Education and debate

Rise and demise of the hospital: a reappraisal of nursing

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Doctors, managers and politicians have tended to underestimate the importance of nursing. Greater recognition is crucial for the success of modern hospitals

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Hospitals face an uncertain future. After a century of achievement and progress, the public, clinicians, managers, and politicians are increasingly expressing concern. Currently, the UK public's principal worry is the danger of hospital acquired infection, particularly methicillin resistant *Staphylococcus aureus* (MRSA),[1] but it also includes mixed sex wards, poor quality food, inadequate cleaning, insufficient attention from staff, and the risk of being the victim of a medical error. In 2000, 850 000 adverse events occurred a year, costing the health service £2bn ($3.4bn; €2.9bn).[2] Up to 40 000 patients die each year because of iatrogenesis, with a similar incidence in other industrialised countries.[3] This contributes to politicians' enduring concern: hospitals' apparently insatiable appetite for resources.

Attempts to achieve greater efficiency through economies of scale are leading to fewer, larger general hospitals.[4] Ironically, this is happening at a time when public confidence in larger general hospitals is waning, with the prospect of them being avoided in favour of smaller private hospitals by those who can afford them.[5] All in all, it is a fairly forlorn outlook, but we have been here before. What can we learn from the past?

Previous demise

This is not the first time that hospitals have faced such challenges. Although the affluent provided financial support for the hospitals that emerged in the industrialising cities of the 18th and early 19th centuries, none of them would have relished using such facilities (though they were also discouraged as it would have threatened the income of their private practitioners and abused the charitable purpose of hospitals). The workhouse infirmaries were a refuge of last resort for paupers while the voluntary hospitals were for the labouring poor who could not afford private care at home. Although voluntary hospitals had been symbols of civic pride and sources of comfort and hope when established in the 18th century, the pressure resulting from the rapid growth in urban populations that accompanied industrialisation led to a fall in standards.

By the first half of the 19th century, inpatient care in large general hospitals had often become unpleasant, was sometimes dangerous, and was largely ineffective. Medical treatment was confined to prescribing alcohol, purging, bleeding, and hydrotherapy. Surgical mortality was much higher in hospital than in private practice,[6] and women had a high risk of contracting puerperal fever in the lying-in hospitals.[7] And the dangers extended to the staff: three of the first eight physicians employed at the new London Fever Hospital in 1849 died, and the mortality of nurses from contagious diseases in London hospitals was four times that of the female population.[8] Despite this, voluntary hospitals provided a welcome refuge for the working poor.

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Once an attractive and desirable place of care

However, starting in about 1860, hospitals were transformed. By the turn of the century, inpatient care was no longer to be avoided. And increasingly during the following century all social classes perceived hospitals as attractive and desirable places of care. What caused the dramatic change?

Transformation of hospitals in the 19th century

The three principal contenders for transforming hospitals are medical advances, nursing reform, and improvements in the buildings. The prevailing view has been that medical advances led the way. For example, the eminent historian Richard Shryock believed, "The new type of nursing appeared in response to a new type of medicine."[9] However, a brief consideration of the major medical innovations of the period provides little support. The introduction of anaesthesia in 1846 simply encouraged surgeons to be more adventurous, undertaking increasingly bold procedures that were not matched by improved results until much later. Mortality after amputation was still 41% in 1869 in the large

London hospitals.[10] Antisepsis, first shown by Joseph Lister in 1865, was shunned by most of his colleagues until the 1880s, and asepsis was not even suggested until the end of the century. The only other innovations concerned the observation and investigation of patients using newly invented instruments, none of which had a great impact on the effectiveness and safety of hospitals.

In contrast, the foundations of nursing reform had already been laid by 1860. Before this time, nurses did menial tasks, received little or no training, were often undisciplined, lacked any status, and were poorly remunerated. However, in the 1840s Catholic and Protestant orders established nursing sisterhoods. The sisterhoods appealed to middle and upper class women who, despite their education and ability, were restricted to the domestic sphere by the social mores of the day. The sisterhoods met their desire to do voluntary work of high moral value (the only other outlet being teaching). Initially, their roles were confined to recruiting and training probationers, who the sisterhoods then employed to visit sick poor people and as private nurses for the affluent as a means of raising funds.

This changed in 1856 when a London voluntary hospital, King's College Hospital, decided to contract out its entire nursing needs to an Anglican sisterhood, St John's House.[11] The perceived benefits were so great that in 1862 even "the godless institution," University College Hospital, invited the Catholic All Saints' Sisterhood to take over its nursing service.[12] Meanwhile, Florence Nightingale was establishing the first secular training school at St Thomas's Hospital.

The leading nurses of the day recognised that in addition to providing formal training for nurses, it was necessary to increase nurse staffing levels, provide better terms and conditions of employment, and make major changes to the way work was organised. Nightingale shared these aspirations, but she also advocated radical changes to the design and construction of hospitals. So much so that the first chapter of *Notes on Nursing* refers not to nursing care but to the ventilation and warming of hospital wards, reflecting the prevailing view that miasma (foul air) was the cause of disease.[13]

The sanitarians, of which Nightingale was a leading member, advocated fresh air, sunlight, ample space, and cleanliness. New hospitals therefore featured large windows, good ventilation, more space for each bed, balconies, separate ward blocks, and sanitary facilities (with tiled walls) physically separated from the wards. In this way, Nightingale established a role for nurses, alongside architects, doctors, and sanitary engineers, in the design of hospitals.

By the time important changes in medical practice occurred (after 1890), major improvements in nursing care and hospital buildings were well established. Rather than lead the transformation, medicine followed in its wake. Indeed, many of the spectacular improvements in medicine that were to come were only possible because the hospitals had become well organised and clean with a trained, disciplined workforce managed by senior experienced nurses hugely committed to their duties.

Medical responses to nursing reform

Although the importance of nurses was recognised and appreciated by some leading doctors, such as Charles West, the founder of the Hospital for Sick Children, some were ambivalent and others hostile. A *BMJ* editorial stated that "The nurse must be a person who pays blind obedience to [doctors'] orders," [14] while Sir William Gull, the leading physician of the day, thought nursing "Will never be what it should be until it is made a religion."[15] Underlying such medical hostility was a fear that doctors' authority was being undermined by nurses, who were supported and encouraged by the lay governors of the hospitals. This culminated in a well publicised confrontation at Guy's Hospital in 1879-80.[16]

Much of this antagonism was caused by social insecurity. Doctors were often from humble origins and dependent on satisfying their private customers, whereas some senior nurses had independent incomes and inhabited the social world of the establishment, counting government ministers and aristocrats among their friends. Sex was another factor. Many people thought that women should work only if they had to for financial reasons. Men had little or no experience of working with women of equal (or even superior) status. Nurses had to cope not only with the sexist attitudes of the doctors but also sexual harassment.[17] Fortunately, nurses were undeterred, and the end of the 19th century ushered in the golden age of the hospital.

Why do hospitals face their demise?

So, why after a century of outstanding success, is the future of the large general hospital in question? Partly, hospitals are a victim of their success. Developments, most notably in pharmaceuticals and more recently in information and communication technology, that have largely taken place in hospitals now offer alternative ways of delivering care. Patients have less need to attend hospitals: drugs can replace surgery, diagnostic technology can be moved to primary care, surgery can take place in health centres, telemedicine and telecare can dispense with patients having to travel, improved management of chronic disease in the community might limit the number of acute episodes, and improved patient knowledge and self care can enhance self sufficiency. And when patients do need to attend hospital, they are less likely to need to stay overnight; since the 1990s around 80% of operations have been done as day cases.[18]

These changes are generally welcomed by the public, healthcare professionals, managers, and politicians. And if the demise of the hospital was entirely for these positive reasons, there would be no concern. But it isn't; negative reasons also threaten the future of large hospitals, arising from changes over the past 20 years in management, nursing, and building strategy.

Hospital management in the NHS has experienced several changes.[19] Whether intended or not, the management (and evaluation) of activities such as nursing, cleaning, portering, supplies, catering, and maintenance have been separated. The separation may have produced apparent improvements in technical efficiency (from the perspective of the hospital) but at the cost of losing horizontal integration, in which nurses manage all these functions at the level of the patient and the ward. Such integration helps achieve both good quality care and, from the point of view of the patient or society, efficiency.

Nursing has also fundamentally changed. The days when senior nurses made the hospital their lifetime home and focus have long since gone. In addition, the

Summary points

- The UK public is losing faith in hospital care
- Nurses led the transformation of hospitals in the 19th century and should do so again
- Nursing is the key to improving the hospital environment and to reducing the need for hospital care
- Doctors, managers, and politicians must recognise and respect the contribution nurses can and must make
- Improved leadership and enhanced opportunities for nurses are needed

introduction in the 1980s of knowledge based education to complement experience and competency based training, although essential to the development of the nursing profession, reduced the time nurses spent at the bedside. The key element of nursing—a holistic approach that serves to counteract the reductionism of medicine—has inadvertently been undermined. Although many nurses have attempted to maintain past clinical practices, work pressures and staff turnover have impeded their aspirations and, too often, nurses in management have not shown the leadership their predecessors did in the 19th century.

And finally, estate management. In an attempt to maintain clinical services within budget, managers frequently deferred expenditure on building maintenance. The accumulated effect became apparent in the 1990s and is now being tackled in the biggest hospital building programme for decades. However, this may not reverse the demise of the hospital. Current policy favours hospital aggregation, resulting in bigger buildings. This policy is driven by staffing issues (reduced working hours, new training needs, explicit job descriptions, etc), a reduced need for beds, and a belief in economies of scale. Little attention is being paid to the, albeit limited, research evidence about the effect of hospital architecture and design on quality of care and outcomes.

What can save the hospitals?

Hospitals will always be needed for severely ill or injured patients and complex treatments. Current public concerns are largely confined to the large public hospitals, with small private establishments perceived as an increasingly attractive alternative. Such perceptions could lead to a return to the situation in the late 19th century before the middle classes started using voluntary hospitals. Contemporary parallels with secondary education are all too apparent. Although questions remain about the optimum size and configuration of hospitals, the way they function and are managed raises equally important issues. If public confidence is to be maintained, nurses must have a central role. Indeed, nurses rather than doctors have always really run the hospitals at the clinical level; doctors have provided specialised help either on a short term (juniors) or part time (consultants) basis.

Furthermore, nursing has the potential to moderate the public's need for hospital care through innovations such as the establishment of nurse led telephone help lines, managing people with chronic diseases in their own homes,[20] and, together with general practitioners, delivering more care in health centres.

In many ways, nursing is the key profession: "The physical, psychological, and social environment for the patient in hospital is largely determined by what the nurse is and does."[21] Yet its historic contribution has not been recognised sufficiently. The response in England to the current crisis posed by MRSA suggests that this may be changing. The government recognises that: "The public looks to nurses and midwives to make sure that the patient environment is clean and safe. Their leadership is essential."[22] But such sentiments have to be more than rhetorical. Nurses are still often excluded from national medical and managerial initiatives to develop policy and strategy on provision of acute hospitals.[23 24]

The 19th century teaches us that nurses must be central to the running of all aspects of hospitals, not just those areas deemed appropriate by the medical profession. This will require not only improved nursing leadership but also enhanced opportunities for nurses to realise their potential through education and training. In this way everyone can benefit: hospitals will remain viable, doctors will be able to pursue the activities in which they excel, and the public's concerns will be allayed.

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1 Wheldon J. MRSA deaths double in four years. *Daily Mail* 2005 Feb 25:1.
2 Department of Health. *An organisation with a memory*. London: DoH, 2000.
3 Institute of Medicine. *To err is human: building a safer health system*. Washington, DC: IoM, 1999.
4 Smith R. How best to organise acute hospital services? Think completely differently. *BMJ* 2001;323:245-6.
5 Boseley S, Carvel J. What really bugs NHS patients: the dirt. *Guardian* 2005 Feb 7:12.
6 Lloyd WEB. *A hundred years of medicine*. London: Gerald Duckworth, 1936.
7 Lightfoot T. Some practical observations on the disease usually called puerperal fever. *London Medical Times* 1850;21:463-5.
8 Nightingale F. *Notes on hospitals*. London: Parker and Son, 1859.
9 Shryock RH. *The history of nursing. An interpretation of the social and medical factors involved*. Philadelphia: W B Saunders, 1959.
10 Simpson JY. Some propositions on hospitalism. *Lancet* 1869;ii:475-8.
11 Helmstadter C. Robert Bentley Todd, Saint John's House, and the origins of the modern trained nurse. *Bull Hist Med* 1993;67:282-319.
12 Holloway SWF. The All Saints' Sisterhood at University College Hospital, 1862-99. *Med Hist* 1959;3:146-56.
13 Nightingale F. *Notes on nursing: what it is and what it is not*. London: Harrison, 1860.
14 Nurses and doctors. *BMJ* 1880;ii:97-8.
15 Gull WW. Professional life. In: *A collection of the published writings of WW Gull. Memoir and addresses*. London: New Sydenham Society, 1896.
16 Waddington K. The nursing dispute at Guy's Hospital, 1879-1880. *Soc Hist Med* 1995;8:211-30.
17 Abel-Smith B. *The hospitals 1800-1948*. London: Heinemann, 1964.
18 Audit Commission. *Acute hospital portfolio. Day surgery*. London: Audit Commission, 2001.
19 Strong P, Robinson J. *The NHS. Under new management*. Milton Keynes: Open University Press, 1990.
20 Bodenheimer T, MacGregor K, Stothart N. Nurses as leaders in chronic care. *BMJ* 2005;330:612-3.
21 Simpson HM. The influence of professional nursing on the development of the modern hospital. In: Poynter FNL, ed. *The evolution of the hospital*. London: Pitman Medical, 1964.
22 Department of Health. *The matron's charter*. London: DoH, 2004.
23 Joint Working Party of British Medical Association, Royal College of Physicians of London, Royal College of Surgeons of England. *Provision of acute general hospital services*. London: RCS, 1998.
24 Joint Working Party of the Royal College of Physicians of London, the Royal College of General Practitioners and the NHS Alliance. *Clinicians, services and commissioning in chronic disease management in the NHS*. London: RCP, 2004.

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