KEY POINT SUMMARY

OBJECTIVES

The authors identify three goals of the study: to explore the relative contribution of environmental satisfaction to overall satisfaction with the hospital experience compared to other factors; to explore sources of environmental satisfaction in the hospital setting; and to examine differences in the level and sources of satisfaction across different hospitals and different types of departments to understand features that may be context specific and those that might be sources of satisfaction across multiple settings.

A Place to Heal: Environmental Sources of Satisfaction Among Hospital Patients

Key Concepts/Context

Visits to the hospital might be infrequent, but are often associated with strong emotions. Considering patient needs reflects the growing focus on service quality and patient satisfaction, which now join clinical quality as a holistic approach to health care delivery. This study identifies sources of environmental satisfaction and dissatisfaction among hospital inpatients and examines the relative contribution of environmental satisfaction to the overall hospital experience. It also considers whether differences in satisfaction exist between four departments (medical, obstetrics, orthopedics, and surgical) and six hospitals.

Methods

The authors used a patent satisfaction categorization developed over the course of 10 years by Inter Mountain Health Care, Inc. (IHC)., a system with 24 hospitals. This framework was based on patient interviews, focus groups, and quantitative examination of multi-item scales. This classification identified eight major aspects of inpatient satisfaction: clinical quality; nursing care; physician care; admitting procedures; discharge procedures; financial services; food services; and facilities.

Telephone interviews were conducted in 1997-98 with 380 patients between two and 54 days after discharge. The sample was randomly drawn from inpatients who had received treatment at one of six IHC-owned hospitals. To keep the interview a reasonable length, two instruments were used, with half of the participants completing each schedule. One included open-ended questions related to the patient room, and one contained open-ended questions related to the space outside of the room. Likert scale questions were the same in both interviews. To make comparisons between hospitals and types of hospital units, a quota sample was used to obtain 10 participants of each form from four different types of hospital units at six different facilities.

DESIGN IMPLICATIONS

The authors note participant comments suggesting that interior designers should provide rooms with functional equipment (e.g., televisions, telephones) and comfortable furnishings, arranged to be accessible, especially from the bed. The use of aesthetically pleasing color, artwork, wallpaper, carpeting, or other homelike decor was noticed and appreciated both in and outside of the room. Participants also indicated that architects should provide a private room that has a window with a view, enough space to accommodate visitors (also allowing control of the social environment), and a private bathroom. The space should be comfortable - well lit, quiet, not too hot or cold, and free of unpleasant odors. Respondents also indicated that hospital maintenance staff should provide a clean and well-maintained environment throughout the hospital.

During the interviews, investigators asked patients, in general, to describe the features of their rooms and of the hospital environment outside of their rooms that they found satisfying and dissatisfying. The resulting qualitative data was analyzed to catalogue the features that were top-of-mind sources of satisfaction. Because perceptions may be tied to specific locations and the type of care received, investigators compared responses for patients' hospital rooms and public areas outside of the room for four different types of departments (medical, obstetrics, orthopedics, and surgical) and for six different hospitals (from 101 beds to 520 beds).

Findings

A multiple regression indicated that seven quality measures ((nursing, physician, clinical, admitting, discharge, facilities, and food) accounted for 48% (adjusted R^2) of the variance in participant ratings of overall quality. While nursing care was the strongest predictor (followed by perceived quality of clinical care), environmental satisfaction was still a predictor of overall satisfaction (ranked third). Satisfaction with discharge procedures, food services, and physician care were not significant predictors of overall satisfaction.

The analysis of the open-ended responses for patient rooms identified five major sources of satisfaction and dissatisfaction with the hospital room: 1) interior design features (e.g. equipment, furniture, finishes, color and decor, and the plan or layout of the room; 2) architectural features (e.g. the presence of a window with a view, the size of the room, the bathroom, and the location of the room); 3) housekeeping and maintenance related primarily to the cleanliness of the room; 4) social features of the room (e.g. a private room, having their privacy protected through features such as a shut door, accommodations for family and other visitors); and 5) the ambient environment (e.g. adequate lighting, quiet surroundings, and a comfortable temperature).

Regression analysis for open-ended responses that focused on the physical environment outside of the hospital room identified six sources of satisfaction and dissatisfaction with the hospital: 1) maintenance/housekeeping, 2) interior design features, 3) architectural features, 4) ambient environment, 5) remodeling/construction, and 6) parking. These categories were similar to those found for the patient room, with several exceptions: signs and wayfinding were added to the interior design category; the plan/layout subcategory was moved to architectural features as it now related to the layout of rooms within the hospital; air quality was added to ambient environment. Two categories were added as a result of comments: remodeling/construction (about projects in progress while the participant was a patient) and parking (the ease of parking at the hospital).

There were no significant differences between hospitals or departments in the level or sources of environmental satisfaction.

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Limitations

While not identified as limitations, the authors noted that:

1. Participants had a much more difficult time answering questions about space outside of the patient room - 96% of participants provided at least one codable response for patient rooms, but only 60% provided a codable response for space outside of the room.
2. Because of these low frequencies, comparisons between departments and hospitals were not possible for space outside of the room. Low frequencies also prevented regression analyses on these data.
3. While previous research indicates the ambient environment is a potential source of stress, investigators in this study did not find a relationship between the ambient environment and satisfaction for the patient room – perhaps indicating patients are less aware of these features unless they are problematic
4. Because of the lack of differences when comparing hospitals and types of departments, the authors note perceptions for outpatients versus inpatients, and for short-term care versus long-term care patients, may provide more insight.

These considerations raise a larger issue about whether open-ended questions were the best way to elicit responses to evaluate what might be more subtle differentiation in care. Additionally, while the regression model created in the study is statistically significant ($P<0.01$), but the third-ranked "Facilities" quality measure has values of $r = 0.40$ and beta $= 0.12$, which could imply room for improvement in constructing this factor.