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Mr. Sim Man: Bringing Reality into the Lab

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Mr. Sim Man
Bringing reality into the lab

John Gonzales complains of acute chest pain immediately after his pre-op examination for arthroscopic knee surgery.

“My chest is getting tight, and it’s hard to get a deep breath,” he tells a team of three nurses examining him.

“The pain is over my breastbone and it feels like a heavy weight is on my chest.”

His breathing speeds up; he becomes agitated and asks more questions, and his wife expresses concern. He’s given oxygen, his blood pressure is checked, and the doctor is called. After receiving medication, Mr. Gonzales’s pain improves, but his surgery is delayed and more tests and treatments are ordered.

And then the exercise is over. Mr. Gonzales is really Mr. Sim Man, a mannequin who talks and breathes, accepts an IV and treatments are ordered.

“Eric” is more than just a mannequin that talks and breathes and has a cardiac rhythm, Taylor said. He becomes virtually real through the actors in the control room, who portray Eric and who can change his symptoms with a click of the computer mouse. Students can be directed to respond to family members who are in the room, or to call either the laboratory for tests or the doctor for consultation and collaboration. In some cases, a more experienced nurse is called or sent in to help them control or understand the situation.

“It’s adding more reality to the environment,” Taylor said. “Students are making clinical judgments based on their assessments in a changing situation. They are learning to communicate as team members and consult with other professionals. It’s about applying the theory and skills they have been developing in their classes and labs in an environment that is as close to real as their clinical experiences.

The difference is that if they make a mistake in the simulation room, there is no harm to a live patient.”

A critical part of developing the simulation lab learning is making sure that it fits into the curriculum, Taylor said. “It’s not about trying to add another thing for students to do, but rather how we integrate it into student learning to achieve curriculum outcomes.

“We look at key patient care concepts and the development of the nurse’s role and thread those throughout the levels of the curriculum with increasing complexity,” Taylor said. “The further they go in their courses, the more complexity you put into the environment.”

A key component is the debriefing session that follows each simulation and helps students develop skills for reflecting on their practice. With faculty gently and skillfully guiding the discussion, students talk about what went right and what went wrong during the simulation. Reviewing a videotape of the simulation experience during the debriefing can also be useful in helping students critique their interactions and skill performance.

The idea is to help them think through what happened and what lessons they take away from the experience,” Taylor said.

Lauren Jensen ‘06 was one of the first students to use the simulation lab.

“It felt real, because he’s breathing and talking back to you,” she said. “I felt the same way I did when I was in the hospital doing a procedure on a patient for the first time.”

The scenarios in the Simulation Lab stress critical thinking and team work. Jensen said: “It’s about knowing what to do under pressure, which is what I think a lot of nurses experience,” she said.

Watching the videotape of the session was valuable, she added.

“I learned a lot about what I could have done better,” she said. “But overall, even if we made mistakes (in simulation), we weren’t in a real hospital where the stakes are a lot higher.”

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John Gonzales complains of acute chest pain immediately after his pre-op examination for arthroscopic knee surgery. “My chest is getting tight, and it’s hard to get a deep breath,” he tells a team of three nurses examining him. “The pain is over my breastbone and it feels like a heavy weight is on my chest.”

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The scenarios in the Simulation Lab stress critical thinking and team work. "The scenarios were developed in consultation with Legacy Health System as they develop a simulation curriculum. "The most valuable part is that we can direct students’ learning and outcomes by selecting situations that will expose them to various scenarios, such as a patient having chest pain," Taylor said. “In order for a patient to have a good outcome, you need to move quickly through a standard of care, a protocol that interrupts the physiological process that is happening and may stop the patient from having a major heart attack.”

If a nurse does not pick up on the subtleties of the changes a patient is undergoing, a situation may become life threatening. Learning to identify those subtleties in the early stages is critical. “Eric” is more than just a mannequin that talks and breathes and has a cardiac rhythm, Taylor said. He becomes virtually real through the actors in the control room, who portray Eric and who can change his symptoms with a click of the computer mouse. Students can be directed to respond to family members who are in the room, or to call either the laboratory for tests or the doctor for consultation and collaboration. In some cases, a more experienced nurse is called or sent in to help them control or understand the situation.

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