UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

Maternal-Child Simulation Lab: Improving Pediatric Simulation

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Title: Maternal-Child Simulation Lab: Improving Pediatric Simulation
Date: 5/15/2018
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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 the pediatric patient. 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 simulator 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 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.

Furthermore, 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 a pediatric patient. Both graduate and undergraduate nursing students require a high-fidelity simulator 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 has allowed 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, it is approaching its 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, 2019, and May, 2019. Projected lifetime of the enhancement is expected to be approximately 5-7 years. Life-cycle maintenance costs are included within the proposed budget (5-year service plan).

c. Person(s) responsible for:

i. Implementation:

Dr. Tricia Templet and Dr. Roger Rholdon, faculty members in the CONAHP, 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 maintained by Cheryl Mack, Learning Resource Center Simulation Specialist.

iii. Maintenance:

Gaumard Cares Silver 5-year service plan is included in the budget proposal. Mrs. Mack will provide daily maintenance for the patient simulator.

iv. Operation:

The Advanced Pediatric HAL™ patient simulator will be housed in the Maternal-Child Lab, Learning Resource Center. Cheryl Mack, LRC Simulation Specialist, will be available for troubleshooting and maintenance, per device instructions/training. Dr. Tricia Templet and Dr. Roger Rholdon will assist Mrs. Mack with these tasks.

v. Training:

Training service for the Advanced Pediatric HAL™ patient simulator is included in the cost of 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** Advanced Pediatric HAL™ patient simulator	**$ 47,995.00**
2.	**Software**	**$ Included**
3.	**Supplies**	**$ None**
4.	**Maintenance** 5-year Gaumard Cares Silver Service Plan	**$ 25,995.00**
5.	**Personnel**	**$ None**
6.	**Other**	**$ None**
	Tax/Shipping	**$ 230.00**
	TOTAL:	**$ 74,220.00**

Timeline indicating the project implementation schedule

1. December 2018 – Funding awarded
2. January - May 2019 – Purchase requisitions completed
3. July - August 2019 – Equipment received
4. Fall 2019 – Equipment available in LRC, Maternal-Child Simulation Lab

Previous Funded STEP Projects

Neither Dr. Tricia Templet nor Dr. Roger Rholdon have completed STEP grants prior to this submission cycle.