

Rx: Window Bed

“Interns, any other ideas?” my attending asked the team as we made our daily rounds to the bedside of Ms. T, an octogenarian who had been in our intensive care unit (ICU) for just over a week. She had dementia and had undergone a tracheotomy, limiting her ability to communicate with us. The concern of my attending that morning was her sustained tachycardia, the etiology of which we could not explain; she had not responded to medical interventions.

I was only days into my internship; how could I have any medical suggestions to address this woman’s heart rate? “We could move her to another room with a window,” I said to the group instead, yielding several questioning looks. “There is evidence,” I added, as I knew physicians would consider an intervention seriously if it had been documented in prior studies. In fact, there is an emerging field to support my appeal on rounds for space design. Evidence-based design (EBD), an analog to evidence-based medicine, grew out of a landmark study examining the restorative effect of nature on people after surgery. Individuals with views of nature had shorter postoperative hospital stays, took fewer moderate and strong analgesic doses, and had lower scores for minor postsurgical complications than those with views of a brick wall.¹

When considering Ms. T’s case, half of our ICU is without windows, and she had been in a windowless room for days, the overhead fluorescent lights remaining on for most of that time. My sensitivity to environmental factors comes from my training and experience as a hospital architect. As a physician and a licensed architect, I consider many hospitals to be unsupportive physical settings in which to heal. Despite the specialization of healthcare architecture, many planned spaces are ill-suited for their actual use.

Through the advent of EBD and hospital architecture training programs, research supporting space design is growing, with medical planning interventions and their effect on patient care and safety now featured in medical journals.²

That afternoon, Ms. T was moved to the other side of the unit where windows overlooked the river. I recall looking into her room that evening and seeing the distinct light of a summer sunset streaming through her window. I noted that her cardiac monitor had stopped its incessant beeping as her heart rate normalized. The next day on rounds, my attending acknowledged that the tachycardia

had resolved, “but there is likely another explanation,” she said. Although we will never know the exact mechanism for this physiological change, given that she was receiving numerous interventions in addition to the room change, I believe that the sunlight and river views may very well have had an effect; the room change had been the single most obvious adjustment to her course of care in the previous 24 hours.

I called a colleague that evening to share Ms. T’s story. I knew it would interest him. “Natural light has been shown to enhance the therapeutic environment,” he said. “Your elderly patient was in a dull, low-stimulus environment with no natural light and subjected to incessant noise and constant artificial light that flickers at unnatural wavelengths.” I agreed that those were the conditions to which she was exposed. “The move put her into a setting where the window provided an important chronobiological regulator through natural light and access to the diurnal cycle. The window may have provided a view of the naturally changing sky and perhaps even human activity and the river. Even if she was not fully aware of all these things, some of it was getting in through the retina.”³ Again, the architect in me agreed. It is possible that some or all of these things played a role in the change she exhibited.

My design perspective has enhanced my medical experience. Since that day, I include environmental interventions in my daily notes. For shared rooms on the general medicine floors, my plan will include “window bed” if I feel an elderly adult or an individual with delirium would benefit from this intervention.

As often happens with the rotational structure of clinical training, I would never know Ms. T’s full course and discharge plan because I left the ICU before she was moved to another level of care. What I can say for certain is that my brief time knowing her prompted an alternative discussion of hospital care on rounds that day and for several days after her room change. Her physiological response to what they eventually attributed at least partly to the move prompted my clinical colleagues to consider architectural design and the existing evidence. Only time and more research will tell if Ms. T’s story will become the norm.

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