Florence Nightingale would have recognised the challenges associated with COVID-19

__Andrew Street__ outlines four reasons why it is apt that the temporary hospitals set up in response to COVID-19 are named after nursing pioneer Florence Nightingale. He explains how some of the key challenges currently facing UK healthcare professionals are similar to those Nightingale had to deal with.

It is fitting that the exhibition and convention centres rapidly equipped in the UK to house those suffering coronavirus are named Nightingale hospitals. This year marks the 200th anniversary of Florence Nightingale´s birth on 12 May 1820, and there are several echoes from her career to the current crisis.

Counting deaths

For starters, take the controversy in trying to establish how many people have died from coronavirus. Most countries are still counting only those who died in hospital having tested positive for COVID-19, not those dying in care homes or elsewhere. And there remain questions about whether a positive test for COVID-19 should be considered the cause of death or just a contributory factor.

Nightingale faced a similar problem in her role as superintendent of the female nursing team working in the English general military hospitals in Turkey. On arrival in Scutari in November 1854, she found three separate registers of those dying in hospital: the Adjutant's daily head-roll of soldiers' burials, the Medical Officers' Return, and the Orderly Room return, all of which gave a different account of the number of deaths. She soon set about rectifying this 'statistical carelessness' in order to record accurately how many soldiers had died. Unfortunately, we are still a long way from being able to compare meaningfully the death toll from coronavirus between one country and another.

Classifying diseases

On returning to England in 1856, Nightingale realised that each hospital had its own approach to recording information about its patients. So she created Model Hospital Statistical Forms which were recommended for widespread adoption in 1860 at the London meeting of the International Statistical Congress.

Nightingale had the forms printed and hospitals started using them. Guy´s Hospital published details of its cases from 1854 to 1861, including a table reporting 15 Classes of Diseases and another reporting Causes of Accidents, categorised into 22 groups. Group 21, for example, records all those hospitalised having suffered 'Bites of animals, 7 dogs, 2 adders, monkey, horse, rat, elephant, and woman', revealing a somewhat surprising assortment of assailants on the streets of London back then or indeed whenever.

From 1862, hospitals in London began to publish their data annually in the Journal of the Statistical Society of London. By 1866, the fifth and final year that the series was published, the statistics covered 29 hospitals across England. Publication ceased after a committee formed by the Royal College of Surgeons 'reported adversely upon Miss Nightingale's Forms' claiming it was too costly to collect the data and to make valid comparisons.

Nightingale´s ideas were eventually resurrected by Jacques Bertillon whose system was adopted in 1900 as the first International Classification of Causes of Death. In June 2018, the World Health Organisation launched the 11th revision, now known as the International Classification of Diseases and, on 25 March 2020, issued emergency ICD-10 and ICD-11 disease and cause of death codes for COVID-19.

Protecting staff

Nightingale herself used data about those who suffered disease and died to push for improvements in care – both for patients and staff. In 1858, one of her papers with William Farr was presented at the Liverpool meeting of the National Association for the Promotion of Social Science comparing mortality rates of hospital nurses with civilian women of a similar age. She identified a higher mortality rate among nurses, demonstrating that they had greater exposure to fever and cholera. She used the data to maintain her pressure on hospitals to improve hygiene and to provide better protection of staff.

She also urged hospitals to keep a register to support a superannuation fund for nurses. If adopted, her nursing register would have recorded the name, age, employment dates, reason for and state of health upon leaving the service, and date and cause of death for those dying in service. Surprisingly even today, this information is not always readily available: on 2 April 2020, the chief executive of the Royal College of Nursing complained to the Secretary of State for Health and Social Care about the difficulty of getting data about the number of nurses dying from COVID-19. Nightingale would have shared the chief executive's indignation, stating that 'money cannot replace … the loss of a well-trained nurse by preventable disease'. An unforgivable failure by governments the world over in dealing with coronavirus has been that health workers have been inadequately protected from contagion.

Building hospitals

Perhaps the most compelling reason for naming the new coronavirus hospitals after Nightingale is because she 'revolutionalised ideas of hospital construction'. Her collected Notes on Hospitals, published in 1863, contained a detailed critique of defects in the construction and layouts of various hospitals in England, France, and Scotland and proposals that addressed these defects.

Nightingale's ideas on hospital design meant that her advice was sought about the building of civic hospitals throughout the country and 'upon the construction of military hospitals—whether general or attached to particular barracks—Miss Nightingale was consulted constantly and as a matter of course'. Given how much of her lifetime's work was devoted to improving conditions for soldiers in the British Army, it is appropriate that military personnel have played such a key role in fitting out the coronavirus hospitals named in Nightingale´s honour.

Florence Nightingale devoted herself to evidence-based analysis of disease and health care 'for the surer advance of medical knowledge and in the interests of good administration'. Thanks in no small part to her efforts, our understanding of disease has improved enormously in the 200 years since Nightingale's birth, as has our knowledge of how to provide effective care in safe environments. Even so, the corononavirus crisis has demonstrated the limits of our ability to combat new threats and that health and care systems still need strengthening to meet the demands being placed upon them.

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About the Author
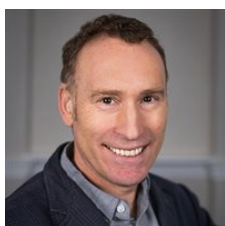
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