

"This is a safe environment. It allows them to do it wrong and correct the mistake."

Rosemary Sievila, director of Clark College's nursing lab

Simulated patients, real learning



Photos by TROY WAYRYNEN/The Columbian

Drew Hannon, a first-year nursing student at Clark College's nursing program at WSU Vancouver, talks to Manny Quinn, a SimMan. Trainers from other nursing schools come to Clark College for ideas on how to set up their simulated-patient programs.

If you go

■ **What:** Sim baby shower with demonstrations of the simulated patients.

■ **When:** 5 to 8 p.m.
Thursday, demonstrations at 6 and 7 p.m.

■ **Where:** Nursing lab on second floor of Clark College at WSU Vancouver, 14204 N.E. Salmon Creek Ave.

■ **Cost:** Free.

■ **Parking:** Park in lots marked Green 1, Green 2 and Orange 2.

By JACQUES VON LUNEN
Columbian staff writer

The small hospital room was packed with charts, fluid bags and monitors.

John Arm lay in the bed, tubes emerging from his body. His chest heaved steadily under the sheet.

Then his eyelids fluttered open.

"Mr. Arm, are you awake?" Kati Kleiser asked loudly.

"Yes," came the answer out of Arm's half-opened mouth.

Kleiser checked the patient's pulse and, satisfied, moved on to other tasks.

The exchange was standard hospital procedure — except that John Arm is made of plastic, tubes and wires. He's a SimMan, one of the high-tech simulated patients at Clark College's nursing lab. The students call him Manny Quinn.

All of the lab's training mannequins have names, except the latest comer — a little infant

Clark nursing program marks 50th year by welcoming 'Sim' baby



Mark Riley, a first-year student in the nursing program, sets up an IV. Entry into the program has grown more competitive.

From Page A1

Sim, which on Thursday will be named in a baby shower ceremony that also celebrates the nursing department's 50th anniversary. The department is one of the largest in the Northwest and has served as a model of high-tech teaching for nursing schools around the country.

The Sims

The latest generation of simulated patients is a wonder of science, at least to someone outside of the medical profession. The life-sized plastic men — essential parts can be swapped out to turn them into SimWomen — are hooked up to a computer that breathes virtual life into them.

Manny's wrists, neck, groin and ankle have a pulse. His chest and eyelids move in the rhythm of a flesh-and-blood patient. Stick an IV needle into his arm and bloodlike fluid flows back into the tube. And IV fluids seem to disappear into his body just like they do in humans.

Choosing one of many codes on the computer steering Manny and his friends can introduce alarming symptoms. His lungs develop raspy sounds under the stethoscope. The heart slows or speeds up. Blood pressure fluctuates.

It all follows a nursing instructor's input from a control room, based on what the instructor sees and hears a student do to the mannequin. Inappropriate measures performed by the student — dialing up a medication too high, for example — thus can result in responses that mimic what would happen in a real hospital room. Or an emergency could arise during a routine check to see how the student reacts.

Critical thinking

The great benefit of simulated patients is that they better prepare budding nurses for real-life scenarios. The students still rotate through actual



TROY WAYRYNEN/The Columbian

Kati Kleiser, left, a lab instructor at Clark College's nursing program, and Kris Fowell, a nursing department technician, examine "Fred," a Sim mannequin Kleiser used when she was a student in the program 10 years ago.

hospital stations before they graduate, but they arrive for their hands-on training better prepared.

In the old days, students learned their skills on lifeless plastic dolls and got their experience during supervised rotations in hospitals. But that left out a critical element of what it means to be a nurse.

"You can teach the skills on a (lifeless) mannequin," said Cindy Myers, director of the nursing program. "But the critical thinking comes in the simulation."

The students have to think on their feet and react to dramatic situations quickly. Of course, if they don't, it's just a mistake made on a fake patient.

"This is a safe environment," said Rosemary Sievila, director of the nursing lab. "It allows them to do it wrong and correct the mistake."

An actual hospital floor is of course a bad place to learn from your mistakes.

The high-tech fake patients have become the standard in nurse training. Five years ago, Clark College was among the national leaders in using the technology. Others have caught up, but representatives from nursing schools elsewhere in the country still come to the Vancouver campus to learn about setting up their own Sim programs.

For some procedures, students have to rely on the simulator training entirely, because some hospital rotations are harder to come by than they used to

be, Myers said. There are more nursing students in the Portland/Vancouver area these days than specialty hospital departments — such as pediatrics, for example — have room for.

A cooled market

Up until about a decade ago, there was a big nursing shortage, which prompted schools to up the number of students they accepted. The increased training had the desired effect of filling more open positions. Then the recession hit and many older nurses postponed retirement, perhaps because their spouses' jobs seemed less secure, Myers said.

Clark's nursing program still sees a lot of applicants, but has ratcheted up its entry requirements. In the last round, 176 people applied to get in. The program accepted 48 new students.

Even if there are more nursing graduates on the market, Clark graduates still get jobs. Half of all students from the most recent class who have gone through the board exams are already employed as registered nurses, Myers said.

Fees raised

The economy has made going through the program more expensive. Up until last summer, the fee charged to students to train on the Sims and to use the nursing lab in general was six bucks. This year it's \$160.

State budget cuts have

forced the college to raise the fees dramatically, Myers said.

The program already stretches its resources to the brink. The manufacturer of the Sims says its products can be expected to last five years. The version of the SimMan used at Clark costs \$68,000, Myers said. The baby that will be named Thursday cost \$38,000.

However, the program is using its mannequins a lot longer than the manufacturer suggests. A simulator named Fred, the granddaddy at the lab, has been pricked and prodded by students for more than a decade.

And most of the smart dummies aren't paid for with public money, Myers said. Nearly all of the mannequins at the lab were bought by the Clark College Foundation, which operates entirely on donations.

Seeing how long the simulators last at the lab and how important they are to students' learning, it's no wonder the trainees get attached to their plastic patients. The lifelike movements and reactions help, too.

Students learn how to deal with the death of a patient as part of the program. The Sim's heart stops and the nurse must demonstrate how he or she would speak to a family member about the tragic event.

Some students get tears in their eyes when the mannequin's movement ceases, said Kleiser, the nursing instructor who earlier examined "Mr. Arm."

She got attached, too. Kleiser graduated from Clark's program 10 years ago. Fred was her favorite mannequin then.

When Kleiser's boss — lab director Sievila — dismissively points at the old-timer and calls him a "low-level model," Kleiser quickly cuts in.

"Hey, don't talk about Fred that way," Kleiser said.

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