

QUESTIONABLE PROGRESS

Medical Treatment of Shell Shock in the First World War

Throughout World War I, doctors were conflicted regarding the diagnosis, pathology, and treatment of mental trauma. Physicians debated the causes of “shell shock”; some thought literal shell explosions caused mental trauma, while others attributed psychological trauma to repression or previous psychological weakness. Doctors also varied wildly in their estimates of how many soldiers were afflicted. Treatments during World War I were similarly various. Different doctors advocated for treatments that included hypnosis, rest, activity, or electroshocks. Many physicians considered shell shock a matter of will, believing that victims could decide to become well. Remarkably, during this early period of understanding of wartime psychological trauma, most doctors asserted that shell shock could be definitively cured. This paper reviews primary and archival sources that elucidate the conflicted nature of the medical profession, and call into question claims that the experience of World War I helped “progress” medical understanding of mental health.

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World War I catalyzed advancements in military and medical fields; however, a thorough analysis indicates that historians should be wary of arguing that the First World War represented a period of progress in psychological understanding and care. Via an analysis of physician reports, as well as archival research from a London hospital, one can conclude that throughout the war, doctors remained fundamentally conflicted and confused in regard to diagnosis, pathology, and treatment of mental trauma. This confusion led to inconsistent treatment by doctors and insufficient compensations by the government for veterans' care. Nevertheless, the war did help expand methods of addressing mental health issues and military psychological testing. In sum, investigation of the medical practices of the United States and United Kingdom illustrates that the gains from the First World War in the field of psychology were limited and contradictory.

Historians describe the First World War as a turning point for the military and society, on account of the marked departure from “gentlemanly” battle and the first use of new technologies such as tanks and poison gas in conflict.¹ In the medical field, historians such as Paul Starr cite World War I as inaugurating advancements in surgery, ambulatory care, and hospital systems.² Some medical historians also describe instances of progress in mental healthcare during World War I as doctors began to treat shell shock and write about this phenomenon.³ For example, Anthony Babington writes that World War I was a “turning point” in which the “stigma” surrounding the mentally ill was reduced by “greater understanding of the factors which had led to their condition.”⁴ Fiona Reid writes that a more “enlightened point of view” characterized debates about psychological issues after the experience of World War I.⁵ Reid also



A shell-shocked Australian soldier near Ypres, 1917.

Source: Government of the United Kingdom (Wikimedia Commons)

discusses how medical research during the war contributed to “progress in medical understanding.”⁶ However, further scrutiny indicates that there are reasons to question this conception of linear ‘progress’; much evidence suggests that advancements in the field of psychological health lagged.

A MULTIPLICITY OF SYMPTOMS AND CAUSES

During World War I, the multitude of symptoms that could indicate psychological trauma overwhelmed and confused responding physicians. Doctor Harvey Cushing, a British surgeon, describes a broad array of general malaise which could be diagnosed as conflict-onset psychosis: “general

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tremor, an anguished expression, and semiconscious.⁷ Thomas Salmon, an American physician studying shell shock in British and French troops, noted a multiplicity of possible symptoms:

Disturbances of psychic functions include delirium, confusion, amnesia, hallucinations, terrifying battle dreams, anxiety states...heart disorders, low blood pressure, vomiting and diarrhea, enuresis, retention or polyuria, dyspnoea, sweating. Disturbances of voluntary muscular functions include paralyses, tics, tremors, gait disturbances, contractures and convulsive movements.⁸

This lengthy catalog still does not exhaust all of Salmon's possible indicators, as his report listed several more lines of symptoms. Opinions regarding the prevalence of psychological trauma also varied widely, with estimates ranging from reporting shell shock as rare and almost non-existent, to impacting upwards of 42 percent of combatants.⁹ Thus, each responding medical officer was armed with an exhaustive array of possible symptoms and treatments, with very different ideas about the frequency of neurosis, which resulted in widely different treatments.

For the duration of the First World War, physicians debated the causes of this mental trauma. Especially in the early years of the war, most reports associated psychological problems with literal bombardments, hence the term 'shell shock.' F.W. Mott, a British psychiatrist active in 1914 and 1915, wrote that the physical damage to the nervous system caused by bombing resulted in psychological trauma. According to Mott, the strength of some explosions caused physical damage, while others caused psychological damage. Mott thoroughly detailed the neurobiological basis for this literal shell shock on a cellular level.¹¹

Similarly, Charles Myers studied shell shock in the early years of the war by visiting field stations and examining patients; he concurred that physical bombing caused shell shock.¹² Similarly to Mott, Myers wrote about the connection between the "physical shock produced by the bursting of a shell [,] high frequency vibrations" and an "invisibly fine 'molecular' commotion in the brain which, in turn, might produce dissociation."¹³ He also conjectured that poison gas could be related to psychological trauma.¹⁴ Both of these conclusions presumably resulted from an erroneous assumption of causation between psychological trauma for soldiers in the trenches and the presence of shelling and poison gas. Gustave Roussy, who operated a neurological center in France in 1916, also connected "the explosion of a projectile close at hand" with the symptoms of shell shock.¹⁵ Dr. Alfred Carver conducted experiments in which he detonated explosives near animals that appeared to confirm this theory.¹⁶ First-hand accounts also seemed to support this conclusion. Cushing described shell shock as directly related to "trench warfare and the frightful bombardments," a conclusion he reached after diagnosing a case of shell shock

in which a patient was exposed to "the near-by explosion of a shell, which did not injure him, [but] has now... completely changed [his] personality."¹⁷ Thus, for physicians in the early years of the war, a logical but flawed response credited physical shelling with trauma.

In later years, doctors began to consider other psychological causes. However, even in the final years of the war, doctors acknowledged these mental foundations as contributing causes but still identified physical shelling as a definitive causative factor of shell shock. Myers, who initially perceived physical shelling as the sole cause of shell shock, later amended his earlier conclusions and wrote that "emotional disturbance alone [can be] a sufficient cause."¹⁸ By 1922, the British War Office Committee of Inquiry noted that psychological trauma "need not be taken as implying only shock from subjection" to shelling.¹⁹ Significantly, neither Myers nor the British governmental report refuted shelling as a cause of shell shock; they only acknowledged that other factors might also contribute to the phenomenon.²⁰

Physicians began to recognize psychological causes for shell shock later in the war. In the field of mental health, as in other capacities, the United States undoubtedly benefited from entering the war in 1917. The United States military perceived that it could learn from the mistakes of Britain and France regarding shell shock treatment and sent representatives to study British and French strategies. Therefore, at the request of the United States Surgeon General, Dr. Thomas Salmon visited the front in May 1917 to study treatment of shell shock.²¹ Salmon concluded that shell shock represented "essentially a problem in psychological medicine."²²

However, even amongst physicians who recognized a psychological rather than physical basis of shell shock, many doctors still attributed post-traumatic stress symptomology and recovery to previous psychosis, mental weakness, and repression. The perception that shell shock victims were actually guilty of cowardice waned as time progressed but still remained substantial throughout the duration of the war. As late as 1922, an article in the leading British medical journal *The Lancet* acknowledged that very few shell shock victims were feigning symptoms, but it did discuss the difficulty of separating the minority of "malingerers" and "cowards" feigning shell shock from legitimate victims.²³ Similarly, Dr. William Brown, who wrote about his experience in a neurological center, reported "catching" several malingerers while treating shell shock patients, whom he "induced...to confess" their cowardice.²⁴ Likewise, a doctor of neurology serving as a witness at the 1922 British War Office Committee of Enquiry Into Shell-Shock testified that he was "not prepared to draw a distinction between cowardice and 'shell shock.'"²⁵ Thus, while medical attitudes towards psychological trauma did evolve away from blaming victims for cowardice, this impulse remained strong and substantial within sections of the medical community.

The body of research during and following the First World War largely supported a theory that previous psychological issues were a main causative factor of shell shock. Roussy concluded that war only amplified pre-existing conditions, and that shell shock victims “were in reality cases of...the insane....the war had only added colour to their madness.”²⁶ Brown concurred; he noted that for patients, “earlier mental worry” represented the main instrumental cause for their psychosis.²⁷ In a 1919 article in *The Times*, British doctor

published an article in *The Lancet* that ascribed shell shock to soldiers’ repressed emotions of stressful war experiences.³⁵ In an extension of this repression theory, Brown and Mott conjectured that in diagnosing shell shock, Freud’s dream theories might be useful.³⁶ Indeed, the wide array of theories of causation—previous psychosis, cowardice, mental weakness, and repression—further complicated diagnosis, which, as previously discussed, already involved a multiplicity of possible symptoms.

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Knowles Stansfield agreed, disseminating and popularizing a viewpoint that blamed the victim rather than the war.²⁸

Likewise, many medical officers also related mental weakness to the causes of shell shock. One French medical officer wrote, “Functional disorders, in my opinion, can occur only in individuals whose emotional tone has relaxed.”²⁹ Salmon similarly opined that victims “suffer from a disorder of will as well as function.”³⁰ This perception that mental weakness contributed to shell shock affected conceptions about how to treat the disorder, leading some doctors to conclude that convincing the patient to recover should be a sufficient treatment. For example, Brown noted the importance of the patient’s “enthusiastic expectation of a rapid recovery.”³¹ Roussy affirmed that shell shock “must not be confused with common cowardice,” but he still equated hysteria with a lack of will; he commented that doctors must push patients to have the “power, energy or desire to recover,” because patients “lack[ed]” these traits and “[were] unable to attain by their own effort.”³² Yealland also proposed that willpower and suggestion could overcome neurosis. He reported advising a patient:

I shall leave you for five minutes and during that time I want you to think. Give your lazy brain some work to do. When I come back to you I shall expect to find a man with all his mental faculties intact. Do you understand? He looked rather ashamed and said he was sorry.³³

Interestingly, Yealland found this strategy successful, noting that when he “returned to [the patient] in ten minutes, and found his mental condition changed; he was now sober and rational.”³⁴ Thus, even among doctors who did not explicitly tie cowardice to shell shock, many medical professionals retained a focus on implicating the victim, either for previous psychosis or mental weakness.

Other physicians diverged, attributing mental trauma to psychological repression. In February 1918, W.H.R. Rivers

DIVERSE TREATMENTS

The treatments recommended by contemporaneous reports and physicians were also varied and often confused. Different doctors advocated for specific programs, which included physical treatments, psychological treatments, and sometimes both. Many doctors promoted physical interventions as forms of treatment. Salmon recommended hypnosis, as well as hydrotherapy and electrotherapy.³⁷ Similarly, British doctor Lewis Yealland described a treatment of electroshocks for patients.³⁸ Interestingly, Yealland focused on the physical location of symptoms, shocking patients on localized body parts to address these “involuntary movements” rather than their fundamental mental problems.³⁹ While Yealland also focused on willpower as important for treatment, this shock-focused treatment plan indicates a confused conceptual understanding of shell shock as both related to the mind and also tied to the body; Yealland assumed that if a shell shock victim suffered from hand tremors, shocking his hand could cure shell shock. Roussy advocated for psychotherapy but acknowledged that some patients required “special treatment” such as hydrotherapy and electroshock.⁴⁰ Mott suggested the physical treatment of hydrotherapy as a result of his conclusion that physical damage from shelling caused shell shock.⁴¹ Roussy also believed that isolation should be a key aspect of treatment, because he believed that psychological disorders could be transferable.⁴² However, in another example of conflicting professional opinions regarding shell shock, Brown actively opposed isolation.⁴³ Thus, treatments advocated by different doctors ranged from more mainstream ideas mentioned by many physicians, such as hypnosis and electroshock, to the bizarre, such as Roussy’s advocacy for an all-milk diet.⁴⁴ This lack of consensus regarding treatment further added to confusion regarding shell shock treatment.

Some physicians also recommended psychological treatments. Rivers, the creator of the “repression” theory, suggested “re-education,” in which a doctor slowly helped



“Professeur Roussy”

Source: *Agence de presse Meurisse, Bibliothèque nationale de France (Wikimedia Commons)*

a patient address his repressed memories.⁴⁵ Brown also agreed that suppressed memories caused symptoms, but advocated for a treatment plan in which the patient re-lived the trauma while under hypnosis.⁴⁶ Cushing agreed with the idea of hypnosis, describing a patient who “has absolutely no recollection of a previous existence, but when put in an hypnotic state he is his former self in every respect and perfectly clear on all events up to the moment of the explosion of the shell.”⁴⁷ In yet another divergent treatment method, Roussy advised rest and a version of “psychotherapy,” in which a doctor essentially convinced a patient to no longer be ill.⁴⁸ Conversely, as a result of his conclusion that mental weakness contributed to shell shock, Salmon suggested that shell shock victims’ treatment should not involve too much leisure time.⁴⁹ Thus, as with shell shock etiology, doctors were divided regarding treatment for mental disorders.

Doctors documented this confusion in the medical community regarding shell shock. Roussy described the “whole subject of the psychical disorders of war” as “somewhat confused and uncertain.”⁵⁰ Babinski noted in 1918, regarding the prevalence of hysteria, “opinions...do not agree.”⁵¹ Interestingly, despite recognizing these inconsistencies, all physicians reported remarkably high success rates. Roussy

concluded that 98 to 99 percent of his patients recovered.⁵² However, he felt that most of his patients required prolonged leave and transfers away from the front.⁵³ Brown ambitiously reported that his hypnosis treatment cured “every single one” of his patients.⁵⁴ In his study, Salmon concluded that the sometimes-lengthy hospital stays for shell shock rendered “the outcome in the war neuroses... poor from a military point of view,” but still felt that recovery outcome “is good from a medical point of view.”⁵⁵ Thus, remarkably, doctors did not agree regarding the causes or treatment of neurosis, but individually asserted that their various amorphous therapies for this ill-defined disease could definitely cure patients.

Several contemporaneous reports commented on administrative methods to address shell shock. Cushing noted in his diary that medical officers were often “undermanned.”⁵⁶ Roussy likewise recommended caring for victims as expeditiously as possible at the front, instead of evacuating victims to larger hospitals.⁵⁷ Salmon, the United States physician sent to study treatment on the Western Front, wrote that British doctors were unprepared in 1914 for the cases of shell shock, confirming the reports of Cushing.⁵⁸ The inexpedient procedure of sending Allied shell shock victims to Britain overwhelmed British hospitals. Death rates in asylums increased during the war years.⁵⁹ Salmon therefore recommended that the US should amend these procedures, and instead develop an intermediary treatment system.⁶⁰ Salmon concluded that the US should develop an early treatment system, as “the French and the British experience shows the great desirability of instituting treatment of ‘shell shock’ cases as early as possible.”⁶¹ As a result of these reports, the Allies implemented a revised system of treatment and increased the resources allocated towards mental hospitals in Britain and the United States in the final years of the war. For example, responding to these reports, the United States trained a large number of doctors to respond to shell shock.⁶² As an indicative example of this increased awareness of mental health concerns, the military changed Myers’ title of “Specialist in Nerve Shock” to “Consulting Psychologist” in August 1916.⁶³ The experience of World War I therefore expanded mental health treatment centers and changed treatment strategy.

Doctoral confusion regarding pathology and outcomes for shell shock victims can help explain the inadequate post-war treatment of shell shock victims. Government treatment of shell shock victims can perhaps be best understood through the pension system. A British report to the Minister of Pensions in 1918 recounted that only 5.9 percent of pensions were given for psychological injuries.⁶⁴ Strict guidelines specified which injuries and amputations qualified for what compensation. These technicalities made receiving an army pension for any injury, let alone psychological trauma, a difficult process, leaving many veterans undercompensated.⁶⁵ Additionally, men reported very poor conditions in government hospitals treating shell shock.⁶⁶

Traumatized American veterans fared better than their British counterparts. In the United States, a commission reported that by 1927 nearly 50 percent of veterans receiving hospital treatment through the Veterans Bureau had “neuropsychiatric disabilities.”⁶⁷ While this was likely an overestimation, the methodology of the United States veterans’ compensation system did advantage United States shell-shock victims. Unlike the British system, which based compensation on specific bodily injuries, the War Compensation Act in 1924 authorized a bonus to veterans based on the length of their service.⁶⁸ This system avoided bias towards physical injuries. Still, government treatment was often inadequate, as these bonuses were not payable until 1945.⁶⁹ In sum, compensation for all veterans in both nations was largely insufficient, especially so for victims of shell shock. The confused understanding of shell shock and contradictory medical recommendations to governmental committees likely contributed to this inadequate treatment.⁷⁰

THE MAUDSLEY AS A CASE STUDY

The Maudsley Hospital in Britain provides a salient case study of many of the aforementioned trends in mental health care during and after World War I. Doctor Henry Maudsley established the Maudsley Hospital for mental patients, which was then turned over to the Ministry of Pensions during the First World War for housing and treating soldiers suffering from shell shock.⁷⁷ Edward Mapother served as the first Medical Superintendent, and aforementioned doctor Mott also worked at the hospital.⁷⁸ The perspectives of the Maudsley clinicians on their experiences treating shell shock exhibit, in miniature, the problems experienced by the medical profession.

The experiences of the war did not clarify the Maudsley doctors’ diverse, racially-tinged, and scattered conceptions of psychology. In 1868, Maudsley wrote that “probably as high as one-fourth, possibly as high as three-fourths” of insane individuals were predisposed to insanity from heredity factors.⁷⁹ He also

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Significantly, many physicians also focused their reports on preventative treatment measures. For most doctors, especially those who perceived mental weakness as a causative factor, preventing shell shock involved screening to ensure that the mentally unfit did not serve in the military. Salmon recommended, in what he characterized as the most significant portion of his report on British and French treatment systems, that the United States develop a system to exclude the psychologically incompetent from military service.⁷¹ Rivers, who blamed shell shock on repressed emotions, also addressed pre-screening for individuals prone to repression.⁷² J. Babinski, a French physician in the Medical Hospitals of Lyons, suggested that “an examination [be] made for any hysterical disorders” before entry into the armed services.⁷³ This focus on preventative measures and military productivity helped advance the “mental hygiene” movement, in which doctors stressed the importance of preventative mental health measures in the population.⁷⁴ For example, a 1921 report noted the prevalence of soldiers discharged for shell shock. It advocated for prevention and a focus on mental hygiene as methods to avoid this loss of soldiers.⁷⁵ Thus, most physicians did concur that preventative measures such as screening could improve outcomes for both soldiers and the army. As a result, both the US and Britain developed a more comprehensive screening system for psychological issues, which they implemented during the Second World War.⁷⁶

described “insane deformities of the mind” as related to “moral imbecility.”⁸⁰ The war did little to change the Maudsley doctors’ conceptions of mental health. By 1921, Mott still agreed with Maudsley that “the large majority of the insane are hereditarily disposed.”⁸¹ In 1927, Mapother wrote that after the war, mental illness had improved, but for perplexing reasons which do not indicate a progressive understanding of shell shock: “During post-war years damage done by mental disorders due to demonstrable physical causes has been reduced in two main ways, viz., by the great decrease of morbid alcoholism and by the modern treatment of neurosyphilis [syphilis].”⁸² After the wartime experience, Mapother echoed Maudsley’s original ideas. Mapother wrote, in 1931, that most psychological cases were due to “1) inheritance 2) deviation of adjustments due to physiological epochs and 3) mental experience.”⁸³ As late as 1935, the Maudsley director echoed that the primary solution for “war neurosis” was simple: “employment.”⁸⁴ The treatment of shell shock victims during World War I did not have an overwhelmingly progressive influence on the ideas of the doctors at the Maudsley Hospital.

While the Maudsley’s experience cannot be treated as universal, the case study of this influential hospital is informative, and adds to evidence that indicates that the World War I experience had limited modernizing effects on the medical community in the U.S. and the U.K. Progress regarding mental health during the First World War

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was limited. Doctors began to recognize shell shock as a legitimate disorder with the possibility of a psychological component. Additionally, to address these patients, Britain and the United States developed a more specialized and systematized hospitalization and military screening system at the end of the war. However, diagnosis and treatment for shell shock victims was at best confused and inconsistent. Such confusion in opinion from the medical profession helps explain the limited and inadequate aid the United States and Britain offered shell-shocked veterans. While World War I represented some partial advancements in the field of mental health, on the whole, gains were illusory and restricted. The history of healthcare in the twentieth century often lends itself to a story of progress and steady development. The World War I mental healthcare experience warns that advancements are not always linear or constant, and historians should be wary of too easily endorsing the seductive narrative of “progress.”



Endnotes

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