

on the front line

Involving nurses in healthcare design can help designers build better projects

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Florence Nightingale wasn't just the "Lady with the Lamp" as she's perhaps best known. She was a functional design visionary and an early example of how nurses can influence the design of healthcare spaces. She understood the impact of viewing the creativity and power of the physical environment, and through this understanding, her outstanding mathematical and visual mind helped to translate observations and statistics into practical action that helped to improve the quality of care. Her hospital pavilion design, with its large windows, natural daylight, cross ventilation, and access to balconies and outside air helped to revolutionize the design of

"I don't think I ever saw anything that affected me much more than this....Sublime in the highest style of intellectual beauty, intellect without effort, without suffering... not a feature is correct—but the whole effect is more expressive of spiritual grandeur than anything I could have imagined. It makes the impression upon one that thousands of voices do, uniting in one unanimous simultaneous feeling of enthusiasm or emotion, which is said to overcome the strongest man."

—Florence Nightingale, on her January 1850 sail up the Nile to Abu Simbel

healthcare spaces in Europe during the 19th century. Improving the quality of care, not only by improving the practice and profession of nursing, but also through architecture, sanitation, access to quality healthcare, and establishing public health standards were tenets of her practice^[1]. Today, modern "Nightingales" continue her legacy by proving the critical need for involving nurses in the design process—from day one. They provide a clinical credibility to the discussion that makes them a logical resource for this purpose.


Nurses bring a unique mix of observation, practical experience, and broad institutional knowledge to the table, informing design decisions from the impact of a strongly patterned floor on a patient in a wheelchair post operatively to the implementation of clinical regulatory codes (e.g. infection control practices). Through evidence-based design, they bridge the gaps between separate stakeholders within the medical institution and the design team, and thus provide a critical perspective, both fiscal and practical, often missing from the healthcare design equation. Likewise, acting as a translator, a nurse can intercede by helping the clinicians understand the design process and terminology.

Nursing process methodology is a problem-oriented, client-centered approach to practice. The acronym "APIE" explains that the

first step is to Assess the situation; then Plan for various scenarios, team collaboration, or option development. An Intervention follows where decisions are made, and expectations are set, followed by an Evaluation to learn what worked, what didn't, and how to move on. This approach applies to design, as well, which helps inform the criteria translated to the design team. A nurse is able to credibly ask probing questions in order to best discover latent assumptions and evaluate and prioritize needs versus requests, and their role in facility operations often allows them to inform the design team of future initiatives or the infrastructure needs of new technology or equipment.

The ability of a nurse to provide front-line experiential data is invaluable in designing clinical spaces. Their influence may be best applicable towards disaster planning or surge capacity response, where architectural and engineering design makes significant differences in facilities response to an incident. Clinical staff is notorious for creating work-arounds to design flaws simply because there isn't enough time to come up with a better solution. But a nurse has the ability to break down the work-around to provide a more efficient solution, therefore improving procedures for all staff.

Through experience, common design flaws can be avoided by heeding the lessons learned in the post occupancy evaluation (POE). Items that tend to be overlooked often are the most obvious elements of design, such as floors, doors, and technology. Designers are tasked with developing the structural space and the facility program, and also the interior aesthetic, which has as much of a psychological impact on a patient or staff member's experience as the physical environment. Stepping in, nurses are able to report that green walls and curtains, when reflected upon one's skin, makes that patient appear sicker. But, neutral shades lend a more realistic visual environment for patients and staff. These types of considerations are now part of current AIA guidelines.

Critical intervention opportunities, from planning through post-occupancy, enable the nursing staff to provide input and experience directly to the design team at every decisive stage of the process, and in every programming parameter. Nurses have the ability to sift through what impacts patient care from an applied practicality, from which those strictly based in design can benefit. In the words of Florence Nightingale, "It may seem a strange principle to enunciate as the very first requirement in a hospital that it should do the sick no harm." By involving nurses in the design of healthcare spaces, the entire design team can adhere to this principal. 

[1] Florence Nightingale's "Notes on Hospitals" circa 1859