

Consider the Benefits of Virtual Windows for Clinicians and Healthcare Staff

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The *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* (2014), published by the Facility Guidelines Institute, is designed to recommend minimum standards for design and construction. Although recent versions of the *Guidelines* provide minimum standards for all patient rooms to have windows, none currently exist to ensure most clinical staff areas have access to light or views whether real or virtual.

A 2016 meta-analysis published in the *Journal of the American Medical Association (JAMA)* highlighted that multiple studies showed physicians-in-training experience high rates of burnout and depression—up to 43% for depressive symptoms during residency training, with the prevalence noted to be increasing at a rate of 0.5% per calendar year (Vetter et al., 2016). Recent media headlines call for physician burnout and suicide rates to be considered a public health crisis (Kalaichandran, 2015).

I believe the design of the environment can (and should) soften the metaphor of the hospital as a battleground for trainees. Views and images, either real or virtual, should be considered just as important for the clinical staff as they are for patients. Although newer buildings may emphasize a narrower floor plate to maximize this window access, there are still many older facilities which are continuously being retrofitted in addition to deeper floor plans required for diagnostic and procedural programs, where light may be difficult to capture. In these cases, the provision for virtual windows or views would be beneficial, although further research may be needed to

capture and quantify the true value-added benefit in order to incorporate clinician and staff needs into future versions of health design guidelines.

Another reason to contemplate the importance of the virtual window for clinical staff is to consider physical health in addition to mental health—it is widely understood that mind and body are ultimately intertwined. A 2016 prospective cohort study published in *JAMA* studied the association between rotating night shift nursing work and the risk of coronary heart disease; longer duration of rotating night shift work was associated with a statistically significant but small absolute increase in coronary heart disease risk (Schwenk, 2015). Further research is needed to explore whether the association is related to specific work hours and individual characteristics. Nevertheless, it is interesting to consider the role of virtual windows and whether this design intervention may have an impact on the circadian rhythms and subsequently the long-term health of clinical staff.

I recently overheard two physicians talking about their clinic spaces—the first physician stated that one of her two clinic examination rooms overlooked a park, while the other had no window at all. She found herself preferentially choosing the window room with views overlooking a green golf

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course. She went on to say that her office also had a window, but that it overlooked the parking lot. She recounted the countless hours and evenings catching up on charting in that room. The other physician replied that she herself had no window at all in her office and stated, “It may be a parking lot view, but at least you have a window—you are so lucky.” I believe this anecdote underscores the importance of connecting to the outdoors and nature; a clinician’s access to views should not be simply based on luck of the draw. Architects and hospital designers have a duty to minimize the stress associated with illness and hospitalization through environmental factors, but also have the opportunity to advocate for the mental and physical needs of the physicians and healthcare workers themselves. While patients generally can spend days to weeks in healthcare settings, clinical staff may spend countless days, nights, and years working in windowless spaces.

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