Do Fancy New Hospital Buildings Improve Patient Satisfaction

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Satisfaction: Impact of a New Clinical Building

- Belief amongst leaders and frontline providers
- Halo effect


Satisfaction: Impact of a New Clinical Building

How would the appearance and characteristics of the hospital building impact patient satisfaction with care?
Satisfaction: Impact of a New Clinical Building

Satisfaction: Impact of a New Clinical Building

https://www.utswmedicine.org/hospitals-clinics/clements/hospital-highlights/
Satisfaction: Impact of a New Clinical Building
Satisfaction: Impact of a New Clinical Building
Satisfaction: Impact of a New Clinical Building

http://www.hopkinsmedicine.org/burn/adultclinicalservices/outpatient.html
Satisfaction: Impact of a New Clinical Building

Golisano Childrens Hospital

Satisfaction: Impact of a New Clinical Building

Lurie Children’s Hospital Chicago

Satisfaction: Impact of a New Clinical Building
Global Hospital Construction Industry

Hospital construction: market estimation

Total market ~ $70B/year

- **N. Americas**
  - Canada ~ $2 B
  - US ~ $29 B

- **Europe**
  - Western ~ $9 B
  - Eastern ~ $4 B

- **M. East-Africa**
  - Egypt ~ $1 B
  - S. Africa ~ $1 B
  - UAE ~ $1 B
  - Other ~ $2 B

- **Southeast Asia**
  - $2 B

- **Australia**
  - $1 B

- **Asia**
  - China ~ $3 B
  - India ~ $2 B
  - Russia ~ $2 B
  - Other ~ $7 B

10/24/2016

General Electric: New Hospitals Perspectives and Solutions - IHF Paris presentation
Patient-Centered-Design Features

- Same-handed design
- Use of sound absorbent materials
- Increased natural lighting
- Incorporation of natural elements

Patient-Centered-Design Features

- Comfortable waiting rooms & visitor accommodations
- Hotel-like amenities (on-demand entertainment & room service)
Impact of a New Clinical Building: Johns Hopkins Hospital

http://www.hopkinsmedicine.org/the_johns_hopkins_hospital/services_amenities/places_respite/quiet/healing_gardens.html

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10/24/2016
Background: HCAHPS

- Measurement of Patient Experience
- Physician communication, Nursing communication, Pain Control, Responsiveness, Room cleanliness and Quietness, Discharge process, and Overall Satisfaction

Patient Satisfaction: HCAHPS

• Over 4500 acute-care facilities routinely use this survey
  – Results publicly reported
  – Patients can compare different hospitals on the measure
  – 25% of incentive Payments to the hospitals are linked to performance on this survey

Impact of a New Clinical Building: Methods

• Natural experiment:
  – 12 Clinical units moved to the New Clinical Building- Sheikh Zayed Tower (Exposure group)
  – Similar number of units remained in the old hospital (Control Group)

Impact of a New Clinical Building: Methods

- Natural Experiment
  - 12 months of baseline data prior the move
  - 7.5 months of data after the move
  - 4600 patients
  - Exposure group: New Clinical building

Table 3. Changes in Press Ganey Patient Satisfaction Scores From Baseline to Postmove Period By Unit Status

<table>
<thead>
<tr>
<th>Satisfaction Domain</th>
<th>Moved Units</th>
<th></th>
<th>Unmoved Units</th>
<th></th>
<th>p Value of the Difference in Odds Ratio Between Moved and Unmoved Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Adjusted Odds Ratio* (95% CI)</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>FACILITY RELATED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasantness of room décor</td>
<td>33.6</td>
<td>64.8</td>
<td>3.77 (3.24-4.38)</td>
<td>41.6</td>
<td>47.0</td>
</tr>
<tr>
<td>Room cleanliness</td>
<td>49.0</td>
<td>68.6</td>
<td>2.35 (2.02-2.73)</td>
<td>51.6</td>
<td>59.1</td>
</tr>
<tr>
<td>Room temperature</td>
<td>43.1</td>
<td>54.9</td>
<td>1.64 (1.43-1.90)</td>
<td>45.0</td>
<td>48.8</td>
</tr>
<tr>
<td>Noise level in and around room</td>
<td>40.2</td>
<td>59.2</td>
<td>2.23 (1.92-2.58)</td>
<td>45.5</td>
<td>47.6</td>
</tr>
<tr>
<td>Visitor Related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodations and comfort of visitors</td>
<td>50.0</td>
<td>70.3</td>
<td>2.44 (2.10-2.83)</td>
<td>55.3</td>
<td>59.1</td>
</tr>
</tbody>
</table>
# Impact of a New Clinical Building: Beyond Satisfaction

## Table 2. Changes in HCAHPS Patient Satisfaction Scores From Baseline to Postmove Period By Unit Status

<table>
<thead>
<tr>
<th>Satisfaction Domain</th>
<th>Moved Units</th>
<th>Unmoved Units</th>
<th>p Value of the Difference in Odds Ratio Between Moved and Unmoved Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FACILITY RELATED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleanliness of the room and bathroom</td>
<td>61.0</td>
<td>70.8</td>
<td>1.62 (1.40-1.90)</td>
</tr>
<tr>
<td>Quietness of the room</td>
<td>51.3</td>
<td>65.4</td>
<td>1.89 (1.63-2.19)</td>
</tr>
<tr>
<td><strong>NON-FACILITY RELATED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses treated with courtesy/respect</td>
<td>84.0</td>
<td>86.7</td>
<td>1.28 (1.05-1.57)</td>
</tr>
<tr>
<td>Nurses listened</td>
<td>73.1</td>
<td>76.4</td>
<td>1.21 (1.03-1.43)</td>
</tr>
<tr>
<td>Nurses explained</td>
<td>75.0</td>
<td>76.6</td>
<td>1.10 (0.94-1.30)</td>
</tr>
<tr>
<td>Physician communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctors treated with courtesy/respect</td>
<td>89.5</td>
<td>90.5</td>
<td>1.13 (0.89-1.42)</td>
</tr>
<tr>
<td>Doctors listened</td>
<td>81.4</td>
<td>81.0</td>
<td>0.93 (0.83-1.19)</td>
</tr>
<tr>
<td>Doctors explained</td>
<td>79.2</td>
<td>79.0</td>
<td>1.00 (0.84-1.19)</td>
</tr>
</tbody>
</table>
## Impact of a New Clinical Building: Results

### Table 3. Changes in Press Ganey Patient Satisfaction Scores From Baseline to Postmove Period By Unit Status

<table>
<thead>
<tr>
<th>Satisfaction Domain</th>
<th>Moved Units</th>
<th></th>
<th></th>
<th>Unmoved Units</th>
<th></th>
<th></th>
<th>p Value of the Difference in Odds Ratio Between Moved and Unmoved Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% Top Box</td>
<td>Adjusted Odds Ratio* (95% CI)</td>
<td>% Top Box</td>
<td>Adjusted Odds Ratio* (95% CI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVERALL</td>
<td></td>
<td><strong>Pre</strong></td>
<td><strong>Post</strong></td>
<td></td>
<td><strong>Pre</strong></td>
<td><strong>Post</strong></td>
<td></td>
</tr>
<tr>
<td>Staff worked together to care for you</td>
<td>72.6</td>
<td>77.2</td>
<td>1.29 (1.10-1.52)</td>
<td>70.3</td>
<td>73.2</td>
<td>1.13 (0.93-1.37)</td>
<td><strong>0.30</strong></td>
</tr>
<tr>
<td>Likelihood of recommending hospital</td>
<td>79.1</td>
<td>84.3</td>
<td>1.44 (1.20-1.74)</td>
<td>76.3</td>
<td>79.2</td>
<td>1.14 (0.93-1.39)</td>
<td><strong>0.10</strong></td>
</tr>
<tr>
<td>Overall rating of care given</td>
<td>76.8</td>
<td>83.0</td>
<td>1.50 (1.25-1.80)</td>
<td>74.7</td>
<td>77.2</td>
<td>1.10 (0.90-1.34)</td>
<td><strong>0.03</strong></td>
</tr>
</tbody>
</table>
Fancy Hospital Flourishes Often Fail To Impress Patients

Updated February 25, 2015 - 2:21 PM ET
Published February 24, 2015 - 11:10 AM ET

BY JORDAN RAU
FROM KHN

SHARE

Hospital Design May Not Boost Patient Satisfaction, Research Suggests

By Robert Preidt, HealthDay Reporter

FRIDAY, Feb. 27, 2015 (HealthDay News) -- Hospital design has little effect on patient satisfaction, according to a new study.

Researchers analyzed surveys of more than 5,600 hospital patients in both newly renovated facilities and older facilities.

"Our team wanted to know how important aesthetics are to a patient's experience with care. So we looked at surveys from patients before and after a move. We then compared those results to satisfaction surveys from patients being cared for on similar units that had not undergone a move to a new facility," said study author Dr. Zihan Biddiqui. He is an assistant professor of medicine at Johns Hopkins University School of Medicine.
Don’t Expect Your Fancy New Hospital to Improve Family Cohesive Care

Nick Hall
Champion for Premature Babies and Their Families

Patient satisfaction scores only modestly improve after hospitals are remodeled, research shows. What matters more is communication between providers and patients.

Picture yourself walking into a glitzy, gorgeous hotel that was designed entirely with beauty and comfort in mind. Everything—from the lobby, to the beds, to the food, to the view—is simply beautiful, looking like a spread in a glossy high-end travel magazine.

But what if, after a couple of days, you discover that the service at this gorgeous, dream locale is just mediocre? What if it’s downright bad? Would you give the hotel a glowing online review and recommend it to all of your friends?

I’m guessing that the answer is probably no. As it turns out, the same is true for hospitals, too.

According to a new study led by Johns Hopkins researchers, patient satisfaction scores only modestly improve based on the effects of a remodeled/redesigned hospital.
Hospital Construction: Reasons Beyond Patient Satisfaction

- Aging Infrastructure
- Improve workflow
- Improve Patient Safety:
  - Acuity adaptable room decrease med error
  - Decentralized nursing station: increased patient visibility and decreased falls
  - Lower fractures from fall with wood subflooring*
- Improve Employee Satisfaction

Take home message

Improving Satisfaction

• Human factor is the KEY!!
• Return on investment for pricey features incorporated in hospital design solely aimed at improving patient experience?