



**QUEEN'S
UNIVERSITY
BELFAST**

Celebrating the bicentenary of Nightingale's birth and her legacy

Thompson , D. R. (2020). Celebrating the bicentenary of Nightingale's birth and her legacy. *Journal of Advanced Nursing*, 76(11), 2783-2785. <https://doi.org/10.1111/jan.14493>

Published in:

Journal of Advanced Nursing

Document Version:

Peer reviewed version

Queen's University Belfast - Research Portal:

[Link to publication record in Queen's University Belfast Research Portal](#)

Publisher rights

Copyright 2020 Wiley. This work is made available online in accordance with the publisher's policies. Please refer to any applicable terms of use of the publisher.

General rights

Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.

Open Access

This research has been made openly available by Queen's academics and its Open Research team. We would love to hear how access to this research benefits you. – Share your feedback with us: <http://go.qub.ac.uk/oa-feedback>

EDITORIAL

Celebrating the bicentenary of Nightingale's birth and her legacy

David R Thompson

Professor of Nursing

School of Nursing and Midwifery

Queen's University Belfast

Belfast

UK

Correspondence: Professor David R Thompson, School of Nursing and Midwifery, Queen's

University Belfast, Medical Biology Centre, 97 Lisburn Road, Belfast BT9 7BL, UK

Email: David.Thompson@qub.ac.uk

ORCID: 0000-0001-8518-6307

On the bicentenary of the birth of Florence Nightingale it is timely to revisit, commemorate and celebrate her immense contribution to modern nursing, public health, statistics and social reform. Many authoritative accounts have been produced (Bostridge, 2008; Cook, 1913; Nelson & Rafferty, 2010; Smith, 1982; Woodham-Smith, 1950), including the most comprehensive survey to date, the 16-volume (2001-2012) collected works of Nightingale (McDonald, 2012). A brief summary of her work, especially her founding of modern nursing and her expertise and use of statistics, serves as a reminder of the debt of gratitude the profession owes this remarkable woman.

The recent hastily constructed NHS hospitals bearing her name have raised Nightingale's profile among the public and reminded health professions, particularly nursing, of her enduring legacy. While Nightingale is well known for laying the foundation of modern, professional nursing by establishing a nursing school at St Thomas' Hospital in London (now part of King's College London), the first secular nursing school in the world, she is probably less well known for her work on hospital design, statistics, public health and social reform.

Nightingale was born in Florence on 12 May 1820 to an affluent family in elite social circles. She was active in philanthropy from a very young age and a precocious child, provided with a classical education in Greek and Latin, mathematics, natural science, ancient and modern literature, German, French and Italian (Bostridge, 2008). At the age of 16 she believed nursing to be her calling – her divine purpose – and though her parents were displeased and forbade her from pursuing it, she remained convinced it was God's will.

Founder of modern nursing

In 1850, Nightingale enrolled as a nurse apprentice at the Institution of Deaconesses, a foundation run by Pastor Theodor Fliedner in Kaiserwerth, Germany, and undertook further training with the Sisters of Charity at the Maison de la Providence in Paris. In 1853 she served as unpaid superintendent of the Establishment for Gentlewoman during Illness (eventually the Florence Nightingale Hospital for Ladies of Limited Means) in London (Bostridge, 2008).

Late 1853 the Crimean war broke out and a year later the British Secretary of War, Sidney Herbert, a close friend, asked Nightingale to help: she brought a team of 38 volunteer nurses to care for the British soldiers (Fee & Garofalo, 2011). At the military hospital, Selimiye Barracks, Scutari in Turkey, she found soldiers wounded and dying amid atrocious sanitary conditions, a shortage of medicines and poor hygiene and care: 10 times more soldiers were dying of diseases than from battle wounds – the mortality rate was the highest of all hospitals in the region (Fee & Garofalo, 2011). She set about organizing the cleaning of the hospital, improving hygiene, sanitation and the quality of the patient's stay, and instituting an 'invalid's kitchen', laundry, classroom and library. Nightingale stayed at Scutari for 18 months and the soldiers there called her the 'Lady with the Lamp' and the 'Angel of Crimea'.

On her return from the Crimean War in 1856 she led a Royal Commission on the Health of the Army and documented her findings in a 567 page report containing numerous appendices and pages of detailed statistics (Nightingale, 1858).

Receiving a hero's welcome from the nation she used the Nightingale Fund, a public fund set up in her honour, to establish in 1860 St Thomas' Hospital and the Nightingale Training School for Nurses, starting with 15 probationers training for 3 years with monthly assessments.

Nightingale described nursing as separate and distinct but complementary to medicine and viewed nursing as a profession in charge of patient care. She devised and instituted training (clinical and classroom instruction), standards and a curriculum, and insisted that nurses report through a nursing hierarchy but, to secure doctors' support, be 'obedient' to them on medical matters. She focused on clinical competence and expertise, stressing confidentiality, trust, observation and communication, and in her seminal *Notes on Nursing* (Nightingale, 1859a) emphasized the importance of ventilation, light, cleanliness, noise control, food, bed and bedding, and variety in promoting recovery – all still relevant today (Lee et al., 2013).

In 1861 she used income remaining from the Nightingale Fund to support the training of midwives at King's College Hospital and the establishment of a ward and continued to make numerous significant contributions to nursing and the reform of the workhouses, sanitation, public health and other matters in the UK and overseas (McDonald, 2014; 2020)).

Passionate statistician

Nightingale has been called a 'passionate statistician' (Cook, 1913) with good reason (McDonald, 2010), having an early predilection for collecting, collating and analyzing data from hospital reports, returns, statistical forms and general information on hospital construction and sanitation (Kopf, 1916). She was adept at marshalling data to support her arguments and was a pioneering and prominent statistician, influenced by the Belgian astronomer, statistician, meteorologist and sociologist, Adolphe Quetelet. Nightingale was also influenced by William Farr, a medical statistician and epidemiologist, and contemporary of Quetelet. It was with Farr's mentorship – her 'Patron Saint' as she called him (Bostridge, 2008) - she saw potential for

statistics to bolster her arguments for health and hospital reform (Kundzma, 2006). She also acted as a consultant on statistical and epidemiological matters (Keith, 1988).

Her work on military and sanitary statistics of the Crimean War and her report to the War Office and the Army Medical Department (Nightingale, 1858), together with her pioneering *Notes on Hospitals* (Nightingale, 1859b), can lay claim to introducing the measurement of outcome. For example, her *Notes on Hospitals* was hugely influential with architects, local authorities and politicians (Bostridge, 2008). In it Nightingale analyses characteristics such as the patient and location and sanitary arrangements of the hospital and, for example, specifies details such as the space between beds and the number of windows per bed, that bedsteads be of wrought iron and painted in cheerful colours. As Rafferty and Wall (2010) note, what is remarkable is just how much of what Nightingale noted then remains relevant today.

Nightingale was also a pioneer in the graphic illustration of statistics (Kopf, 1916). She applied statistical methods and used tables and diagrams to convey data clearly and simply as exemplified by her creation of a form of a pie chart known as a polar area graph to depict the causes of mortality in the British Army (O'Connor et al., 2020). This figure, commonly referred to as a coxcomb or 'rose' diagram, is a useful visual aid for conveying statistical data and reports (Magnello, 2012).

In recognition of her contribution to statistics, Nightingale was the first woman elected a member of the London Statistical Society (later the Royal Statistical Society) in 1858 and an honorary member of the American Statistical Association in 1974 (McDonald, 2010). Indeed, she proposed to Benjamin Jowett founding a Chair in Applied Statistics at the University of Oxford, though discussions faltered (Bostridge, 2008; McDonald, 2001).

Nightingale's commitment to statistics endured her entire working life, culminating on matters pertaining to India, especially sanitation, famine and finance, in the 1890s (Kopf, 1916). Though later homebound and bedridden she continued to advise on hospitals and nursing matters, including in the US Civil War. Her work could justifiably serve as the forerunner of evidence-based nursing and health care (McDonald, 2001).

Legacy

In 1907 King Edward conferred her with the Order of Merit, the first female recipient. She died unexpectedly at home on 13 August 1910. According to her wishes, her family turned down a national funeral and a burial at Westminster Abbey: instead, she was laid to rest in a family plot in East Wellow, Hampshire, her grave, at her request, being marked only with her initials.

The Nightingale Pledge, Florence Nightingale Medal, Florence Nightingale Foundation and Florence Nightingale Museum, and various hospitals (including four in Turkey), statues, stained glass windows and bank notes, are named in her honour.

Nightingale was of course fallible and described as being self-righteous and single-minded, drawing a parallel between the Lady with the Lamp and the Iron Lady (Bostridge, 2008; Salvage, 2001). She opposed state registration and men entering nursing. However, many of the criticisms levelled at her (Smith, 1982; Williams, 2008) – she has been accused of subordinating nurses to doctors, labelled a control freak, religious maniac and repressed lesbian, and widely blamed for the demise of men in nursing and deflecting the spotlight from others, notably Mary Seacole – seem unjustified (Holliday & Parker, 1997; McDonald, 2013), and are often tinged with sexism (Salvage, 2001). For instance, although Nightingale and Seacole met only briefly they appeared to have respected each other and Nightingale implicitly

acknowledged Seacole's work by contributing to her Testimonial Fund, raised by well-wishers when she faced bankruptcy (Bostridge, 2008). Also, whilst Nightingale was friends with prominent physicians and surgeons such as James Paget and William Bowman, she was, according to the distinguished physician, surgeon, author, historian and poet Zachary Cope (1956), 'a merciless, but usually just, critic of the medical profession and of medical treatment' (p.907). She was not afraid to challenge those in power, such as the surgeon John Hall, Inspector General of Hospitals and Chief of the Medical Staff of the Army serving in the Crimea, who complained of his battles with her, and she undoubtedly ended his career (Cope, 1956).

Nightingale was a formidable woman, highly educated and articulate, determined and politically astute, unafraid to challenge the medical, military and political establishment and frequently lobbying and debating powerful and influential individuals such as Sidney Herbert, Benjamin Jowett and John Stuart Mill. She should be viewed in the context of gender roles, social class and education in Victorian England.

Recognizing the contribution of Nightingale, the World Health Organization (WHO) has designated 2020 as the 'International Year of the Nurse and Midwife' in honour of her anniversary. 'Nursing Now', a global campaign run with the International Council of Nurses and the WHO, aims to improve health by raising the profile and status of nursing worldwide and has projects, including the Nightingale Challenge to 'equip and empower the next generation of nurses and midwives as leaders, practitioners and advocates in health'.

Nightingale's legacy endures and continues to influence contemporary nursing, but the profession needs more nurses of her calibre – passionate and tenacious, unafraid to take risks,

willing to challenge the powerful, driving genuine change, building strong teams, inspiring and bringing others with them (Thompson & Darbyshire, 2020).

REFERENCES

- Bostridge, M. (2008). *Florence Nightingale: The Woman and her Legend*. London: Viking.
- Cook, E. T. (1913). *The Life of Florence Nightingale*. London: Macmillan & Co.
- Cope, Z. (1956). Miss Florence Nightingale and the doctors: President's address. Section of the History of Medicine. *Journal of the Royal Society of Medicine*, 49(11), 907-914.
<https://doi.org/10.1177%2F003591575604901108>
- Fee, E., & Garofalo, M. E. (2011). Florence Nightingale and the Crimean War. *American Journal of Public Health*, 100(9), 1591. <https://doi.org/10.2105/AJPH.2009.18860>
- Holliday, M.E. & Parker, D.L. (1997). Florence Nightingale, feminism and nursing. *Journal of Advanced Nursing*, 26(3), 483-488.
<https://doi.org/10.1046/j.1365-2648.1997.t01-6-00999.x>
- Keith, J. M. (1988). Florence Nightingale: statistician and consultant epidemiologist. *International Nursing Review*, 35(5), 147-150.
- Kopf, E. W. (1916). Florence Nightingale as a statistician. *Publications of the American Statistical Association*, 15(116), 388-404. <https://doi.10.2307/2965763>
- Lee, G., Clark, A. M., & Thompson, D. R. (2013). Florence Nightingale - never more relevant than today. *Journal of Advanced Nursing*, 69(2), 245-246. <https://doi.10.1111/jan.12021>
- Magnello, M. E. (2012). Victorian statistical graphics and the iconography of Florence Nightingale's polar area graph. *BHSM Bulletin: Journal of the British Society for the History of Mathematics*, 27(1), 13-37. <https://doi.org/10.1080/17498430.2012.618102>

- McDonald, L. (2001). Florence Nightingale and the early origins of evidence-based nursing. *Evidence-Based Nursing*, 4(3), 68-69. <http://dx.doi.org/10.1136/ebn.4.3.68>
- McDonald, L. (2010). Florence Nightingale: passionate statistician. *Journal of Holistic Nursing*, 28(1), 92-98. <https://doi.org/10.1177/0898010109358769>
- McDonald, L. Ed. (2012). *Collected Works of Florence Nightingale*. Waterloo, ON: Wilfred Laurier University Press.
- McDonald, L. (2020). Florence Nightingale's public health agenda. *Perspectives in Public Health*, 140(3), 137-138. <https://doi.org/10.1177%2F1757913920916501>
- Nelson, S., & Rafferty, A. M. Eds. (2010). Notes on Nightingale: The Influence and Legacy of a Nursing Icon. New York; NY: Cornell University Press.
- Nightingale, F. (1858). *Notes on Matters Affecting the Health, Efficiency and Hospital Administration of the British Army, founded chiefly on Experience of the Last War*. London: Harrison & Sons.
- Nightingale, F. (1859a). *Notes on Nursing: What it is, and What it is Not*. London: Harrison.
- Nightingale, F. (1859b). *Notes on Hospitals: being two papers read before the National Association for the Promotion of Social Science, at Liverpool, in October 1858: with evidence given to the Royal Commissioners on the state of the army in 1857*. London: John W Parker & Son.
- Nursing Now. <https://www.icn.ch/what-we-do/campaigns/nursing-now> (accessed 23 July 2020)
- O'Connor, S., Waite, M., Duce, D., O'Donnell, A., & Ronquillo, C. (2020). Data visualization in health care: The Florence effect. *Journal of Advanced Nursing*, 76(7), 1488-1490. <https://doi.10.1111/jan.14334>

- Rafferty, A. M., & Wall, R. (2010). Re-reading Nightingale: Notes on Hospitals. *International Journal of Nursing Studies*, 47(9), 1063-1065. <https://doi.10.1016/j.ijnurstu.2010.07.010>
- Nelson, S., & Rafferty, A. M. eds. (2010). *Notes on Nightingale: The Influence and Legacy of a Nursing Icon*. Ithaca: Cornell University Press.
- Salvage, J. (2001). Reputations: Florence Nightingale – Iron Maiden. *BMJ*, 323(7305):172. <https://doi.10.1136/bmj.323.7305.172>
- Smith, F. B. (1982). Florence Nightingale. Reputation and power. London: Croom Helm.
- Thompson, D. R. & Darbyshire, P. (2020). Nightingale's year of nursing: rising to the challenges of the covid-19 era. *BMJ*, 370, m2721. <https://doi.org/10.1136/bmj.m2721>
- Williams, K. (2008). Reappraising Florence Nightingale. *BMJ*, 337, a2889. <https://doi.10.1136/bmj.a2889>
- Woodham-Smith, C. (1950). *Florence Nightingale*. London: Constable & Co.