

UNIVERSITY OF LOUISIANA AT LAFAYETTE

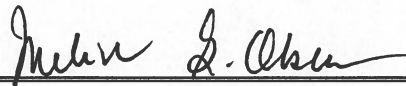
STEP Committee

Technology Fee Application

Maternal-Child Simulation Lab: Improving Pediatric Simulation

Tricia Templet, Assistant Professor, College of Nursing and
Allied Health Professions

College of Nursing and Allied Health Professions
University of Louisiana at Lafayette



Dr. Melinda Oberleitner, Dean

Title: Maternal-Child Simulation Lab: Improving Pediatric Simulation

Date: 6/28/2019

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Department/College: College of Nursing and Allied Health Professions, Department of Nursing

ABSTRACT (250 words or less):

The University of Louisiana at Lafayette College of Nursing and Allied Health Professions (CONAHP) offers baccalaureate education to prepare future nurses through a diverse experience of didactic learning and both simulated and clinical performance, as well as preparing graduate nurses for advanced nursing practice. During the first senior semester of baccalaureate education, students enroll in the Childbearing Family, Child and Adolescent Health course. This course introduces students to the nursing care of women during the childbearing years, and also to the specific nursing needs of children across their lifespans, specifically related to the developmental needs of infants, children, and adolescents. In addition to didactic coursework, the students must be able to practice and demonstrate specific skills necessary in the care of this population, and to appropriately respond to medical emergencies in real-time situations. Students at the graduate level of education utilize simulation to demonstrate advanced assessment skills necessary for evaluation of pediatric patients. The use of simulation for clinical scenarios allows students to learn to provide safe, effective care to pediatric patients in a safe and controlled environment.

Proposal Description

a. Purpose of grant and impact to student body as a whole.

The purpose of this STEP grant is to provide students in the UL College of Nursing and Allied Health Professions with a technologically advanced pediatric health simulators to facilitate transition from the theoretical learning of the classroom setting to clinical practice. The Learning Resource Center (LRC) provides educational and clinical support to students enrolled in both baccalaureate and graduate nursing programs within the College of Nursing and Allied Health Professions. All students in the baccalaureate nursing program are required to complete the pediatric component of maternity/child health care and demonstrate safe delivery of care to pediatric patients. While the theoretical component is a major portion of the course, students must be oriented to and show mastery of the clinical skills that they will be required to perform in patient care settings. Students have daily access to the equipment and learning tools housed in the center.

Additionally, students in the graduate program for family nurse practitioner (FNP) education utilize the LRC's Maternal-Child Sim Lab (MCSL) to improve upon their examination skills of pediatric patients. Both graduate and undergraduate nursing students require high-fidelity simulators to provide an appropriate learning experience to demonstrate integration and mastery of skills.

As technology evolves, the learning needs of our students also evolve. Faculty must utilize avenues to facilitate and enhance student learning and promote their engagement. The use of patient simulators in nursing education allows students the opportunity to practice skills on realistic models prior to entering the hospital and outpatient settings, as well as the ability to reinforce and refine these skills throughout the programs. High-fidelity simulation scenarios are also incorporated into the curriculum to address the needs of this unique, vulnerable patient population. To enhance realism and provide optimal learning opportunities for students, simulation activities are structured to include the use of population-specific technology. Providing the students with access to the most advanced level of patient simulators allows the best application of the didactic knowledge presented throughout the Childbearing Family, Child and Adolescent Health nursing course to enhance synthesis of course content.

Although the LRC currently has one pediatric patient simulator and one neonatal simulator, these are both approaching their end of life expectancy. With advancing technology, models with improved functions are now available. This new level of mannequin fidelity offers a more realistic and immersive simulation experience, resulting in improved learning experiences for nursing students.

b. The projected lifetime of enhancement

STEP funds will be expended between January, 2020, and May, 2020. Projected lifetime of the enhancement is expected to be approximately 5-7 years. Life-cycle maintenance costs are included within the proposed budget.

c. Person(s) responsible for:

i. Implementation:

Dr. Tricia Templet, faculty member in the CONAHP, and Mrs. Cheryl Mack, LRC Simulation Specialist, will jointly oversee the implementation of the grant monies.

ii. Installation:

No specific installation of the requested equipment is required. Equipment will be delivered to the CONAHP LRC. Setup will be implemented and maintained by Mrs. Cheryl Mack.

iii. Maintenance:

CAE 2-year service plan is included in the budget proposal. Mrs. Mack will provide daily maintenance for the patient simulator.

iv. Operation:

The CAE patient simulator will be housed in the Maternal-Child Lab within the LRC. Cheryl Mack, LRC Simulation Specialist, will be available for troubleshooting and maintenance, per device instructions and provided training. Dr. Tricia Templet will assist Mrs. Mack with these tasks.

v. Training:

Training service for the CAE patient simulators is reflected in the quote for the mannequin purchase. After training sessions have been completed for Department of Nursing pediatric clinical faculty and graduate FNP faculty members, the equipment will be available to these instructors for use during skills training and simulation scenario sessions.

Budget Proposal

1.	Equipment	
	CAE PediaSIM	\$ 50,050.15
	CAE Luna NeonatalSIM	\$ 29,995.00
2.	Software	
	CAE Luna Physiology	\$ 4,995.00
	CAE Luna SymDefib	\$ 1,000.00
3.	Supplies	
	CAE Luna Wireless Monitor	\$ 2,074.80
4.	Warranty	
	CAE PediaSIM	\$ 2,249.52
	CAE Luna	\$ 1,200.00
5.	Installation/Training	
	CAE PediaSIM	\$ 2,730.00
	CAE PediaSIM One-Day Education	\$ 3,395.00
	CAE Luna Two-Day Education/Training	\$ 5,800.00
6.	Other	
	CAE PediaSIM Discount Offered	\$ - 11,859.90
7.	Tax/Shipping	
	CAE PediaSIM	\$ 514.80
	CAE Luna	\$ 130.00
TOTAL:		\$ 92,274.37

Timeline indicating the project implementation schedule

1. December 2019 – Funding awarded
2. January - May 2020 – Purchase requisitions completed
3. July - August 2020 – Equipment received
4. Fall 2020 – Equipment available in LRC, Maternal-Child Simulation Lab

Previous Funded STEP Projects

Dr. Tricia Templet has not been awarded any STEP grants prior to this submission cycle.