FLORENCE NIGHTINGALE'S LASTING LEGACY FOR HEALTHCARE

By Joe Tye

Think of the rock stars who are so famous they only need one name to be instantly recognized: Elvis, Cher, Bono, Madonna. In the world of healthcare, there is only one such rock star: Florence. Though she certainly would have chafed at being called a rock star, Florence's legacy was earned by her enormous contributions to the profession of nursing, the design and organization of hospitals, her pioneering work for public health and epidemiology, and her commitment to the care of soldiers, veterans, and their families.

Florence is rightly remembered as the person who, more than any other, established nursing as a true profession and defined what it means to be a nurse. Her book *Notes on Nursing* was one of the most influential books in the history of healthcare, having inspired generations of women (and more recently men) to become nurses. She was the guiding light for the first professional school of nursing, which to this day bears her name. Around the world newly graduated nurses still commit to their profession, and to the people they will serve, by taking the Nightingale Pledge. And the World Health Organization has declared 2020 to be the International Year of the Nurse in honor of Florence's 200th birthday.

But through her work to manage the Scutari Barrack Hospital during the Crimean War, and to reform the entire British health care system over the succeeding five decades, Florence did more than lay a foundation for the nursing profession, as remarkable an accomplishment as that was. She, more than any other person, oversaw the transformation of the "hospital" from a haphazardly managed building that originally had been designed for some other purpose (an army barracks building in the case of the Scutari Barrack Hospital) into a facility specifically designed with the care of patients in mind. Her fingerprints are all over some of the most fundamental elements of today's health care system – things that we take for granted but that were revolutionary during her time. She was in a very real sense the architect of the hospital as we know it today.

Creating the Modern Hospital

Take the organization chart of any contemporary hospital and remove the high technology departments that did not exist in 1854 and you will see a fingerprint of the administrative structure that Florence created for the Scutari Barrack Hospital. Beyond Nursing, the following departments can trace their roots back to Florence Nightingale:

MEDICAL RECORDS. One of the first things Florence did upon arriving at Scutari was go around with a piece of chalk and number every patient cot. She then saw to it that detailed records were kept on every patient. She recorded physical symptoms, reactions to treatment, and (all too often) time and manner of death. She wrote to the families of dead soldiers, telling them of the circumstances under which their relatives died, typically with comforting words



Illustration 1: The functional chart of Florence's organization at the Scutari Barrack Hospital foreshadowed the organization chart of every modern hospital ever since

to the effect that they had died in peace. In *Notes on Nursing*, Florence wrote that the most important element of being a good nurse – more important than compassion or clinical skill – is the ability to acutely observe and record changes in a patient's condition. She certainly would have applauded the move toward electronic health records, though she also would have cautioned against the danger of managing machines instead of caring for people.

HOSPITAL EPIDEMIOLOGY. Following her return to London after the war, Florence was haunted by the specter of the outrageous death rate among British soldiers – the men she thought of as her children. Her report on mortality rates at the Scutari Barrack Hospital was the first hospital epidemiological study. It included the "Diagram of the Causes of Mortality in the Army in the East," a precursor to the pie chart, which documented the dominant role basic sanitation played in reducing mortality rates, thereby giving a major boost to the incipient sanitation movement. In recognition of her work, in 1858 Florence was the first woman ever admitted as a fellow of the Royal Statistical Society, and I'm pretty sure that she is the only nurse ever to have had her picture on the cover of a math textbook (The Foundations of Mathematics 1800-1900 by Michael Bradley). Her 1863 book Notes on Hospitals anticipated by 150 years the move toward documenting value-based care:

Improved statistics would tell us more of the relative value of particular operations and modes of treatment than we have any means of ascertaining at present... and the truth thus ascertained would enable us to save life and suffering, and to improve the treatment and management of the sick... It need hardly be pointed out of what great practical value these and similar results would become... Hospitals might be compared with hospitals and wards with wards. The whole question of hospital economics as influenced by diets, medicines, comfort, could be brought under examination and discussion.

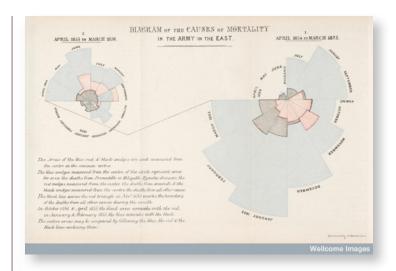


Illustration 2: The famous cockscomb diagram, forerunner to the pie chart, with which Florence graphically illustrated that preventable disease was a far more prevalent cause of soldiers' deaths than were battlefield wounds

MEDICAL TRIAGE. At a time when officers looked upon enlisted men as "the scum of the earth" (words the Duke of Wellington used to describe the men who brought him his victory over Napoleon at Waterloo), when the Anglican Church discriminated against Catholics, and when non-Christians were treated as something less than human, Florence insisted that medical care should be provided on the basis of the patient's clinical condition and not his religion, military rank or social standing. This was radical idea in Victorian England. When she ran into considerable opposition from the class of officers and gentlemen, she stood her ground and she prevailed, establishing a principle that has guided (or that should guide) healthcare delivery down to the present day.

INFECTION CONTROL. When Nightingale's nursing corps arrived at Scutari, she instructed that the strongest among them would not be wanted at the bedside, but rather at the washtub. She used her considerable informal leadership abilities to insist that the orderlies, all men who at first looked down upon the ladies from London, routinely empty the chamber pots on patient wards. She made it her mission to clean up the deplorable sanitary conditions of the Scutari Barrack Hospital, going so far as to use her own money to hire a Turkish work crew to refurbish a burned-out wing of the building before it was used to accept new patients. She commissioned the first "laundry machine" (there's a picture in Barbara Dossey's Nightingale biography) and insisted that bandages and blankets be washed between patients. Although she herself did not accept germ theory

until much later (at this stage she subscribed to the miasma theory, as did almost everyone else in medicine), in practice her methods set the stage for the laundry, housekeeping and maintenance functions in today's hospitals. Her subsequent work gave a major boost to the sanitation movement (she would have been horrified at the resistance hospitals still face in getting clinicians to wash their hands between patients).

NUTRITION SERVICES. Florence had an intuitive appreciation of the link between nutrition and healing. When she arrived at Scutari, soldiers were being fed whatever the officers refused to eat, which was thrown into a pot and boiled. She recruited a famous British chef who traveled to Scutari to create nutritious recipes for the men. To help him prepare these recipes, Florence arranged for construction of one of the most sophisticated hospital kitchens seen up to that time.



Illustration 3: The kitchen Florence had built for Chef Alexis Soyer at the Scutari Barrack Hospital

PATIENT EDUCATION AND EMPOWERMENT. British soldiers tended to drink away their pay as quickly as they earned it. When Florence determined to give them a library in which to spend their time, and to personally guarantee that their pay would be sent home to their families if they didn't first spend it on gin, the British generals mocked her naivete. But once again, she proved them wrong: Many soldiers did, in fact, replace drinking with trips to the library. Nightingale's library did not include health-related books, because at that time there were none, but her experiment at empowering patients to make productive use of their time was a precursor to the patient-centered care movement of today.

HOSPITAL SUPPLY CHAIN AND FINANCIAL

MANAGEMENT. At Scutari, Florence transformed a haphazard and ineffective supply procurement process into a well-run and efficient materials management system. She calculated, then worked to reduce, cost per patient day, setting a precedent that has been followed by every hospital CFO ever since. She had an intuitive understanding that productivity and compassion are complementary, not opposing, qualities of an effective hospital. When confronted with a mandate to "do more with less," rather than complain about the lack of resources she rolled up her sleeves and figured out how to use more effectively the resources she had, and how to act entrepreneurially to obtain the additional resources she needed.

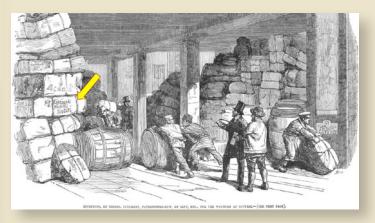


Illustration 4: Florence considered one of her primary responsibilities to be procurement of supplies, what today is known as supply chain management; note that even at the time Scutari Barrack Hospital was known as the Nightingale Hospital

Hospital architecture. The first structure built specifically to be a hospital (as opposed to another building being converted for the purpose) was London's 650-bed Herbert Hospital, constructed in 1865. Its design was largely based on Nightingale's concepts, and her philosophy of separate pavilions was a central element of hospital design for the next 75 years. Her book *Notes on Hospitals* was a vital resource for hospital architects for more than a century following its publication. When I was a junior administrator at the University of Iowa Hospitals and Clinics back in the mid-1970s, our last remaining open wards had 32 beds – the number that had been prescribed by Florence more than one hundred years previously in Notes on Hospitals.

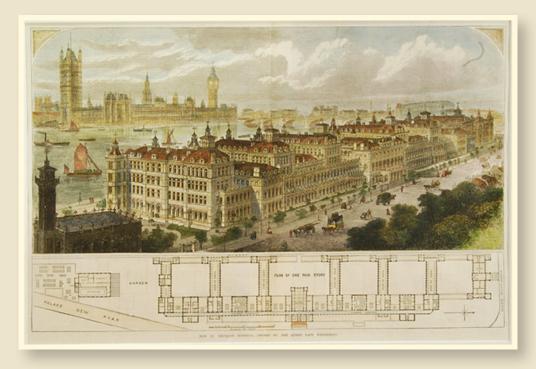


Illustration 5: St. Thomas Hospital in London, the first modern hospital, was constructed largely based upon design principles outlined by Florence in her book Notes on Hospitals and other writings

HOSPITAL AESTHETICS. Drawings made of the Scutari Barrack Hospital in 1854, the year Florence arrived, show walls that are stark and bare. Pictures made just two years later show that not only are the floors considerably better organized, there is also artwork on the walls. In Notes on Nursing Florence wrote: "The effect in sickness of beautiful objects, a variety of objects, and especially a brilliancy of color, is hardly at all appreciated... Variety of form and brilliancy of color in the objects presented to patients are actual means of recovery." As with so many other aspects of hospital care, Florence anticipated by a century the move away from sterile white walls to attractive spaces decorated with beautiful artwork.

Positive Culture. In one of the letters she sent to graduating nursing students at the Nightingale Training School (July 23, 1873) Florence wrote: "Trustworthy [is] never prying into one another's concerns, but ever acting behind another's back as one would to her face." In another letter she wrote: "... backbiting, petty scandal, misrepresentation, flirtation, injustice, bad temper, bad thoughts, jealousy, murmuring, complaining. Do we ever think that we bear the responsibility of all the harm we do in this way?" Florence never would have countenanced the gossip, complaining and other forms of toxic emotional negativity that are prevalent elements of the culture in many hospitals. She understood that the essential first step to cultivating a positive culture is reducing institutional tolerance for toxic emotional negativity (the way, not so long ago, we reduced our institutional tolerance for toxic cigarette smoke).

The First Advocate for the Health of Soldiers and Veterans

Two famous poems commemorate the Crimean War of 1854-56. The first is "The Charge of the Light Brigade" by Alfred, Lord Tennyson, which memorialized the suicidal cavalry charge against emplaced Russian artillery that was ordered by a misinformed and misguided general. The Light Brigade's gallop "into the valley of death" stands as a metaphor for the hopeless courage of the British soldier that was so prodigiously squandered by the calloused incompetence of a British military command that had not experienced a real shooting war since Wellington's defeat of Napoleon at Waterloo four decades earlier. This careless ineptitude was on full display at the Scutari Barrack Hospital when Florence Nightingale arrived.

The second is "Santa Filomena" by Henry Wadsworth Longfellow, the poem that gave Nightingale the sobriquet by which she will always be remembered: "A lady with a lamp shall stand in the great history of the land." As this "lady with a lamp" made her nightly rounds through the "dreary hospitals of pain, the cheerless corridors, the cold and stony floors," it was said that sick and dying soldiers under her care would kiss her shadow as she passed by. Years later, few remembered the names of the politicians who had started that calamitous war or of the generals who had commanded it, but people everywhere revered the memory of the Lady with the Lamp who had cared for its victims.



Illustration 6: More than 50 years after the end of the Crimean War the soldiers that Florence always considered as her children still remembered their lady with the lamp and escorted her coffin to its final resting place

Florence Nightingale was history's

first effective advocate for the health and healthcare of soldiers and veterans and their families. The Duke of Wellington, the Iron Duke who defeated Napoleon, had referred to the men who brought him his victories as "the scum of the earth," an opinion that British generals still held forty years later. Florence considered that attitude, and the fatal negligence of the military bureaucracy in the care of sick and wounded soldiers it engendered, to be nothing short of murder. As Gillian Gill wrote in her book *Nightingales*, "Reform of the army health system, not [just] nursing, was the cause that absorbed Nightingale." It was a cause to which she devoted herself during her time in Turkey and in the Crimea, and for the remaining years of her life.

Nightingale's 1857 report titled *Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army* was, as Mark Bostridge put it his biography *Florence Nightingale: The Making of an Icon*, "at once a passionate elegy for the British soldier as well as a plea for his more humane treatment in the future." The 830-page report addressed virtually every dimension of health promotion and healthcare in the military. In later years, Florence turned her attention to health affairs in the Indian subcontinent, then under British rule, including providing for the health of the British Empire's soldiers stationed there.

Florence's concern and care for soldiers' families predated by a decade Abraham Lincoln's commitment stated in his second inaugural address – "To care for him who shall have borne the battle, and for his widow, and his orphan" – which is now the motto of the Department of Veterans Affairs. In his biography of Florence, Bostridge wrote about how she would go to extraordinary lengths to help veterans and their families long after the war had ended. The only known recording of her voice, produced as part of Thomas Edison's project to record the voices of famous people, was a plea for a fund to support Crimean War veterans. More than four decades after the end of that conflict, Florence Nightingale was still fighting for her soldiers.

When Florence died in 1910, her coffin was escorted to its final resting place by octogenarian veterans of the Crimean War. In a 1915 essay about the Nightingale legacy, Mohandas Gandhi wrote that after she died "thousands of soldiers wept bitterly like little children, as though they had lost their own mother." And today she continues her watch in London's Waterloo Place where her statue stands close by the one honoring the memory of Britain's Crimean War veterans.

Florence's Lasting Legacy

Other than her late-night rounds through the Scutari barrack hospital, where she often would stop to massage the feet of a dying soldier, "the lady with the lamp" gave relatively little direct nursing care. Her administrative responsibilities did not give her the time. It has been argued, with some merit, that Jamaican nurse Mary Seacole did more to advance clinical nursing care during the Crimean War than did Florence Nightingale. But that misses the point of her real contributions. While we remember Florence as the first nurse and as the lady with the lamp, her real legacy was created by her prodigious administrative skills and her vision for what hospitals and the nursing profession could, and should, be.

In the conclusion to his biography, Bostridge states: "One does not have to look far today to see that many of Florence Nightingale's greatest concerns remain ours too." Any healthcare executive striving to improve clinical quality and patient satisfaction could do a lot worse than studying the way Florence Nightingale – in the face of strident opposition and severely limited resources – created a blueprint for the modern hospital. That is the spirit I have tried to capture in *The Florence Prescription*. Thanks for reading it.

Joe Tye Solon, Iowa January 2020



Joe Tye is CEO and Head Coach of Values Coach Inc. and author of *The Florence Prescription: From Accountability to Ownership*, a book that was heavily influenced by imagined conversations (and several actual encounters) with Florence Nightingale.

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