

Healthy Communities by Design

November 15–17, 2010 • Redlands and Loma Linda, CA

Optimal Healing Environments

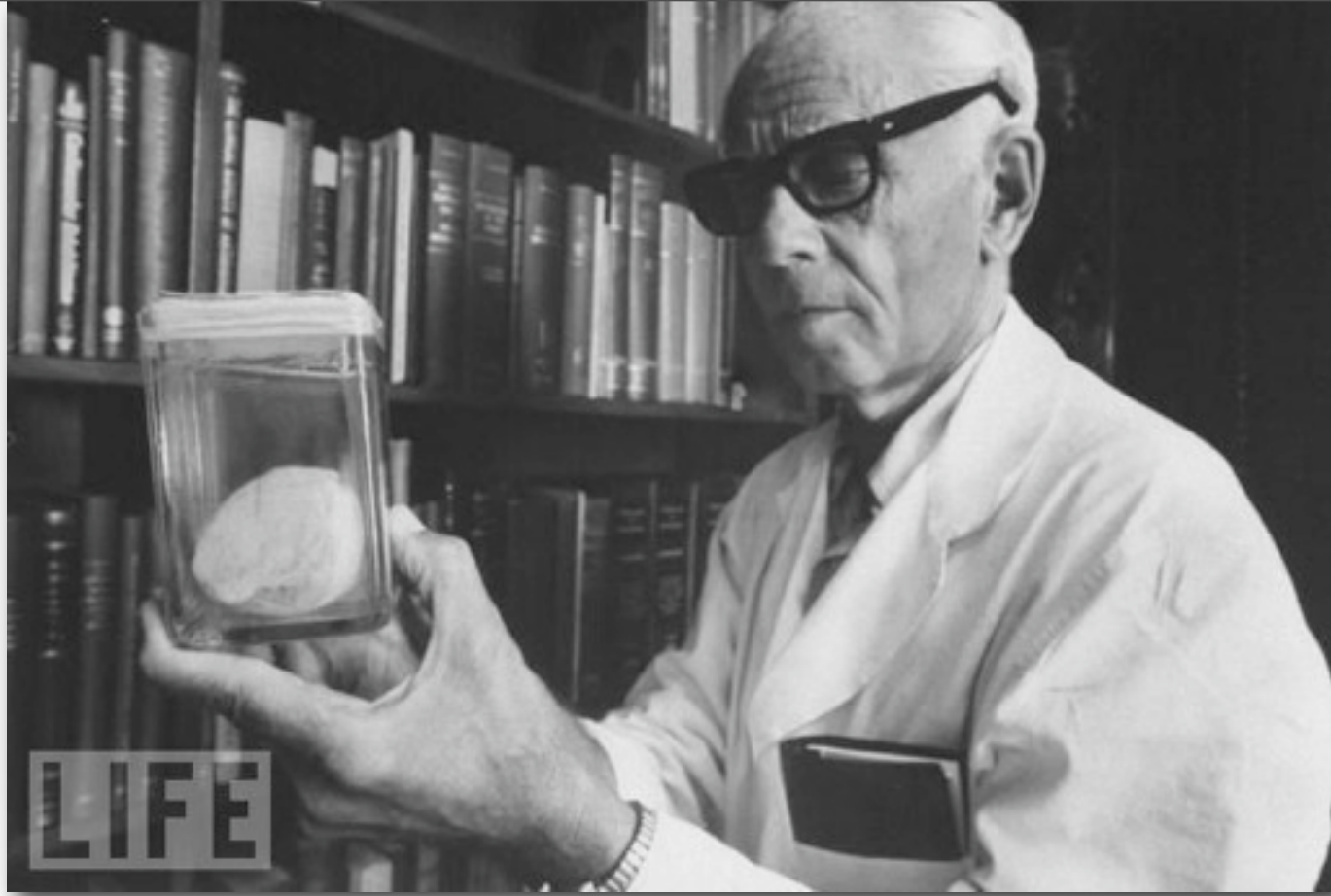
Michael L. Knecht



Healing Environment Definition

The healing environment is a physical setting and supportive culture that nurtures the physical, intellectual, social and spiritual well being of patients, families, and staff, and helps them to cope with the stress of illness and hospitalization.





Feelings and Biochemistry

In recent years...we have learned that feelings are inseparable from biochemistry. Our thoughts influence our physiology. What we perceive, think, and how well we cope are all set in motion by messages from the brain to the rest of the body. One could say that our brains are writing a prescription for our bodies every minute of every day.”

Jain Malkin

Evidence-Based Design



The Stress Factor



The Stress Factor

- Invasion of privacy



"Now I know why they call it the ICU."



The Stress Factor

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- Loss of control



The Stress Factor

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- Loss of control
- Feelings of helplessness



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- Separation from family/friends



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- Uncertainty about care processes
- Uncontrollable noise and interruptions
- Concern about medical errors and cost of care











Physical Response to Stress

- Increased muscle tension
- Increased blood pressure and respiration
- Lowered pain threshold
- Depression
- Insomnia
- Delayed wound healing
- Impact on the immune system



Healing Healthcare Institution

“Curing is scientific, technological, and focused on patients as bodies. Healing is spiritual, experimental, and focused on patients as people. Curing is high tech. Healing is high touch. A healing healthcare institution integrates both dimensions in an overall patient experience.”

Leland Kaiser, PhD

Healthcare futurists and President of Kaiser & Associates



Healing Environment Research

Evidence-Based Design

- Environmental Psychology
- Psychoneuroimmunology



Room With a View

- In a 1994 study researcher Roger Ulrich examined the impact that patient assignment to a room with a window view of a natural setting had on clinical outcomes.
- Ulrich found that patients with a natural view had:
 - shorter postoperative hospital stays
 - fewer negative evaluation comments from nurses
 - fewer moderate and strong analgesic doses
 - lower scores for minor post surgical complications



Recovery Room Patients

In a Swedish study hospital patients in recovery rooms were given different wall views.



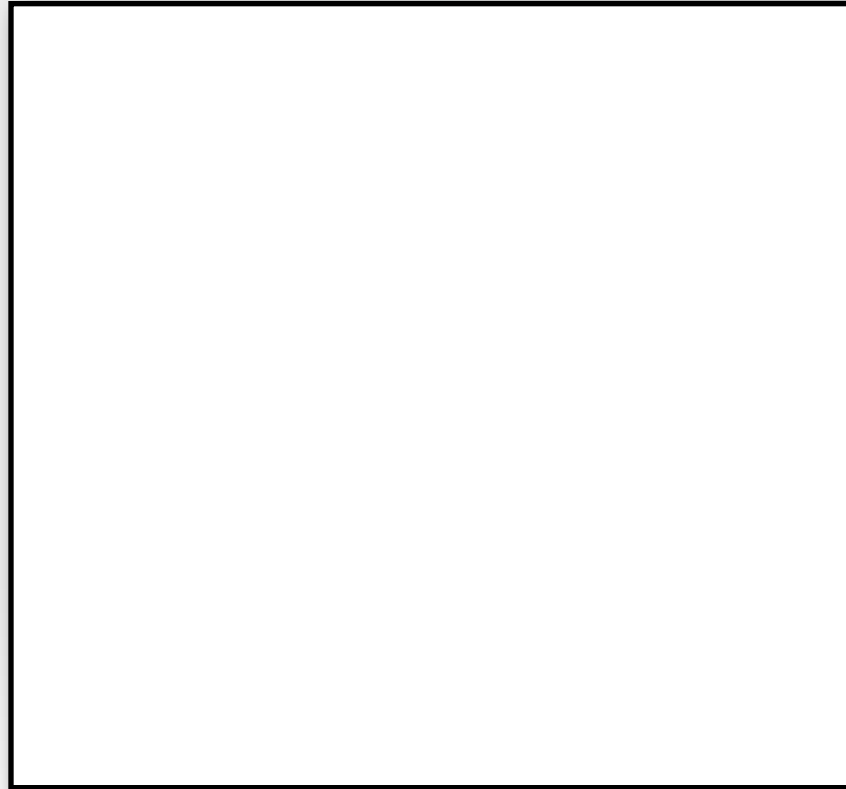
- One third of the patients viewed abstract art



- One third viewed pictures of landscapes



- One third viewed blank walls



Recovery Room Patients

In a Swedish study hospital patients in recovery rooms were given different wall views.

- One third of the patients viewed abstract art
- One third viewed landscape paintings
- A final third viewed blank walls

The study found that the patients who had the view of nature recovered in less time.



Shorter Lengths of Stay

Psychiatric patients with severe and refractory depression experienced significantly lower lengths of stay when placed in bright and sunny rooms.

- 16.9 days in bright and sunny rooms
- 19.5 days in dimly lit and dull rooms



Myocardial Infarction

Myocardial infarction patients in a cardiac intensive care unit stayed a shorter time in sunny vs. dull rooms. Additionally, mortality rates were consistently higher in dull rooms vs. sunny rooms.

Journal of the Royal Society of Medicine
1998 (University of Alberta)



Coronary Bypass

Male coronary bypass patients who received greater social support used less pain medication, were discharged from the surgical intensive care unit sooner, and spent fewer days in the hospital.

*J. K. Kiecolt-Glaser
American Psychologist, 1988*



Traditional Design

Healing Environment



Traditional Design

-Inflexible schedules and regulations

Healing Environment

-Patients are empowered; have control,
options & choice



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Healing Environment

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- Lounges, resource library, kitchen, as destinations to draw patients



Traditional Design

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- Inadequate accommodation for families

Healing Environment

- Patients are empowered; have control, options & choice
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- Lounges, resource library, kitchen, as destinations to draw patients
- Overnight bed space for families





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- Focus on illness; mechanistic “body parts” approach

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- Focus on wellness & education



Traditional Design

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- Focus on illness; mechanistic “body parts” approach
- Restricted access to outside

Healing Environment

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- Active patient & family involvement
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- Overnight bed space for families
- Focus on wellness & education
- Access to nature; gardens, water elements, natural light in patient area



Patient Unit of the Future

- Private universal rooms
- Address and front door that is welcoming
- Ample space for families
- Pull out beds in rooms for overnight stay
- In room storage for patients and families
- Desks with computers and internet connection
- Access to healthcare information
- Medications, supplies, and equipment with 10 feet of patient
- In room therapy areas



Patient Unit of the Future

- Art and music meaningful to the patient
- Comfortable furniture- Couches, tables and residential lighting
- Use of glass to link interior and exterior architecture
- Beds facing garden-like environment
- Horticultural therapy
- Family dining spaces
- Laundry services
- Play and rest areas for siblings, children and friends
- Structural spaces that respect human proportion & scale

























“Healing Setting”

When participants are lead through a meditation exercise and asked to draw their optimum “healing setting”:

- 75% drew outdoor spaces
- 25% drew interior settings that contain outdoor elements

- Anita Olds, PhD.

Director of Child Care Design Institute in Boston, MA



Cost Savings

Architect Derek Parker used a 300 bed hospital with a 66% occupancy (198 beds) and 1991 industry figures to calculate the potential saving of introducing a healing environment.

Parker estimated savings of \$118.00 per patient day, or approximately \$8.5M per year.



Elements of a Healing Environment



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- Options and choices



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- Access to social support



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- Connection to nature



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- Options and choices
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- Connection to nature
- Positive distractions



Elements of a Healing Environment

- Options and choices
- Access to social support
- Connection to nature
- Positive distractions
- Elimination of environmental stress





Elements of a Healthy Community

- Options and choices
- Access to social support
- Connection to nature
- Positive distractions
- Elimination of environmental stress



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