

Comparing Nightingales’s Notes on Nursing and Current Thoughts on Sustainable Healthcare Design

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Several years ago, while conducting some research for a project, I discovered Florence Nightingale’s book, **Notes on Nursing**. Of course, I knew about Nightingale and that she was considered the “mother” of modern nursing, but I had never taken the opportunity to discover what that meant. What new ideas did she implement that so transformed the way healthcare was viewed, so much so that even young school children today recognize her name? Why, as a sustainable design architect, who has worked on many successful hospitals and has a passion for all books, had I not read her work?

As I began reading the book, I realized that what she wrote transcended nursing practices and extended into the design and quality of healthcare facilities. This book, which was written in 1860, was not only the foundation of modern nursing practices, but on many levels both **Notes on Nursing: What It Is, and What It Is Not**, and the subsequent **Notes on Hospitals** could be considered the impetuses for sustainable healthcare facility design.

Near the beginning of **Notes on Nursing**, Nightingale wrote, “In watching diseases, both in private houses and in public hospitals, the thing which strikes the experienced observer most forcibly is this, that the symptoms or the sufferings generally considered to be inevitable and incident to the disease are very often not symptoms of the disease at all, but of something quite different—of the want of fresh air, or of light, or of warmth, or of quiet, or of cleanliness, or of punctuality and care in the administration of diet, of each or of all of these. And this quite as much in private as in hospital nursing.”



Florence Nightingale

Nightingale had an innate understanding of improved patient-centered healing and the ability to identify many critical success factors. Reviewing the simple principles she identified as crucial to healing – pure air and water, light and cleanliness, one can begin to perceive the structure of appraisal tools commonly used today to evaluate the level of success in implementing sustainable design into a facility. LEED for Healthcare is the most prominent program utilized at this time. Other programs or strategies include Evidence Based Design, Planetree, Patient-Centered, Lean and Green Guide for Health Care. Each of these merits its own appraisal and consideration, but in many ways they overlap and harmonize with the original intentions of **Notes on Nursing** and other Nightingale writings.



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In **Notes on Hospitals**, published in 1863, Nightingale wrote, “It may seem a strange principle to enunciate as the very first requirement in a Hospital that it should do the sick no harm.” Noting that mortality rates were much higher within the hospital environment than for patients cared for at home, Nightingale understood that every aspect of care must be focused on making a sick person healthy. This statement reflects not only on the medicine and care provided, but also on the design of facilities. Healthcare professionals and designers must collaborate on meeting the goal of planning and designing healthcare spaces that provide the best atmosphere for patients, families, nurses, physicians and other staff.

In many ways, the facilities that house healthcare services should act as a stage, or back-drop, to provisions of quality care. The design of healthcare facilities should never interfere with a practitioner’s ability to provide efficient and dignified care to patients or impede communications with their families. Healthcare architecture must be dynamic and give special consideration to concepts that increase the efficiencies of caregivers while also allowing for flexibility and adaptability.

More than a century after her death, designers of healthcare facilities still rely on Nightingale’s insights and practices. All of these principles are woven through our modern approach to sustainable healthcare design. They transcend time. It is a critical reminder to continue to look back at the successes and writings of our predecessors, not only for validation, but to remind ourselves of those values that continue to be viable, so as to not forget.

The following observations are organized under headings that reflect original chapter titles in **Notes on Nursing**.

Ventilation

Nightingale stated that “the first rule of nursing <is> to keep the air within as pure as the air without.” A healthy, healing environment begins with a high quality indoor environment. Sustainable design architects stress the importance of utilizing energy efficient systems because healthcare facilities invariably are energy intensive. Not only do these energy savings transmit value to the owners, but they yield the associated benefit of reducing carbon emissions associated with the operation of the facility.



NICU, Winnie Palmer Hospital for Women and Babies / Orlando, Florida

Energy savings alone contribute to an improved exterior environment, leading to cleaner air for the entire community. While this is critical, the health risks associated with poor indoor air quality far surpass the risks related to outdoor air contamination. Poor indoor air quality can cause illness, nausea, eye and skin irritation, headaches, vomiting and asthma attacks. Bringing in fresh outdoor air reduces pollutants and promotes a healthier indoor environment, increasing patient recovery time and improving staff productivity and retention.

Light

Nightingale discusses the vital importance of not only adequate light, but more specifically, natural daylight. She emphasizes that the relative aspect and view of sunlight in relation to the patient is a matter of first importance to the sick, as without sunlight the body and mind begin to degenerate. Moreover, contemporary studies have shown that daylighting improves the way people feel and decreases anxiety of the staff, as well as of patients and families. This ultimately improves the quality of care and the healing environment.



VA Austin Outpatient Clinic / Austin, Texas
Designed to LEED Silver Equivalency

Noise

“Unnecessary noise is the most cruel abuse of care which can be inflicted on either the sick or the well,” Nightingale wrote in **Notes on Nursing**. Today’s healthcare designers recognize this and are incorporating sound remediation in the design of facilities, while hospitals are addressing this as part of staff training. It is well documented that noise causes undue burden and stress on patients, leading to lack of sleep, elevated blood pressure and exhaustion in general, increasing the time it takes to recover from illness. Not only does it impact patients, but noise also leads to stress and burnout among staff and patient families.

Noise levels and controls are, in fact, so critical to the success of healthcare facilities that noise level guidelines and remediation have been published in ASHE’s **FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities** and have been adopted by the American Institute of Architects.



Norman Regional Healthplex / Norman, Oklahoma

Variety

One of Nightingale’s most notable achievements as a nurse came during the Crimean War, where she and a team of nurses she trained improved the unsanitary conditions at a British base hospital, reducing the death count by two-thirds. It is vital to understand that this amazing progress not only was facilitated by improving hygienic conditions, but also was a result of a number of patient services that were instituted, enhancing the quality of their hospital stay and speeding recovery.



Texas Children's Hospital West Campus / Houston, Texas

Nightingale wrote of “the effect in sickness of beautiful objects, of variety of objects, and especially of brilliancy of colour” on a patient’s recovery. In today’s healthcare design, architects accentuate the value in creating patient-centered facilities. We understand the importance of providing healing gardens and outdoor play areas, designing patient rooms to maximize views, utilizing colors throughout, offering wireless internet, and forging a connection to nature, among many other design principles.

Chattering Hopes and Advices

Nightingale wrote, in the beginning of this chapter, “‘Chattering Hopes’ may seem an odd heading. But I really believe there is scarcely a greater worry which invalids have to endure than the incurable hopes of their friends.” She stressed instead the need for families and friends to support the patient with good news and “interesting gossip.” Nightingale emphasized in many of her works that patient “advisers are the same now as 200 years ago,” and this stands true even today. Patient advisers include not only doctors and nurses, but also family and friends.

When loved ones are sick, families are encouraged to talk with them, share stories, be there to hold a hand, encourage laughter. These interactions have been proven to relieve physical tension and stress, boost the immune system and in many cases, improve the function of blood vessels, increasing blood flow. These all lead to a faster recovery for patients. Hospitals today include comfortable family zones within patient rooms, as well as areas inside the hospital or outside in beautifully landscaped areas, where families and patients may gather outside the confines of the patient room.



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