* (New York: Basic, 1972), 995.
 38. Appel, "Incidence of Neuropsychiatric Disorders," 435.
 39. Ellen Dwyer, "Psychiatry and Race During World War II," *Journal of the History of Medicine and Allied Sciences* 61, no. 2 (2006): 117–43.
 40. Rachel Yehuda and Alexander C. McFarlane, "Conflict Between Current Knowledge About Posttraumatic Stress Disorder and Its Original Conceptual Basis," *American Journal of Psychiatry* 152, no. 12 (1995): 1705–13; Rachel Yehuda, ed., *Risk Factors for Posttraumatic*
 - Stress Disorder* (Washington, DC: American Psychiatric Press, 1999); Paula P. Schnur, Carole A. Lunney, and Anjana Sengupta, "Risk Factors for the Development Versus Maintenance of Posttraumatic Stress Disorder," *Journal of Traumatic Stress* 17, no. 2 (2004): 85–95.
 41. Elspeth Cameron Ritchie and Mark Owens, "Military Issues," *Psychiatric Clinics of North America* 27 (2004): 460.
 42. Ibid.
 43. For a general overview, see Wilbur J. Scott, *The Politics of Readjustment: Vietnam Veterans Since the War* (New York: Aldine de Gruyter, 1992).
 44. See, for example, Peter G. Bourne, *Men, Stress, and Vietnam* (Boston: Little, Brown, 1970); Peter G. Bourne, "Military Psychiatry and the Vietnam Experience," *American Journal of Psychiatry* 127, no. 4 (1970): 481–88.
 45. US Department of the Army, *Combat Stress Control in a Theater of Operations: Tactics, Techniques, Procedures: Field Manual 8-51* (Washington, DC: Department of Defense, 1994); US Department of the Army, *Leaders' Manual for Combat Stress: Field Manual 22-51* (Washington, DC: Department of Defense, 1994).
 46. See Simon Wessely, "Forward Psychiatry in the Military: Its Origins and Effectiveness," *Journal of Traumatic Stress* 16 (2003): 411–19. A study published in 1982 on the effectiveness of forward psychiatric programs in the Israeli army during the invasion of Lebanon demonstrated that soldiers who had been treated according to the principles of proximity, immediacy, expectancy, and simplicity did better in the short and medium term than those who had been evacuated to base hospitals. See Z. Solomon, S. Rami, and M. Mikulincer, "Frontline Treatment of Combat Stress Reaction: A 20-Year Longitudinal Evaluation Study," *American Journal of Psychiatry* 162 (2005): 2309–14; Z. Solomon and R. Benbenishty, "The Role of Proximity, Immediacy, and Expectancy in Frontline Treatment of Combat Stress Reactions Among Israelis in the Lebanon War," *American Journal of Psychiatry* 143 (1986): 613–17.
 47. Simon Wessely, "Psychological Debriefing Is a Waste of Time," *British Journal of Psychiatry* 183 (2003): 12–13; Beverley Raphael and Sally Wooding, "Debriefing: Its Evolution and Current Status," *Psychiatric Clinics of North America* 27 (2004): 407–23.
 48. Caroline Cox, "Invisible Wounds: The American Legion, Shell-Shocked Veterans, and American Society, 1919–1924," in *Traumatic Pasts:*

History, Psychiatry, and Trauma in the Modern Age, 1870–1930, ed. Mark S. Micale and Paul Lerner (New York: Cambridge University Press, 2001).

49. Thomas W. Salmon, "The Insane Veteran and a Nation's Honor," *American Legion Weekly*, January 28 (1921): 1; Pearce Bailey, "Detection and Elimination of Individuals with Nervous or Mental Disease: Principles Underlying Neuropsychiatric Examinations," in *Neuropsychiatry*, ed. Pearce Bailey, Frankwood E. Williams, and Paul O. Komora, *The Medical Department of the United States Army in the World War* (Washington, DC: US Government Printing Office, 1929), 57.
50. Strecker, "Military Psychiatry: World War I."
51. An act to provide Federal Government aid for the readjustment in civilian life of returning World War II veterans, June 22, 1944. United States Statutes at Large 58 Stat. L. 284.
52. See, for example, Schnur, Lunney, and Sengupta, "Risk Factors for the Development."
53. Wade Pickren and Stanley F. Schneider, *Psychology and the National Institute of Mental Health* (Washington, DC: American Psychological Association, 2005).
54. Simon Wessely, "Twentieth-Century Theories on Combat Motivation and Breakdown," *Journal of Contemporary History* 41, no. 2 (2006): 281–82.
55. Richard A. Kulka, William E. Schlenger, John A. Fairbank, Richard L. Hough, B. Kathleen Jordan, Charles R. Marmar, and Daniel S. Weiss, *Trauma and the Vietnam War Generation: Report of Findings from the National Vietnam Veterans Readjustment Study* (New York: Brunner/Mazel, 1990); Richard A. Kulka, William E. Schlenger, John A. Fairbank, Richard L. Hough, B. Kathleen Jordan, Charles R. Marmar, and Daniel S. Weiss, *The National Vietnam Veterans Readjustment Study: Tables of Findings and Technical Appendices* (New York: Brunner/Mazel, 1990).
56. Robert J. Lifton, *Home From the War: Vietnam Veterans, Neither Victims nor Executioners* (New York: Simon and Schuster, 1973).
57. Wilbur J. Scott, "PTSD in DSM-III: A Case in the Politics of Diagnosis and Disease," *Social Problems* 37, no. 3 (1990): 294–310.
58. Simon Wessely and Edgar Jones, "Psychiatry and the Lessons of Vietnam: What Were They and Are They Still Relevant?" *War & Society* 22, no. 1 (2004): 89–103.
59. J. Bisson and M. Andrew, "Psychological Treatment of Posttraumatic

Stress Disorder (PTSD)," *The Cochrane Database of Systematic Reviews*, no. 3 (2005).

60. Simon Wessely, "Risk, Psychiatry and the Military," *British Journal of Psychiatry* 186 (2005): 459–66.
61. Charles W. Hoge, Carl A. Castro, Stephen C. Messer, Dennis McGurk, Dave I. Cutting, and Robert L. Koffman, "Combat Duty in Iraq and Afghanistan, Mental Health Problems, and Barriers to Care," *New England Journal of Medicine* 351, no. 1 (2004): 13–19.
62. Matthew J. Friedman, "Acknowledging the Psychiatric Cost of War," *New England Journal of Medicine* 351, no. 1 (2004): 75–77. This editorial discusses the findings of Hoge, Castro, Messer, McGurk, Cutting, and Koffman, "Combat Duty in Iraq and Afghanistan."
63. Charles C. Engel, Kenneth C. Hyams, and Ken Scott, "Managing Future Gulf War Syndromes: International Lessons and New Models of Care," *Philosophical Transactions of the Royal Society, Biological Sciences* 361 (2006): 708.
64. Edgar Jones, Robert Hodgins-Vermaas, Helen McCartney, et al., "Post-Combat Syndromes from the Boer War to the Gulf War: A Cluster Analysis of Their Nature and Attribution," [published correction appears in *BMJ* 324 (2002): 397] *BMJ* 324 (2002): 321–24; see also Edgar Jones, "Historical Approaches to Post-Combat Disorders," *Philosophical Transactions of the Royal Society, Biological Sciences* 361 (2006): 533–42.
65. Engel, Hyams, and Scott, "Managing Future Gulf War Syndromes."
66. Mark Harrison, *Medicine and Victory: British Military Medicine in the Second World War* (Oxford: Oxford University Press, 2004).
67. Gerald N. Grob, *Mental Illness and American Society, 1875–1940* (Princeton, NJ: Princeton University Press, 1983).
68. See, for example, Thomas W. Salmon, "The Prevention of Mental Diseases," in *Preventive Medicine and Hygiene*, ed. Milton J. Rosenau (New York: Appleton, 1913).
69. Thomas W. Salmon, *Mind and Medicine* (New York: Columbia University Press, 1924).
70. William C. Menninger, "Psychiatric Experience in the War, 1941–1946," *American Journal of Psychiatry* 103, no. 5 (1947): 578.
71. Edward A. Strecker, "Presidential Address [to the American Psychiatric Association]," *American Journal of Psychiatry* 101, no. 1 (1944): 1.
72. Roy R. Grinker and John P. Spiegel, *Men Under Stress* (Philadelphia: Blakiston, 1945).
73. Gerald Grob, "The Lessons of War, 1941–1945," in *From Asylum to Community: Mental Health Policy in Modern America* (Princeton, NJ: Princeton University Press, 1991); Gerald N. Grob, "World War II and American Psychiatry," *Psychohistory Review* 19 (1990): 41–69.
74. See, for example, Helen Leland Witmer, ed., *Teaching Psychotherapeutic Medicine, an Experimental Course for General Physicians, Given by Walter Bauer and Others* (New York: Commonwealth Fund, 1947).
75. Kenneth E. Appel, John M. Mitchell, and William T. Lhamon, "Psychiatric Values in a New Method of Medical Education," *American Journal of Psychiatry* 109, no. 2 (1952): 102–7.
76. See, for example, Frank Furedi, *Therapy Culture: Cultivating Vulnerability in an Uncertain Age* (London: Routledge, 2004).
77. Gary King and Lisa L. Martin, "The Human Cost of Military Conflict" (paper, Conference on Military Conflict as Public Health Problem, Cambridge, Mass, September 29, 2001).