

What was the most important initiative carried out in response to problems posed by the Crimean War (1853 – 1856) in improving healthcare for infantry soldiers during the Crimean war and future wars?

The Crimean war, which Britain joined in 1854, is well known for the disaster that was the healthcare of the British soldiers that fought in it. Newspapers spread the word about the poor conditions the soldiers faced, leading to public outrage and the government being pushed to implement changes as to how it dealt with the healthcare of its soldiers. The government carried out numerous initiatives in the army drawing from the problems faced in the Crimean war, solving these problems during the final stages of the Crimean war and in future wars the British were involved in during the late 19th century. The biggest of these could be argued to have been the improvements to hospitals over this period, however there were other initiatives and solutions to the problems posed that also contributed significantly to the healthcare for the infantry.

One way in which the British government tried to help improve healthcare for the infantry was by increasing the number of medical staff serving in the army that could tend to the sick and wounded, and increasing the co-ordination that these medical staff had with the rest of the army. During 1854, there was a major disconnect between the army and the medical staff, since the logistics behind medical supplies and staff were handled by separate organisations,¹ meaning that they couldn't always be coordinated with the movements of the infantry, and hence not all soldiers would have been able to get the healthcare that they needed. Meanwhile, there was only 1 medical officer in a regiment within the British army. This officer had no qualified medical staff under their command, with only a few men with no medical experience helping.¹ This proved to be a serious problem during the war, as cholera outbreaks resulted in these few medical officers becoming overwhelmed and sick themselves. The quality of the medical staff also proved to be an issue, because at the start of the war, only 52 of the 255 medical officers in the army had medical degrees, with the others only having surgical diplomas, where the methods used during those diplomas were similar to those 40 years before, during the Napoleonic wars.² The government first tried to solve this by organising a "makeshift ambulance corps" that consisted of 370 pensioners, most of whom became sick and unfit for medical duty themselves,³ not solving the issue. In 1855, however, the government tried to solve the problem again by forming the Medical Staff Corps (MSC).⁴ The government appealed for "Men able to read and write, of regular steady habits and good temper and of a kindly disposition" to join,¹ meaning that these people would be qualified for medical duty, if they were at least able to read and write. They also gave people a chance to complete their apprenticeships by volunteering to help in Crimea,³ and they also set up groups of volunteers to serve as doctors or nurses in hospitals such as Scutari. The improved numbers of medical staff helped to provide soldiers with the healthcare that they needed to survive, and some of the volunteers, such as Florence Nightingale, introduced reforms to hospitals that would improve conditions and the life expectancy of soldiers. The creation of the MSC also meant that the medical staff and army could be coordinated to work at the same time. Eventually, the MSC was reformed into the Royal Army Medical Corps, where they treated 22,000 wounded and 74,000 with typhoid fever and dysentery during the second Boer war,¹ showing the importance of the coordination between the army and medical services, and also showing a significant improvement in the healthcare of soldiers.

Another way in which the Crimean war pushed the innovation of healthcare for soldiers was the creation of ambulance trains and ambulance ships. The large amounts of illness and casualties required people to be moved to hospitals, since a lack of medical personnel meant that they couldn't be treated on the battlefield. Early on in the war, there were issues with the ambulance services, caused by a lack

of medical personnel alongside the fact that the only horses available were “small Bulgarian horses” that both had little food and were unable to pull the ambulances, making journeys long, especially given that they were unsuitable for the muddy roads that existed in the area.³ The ambulance wagons were described as “too heavy and lumbering”⁵, meaning that they would sink into the muddy roads caused by the harsh weather in Crimea. Problems like this prompted the creation of “Ambulance trains” which carried the wounded to hospitals further away where there were better medical facilities and more beds. The government authorised the creation of the Grand Crimean Central Railway, where on the Crimean peninsula, tracks were constructed between Sevastopol and Balaclava for trains that carried supplies to the front lines, and casualties away to hospitals in Turkey, helping keep the wounded alive and contributing to helping the issue of keeping the army supplied as well. These trains were also used to keep the armies of Britain’s allies supplied as well.⁶ The success of these ambulance trains resulted in their usage in both world wars to keep soldiers alive and moving them to hospitals, improving their chances of survival. The war also was the first widespread use of hospital ships, which, similar to hospital trains, moved the wounded to hospitals in Scutari, near Istanbul. These hospital ships carried over 15,000 casualties to hospitals, helping their chances of survival.⁷ Hospital ships were equipped with good medical equipment to keep the wounded alive until they reached hospitals, increasing their chances of survival. The success of these hospital ships resulted in the Navy investing in proper hospital ships that were used in the Second Opium War against China in 1860.⁷ Ultimately, the Crimean war helped establish an improved ambulance service with better methods of moving the wounded to medical centers quicker, improving their chances of survival, showing an improvement in healthcare.

In addition to this, the Crimean war improved the healthcare for soldiers in terms of their diets, and the food they ate. Before the war, the importance of food was already known, and the nutritional needs of soldiers could be met by tinned food in the navy.³ However, for the infantry, the supply of proper food broke down relatively quickly and the food provided proved to be poor for the soldier’s health. The main diet consisted of biscuits and meat of “inferior description”³, which gave some soldiers diarrhea and contributed to worsening the cholera outbreak. Meanwhile, the very small diversity of food also led to scurvy developing in the soldiers. The government also gave unroasted coffee beans to the soldiers, even though the soldiers had no way to roast and prepare the beans, leading them to have to improvise as to how to prepare the coffee in bombshells,⁸ which would be very unhygienic and make the soldiers sick. Moreover, some also began to drink excessively,³ which caused the soldiers to take more risks and negatively affected the morale of the soldiers. Overall, the diet of the soldiers in the early stages of the war was terrible and hence caused significant problems to the wellbeing of the soldiers, to the extent that a poor diet was one of the reasons being blamed for the cholera outbreak. The government tried to resolve the issues of food, but bureaucracy often resulted in much-needed food and supplies from reaching the infantry. For example, 150 tons of vegetables were sent to Crimea, but the lack of paperwork resulted in the food needing to be thrown overboard. The government also sent lime juice to help fight scurvy among the infantry, which also remained mostly untouched.⁹ Other food the government tried to send more supplies to Crimea, but storms and the winter resulted in storms damaging supply ships and animals used to move those supplies dying in the poor conditions.⁸ As a result of these enormous problems, the government set up a few initiatives to make sure a better diet could be given to the soldiers. One of these was constructing the previously mentioned railway that carried “ambulance trains”, which carried supplies from the ports in Balaklava to the front lines.⁶ The government also approved the introduction of designated kitchens to an improved hospital design, so that better food could be given to soldiers in hospitals on the various fronts in the Crimean war.¹⁰ This

acceptance of the importance of food to the soldiers' health and the insurance of a varied diet shows another great change in healthcare brought about by a problem shown in the Crimean war.

However, one of the changes the war is best well known for is the improvements made to military hospitals during the war. In the early stages of the war, the hospitals for soldiers were unhygienic and overcrowded, leading to the wide scale spread of cholera and other diseases between soldiers in hospitals, to the extent that there were people on the floors. Meanwhile, there were also fleas, rats, and lice inside the hospitals,¹¹ which could have been vectors for more disease, and many soldiers were dirty – there were only 14 baths for 2000 soldiers in the Scutari hospital,¹¹ near Istanbul. There were also issues surrounding the cleanliness of the water, especially since a dead horse was found inside Scutari hospital's main water supply,¹⁰ and the temperatures inside the buildings. Furthermore, many soldiers were neglected for hours upon arrival to the hospitals due to overwhelming numbers of casualties and general disorganization.⁸ The terrible conditions inside Scutari hospital prompted Florence Nightingale to write a report to the government about the poor conditions inside the hospitals. The government then decided to work on improving the numerous problems inside the hospitals. At first, the government attempted to convert timber houses into hospitals, but some of these had the same issues as the hospitals at the time, like not being watertight.¹² Meanwhile, the government also commissioned Isambard Kingdom Brunel, a famous designer, to design a new hospital that could be transported from England to Crimea, and put together by an unskilled workforce, being the first prefabricated hospital.¹³ Brunel's design included air and water pumps to provide ventilation, and windows positioned in such a way that hot air could escape the rooms, providing some control over temperature.¹⁴ The hospital also included a designated kitchen area so better food could be provided to patients inside the hospital.¹⁰ Brunel's design also helped to tackle overcrowding inside the hospitals, with the design being able to look after 2,200 patients.¹⁴ Brunel's design was completed within 5 months and shipped to Renkioi in May 1855, where it looked after 1,331 patients,¹³ and the hospital reduced the death rate in hospitals from 45% to 3.5%.¹⁴ This drop in the death rate in hospitals was assisted by reforms introduced by Florence Nightingale, where she implemented widespread hand-washing, leaving windows open for ventilation, washing the soldiers, and giving them clean beds and clothes.¹⁵ All of this helped limit the spread of disease and pests inside the hospitals and improve healthcare for soldiers during the later stages of the Crimean war. Prefabricated hospitals would also be used in wars across the British empire after this, showing a great improvement in the healthcare of soldiers in the military.

Overall, although all of these initiatives helped to improve the healthcare of the infantry soldiers involved in both the Crimean War, and in future wars around the British Empire, it seems that the biggest of these fields in improving conditions for soldiers were those focusing on the hospitals. This is because the hospitals were the "core" of the medical services, and many of the other initiatives used to help improve conditions for the soldiers were linked to improving hospitals, such as increasing the medical staff available, or improving the diets of the soldiers. Furthermore, it can be argued that improvements to the hospitals were the biggest way in which soldiers' lives were saved, due to the reforms introduced by nurses like Nightingale and the development of prefabricated hospitals for use around the empire by Brunel, alongside widespread use of these reforms in future wars by the British Empire. Hence the improvements to hospitals were the most important initiative in improving healthcare for infantry soldiers during the later stages of the Crimean war and in future wars, resulting from the problems in Crimea.

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