



## KEY POINT SUMMARY

### OBJECTIVES

To explore statistically tested research involving social and physical design variables and patient health or behavior outcomes so that the relationships of these variables may be examined in future studies.

## Environmental variables that influence patient satisfaction: A review of the literature

MacAllister, L., Zimring, C., & Ryherd, E. 2016 | *Health Environments Research*. Volume 10, Issue 1, Pages 155-169

### Key Concepts/Context

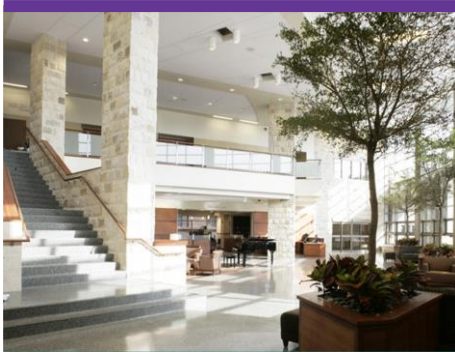
This paper is a literature review that compiles a number of studies investigating the layouts and designs of hospitals and work settings, and the influences that these environments have on health and behavioral outcomes in patients. More specifically, this review seeks to identify possible links between physical and social environmental influences to self-reported patient outcomes. The authors wish to more fully understand the elements that influence patient satisfaction, and then begin a discussion over how physical and social environments can be further analyzed to enhance satisfaction.

### Methods

The authors accessed various academic search engines such as EBSCO, JSTOR, and PubMed, and also used standard internet search engines using the following terms: satisfaction, health outcomes, patient satisfaction, environment outcomes, organizational culture, and healthcare quality. All studies included were peer-reviewed and published in English. The review included a total of 14 studies.

### Findings

A wide variety of design choices, or “spatial environmental variables,” were assessed in this literary review. Regarding patient views, patients in rooms with views of nature had shorter lengths of stay, fewer negative comments, and reduced analgesic use. With regard to overall visibility and accessibility, the physical layout of healthcare spaces seemed to directly impact movement, while visible copresence acted as a predictor of face-to-face interaction. For acoustics, patients that were in rooms with “improved acoustic conditions” (i.e., less noise) reported greater satisfaction with care. Additionally, afternoon shift staff who worked in improved acoustic conditions experienced reduced demands and pressure from patients. For



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patient visibility, the overall hospital mortality rate did not seem to differ by room type. Fall rates were elevated when patient heads were not visible from corridors.

**Limitations**

The authors note that there is no direct link to patient satisfaction or experience established through this review, but rather that spatial environment variables that are plausibly related to satisfaction are identified. A relatively small number of studies were included in this review; however this may be attributable to the relatively small size of these fields.

**Design Implications**

There are numerous spatial variables that directly affect the individuals populating healthcare environments. Everything from window placement, to sound absorption, to surface materials and visibility between different rooms must be carefully considered in order to provide optimum levels of care. The spatial environment has an immediate impact on relationship-based care, as well as on the aesthetic environment and its influence on health or behavioral outcomes.

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