



3-minute case study: sound matters

By Erin Graham | September 21, 2017

What innovations drive success in healthcare?
Here's a tactic from a leading health system.

The problem

Excessive noise in hospitals is not just annoying — it's harmful, too.

For patients, it slows recovery and decreases satisfaction rates, says Nick Dawson, MHA, executive director of the Johns Hopkins Innovation Hub at Sibley Memorial Hospital in Washington. "Studies show that noise affects patient experience scores more than any other factor."

For staff, it's a safety hazard, contributing to alarm fatigue, disrupted workflow, reduced productivity, and burnout. "When we are stressed, our behaviors can get sloppy," says Yoko Sen, an ambient electronic musician and sound engineer who worked with the Innovation Hub to explore how sound affects people's environment, experience and emotions.

The Hub team interviewed patients and found the noises they found most bothersome weren't beeping machines, but rather behavior-based sounds: nurses'

conversations, carts banging, doors slamming. And the team found that the louder the environment, the more noise nurses created. Noise, in short, is contagious.

The solution

Instead of launching a behavior-awareness campaign to reduce noise, the team decided to flip the script and improve nurses' states of mind. Sen transformed a patient room into a staff "tranquility room" — a dedicated relaxation space filled with soothing ambient sounds, dim light, and aromatherapy.

Over five months, nurses were invited to come in for brief periods, relax in reclining chairs, sip tea and mentally reset while taking in silent projections on the walls. "We told them, 'You take care of others all day, let us take care of you,'" says Sen.

The outcome

The project proved so popular with nurses that Sibley's executive board has approved making a permanent tranquility room.

And the experience had the precise effect Sen hoped for, as many nurses internalized the notion of self-care and became more mindful. “People shared that having this experience makes them feel cared for, and that they can give this feeling back to their patients,” she says.

Those kinds of “positive feedback cycles” expand to the organization in which the care is delivered, according to data from more than 200,000 surveys issued by MedStatix to patients visiting providers on the athenahealth network. For example, 92 percent of patients who gave their provider a score of 10 out of 10 also gave the organization a score of 10, compared to just 7 percent who gave their provider a 7 out of 10.

Next, the Innovation Hub team plans to study how to create a “soundscape” conducive to both patient and staff well-being, as the two are closely intertwined. “From our work, it’s become clear to us that that staff stress could affect the patient experience more than anything,” says Sen.

Erin Graham is a frequent contributor to athenaInsight.

Artwork by Molly Ferguson.



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