

Enhancing the Patient Experience Through the Built Environment

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Patient satisfaction is a top goal of hospitals throughout the US and the physical environment can be a major factor in enhancing the patient experience. In the 2012 *HealthLeaders Media Patient Experience Survey* nearly 84% of the top-level US healthcare executives said that patient experience is among their top three priorities, and 24% say it is their top priority.¹ How the patient perceives their hospital experience has become a more important issue for US hospitals since 2007 when the Centers for Medicare & Medicaid Services (CMS) instituted the Inpatient Prospective Payment System (IPPS) annual payment update provisions. Utilizing HCAHPS as the first standardized, publicly reported survey of inpatient's perspectives regarding their hospital stay, there can be a meaningful comparison of hospitals for consumers. This creates even more incentive to improve the quality of care and improve accountability of public investments in hospitals.

How the physical environment improves the patient experience is one of the hardest things to quantify. In the same patient experience survey, mentioned previously, 82% of those surveyed said expanding or renovating facilities was an important patient-oriented tactic in their patient experience strategy. Yet 86% reported spending 5% or less of their operating budget on patient experience initiatives, with over half having no specific investment assigned: hardly enough to launch major building projects.

So can we build a case that the physical environment can improve the quality of experience for patients and family? What aspects of hospital design and planning can directly impact the key elements that support a positive patient experience? A study reported in *Health Care Management Review* looked at creating a business case for more appealing healthcare settings.² Their premise was "Do patients in appealing rooms more favorably evaluate healthcare providers and services than do patients in typical rooms?" They looked at the perception of care in

two adjacent inpatient unit settings, one old and un-renovated and one in a new building. The study tried to duplicate clinical operations and patient type as close as possible to eliminate variables. The conclusion reached was that though the clinical care was almost identical, the care was perceived as superior in the newly constructed facility. An evaluation conducted by the HOK global design, architecture, engineering and planning firm, done post occupancy, showed that six new facilities they had designed scored well above the national average on the HCAHPS question of whether patients would recommend the hospital to others.

In 2011, the Beryl Institute, a patient experience organization, identified five key elements for improving the patient experience.³ These included:

- Reducing Noise
- Improving the Discharge Process
- Efficient Rounding
- Improved Responsiveness of Staff
- Effective Pain Management

Though all these elements

seemingly are operationally driven, there are environmental features that can support and enhance each of these efforts.

Reducing Noise

Reduced noise levels have been proven to improve sleep and mood and create better pain tolerance. Operational initiatives and implementation of technology such as “Yacker Trackers” have modified staff behavior to reduce noise volume at clinical stations on inpatient units, while enforcement of HIPAA guidelines have made privatization of confidential discussions a priority. Sound control is one area where the physical environment can also play a major role. The Facility Guidelines Institute minimum acoustic standards recently established in the 2010 edition of the *Guidelines for the Design and Construction of Health Care Facilities*, mandate much higher sound attenuation ratings for walls and ceilings in patient treatment areas. Roger Ulrich and others have shown that instituting private inpatient rooms reduces exposure to noise levels that can cause stress and negative health effects.⁴ Same handed patient rooms (where all patient rooms are identically oriented) also reduce noise transmission further by not having shared headwalls and spacing patient room doors away from each other.⁵ Especially in inpatient environments, there is a continuing dichotomy between necessary visibility for caregivers and acoustical privacy: patient satisfaction is driving more attention to placement and sound attenuation of work areas to decrease sound transmission.⁶

Improving the Discharge Process

The discharge process can be

enhanced by creation of spaces where instructions can be easily and comfortably transmitted to families and patients. These include informal “niches” where staff can meet with families in an informal yet acoustically private setting outside of inpatient rooms. More formal consultation rooms located on inpatient units allow for more serious discussions. Comfortable furniture and furnishings allow for a more relaxing setting where directions can be more fully comprehended.

Efficient Rounding / Improved Responsiveness of Staff

Studies have shown that regular, scheduled rounding by key clinical staff improves outcomes and perceived staff responsiveness is one of the most important patient satisfiers. The design of the physical plant can bring caregivers closer to patients to allow this to more readily occur. The continuing adoption of electronic medical records (EMR) allows for more decentralized charting either bedside or just outside the patient room. Further adoption of handheld devices will accelerate this trend. Building designs that incorporate adequate workspace for clinicians so they can face the patient when charting or view patients from near the door support responsiveness. Smaller strategically placed “huddle rooms” allow for interdisciplinary clinical meetings closer to the beds. Something as simple as white boards in patient rooms for designating staff names for patients has proven worth. Incorporating lean planning studies into design confirms shortening travel distances for staff to key support rooms to increases time at the bedside; the more time at the bedside, the more

patient satisfaction.

Effective Pain Management

Perhaps not so obvious is how the physical environment can enhance pain control. A study published in *Pain* quantified that introduction of natural light and views of nature, even as virtual reality can reduce the perception of pain.⁴ From early studies by Roger Ulrich and others, we know that when possible, pleasant exterior views can help reduce patient length of stay. Natural light is uplifting to the spirits of patients, family and staff, regardless of the location within the hospital. When neither of these can be accomplished naturally, the use of art or digital monitors depicting nature and faux lighting elements can be very effective. In the future we may see virtual reality “headsets” that provide healing images in place of a real environment. This positive distraction to pain and discomfort is a big patient satisfier.

Wayfinding

One last major aspect of physical design that affects patient experience is how easily patients and family can negotiate a healthcare facility without getting lost. The hospital experience is often one of stress and anxiety which can increase confusion. The building design needs to have clear, coherent circulation so signs are only secondary to reaching your destination. Wayfinding can be reinforced by identifiable interior color and finishes that designate which corridors are public ways vs. staff areas. It is important that patients and family can see where they need to travel when they first arrive and are guided through the

facility by a hierarchy of spaces. For instance, at Kettering Soin Medical Center, Beavercreek, Ohio, the front lobby becomes a “town square” from which all pathways are easily identifiable to the inpatient elevators, check-in desk for all procedures and diagnostics, emergency treatment center and dining area. No one can get lost in back areas because they are clearly identified and separated. All waiting areas are either on exterior walls that orient through views outside, or are sky-lit spaces.

Conclusion

There are many more ways that a new or renovated facility can improve the patient experience that have no scientific “evidenced based” proof but regardless uplift the spirit and reduce anxiety through perceived cleanliness, soothing lighting and homelike attributes. As our measurement of environmental factors becomes even more sophisticated, we may be able to judge even more of what of these elements contributes most to patient satisfaction so resources can best be allocated in the most judicious manner. In the meantime, architects and designers will continue to work

with administrators and caregivers to understand what operational improvements can be best supported by the physical environment and which of these improvements most improve the patient and family experience.

Sheila Cahnman AIA, ACHA, LEED AP has dedicated an over thirty year career to the design and planning of health facilities. In 2010, she was named one of the top twenty-five most influential in healthcare design by Healthcare Design magazine. In addition to her work for clients such as Northwestern Memorial Hospital, University of Chicago and the Ohio State University Medical Center, she is a prolific writer and speaker. She is Healthcare Market Sector Leader for AECOM leading healthcare planning and innovation for the practice.

Sheila is also an industry expert speaker at Next Generation Healthcare Facilities Summit being held at Double Tree – Hilton in Santa Monica, CA – February 10-12th, 2014. Her session is entitled Enhancing Patient Satisfaction through Built Environment, for more information on sessions, speakers and/or how to register visit www.NextGenHealthcareFacilities.com

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⁵“Getting Nurses Back to Patient Care: Nursing Unit Design, Informatics, and Clinical Outcomes”, 2010 ANCC National Magnet Conference®, Mary Kennedy, RN, MS and Maria Ducharme, MS, RN, NE-BC, The Miriam Hospital, Providence, RI, Nicholas Watkins, PhD, HOK

⁶Solet, JM et al, Evidenced Based Design Meets Evidenced Based Medicine – The Sound Sleep Study, The Center for Health Design, 2010

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