

The First World War: what can it teach us about medical education?

K Walsh

Clinical Director, BMJ Learning

Corresponding author: Kieran Walsh (kmwalsh@bmjgroup.com)

Between the years 1914 and 1918, the First World War claimed the lives of 17 million people and left countless more with long-term physical and psychological injuries. The years 2014 to 2018 are a time of remembrance as the countries who took part in the war remember past sacrifices and try to draw lessons from them. Experts from a range of disciplines have reflected and written on what the war meant for industry, women, minorities, and a variety of other entities. From a medical perspective, the war caused a massive number of surgical morbidity and mortality cases – and so it seems reasonable to ask: what lessons for medical educators can we draw from the First World War?

In 1929 Brewer published a paper in *Annals of Surgery* on the duties and responsibilities of the civil surgeon when called to active military service.¹ The paper was a transcript of his address to the American Surgical Association on 3 May 1920. In the text, Brewer mentions many components that were essential to deliver safe surgical care during the war. However, a single underlying theme runs through the paper: this is that surgery should only be carried out by competent surgeons and that competence is more important than rank or years of service. According to Brewer, “to obtain the best results only men of adequate surgical training and of large experience should be selected as operating surgeons in advanced hospitals where the wounded receive their first surgical treatment; and the work of these men should under no circumstances be hampered or interfered with by men of higher rank, but without skill, training, or experience in modern surgical procedures.” The author claims to have seen many situations where physicians were obliged to work in specialties that were not their own – with predictably poor results. And how did this happen? According to Brewer, this was largely “on account of rank or previous service rather than professional qualifications”. He claims that doctors with long experience in the army become administrators and cannot keep up with modern surgical techniques. However, as the war progressed, this poor practice happened less and

less. This was mainly because of good relations between the civilian surgeons and the commanding officer surgeons in the army. Even though a hierarchy continued to exist in the army, senior officer surgeons allowed civilian surgeons to practise as they saw fit. Brewer mentions one other key feature that enabled the delivery of safe surgical care: the ability of American surgeons to observe and learn from the practice of their French, English, and Belgian counterparts.

As with all forms of documentary research, it is sometimes more difficult to notice what is missing from a paper as opposed to what is present. However, it is surprising what is not mentioned; and it is surprising how much we can learn from this also. A paper that is about delivering safe surgical care and ensuring adequate numbers of safe surgeons does not mention curricula, methods of education, assessment, or evaluation.^{2,3} New surgical techniques are not mentioned, nor are new technologies for learning these techniques – phenomena that dominate the medical field and medical education literature today.^{4,5} Nor is there any hint of the surgeon as performer of heroics. Rather the narrative suggests that what is needed in surgery is organisation and competencies. And that to achieve these, an absence of unnecessary hierarchy is essential.

What is most striking about this historical document is how modern it seems. The themes that Brewer espouses are similar to those that might have been espoused by reformers of education fifty or even a hundred years later. Opponents of reform in education will often cite tradition or state that suggested changes are not the way that things have been done in the past or should be done. Should we listen to them? We should listen to *all* opinions – but at the same time remember that opponents of reform are unlikely to have even been born when this paper was written. If competencies, organisation and team working had lost the war, then it would be reasonable to ignore this paper. But they helped to win it. Maybe a good way for us to remember would be to put the lessons of our forebears into action.

Conflicts of interest

None

REFERENCES

1. Brewer GE. The duties and responsibilities of the civil surgeon when called to active service. *Ann Surg.* Jul 1920;72(1):1-11. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1410508/pdf/ann surg00734-0007.pdf>
2. Gallagher AG, Ritter EM, Champion H, et al. Virtual reality simulation for the operating room: Proficiency-based training as a paradigm shift in surgical skills training. *Ann Surg.* 2005;241:364-72.
3. Faulkner H, Regehr G, Martin J, Reznick R. Validation of an objective structured assessment of technical skill for surgical residents. *Acad Med.* 1996;71:1363-65.
4. Kneebone R. Simulation in surgical training: Educational issues and practical implications. *Med Educ.* 2003;37:267-77.
5. Walsh K, Rafiq I, Hall R. Online educational tools developed by Heart improve the knowledge and skills of hospital doctors in cardiology *Postgraduate Medical Journal* 83 (981), 502-3.