

# Florence Nightingale

*Dr Keith Horsley*

This year, 2010, is the Centenary of the death of Florence Nightingale. She died in 1910, at the age of 90, which was a notable age to reach at that time, although her family lived to a similar age.

It is customary to think of Florence as the founder of modern nursing. The ubiquitous image of her is as The Lady with the Lamp, walking the wards of the military hospital at Scutari, with grateful soldiers kissing her shadow as she walked past.

But Nightingale was much more than that. She made major contributions to military medicine, statistical thought, public health and to hospital design, to name a few.

She was a complex woman. Deeply religious, she believed that God spoke to her on four occasions when she was a young woman, always saying the same words: "I have work for you to do." Frustratingly for Nightingale, this is all God said to her. She initially decided to await further instructions from God but as the years passed, she came to realise that God wanted her to decide how to serve Him.

Her mind was increasingly drawn to reform of nursing. To understand why this was an area of interest, you need to have an understanding of the state of nursing when Florence Nightingale was a young woman. At that time, nursing was seen as the very lowest of vocations. Most nurses were alcoholics; they were permitted and expected to drink alcohol while they worked.

Many of them were also prostitutes. It was customary for young women of low social class to look to a life of prostitution and nursing, with the consumption of large amounts of alcohol to make the other two occupations a little more bearable. The average nurse when Florence was young would think nothing of combining her three occupational interests in a single night; she would sit watching over her patient, sipping her gin, and if her patient was well enough and had the money, extra services could be provided.

Florence Nightingale was not born of low social class. She and her family were not titled, but they were of that new nobility – the bourgeoisie. Nightingale's family were the very pinnacle of English middle-class society, and moved in the highest circles in English society.

They were very conservative in many ways, but surprisingly liberal in others. As an example of their liberalism, Florence's father took charge of the education of both of his daughters, and ensured that they were extremely well educated. She was, for example, fluent in many languages, but her particular gift and love was mathematics. In respect of their conservatism, it was always expected that Florence (both wealthy and attractive) would marry and become a wealthy Victorian housewife.

So when young Florence rejected several handsome and attractive suitors, and announced her intention to become a nurse, society in general and her family in particular, were scandalised. It was too appalling to contemplate.

And so Florence found herself leading a team of nurses at the British military hospital at Scutari. Although she was always remembered as a nurse, her real gift at Scutari was hospital administration. She organised things; she made things work.

The phrase "the lady with a lamp", which today reflects a somewhat tepid view of FN, was in her day a very powerful political statement. As most nurses were prostitutes, the military had a policy of no nurses after dark, when a wounded soldier's mind might turn to naughty things. The fact that she had a lamp was a symbol of her working at night, but that she was a lady – a woman of decent morality.

The story of Nightingale's reform of nursing is well-told. Less spoken of is her enormous contribution of other areas.

To examine but a few of these, her contribution to statistical thought, particularly applied to health-care, was astonishing. She, for example, was the first person to use pie charts in health sciences. She used pie charts for a reason. They fulfilled her belief that statistical data should be easily accessible to the average intelligent person. She liked to apply what she called privately "the Queen Victoria test". She would look at a diagrammatic representation of data, and ask herself would The Queen understand the point that was being made by the data.

In this theory of statistical information she was opposed by many statisticians of her day, led by William Farr. Farr held that data should be presented dry, without

interpretation, in a series of tables. The two of them maintained this debate in a series of papers and addresses to statistical meetings over many years.

Who won? Arguably, they both did. Open any newspaper and you will see data presented by diagrams (pure Nightingalism) and in large tables (as suggested by Farr).

But there was a broader debate (in which Farr and Nightingale were on the same side) that they clearly won. As statistical thought was emerging, there was a strong reaction from many intellectuals opposed to the use of statistics. Charles Dickens was one such person. His novel *Hard Times* was in part an attack on the use of statistics. He would be not pleased with our everyday reliance on statistical thought.

Nightingale came to dominate the field of hospital design. She designed hospitals all over the World, all along a similar pattern. The wards had high ceilings, with huge windows, and with patients arranged in two rows down the side of each wall, and a nursing station located in the centre. By the time of her death, practically all hospitals built anywhere were Nightingales. As a medical student and a young doctor, I trained in wards such as these. It never occurred to me that someone had come up with the idea of this type of ward, but they did, and that someone was Florence Nightingale. We would probably be still using Nightingales, but for the advent of air conditioning.

Nightingale also argued for a standard method of recording death. She developed a model death certificate. This is the death certificate that we use today, and is used throughout the Western World. Perhaps this gave her comfort as she lay dying one hundred years ago – her own death would be recorded on a death certificate that she had designed.

She also published a series of papers supporting the work of Farr in developing an international code of diseases. By 1860, when she began her campaign to support Farr's work, Nightingale was an important person of considerable influence, both within England and throughout the World. While it is true to say that Farr put in all the hard yards, it is certain that Nightingale's support was important. Together they

gave us the International Code of Diseases; we now use the tenth edition, known by everyone as ICD-10. Ten years before her death, she had the satisfaction of seeing the publication of the Codex that she had worked so hard to establish. And perhaps as she was dying she would have had the comfort of knowing that her own death would be recorded according to the Codex she had struggled to build for so long.

During the American Civil War, Nightingale supported the Union cause. She wrote long letters of advice and encouragement to the individuals that established the Union Sanitary Commission. They credited her with much of the success in reducing mortality in the Union Army.

Even in failure Nightingale had success. She was working on the problem of malnourishment in children, and she wanted to develop a single numerical measure of malnourishment. The number wouldn't appear. In frustration, she wrote to her friend Alphonse Quatelet, seeking his help with the problem. A fortnight later she received a letter, in which he outlined the Body Mass Index. It is used everywhere; mostly to measure excess weight!

She made many other contributions over her long and productive life.

So when you look today at the statistical data coming out of the Joint Theatre Trauma System registry, you are very much continuing the work of Florence Nightingale. And if you were to put that data in a Pie Chart, you would make her soul sing.

It is then altogether fit and proper that we should pause this year and reflect on the life of this great woman, who died a hundred years ago this year. In so pausing, we should remember her not only as a Lady with a Lamp, but as a Woman with a Pie Chart.

*Suggested Further Reading:*

*Florence Nightingale by Mark Bostridge*

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Contact author: Dr Keith Horsley

Email: keith.horsley@hotmail.com