Combat Fatigue from the Civil War to Desert Storm: An Overview

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Syndromes of combat stress have long been described in the medical literature. In a study of 300 soldiers from the U.S. Civil War, Da Costa (1),(2). described a condition he called "irritable heart". This condition appeared to affect soldiers exposed to combat, as well as civilians. It was characterized by shortness of breath, palpitations, and exertional chest pain, as well as headache and dizziness. Da Costa attributed the condition to various causes, including infectious diseases. The post-Civil War literature also described a syndrome called "nostalgia". This was felt to have a psychological cause and was attributed to severe homesickness. It was characterized by extreme apathy, loss of appetite, diarrhea, and sometimes fever (3),(4).

The slide shows some of the horror of the Civil War, namely the aftermath of the Battle of Antietam that took place on September 17, 1862. It was the bloodiest day of the war and resulted in 23,000 killed and wounded. The picture you're looking at is of Bloody Lane where 5,000 soldiers lay dead after the battle.

During World War I, a syndrome similar to the one described by Da Costa became a major cause of medical evacuations back to England. It was given various names: Da Costa syndrome, soldier's heart, effort syndrome (as the symptoms were exacerbated by effort), and in the United States, it was called neurocirculatory asthenia (5). Despite much effort to find both causes and treatments, little consensus was reached in this regard, nor was consensus reached over whether the primary etiology was physiological or psychological in nature.

During the war, another syndrome was described that attributed an acute illness to the stress of combat. It was felt that these soldiers who suffered from an incapability to

function in the war environment were suffering from some type of brain damage caused by the concussion associated with explosions from modern weapons (6). Hence the diagnosis of "shell shock" was developed. It was also referred to as "trench neurosis". Typical symptoms included breakdown in battle, dazed or detached manner, exaggerated startle response, and severe anxiety (7). Studies conducted around 1916 determined that this phenomenon was a psychological disorder (8).

Here we see Australian soldiers during the third Battle of Ypres in Belgium. Note particular the soldier on the left.

Early in the war, the French and Germans realized that psychiatric casualties were best treated near the front, instead of being evacuated to base hospitals. This concept was embraced by the Americans when they entered the war. This was in contrast to the British, who evacuated all of their psychiatric casualties. By 1916, the British realized that the results of their evacuation policy were very disappointing and they adopted a policy of treatment near the battlefront (9).

Elements of the U.S. Second Marine Division served in France, supported by naval medical personnel, who manned aid stations near the front lines. They provided mainly first aid, and processed patients for transfer to the rear to army field hospitals. There appears to be no record of Navy psychiatrists serving with the Marines in France (10).

The experience with combat stress patients in World War I showed that many could be rehabilitated utilizing the treatment principles first described by Dr. Thomas Salmon (11)of "PIE"; **P**roximity- treatment near the front lines, **I**mmediacy- immediate initiation of short-term treatment once the problem was identified, and **E**xpectancy-

treatment with the expectancy of a prompt return to duty. The primary dynamic operating in a majority of patients was a man's need to handle his feeling of guilt for letting down his comrades, as well as his pride and identification with his unit (12). Salmon was an emissary of the US Army Surgeon General who observed and synthesized the British and French experiences into a comprehensive treatment and prevention program.

Here is Dr Salmon, along with his principles and his credo.

Despite the World War I experience indicating successful treatment of combat stress patients utilizing "PIE" techniques, these and other lessons learned were apparently forgotten in the inter-war period. Although these lessons were documented in U.S. Army Medical Department publications (13), the Army doctrine at the beginning of World War II was that only weak neurotic men succumbed to what was now called "combat fatigue" or "combat exhaustion"; normal soldiers did not break down. This lead to the Army's reliance on screening psychiatric interviews. The policy was to routinely hospitalize and then discharge anyone screened with the diagnosis of "psychoneurosis" (14). This lead to an unacceptably high discharge rate, and it was not until late 1943 that the Army began considering each individual on a case-by-case basis.

John W. Appel, M.D. joined the Army in 1941, and quickly realized the futility of the Army's screening process. He proposed to the Surgeon General the concept of Preventive Psychiatry and championed this utilizing an epidemiological approach. Realizing the importance of motivation and moral in preventing psychiatric combat casualties, Appel was involved with Hollywood director Frank Capra in making the five movie series *Why We Fight*. Appel and his team studied the length of combat effectiveness for a soldier in a combat zone and ultimately recommended an infantryman

combat tour of 180 aggregate days. Appel also stressed the importance of psychiatric support at the front lines and gradually the concepts developed in World War I were re-instituted. By the end of the war, it was readily acknowledged that every man has a breaking point during combat exposure (15).

Tom Lea was a war correspondent and artist embedded with the US Marines in the Pacific. His reporting and artistry, especially from the Battle of Peleliu in the Pacific, graphically brought home to horror of the combat experience. His famous painting, "The 2000 Yard Stare" is possibly the most famous depiction of combat stress in history.

During World War II, the U.S. Navy also initially ignored the World War I lessons of "PIE". Despite this, the Navy and Marine Corps had a much lower rate of combat fatigue casualties than the Army. There were several factors to account for this. During most of the war, the Navy and Marine Corps personnel were volunteers, unlike the Army. Hence they were more motivated and the Navy and Marine Corps were able to set higher physical and mental standards. The Navy also had psychologists in place at Naval Training Centers before the war started, and hence had a more sophisticated and effective screening program (16).

Our slide shows CDR Bart Hogan, who was Senior Medical Officer aboard the USS WASP when it was hit by two Japanese torpedoes and sunk on September 15, 1942. Hogan, a psychiatrist, interviewed the survivors at three points in time within the first three weeks of the torpedoing and reported his findings to the May 1943 meeting of the American Psychiatric Association. Another severe combat stressor encountered by the US Navy was that of Japan's kamikaze attacks. It was during

the Battle of Okinawa that continued kamikaze attacks resulted in the first time in naval history that the number of killed and missing exceeded the number of wounded.

Underscoring the prevalence and importance of combat fatigue, the United States Navy produced a film entitled "Combat Fatigue" starring LT(jg) Gene Kelly. You are looking at a still shot from the movie and I want to thank Andre Sobocinksi for providing this to me.

In the Korean War, much of the lessons learned from World War II were utilized once the initially chaotic combat situation stabilized. Initially psychiatric casualties were evacuated to Japan or the United States, at one point accounting for almost a third of some front line combat units. Applying the lessons learned from WWII, Commander Sam Mullin, USN was sent to Korea where he established front line treatment programs, and educated other medical personnel in the management of psychological casualties (17). **Here we see artwork from a Korean War veteran John Fenwick that shows a soldier suffering from combat stress. Note comments. On the same slide is a famous photo taken by combat photographer David Douglas Duncan showing a Marine during the Chosin reservoir campaign where the 1st Marine division was completely surrounded, outnumbered over 5 to 1 and had to fight their way back 78 miles to the sea with all of their wounded and equipment.**

During the Korean conflict, the Navy had a simple, but effective treatment protocol for psychiatric casualties. It consisted of rest, hot food, mild sedation and encouragement. The psychiatric aid stations returned about 70% of their patients to

combat within 10 days. During this time, the relapse rate for the Marine Corps was about 6%. While the U.S. Army had a return to duty rate of 80%, their relapse rate was nearly 33% (18). In addition, it had been observed that there was a higher rate of combat fatigue cases occurring in the South Pacific theatre as compared with the European theatre in WWII. Acknowledging an environmental causal factor, the Navy implemented a nine month rotation period, thus limiting their personnel to this environmental exposure (19).

The Navy frequently utilized hospital corpsmen and often other patients to aid with therapy and also peer counseling. Frequent trips to frontline medical units by Commander Mullin helped to educate their personnel in the management of psychiatric casualties and as a result there were fewer men actually sent to the psychiatric aid stations. Typically, with the First Marine division in Korea, there were two psychiatrists and two clinical psychologists assigned (20).

The lessons learned from prior conflicts were readily utilized during the Vietnam War. For all services, combat fatigue accounted for less than 6% of all psychiatric hospitalizations, and the return to combat rate was 78% (21). The nature of the combat in Southeast Asia may well have contributed to this outcome. In contrast to World War II, combat involved small units with scattered encounters with the enemy, with periods of relative calm and safety interspersed, during which times men enjoyed good food and recreational facilities, including access to bars and brothels(22). In addition, combat tours were limited to 12 months.

The slide shows a US Marine prior to medevac for combat stress from Hue, during the Tet Offensive in Jan-Feb 1968. Described as the bloodiest battle of the war, The North Vietnamese has slaughtered nearly 3,000 citizens after overrunning the city.

It took the 1st Marine Division of the USMC nearly a month to retake the city literally house by house- a technique not seen since World War II and for which they had no training. At battle's end, while loosing over 200 fellow marines, they had killed over 8,000 North Vietnamese and Viet Cong.

Studies of U.S. Marine psychiatric casualties aboard the U.S. Navy Hospital Ship REPOSE revealed an interesting presentation of cases of combat fatigue versus what was described as "pseudo-combat fatigue"(23). The cases of combat fatigue comprised only 15% of all of the psychiatric casualties aboard the REPOSE, and this percentage paralleled the experience of the medical officers assigned to the Marine units ashore. The characteristics of the combat stress patients aboard REPOSE were: they were young men of considerable responsibility with excellent military records, they had been in the war zone for greater than six months, and had a strong sense of bonding with their unit. The most common presentation was that of insidiously or acutely developing generalized anxiety or depression with accompanying psychopathological manifestations.

Display chart on Combat Fatigue vs "Pseudo"-Combat Fatigue

The cases of pseudo-combat fatigue were commonly seen in young men with pre-existing personality disorders who became symptomatic in the war zone environment. They often had a past history of poor adjustment behavior, poor stress tolerance, poor emotional control, and possible prior psychiatric symptoms. They had often been in the war zone for less than six months. In general they identified poorly with their military unit, and rarely were in a leadership position. Unlike combat fatigue patients, they rarely had guilt feelings, and as a group they responded poorly to treatment. While in the

hospital environment, their symptoms would often improve. However, the symptoms frequently recurred with the prospect of return to duty.

The pattern of psychiatric presentations also differed during the Vietnam War. Substance abuse and lack of discipline often superimposed on underlying personality disorders were major factors leading to many instances of administrative separation from the service. In 1969, in the Navy and Marine Corps, the number of dishonorable discharges increased 53% (24). By mid-1971, 61% of all medical evacuations from Vietnam were neuro-psychiatric patients resulting from substance abuse (25).

During the war, psychologists were attached to each of the two Marine Corps divisions stationed in-country, as well as at the primary receiving hospitals in Japan, Okinawa, and Guam. The mental health teams that served in-country in Vietnam consisted of a psychiatrist, a psychologist, and two to four hospital corpsmen. (26).

During the Gulf War, there was a remarkably low incidence of combat stress reactions reported during both the air war phase and the ground combat phase. Some of the factors that contributed to the mental health of the Persian Gulf units included the lack of easy access to alcohol and illicit drugs; the successful and unambiguous outcome of the operation; the continued support from home; and the redeployment priority of moving personnel out of the theater as quickly as possible(27).

Although the actual ground combat phase lasted only 3 days, Navy medical personnel treated cases similar to combat stress that occurred during the phase of anticipation of actual combat. True described successful treatment of a case typical of anticipatory combat stress at Fleet Hospital Five (28). The treatment modalities

employed were identical to those used by the Navy for actual combat stress patients, and patient was discharged to full duty in 72 hours.

Possibly the most striking image from the short ground campaign is this image of a US Army sergeant injured in a friendly-fire incident, shown when he learned that his good friend was killed by the fire and is in fact in the body bag next to him.

When Operation Desert Storm ended, the rapid demobilization lead to a newly described form of stress that was reported by Garland (29). The "stay-behind" units consisted mainly of non-volunteer combat support troops as well as a small self-defense force retained in Kuwait. These troops found themselves with a very large mission to accomplish without the sense of purpose or patriotism that characterized Operation Desert Shield/Desert Storm. In addition, they were frequently without their parent units, and dealt with unfamiliar commanders. As a result, the psychiatric evacuation rates rose dramatically, with depression being the most frequent diagnosis. This pointed out the importance of mental health assets in the post-combat phase as well as in the pre-combat phase.

Acknowledging the importance of combat stress, the Uniformed Services University of the Health Sciences (USUHS) has developed a course in battle fatigue identification and management (30). All fourth year students take a course in Military Contingency Medicine which contains a module in battle fatigue identification, management, and prevention (BFIM). These acquired skills are tested during the 5-day field training exercise known as Operation Bushmaster, which is taken during the senior year at USUHS.

Footnotes

1. Hyams K, Wignall F, Roswell R. War syndromes and their evaluation: From the U.S. Civil War to the Persian Gulf War. Ann Int Med. 1996;125:398-405.

2. Da Costa JM. On irritable heart: a clinical study of a form of functional cardiac disorder and its consequences. Am J Med Sci. 1871;61:17-52.

3. Hyams K, Wignall F, Roswell R. Op cit.

4. Peters DC. Remarks on the evils of youthful enlistments and nostalgia. American Medical Times. 1863;6:75-76.

5. Hyams K, Wignall F, Roswell R. Op cit.

6. Kempton K. A management proposal for determining the effects of combat stress on the man-machine interface of complex information display systems (Masters dissertation, Naval Postgraduate School, 1991) Defense Technical Information Center, 91-1216-035.

7. Hyams K, Wignall F, Roswell R. Op cit.

8. Kempton K. Op cit.

9. McGuire F. (1990) Psychology Aweigh! Washington, DC: American Psychological Association.

10. McGuire F. Op cit.

11. Hazen S, Llewellyn, C. Battle Fatigue identification and management for military medical students. Military Med. 1991;156:263-267.

12. McGuire F. Op cit.

13. Bailey P, Williams FE, Komora PO, Salmon TW, Fenton N. (1929) The medical department of the U.S. Army in the world war. Volume X. Neuropsychiatry. Washington, DC: U.S. Government Printing Office.

14. McGuire F. Op cit.

15. Appel J. Fighting Fear. American Heritage, October 1999; 22-30.

16. McGuire F. Op cit.

17. McGuire F. Op cit.

18. McGuire F. Op cit.

19. Kempton K. Op cit.

20. McGuire F. Op cit.

21. McGuire F. Op Cit.

22. Bourne P. (1970) Military psychiatry and the Viet Nam experience. American Journal of Psychiatry, 127, 481-488.

23. Strange R. Combat fatigue versus pseudo-combat fatigue in Vietnam. Military Med. 1968; 133:823-826.

24. McGuire F. Op cit.

25. Department of the Army, Field Manual 8-51, Combat stress in a theater of operations: Booklet1, May 1994.

26. McGuire F. Op cit.

27. Garland F. Combat stress control in the post-war theater: Medical health consultation during the redeployment phase of operation desert storm. Military Med. 1993; 158:334-338.

28. True P. Treatment of stress reaction prior to combat using the “BICEPS” model. Military Med. 1992; 157:380-381.

29. Garland f. Op cit.

30. Hazen S, Llewellyn C. Op cit.