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Q&A WITH SUSAN MAZER

Now Hear This

Health care environments are too loud. The issue, however, is not one of acceptable decibel levels, but rather how noise — any noise — can affect a patient's ability to heal. Read on for sound advice.

By Joe De Patta

Susan Mazer is president of Healing HealthCare Systems in Reno, Nev., a company she and her husband founded in 1992 to address the issue of sound — both music and noise — in the health care environment. She frequently lectures on the subject of hospital noise and consults with health care facilities on how best to manage sound levels. She also oversees her company's product development, which includes various sound systems, music and television programming and educational workshops that support healing environments. Additionally, she is one of the country's top jazz harpists.

Q: *Why are elevated noise levels a problem in the health care setting?*

A: Florence Nightingale's work was a breakthrough in defining the sick room as having a dramatic and critical impact on patient survivability. She said people don't die from each other, they die in the rooms in which they live, work and study. She thought that anything that distracted the patient, that caused anticipation and expectation, was damaging.

In the 20th century, with the advent of medical and communication technology, radios and televisions, we have substantially increased noise sources. You have a much greater hospital population and you also have technology; each component is an auditory offender. Patients are expected to adapt to this environment. The higher the patient's level of acuity, the less the adaptive capacity.

When you ask why noise is such a problem in hospitals, if you look at it, how could it not be a problem?

Q: *What is considered an acceptable noise level in a hospital?*

A: Why would any noise be acceptable?

Q: *We're talking about the point that it interferes with the therapeutic environment.*

A: I would say at the point that it annoys the patient. The issue of noise is not just a decibel level, it's an experiential level. Is it or is it not appropriate? The same sound at noon is not acceptable at three in the morning. The question is, "What environment, including sound levels, needs to be maintained?"

Q: *Are most facilities aware of their sound-level problems?*

A: I would say they are but there are different feelings about where it is on their list of things to address.

People who are most aware of noxious sound are the people who work directly with the patients. Until the dialogue and urgency is pushed up and it becomes an ethical obligation to provide an appropriate environment, which includes the sound environment, then there's a whole long list of why it can't be done now. If the hospital CEO is in the hospital for seven days and hasn't slept, trust me, something would be done about it.

Susan Mazer

Q: *For those unaware of the problem, how can they be made aware?*

A: Patient satisfaction surveys are now dealing with noise levels. The hospitals that have come to us are doing the most active work, and there are many trying to reduce their noise levels.

Q: *Once there is an awareness of the problem, do you find that most people know how to solve it?*

A: No, they don't know how to solve it. They know what they'd like to do but they throw up their hands and say, "It's impossible!" That's why all these articles are being written.

Q: *Typically, what areas and items are the biggest noisemakers?*

A: The most highly populated areas are the noisiest. Items such as communications devices, including cell phones, pagers and telephones, are noisy. Machinery and devices such as carts that are not in good repair are noisy. High population density areas, such as the nurses' center, are where information is exchanged and those areas can be big offenders.

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Q: *What can be done to solve the noise problem? What advice can you offer?*

A: Let's change the question. Let's change "solve" to "manage" and "noise" to "sound." Let's change the focus. Not everything is noise. How do we control the auditory environment so its homeostasis is therapeutic and appropriate to the goals of patients and staff?

First you have to assess it and own it. It's difficult for a hospital to take its own temperature. There is a protocol we've developed for doing an auditory assessment and it includes putting together a "Sound Environment Council" where their first job is to objectively evaluate the environment. They need to go in with a decibel meter and check the db level several times a day, several times a week. You can find out what areas are worsening from the non-peak periods to the peak periods. You can find out what is disruptive.

In the hospital setting we can generically come up with a list of how hospitals can lower their noise levels. You have standard sounds that have to do with running a hospital and nothing to do with the patients. Those sounds create a noise floor. If that noise floor is high, everyone has to speak louder to be heard.

Q: *Typically, does noise abatement require an extensive amount of work? Is it a fairly involved renovation or upgrade project?*

A: It can be. Or it may only require oiling wheels on carts and fixing doors that have been squeaking for 20 years. People may have to close doors more carefully. Once you have done all that, you may find that the flooring is noisy and offensive. It's a process. You want to deal with the most obvious issues first. As you remove offenders, more show up.

If you are going to remodel, it makes all the sense in the world to look at acoustical tiling, quieter doors and the quietest hydraulic door closers. Hospitals can set standards by not buying carts, for instance, from a company where its product's impact on the flooring is not less than a specific decibel level.

Q: *Are the noise levels in a nursing home or senior housing setting different from that in a hospital?*

A: Senior housing has less level of acuity than a hospital; a nursing home has custodial care. Seniors have hearing problems and there are people who have different auditory needs. They listen to their TVs at different volumes. Some residents may have hearing aids that affect their quality of life; the sounds of facility maintenance can be very disruptive. The location of the kitchen is important. The environment is not designed to optimize the population's hearing capacity.

In assisted living, you have the same issue that you have in independent living but at far greater levels because you have people who are not always ambulatory and their hearing and cognitive levels have declined. Do you design for the highest level of acuity or the highest capacity? I would say you should design for your lowest capacity because it's the least healthy people who will affect the healthiest.

Q: *Patients come and go within the facility, but nurses and doctors work there and are exposed to the noise everyday. What is the affect of that noise exposure on the staff?*

A: Staff can deal with noise. They adjust to everything. But they will have a hard time adjusting to the patients who can't hear them. The environment can become offensive. Everybody becomes crabby. Quality of service goes down and staff turnover is high. It's cyclical.

Q: *Not all hospital noise is bad noise, right? You advocate music within the hospital setting.*

A: Sure, if appropriately used. If the roommate in your hospital room has a boombox that plays hip-hop for 10 hours, is that considered bad noise? It's a complex auditory environment. We looked at providing the hospital with a tool they could use to help patients. It's really a tool for the provider to help serve those in need.

Q: *Your company offers a program called the C.A.R.E channel. Can you talk a little about the program and the research that led to its creation?*

A: The C.A.R.E. channel is specifically produced to be an environmental component in the patient's room. It provides the content — nature imagery — as the human eye sees it. It's like a window to the outdoors. The scenes move very slowly because people on medication can't focus their eyes very fast.

We studied the research that says that nature is universal across all cultures; it is the most comforting and most healing imagery. We used the philosophy of the photographer Ansel Adams who said that the person in the picture is the viewer. There are no people, only nature. Broad landscapes of mountains, fields, close-ups of flowers and streams. We have a lot of footage from Hawaii, from the heartland, from Utah and Arizona. We've looked at 45 states. There is no commercial content and there is no beginning or end.

The music was the biggest challenge. It is original instrumental music. We now have 65 musicians who contribute to the channel. My husband and I are both classically trained musicians and the music has to be very listenable. Upon the first hearing, someone will be comfortable hearing it. It needs also to be unfamiliar so it doesn't bring up associations from someone's past that could be upsetting. It can't be biased generationally. It also had to be non-ethnic, cultural or religious. The music is paced for day and night; there's a lot of variety. The channel can be on all the time and can be used to help patients sleep and rest. It can also be used to mask those noises we've been talking about. We are now in our 15th year and that formula has been very effective.

Q: *You're an avid speaker and presenter. What is it you're most often asked to speak about?*

A: How hospitals can create healing environments and how they can reduce noise. I was on (ABC's) "Good Morning America" last year. I've been a musician for 45 years and on my first chance at national television exposure they asked me about hospital noise.

Q: *What most excites you about being involved in this industry?*

A: The people we work with and the effectiveness of the work. We get calls from patients all the time. We hear from hospitals. It is so gratifying to do the work. Health care is changing — it has to. With the demand to deal with higher levels of acuity, organizations need assistance. That's what we are trying to do.

Q: *Is there anything you'd like to add that we haven't yet talked about?*

A: We are advocates, not critics. There is no indictment of hospitals, practitioners or health care organizations. We know they are doing the best they can, given the circumstances. We are here to offer them alternatives to situations they thought they couldn't change. It is a privilege for us to do this work. ■