Proposal

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Using Ethics Scenarios in High-Fidelity Human Patient Simulation

Laurie Bagwell, DNP, APRN, FNP-BC, Assistant Professor of Nursing Patsy Crihfield, ADNP, APRN, FNP-BC, Chair of Nurse Practitioner Tracks and Associate Professor of Nursing

Kelly Harden, DNSc, FNP-BC, Associate Dean of Graduate Programs

Brad Harrell, DNP, APRN, ACNP-BC, Associate Professor of Nursing

C. Ben Mitchell, PhD, Graves Professor of Moral Philosophy

Jessica Suiter, MSN, Instructor of Nursing

Joy Thomason, MSN, RN, Assistant Professor of Nursing, Director of Undergraduate Simulation

Sherrie Turner, Simulation Specialist

Robert A. Wamble, DVM, Laboratory Specialist

Cullen Williams, MSN, APRN, FNP-BC, PMHCNS-BC, Assistant Professor of Nursing

Molly Wright, MSN, APRN, CRNA, DNP, Assistant Professor of Nursing

Submitted for the whole by C. Ben Mitchell, Ph.D.

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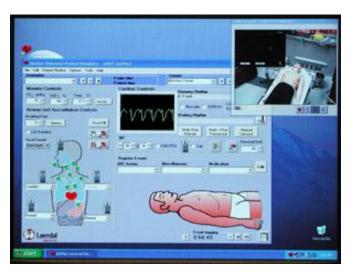
A. Description of the project

A simulation is an artificial replication of a real-world situation in a controlled context. Simulations have been used since the 1930s for training professionals in aviation, the military, maritime industries, and medicine. Nursing education has employed *low-tech simulation* for decades, including the use of case studies, role play, and artificial limbs for teaching how to give injections.

Today, high-fidelity simulation—
with advanced computerized mannequins—
is being used to prepare nursing students for
clinical experience. Because of the realistic
physiological response of the Human Patient
Simulator (HPS) and because there are no
risks to real patients, high-fidelity HPS is
rapidly becoming a preferred method for
training nurses.



Union University Human Patient Simulator



HPS Control Screen

B. How the project differs from current teaching ideas and methods in the field

HPS simulation has focused almost exclusively on clinical skills such as patient assessment, diagnosis, and procedures like blood draws, intubation, and resuscitation. In the Fall of 2011, however, eleven faculty members from nursing and other disciplines began to explore the potential of using high-fidelity HPS simulation to teach ethics scenarios while simultaneously assessing clinical skills. This first round of ethics simulations was performed with a cohort of students in the Doctor of Nursing Practice degree program.

This simulation activity involved Doctor of Nursing Practice (DNP) students and high-fidelity simulation in our university's Center for Excellence in Health Care Practice. The students were assigned to groups and were asked to participate in this event within their current scope of practice as nurse practitioners, nurse anesthetists, nursing leaders, or nurse educators. Faculty members played roles as family, friends, or hospital staff throughout the simulation. As the simulation experiences progressed, students participated in one of two complex ethical dilemmas.

Scenario One

The first scenario involved a homosexual patient with HIV who experienced anaphylaxis to a bee sting in the primary care office. The patient stated that his partner was away on business, but made all medical decisions for him. The patient's sister later showed up with a legitimate power of attorney and living will created by the patient just after he was diagnosed with HIV, stating that he did not want any life-sustaining measures ever performed on him. The sister insisted on honoring the living will while the partner insisted on keeping the patient alive until he could arrive. The team had to decide which person's wishes to follow for the patient's care.

Scenario Two

The second scenario included a female patient of child-bearing age who was scheduled in the preoperative setting to have a dilation and curettage performed for dysfunctional uterine bleeding. The participants had to decide whether to send this patient to surgery without adequate lab results (HCG and ultrasound) and had to deal with a pushy GYN physician with a big personality.

During the scenario, the patient's sister was uneasy, nervous, and paced about the room. As the patient was moved to the operating room and put to sleep, the sister (in an emotional frenzy) told a staff member that the physician and the patient had a recent affair and that he was actually performing an abortion at 18 weeks of pregnancy. The students had to decide how to respond to this challenge.

Setting

The university's simulation center has several high quality human patient simulators. This excellent facility was used at no additional cost to our students. The simulation took approximately three, four-hour meetings to plan. The simulation itself took about four hours to complete with students and faculty. We had faculty and staff involvement from the biology, philosophy, information technology, and nursing disciplines from two university campuses.

C. Your opinion of the success of the project and how it can be improved.

After the experience, one professor met with each cohort to debrief. This was extraordinarily important since some teams did better than others in identifying the ethical dimensions of the case. Each cohort could celebrate their successes and discuss their questions. Later, the entire group met with all the professors involved to evaluate the experience.

On a scale of 1.0-4.0, students' average evaluation of the experience was 3.94 (evaluations available). Positive comments about the experience included: "It was interesting to see the simulation lab and how it is used as a teaching tool:" "Awesome teaching tool;" "Great teaching and learning tool for new and seasoned nurses;" and "Made me reassess ethical values that were involved with the simulation." Negative comments included: "Unfamiliarity of our surroundings;" "I felt that I did not do what I really do in assessing the patient, since I didn't want to dominate the group activity;" and "Our team was in an unfamiliar setting; all equipment not available at time of incident."

The experience might be improved in a number of ways. First, the students might be given more time with the simulators and simulation rooms before running the scenarios. This would enable them to become more familiar with the medical equipment, surroundings, and simulators. Second, rather than introducing the ethical situations unannounced, preliminary lectures could target the kinds of concerns that might arise in the scenario.

Finally, it would be very interesting to run these and similar scenarios with cohorts of both experienced graduate nursing students and less experienced undergraduate nursing students for the sake of comparison. Pre- and post-tests might be given.