



A C-section Simulator Prepares Surgical Tech Students for the OR

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+ Overview

Manatee Technical College is a post-secondary adult, career and technical education center with four campuses in Bradenton, Lakewood Ranch and Palmetto Florida. It aims to put adults in high-wage, high-demand careers such as Surgical Technology where **Lisa Graham-Coonrod** prepares them for the high-adrenaline demands of the Operating Room (OR).

+ Challenge

Manatee Technical College's Surgical Technology program is growing. With 19 students currently enrolled, another 22 entering the program in November and 20 more on the waiting list, it's a large program compared to most where five students per cohort is the norm. In order to graduate, students must attend a minimum of 120 surgical cases in a variety of specialty areas. But getting that experience at local hospitals can be challenging with so many medical, nursing, and other healthcare students competing for OR time. And getting students into a cesarean section surgery is especially challenging.

+ Opportunity

Graham-Coonrod knew that to get preference at local hospitals, her students had to perform well. So over her 25-year teaching career, she has fashioned makeshift 'patients' using car headliners, foam and stockings to do mock surgeries in the classroom prior to scrubbing in for a real surgery. But she was always searching for something more aesthetically and anatomically accurate to give her students that true-to-life, "hands-in-the-body," adrenaline rushing experience that one can only get in a real OR.

+ Solution

This summer, using Perkins IV Federal Career and Technical Education funding, MTC purchased C-Celia™, an emergency obstetrics skills simulator from Operative Experience, Inc. (OEI). "I've seen a lot of products that are called simulators, but none worked as well as my home-built car headliner, foam and stockings to do mock surgeries," said Graham-Coonrod. "But then I saw OEI. It is the first product that allows you to cut and suture back and deliver a baby, which is the most awesome thing ever!"

According to Graham-Coonrod, the beauty of C-Celia is her realism. The patient bleeds, the uterus looks like a real uterus, the baby, umbilical cord and placenta is accurate and the amniotic fluid was an unexpected discovery. "It's slippery, which is so realistic, and students need to be prepared for that because everything gets covered in it!"

Graham-Coonrod said a c-section is very different from a typical surgery because there are two patients – mother and baby. "My students are in awe of the baby. I have to refocus their attention on the mother. With C-Celia, students finally get it. It helps them to focus and to move faster, which helps save lives."

Another obstacle for students to overcome is the adrenaline rush that comes with emergency surgeries. "We have to help students prepare for and manage their adrenaline in an emergency. With OEI, I can make an artery bleed, which makes the students jump. They get the adrenaline rush that they'll get in a real surgery and they learn how to use it in order to work through the situation."



Lisa Graham-Coonrod



+ Results

According to Graham-Coonrod, the students can't get enough of C-Celia. Student retention is up and many are asking for more experience in obstetrics. Nursing students will be coming in to practice on C-Celia and possibly EMTs, paramedics and even police students.

But for Graham-Coonrod, the ultimate goal is to be able to measure improvements in clinical competency from training on C-Celia. Recent feedback from Doctors Hospital in Sarasota is promising. They report back that the students from Manatee Tech are better prepared and work well in an emergency under the direct supervision of the hospital staff. "When my students get the privilege to scrub in on a c-section delivery, I want them to stand in and help if needed. I truly believe the simulator helps them focus, manage their adrenaline, stay on task and be helpful."

