

Healing Environments: Mitigating Patient Stress, Improving Medical Outcomes

By Kelly M. Pyrek – March 2006

Providing a cost-focused platform for the administration of technology and medical intervention at the expense of the psychological and social needs of patients has been the sole purpose of modern healthcare, asserts Roger S. Ulrich, PhD, director of the Center for Health Systems and Design at Texas A&M University. He says in the past, little has been done to mitigate the traumatizing hospital experience and supplement the healing process, but slowly, the institutional environment of care is giving way to an enlightened approach known as patient-centered care.



Ulrich points to mounting scientific evidence that a patient's environment has a significant impact on patient outcomes by reducing anxiety and pain and supporting an increased opportunity for healing. Additionally, Ulrich says the absence of a healing environment has been linked to a greater need for pain medication and longer hospital stays.

Ulrich says healing environment studies are no longer considered 'voodoo science,' considering what he sees as a significant shift toward acceptance of mind-body correlations and their impact on medical outcome. For example, Ulrich says fewer scientists and clinicians reject the idea that stress impacts the body and can trigger or exacerbate certain conditions such as colds.

"Studies have shown that stress suppresses immune function and often is expressed in upper respiratory infections," Ulrich says. "It stands to reason that patients undergoing surgery have high stress levels that can affect the immune system, impact wound recovery and possibly determine the probability of infection. Patients who are exposed to stress-reducing interventions in a healing environment show reductions in anxiety and increases in immunity that can be measured. The medical community is more accepting of the fact that having a patient look at a white ceiling and having nothing better to do than counting the tiles is not a good thing."

David R. Thistlethwaite, AIA, ACHA, principal of Thistlethwaite Architectural Group in San Francisco, says that even though the concept is being treated like a new one, the roots of the patient-wellness model go back many years.

"The healing environment model has existed for some time, in many forms," he says. "Years ago the Planetree model sought to bring a more human touch to the hospital environment."

The Planetree Model

Healthcare facility designers and architects point to the early Planetree model as the definitive source of patient-centered care principles. Planetree was founded in 1978 by a patient, Angelica Thieriot, whose self-described "traumatic" hospital experiences made her question why such a commendable high-tech environment had to be so lacking in warmth and personal care. Thieriot's ideas for a new type of healthcare facility, where patients received support and healing on all levels, were eventually accepted, and in 1985, the first Planetree concept facility--a 13-bed medical/surgical unit in a large California medical center--was created.

Since then, the Planetree organization has grown to more than 50 affiliated healthcare facilities in the acute-care, outpatient and long-term care environments. One of the foundations of the Planetree model is creating architecture and interior design that is conducive to health and healing. The Planetree model dictates that facility design should include efficient layouts that support patient dignity and create home-like spaces. The concept removes architectural barriers that inhibit patient control and interfere with family participation. It also calls for an uncluttered environment that encourages patient mobility and a sense of a "safe shelter." Patient-centered facilities are designed with spaces that facilitate solitude as well as social activity, and includes lounges, activity rooms, chapels, gardens, libraries, kitchens and other accommodations enhanced by healing gardens, fountains, fish tanks and waterfalls that create harmonic energies.

"With patient choice and rising competition, facilities are embracing patient-centered care and healing environments because the patients and their families are demanding it," says Joan Saba, AIA, FACHA, a principal and member of the board of directors of The S/L/A/M Collaborative of Glastonbury, Conn., which specializes in progressive healthcare facility design. "There is proven data that a healing environment does just that -- helps you to heal better. A healing environment isn't just the built environment; it is the delivery of the care. You can have the Ritz Carlton of hospital environments but if the care isn't patient-centered, open, full of information and interested in the whole person, no amount of money in your facility can help you become a healing environment."

Thistlethwaite says addressing stress is often the first step in creating a healing environment.

"People are stressed when in a healthcare environment. They are either worried about their own health or the health of a family member. Improving the overall design and interior makes the setting less intimidating and more familiar. Simple things like color, texture, natural light and natural materials can create a more relaxing, healing environment. These are many of the same things that people are used to in their own homes and help make them more comfortable in the healthcare environment."

Impact on the Bottom Line

Facility administrators, whether in acute care or outpatient care, are beginning to understand that healing environments significantly impact the bottom line. A patient-centered model of care and the resulting healing environment can boost low profit margins, satisfy healthcare consumers and tap into a swelling patient population. Saba adds that in addition to these intangible benefits, concrete benefits can be achieved.

"A healing environment can affect the bottom line by producing fewer medical errors, a more fulfilled, happier and healing staff, plus the competition edge -- if I as a consumer have a choice between two facilities, clinical care being equal, why wouldn't I choose the one that is full of natural light, has great privacy, makes room for my family and considers the whole person--physically and mentally?"

"As far as profit margins and competition go, it seems the healthcare consumer is demanding more home-like or hotel-like amenities while hospitalized," Thistlethwaite observes. "Some of our healthcare clients provide valet parking, beauty services, patient rooms that can accommodate family members overnight. Competition is fierce in the San Francisco Bay area, and many hospitals are spending lots of money to update their interiors as well as their services. This is especially true among the highly competitive birth centers and outpatient surgery centers, where patients may have a choice where to go."

Ulrich says that while he still sees pockets of resistance to healing-environment concepts based on cost, he says he can identify "large numbers of really exemplary situations" at healthcare facilities that embrace the idea.

"As Blair Sadler of San Diego Children's Hospital said, 'This has gone from being a nice-to-have idea, to a gotta-have idea' in the sense you must pay attention to evidence-based design," Ulrich adds. "If

not, you put yourself at competitive risk, increase operating costs, reduce your pool of quality employees, worsen health outcomes and lower patient satisfaction that will reduce revenues. It can be more costly to design in non-evidence-based ways that create easy-to-maintain but harsh, traditional, sterile, clinically and functionally efficient spaces from a medical technology standpoint, but that are completely lacking in an emotional or psychological supportive perspective. Patients won't want to come to your facility, outcomes will be worse and you will have higher staff turnover, in addition to higher operating costs."

A recent study comparing 12 Planetree affiliates 12 months prior to and 12 to 24 months following implementation of the Planetree model of care, found significant average increases in overall patient satisfaction, willingness to recommend the healthcare facility to family and friends, and likelihood of returning to the facility, Saba says. The Planetree model of care also has been associated with fewer medical errors and lower nosocomial infection rates. Saba says many facilities that have adopted patient-centered methodologies report this concept nearly pays for itself in the first year of operation.

When discussing healing environments, designers and architects point to a long list of amenities and concessions that constitute wellness-centric spaces.

According to Saba, wellness rooms "provide an environment that is patient--centered, making navigation of the healthcare system easier for patients and their families." She adds, "The patient feels more in control, that they are contributing to their care rather than being shuttled about. Directions are clear, departments are designed to be patient friendly and 'way-finding' is simplified. Spaces are private when necessary. There is emphasis on natural light and connections with nature."

Saba continues, "The five senses are attended to, understanding that gentle sounds rather than blaring overhead pages, soothing fabrics rather than cold, plastic upholstery, a view to the outside while you wait rather than a blank wall, knowing where you have to go rather than wandering aimlessly from sign to sign through a labyrinth of corridors, incandescent lighting vs. glaring fluorescent tubing, the ability to research and find information readily rather than wait for it to be spoon-fed to you -- all of these things help to give you some control and make you calm."

"What works for one patient group may not work for another," says Thistlethwaite. "For example, we were asked by a client to design two new nursing units at the same time. One was for medical/post-surgical patients and the other was for orthopedic patients. Each unit was unique and had to meet the specific needs of the patient type. The nursing director of the med/surg unit wanted to create a soothing environment, to allow her patients to recover with a minimum of stimulation. This unit was designed with soft, earth-tone colors, warm wood casework and natural light from skylights. The nursing director of the orthopedic unit had entirely different needs. She wanted to encourage her patients to get up and move about as soon as possible, as this aids in their recovery. Her desire was for a nursing unit with bright, vivid and saturated colors that stimulated her patients' senses. We also included a rooftop solarium to give her patients a place to visit, encouraging them to move about the unit."

Elements that stimulate or calm the senses have been cited as some of the most important elements of a healing-environment design.

"Examples of healing-environment components include color, light (artificial and natural, including views to the outside), sound, natural materials such as stone, wood and certain fabrics, texture, and in some cases smell (as many healthcare facilities are introducing various forms of aromatherapy)" Thistlethwaite explains. "Another component often used in healing environments is art, something that is visually stimulating or pleasing to patients. In a pediatric nursing unit, this may be something bright and colorful, with a whimsical feeling, while in a birth center it may be focused on babies and families. A cancer center may choose art that is uplifting, inspiring and more thoughtprovoking, while avoiding pieces that may be too introspective or depressing. Careful thought and consideration must be used when selecting the appropriate components in a healing environment, as the needs are very diverse throughout the spectrum of healthcare."

The Outpatient Connection

While much of the focus of patient-centered design and care has been on the acute-care arena, ambulatory surgery centers and surgical hospitals have embraced the patient-wellness concept from the very beginning and set the pace for other facilities to follow.

"Outpatient facilities are unique in that they are for a short, possibly intense period of time," Saba observes. "At one time this meant that it wasn't as high-tech as an inpatient area. With today's cardiovascular and orthopedic ambulatory cases, this is no longer the case. I believe this increase in technologically demanding outpatient procedures makes it all the more important that the environment be as healing as possible. Patients are more conscious, and their family or decision makers are with them. We are all busy, so a center that is more focused on making the process as easy as it can be for me is highly appreciated and I will vote with my feet. Many physicians have privileges at a number of surgery centers and there is now a real consideration of the type of environment I want for my outpatient experience."

"The healing environment model in an outpatient setting works especially well, as these types of patients don't really want to think of themselves as being 'hospitalized,'" Thistlethwaite says. "If the outpatient setting is more home-like or hotel-like, it is a more familiar type of environment for these patients, putting them somewhat at ease. This creates a more comfortable and familiar setting, while giving the impression that the staff is competent for their medical needs and readily accessible and friendly."

In the outpatient arena, Saba says patient-centered care begins with ease of access. "Great parking, perhaps with valet service, a comfortable waiting area that is not stressful and offers a variety of distractions, the ability to be with the family member as long as possible, great pre-op and post-op areas, a lot of natural light, a place to confer with the caregiver -- all of these factors are important, as are soothing colors and materials that are non-institutional and won't wear down and look shabby."

The specific challenges of establishing a healing environment within an ambulatory setting are topped by the need for flexibility, designers and architects say.

"Ambulatory surgery centers must cater to a number of modalities, so you have to be careful about what you design," Saba says. "A facility for a day of quick eye cases will require different types of space than a day scheduled full of orthopedic patients or kid's ear tubes. This is also true for the difference in how invasive a procedure may be. So the requirements may be different and the design must reflect this. That said, the real cooperation comes between the designer and the caregivers. Early discussions about how the space could and should operate gives way to innovative designs that are breaking the old ways of laying out a department or delivering care. Computerization and the technology we have today will continue to change and affect our designs."

Thistlethwaite says his outpatient surgery facility clients have specific concerns about cost, durability and maintenance.

"With many of today's modern building materials, it is easier to work toward providing a healing environment in an ambulatory setting," he says. "There are many products that provide the look and feel of natural materials but are more economical and very durable for the high-traffic areas of ambulatory settings -- specifically, laminates that look like wood, flooring that looks like tile or stone, luxurious and plush fabrics that are extremely durable, stain-resistant and moisture-resistant. The choices for furnishings appropriate in the healthcare setting have greatly increased. There are more furniture manufacturers that have followed the concept of healing environments, and have created new lines of more home-like/hotel-like furnishings for the healthcare setting."

Saba reports that her firm is seeing more client work in the outpatient arena because of the greater number of procedures that are being moved to the ambulatory environment. "It is a great way to

reach out into the community and serve patients, and it also helps to download the congestion of the inpatient facility and pulls those quick cases out," Saba adds.