



KEY POINT SUMMARY

OBJECTIVES

- To analyze to healthcare facility managers' perceptions regarding the materials used for interior wall finishes and the criteria used to select them.
- To examine differences in wall finish materials and the selection process in three major hospital spaces: emergency, surgery, and in-patient units.
 - To compare these findings with healthcare designers' perceptions on similar issues, as currently documented in the literature.

Wall Finish Selection in Hospital Design: A Survey of Facility Managers

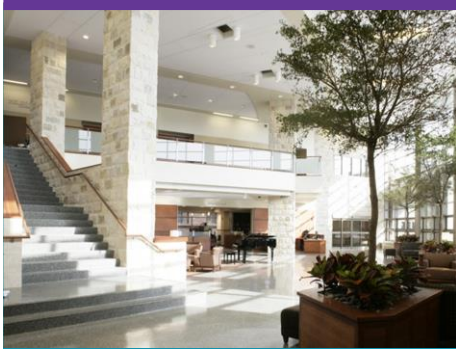
Lavy, S., Dixit, M. K., 2012 | *HERD: Health Environments Research & Design Journal*. Volume 5, Issue 2, Pages 80-98

Key Concepts/Context

Interior finishes and construction account for a large portion (32%) of the initial construction cost of healthcare facilities. While there is research to show that design and construction materials can have a considerable impact on the health of both the environments and the patients and staff in the environment, this has not been investigated in great detail, especially from the perspective of patient health. On the other hand, great advancements have been made in the context of environmental health with LEED and the emphasis on Indoor Environmental Quality. An additional concern, from the perspective of healthcare designers, is understanding what facility owners and managers are looking for in the context of interior finishes. This paper focuses on the perceptions of facility managers, regarding wall finishes, and puts the findings in the context of the existing literature on healthcare designers perceptions.

Methods

A 22-question survey questionnaire was distributed via the web to 210 facility managers of metropolitan, for-profit hospitals in Texas, after obtaining IRB approval. Respondents were asked to rank 10 interior wall finish materials and 11 selection criteria for wall finishes. Prior to conducting the survey a pilot study was conducted with 2 of the hospitals to test the survey instrument. No changes were deemed to be necessary after the pilot. Data from 48 complete questionnaires were analyzed using descriptive statistics and nonparametric statistical analysis methods. Additionally a review of the literature was conducted to understand the current trends in healthcare designers perceptions regarding the selection of wall finishes. Themes identified by the literature review included improving psychological wellbeing through colors and hues, aesthetics, sound absorption properties, issues regarding durability, ease and cost of maintenance, toxicity, moisture control, air quality, tolerance for bacterial and fungal treatments (infection



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control) and client preference. A previous 2002 survey of healthcare designers, by different authors, is referred to as a model for this study, and a basis for comparison between facility manager and healthcare designer perceptions

Findings

1. Vinyl type II was the most preferred wall finish material in all three healthcare unit, followed by paint (water-based/latex). Rigid fiberglass panels and paint (solvent/oil based) were ranked as the third & fourth most preferred wall finish materials.
2. No significant differences were found in the ranking of materials across the three types of healthcare spaces (emergency, surgery and inpatient units).
3. Infection control was the top criterion for selecting wall finishes, followed by gas emission/VOC and ease of maintenance, and indoor air quality and sound resistance.
4. The top criterion for facility managers in making wall finish selections is infection control, which differs from facility designers (based on results of a previous survey by other authors), who reported aesthetics, durability and ease of maintenance as top criteria.
5. For designers quality of the indoor environment refers to comfort and healing properties (based on previous survey), whereas for facility managers it relates more to non-toxicity.
6. Initial cost is ranked as one of the least important criterion for both groups, arguably since since ease of maintenance is a bigger concern for managers compared to initial cost which is covered by owners.

Limitations

Author identified limitations include 1) inclusion of only Texas hospitals which could have biased the ranking of materials, and 2) focus on a only a small subset of stakeholders. Authors suggest further research with a larger group of stakeholders including owners, designers, contractors and users.



Design Implications

Vinyl type II is the primary choice of wall finishes in healthcare facilities. Materials selected solely based on aesthetics may have a short life if they are not appropriately cared for by those on facility operations side. Understanding the priorities of facility managers is important. For facility managers infection control, indoor environment quality (emission/VOC) and ease of maintenance are the most important concerns.

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