ART OF MEDICINE

How Better Architecture of Health Care Structures and Spaces Can Help Avoid Iatrogenic Harm

Sudhiksha Srinivasan, MArch

Abstract
This series of digital drawings considers how design influences patients’ experiences.

Architecture and Well-Being
Often overlooked but key factors in health care structures’ and spaces’ designs include seating, lighting, sound, doors, windows, walls, and corridors.

Seating. Patients generally want more interaction with their clinicians, but a high volume of patients constrains clinicians’ time and can limit their opportunities to meaningfully engage patients during clinical encounters. Wall-mounted seating might encourage some clinicians to sit, perhaps prompting some patients to perceive that they are getting their clinicians more focused attention, if not more of their time.

Lighting. Intense light impedes patient recovery and strains caregivers. Diversified lighting zones enable selective illumination and allow individuals control over light levels.

Sound. Alarms disrupt rest, compromise many patients’ recoveries, and can overwhelm both patients and clinicians. Acoustic panels on walls or furniture can help redirect sound waves and curb excess noise.

Doors. Doors influence experiences of privacy and mobility. Thin-aperture doors offer more privacy by limiting visual access. Wide-aperture doors enhance visual access and mobility but can compromise privacy.

Windows. Biophilic design significantly influences patient recovery. Rooms without windows prolong length of stay and impede recovery by depriving patients of natural light and scenery.

Walls. Interactive audio-visual walls can transform a room’s landscape. Interactive or still images can be projected onto the walls, and lighting and sound can be individually controlled.
Corridors. Cluttered hospital corridors can hinder movement, impede navigation, and cause collisions. Thicker corridor walls allow for alcoves, where equipment can be stowed or compact sinks can be installed.

Figure 1. *A Space for Doctors to Sit*

![Figure 1](image)

*Media*
Adobe Photoshop.

Figure 2. *Alarm Fatigue*

![Figure 2](image)

*Media*
Adobe Photoshop.

Figure 3. *Lighting*

![Figure 3](image)

*Media*
Adobe Photoshop.
Figure 4. *Dilemma of Doors*

Thin-aperture doors offer enhanced privacy but reduce visual access by limiting potential for improved mobility.

Wide-aperture doors enhance visual access for improved mobility but compromise privacy.

**Media**
Adobe Photoshop.

Figure 5. *Effect of Biophilic Design*

A lack of windows in rooms hampers recovery, prolonging stays by limiting access to natural light and landscape views.

Rooms with windows accelerate recovery and shorten stays by providing access to natural light and scenic views.

**Media**
Adobe Photoshop.
**Figure 6. Elements of PLAY in Rooms**

Corner-placed computers and verbal recovery updates are not optimal for information delivery.

An interactive A/V wall in your room displays your reports as infographics and landscapes when there are no windows and allows lighting control and family video call access – empowering your environment.

**Media**
Adobe Photoshop.

**Figure 7. Sinks Instead of Sanitizing**

Relying solely on sanitizer pods outside wards isn’t sufficient for doctors to eliminate all infections.

Compact sinks in thicker wall alcoves offer infection control without obstructing pathways for doctors.

**Media**
Adobe Photoshop.
**Figure 8. Alleviating Corridor Crashes**

Cluttered corridors lacking clear pathways cause collisions with carts, doers, and patients.

Thicker walls for alcoves where carts, machines, and wheelchairs can be tucked allow for clear pathways.

**Media**
Adobe Photoshop.

**Figure 9. Element of PLAY in Corridors**

Monotonous, uninspiring corridors are often tied to negative and unsettling memories.

Introducing playful elements in corridors provides moments of relief and distraction for patients, doctors, and staff.

**Media**
Adobe Photoshop.
References


Sudhiksha Srinivasan, MArch is an architect with a love for human-centered design, fractal geometry experimentation, and nature. In 2023, she was an Art of Medicine intern with the *AMA Journal of Ethics*, a joint program with the School of the Art Institute of Chicago.

Citation


DOI

10.1001/amajethics.2024.264.

Conflict of Interest Disclosure

Author disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.