



## KEY POINT SUMMARY

### OBJECTIVES

To identify physical designs that could potentially influence the efficiency and safety of ED operations.

### DESIGN IMPLICATIONS

Entry zones could be in the direct line of sight of triage, registration, and security personnel, and could have separate waiting zones for different acuity levels. For traffic management, separate routes for different acuity levels could be considered, as well as sub-waiting areas to prevent returning patients to their previous physical locations. Isolation of staff members should generally be avoided; however, this should be balanced with avoidance of overcrowded, pod-like configurations.

## Security implications of physical design attributes in the emergency department

Pati, D., Pati, S., & Harvey Jr, T. E. 2016 | *Health Environments Research*. Volume 9, Issue 4, Pages 50-63

### Key Concepts/Context

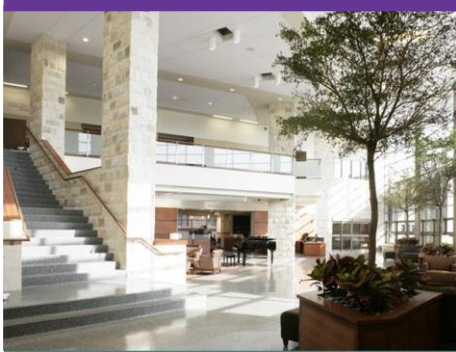
In this paper, the authors consider “security” a subset of “safety,” and note that security is imperative for providing efficient patient care, especially in emergency departments (EDs). Security is defined as the protection of people and property, while safety is defined as the broader concept of delivering patient care. Several factors within EDs can threaten security, such as delays/long waits, high stress levels for patients and visitors, aggressive individuals, and the presence of individuals who have abused alcohol or other substances. Solutions to these issues have been addressed largely during retrofitting projects, but the authors suggest that protective measures during initial design phases also need to be considered.

### Methods

Four large EDs were involved in this study. The authors employed multidisciplinary gaming (collecting data as participants attempt to address a problem), touring interviews with frontline staff, and other semi-structured interviews to conduct their study. Semi-structured interviews included questions about perspectives on security and needs for improvement. Touring interviews helped the researchers understand how operations differed within each ED.

### Findings

Five physical design attributes which are capable of being addressed during initial design phases of healthcare environments were identified as being substantially associated with security issues. These were: entry zones, patient room clusters, traffic management, centralization versus decentralization, and provisions for special populations. Analysis of interviews and gaming sessions also revealed that workers felt issues with visibility, security presence, and separation and sequencing of waiting areas could be better addressed from a physical design perspective.



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Limitations

The authors note that this study was not designed to examine factors involved in the causation of security issues. Since the hospitals included in this study were only those that voluntarily agreed to participate, the results may not be representative of all EDs. No quantitative data were gathered in terms of which spaces generated the highest incidence of security concerns.

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