September 20, 2013

Robert McKinney, Director
Academic Planning and Faculty Development
Educational Development Grant Committee

Dear Mr. McKinney,

Attached is the application for an Instructional Improvement Grant for an ear simulator to be used by our nurse practitioner students. Simulation is a key component of both our undergraduate and graduate programs in nursing. In order to assure that the assessment and diagnostic skills of our NP students are of the quality that is expected of all graduates of our programs, Dr. Hurst and Jessica Landry would like to receive funding to purchase this simulator. As Department Head for Nursing, I fully support this request and readily appreciate the benefit that this equipment would be to our program. Advanced assessment is one of the most important skills that a nurse practitioner possesses, and it is vital that our students have access to the best technology available to learn these skills.

Please contact me if you need any additional information,

Lisa Broussard, RN, DNS, CNE
Acadian Ambulance Endowed Professor in Nursing
Dr. Donald B. Williams/BORSF Professorship in Nursing
Department Head and Associate to the Dean
University of Louisiana at Lafayette
College of Nursing and Allied Health Professions
Instructional Improvement Grant

Ear Examination Simulator for Advanced Physical Assessment

Submitted by:

Dr. Helen Hurst
Graduate Coordinator
Department of Nursing

Jessica Landry
Instructor
Department of Nursing

Fall 2013
Project Abstract

The Department of Nursing has a large Family Nurse Practitioner (FNP) program educating primary care providers who have a vital role in the promotion of improved health outcomes in the state of Louisiana. The development of advanced physical assessment skills is one integral component of the FNP educational program and has a direct impact on the ability of the students to perform at an advanced level during clinical rotations and in the family practice setting upon graduation. Disorders of the ear are common, accounting for a significant portion of primary care visits, and examination of the ear is a challenging skill to learn in both the pediatric and adult populations. Providing graduate nursing students with technologically advanced equipment necessary to facilitate the learning experience ensures that graduates are adequately prepared to diagnose and treat patients. The use of simulation enhances student engagement, promotes active learning and enhances course rigor. The addition of an Ear Examination Simulator is necessary to provide family nurse practitioner (FNP) students the opportunity to become proficient in the advanced physical assessment and diagnostic skills of ear examination and for faculty to evaluate students’ attainment of these skills.
Project Description and Objectives

In NURS 506 Health Assessment and Diagnostic Reasoning Practicum, FNP students receive intensive training in advanced physical assessment and diagnostic reasoning skills that are integral to the role of the primary care provider. Examination of the ear is a difficult skill to master and the addition of an advanced ear examination simulator will assist in the development of this complex skill. The use of simulation for nursing students during clinical experiences has demonstrated improved outcomes and student performance. The objectives of this proposal are to (a) facilitate the development of FNP students’ advanced assessment and diagnostic skills in examination of the ear, and (b) facilitate faculty evaluation of FNP students’ assessment and diagnostic skills in examination of the ear.

Statement of Need

The FNP program in the Department of Nursing has a reputation for producing highly qualified primary care providers and UL Lafayette nursing graduates are sought after for employment in the community. In the FNP program the clinical component of the curriculum is vital to the development of the skills necessary to accurately assess, diagnose and treat patients. Students expect to have access to technologically advanced and up to date clinical learning tools to enhance their educational experiences.

Learning to accurately and efficiently examine the ear is of the more challenging assessment skills that must be developed. During an ear examination the patient may be in significant discomfort and the condition of the ear may impede visualization of the ear canal and tympanic membrane. Additionally, a pediatric patient may not sit still during the examination. These combined factors make it vital that the clinician is able to perform the examination comfortably, quickly and with a high level of accuracy.
In the Health Assessment and Diagnostic Reasoning Practicum students attend four, one day intensive sessions at the Learning Resource Center (LRC) in the Department of Nursing on the UL Lafayette campus. During these sessions students are trained in the advanced physical assessment skills that they will be performing during the clinical rotations in subsequent semesters; these skills are mandatory for the role of the FNP. Ear examination is one of the most challenging skills and the current model used for teaching advanced assessment of the ear is outdated, does not realistically represent the ear, and does not facilitate faculty evaluation of the student’s skills. Simulation in the clinical learning environment engages students and, promotes active learning.

The Ear Examination Simulator provides realistic views of the ear canal, has a lifelike flexible texture that allows the students to manipulate the ear as is done with a real patient, and also allows for the practicing of ear cleaning and ear wax removal. The simulator is designed to exactly simulate the external and internal physical appearance and dimensions of the ear, with interchangeable ear canals that allow visualization of the normal appearance of the ear and other common ear disorders such as otitis media (ear infection) and perforation of the ear drum. The realistic, hands-on experience is more effective and engaging than traditional learning methods and allows FNP students to evaluate their own performance, aids them in identifying the varying normal and abnormal findings of the ear, and affords them the opportunity to diagnose and consider a plan of care.

Evaluation of clinical skills is an integral component of the educational process in nursing education. Faculty members will be able to interchange the internal ear portions of the simulator and have an objective method of evaluating students’ examination techniques and diagnostic abilities. The ability to evaluate skills also allows faculty to remediate and provide
further learning opportunities to those students who have demonstrated difficulty with assessment or diagnostic reasoning.

Plan and Timetable

If approval for the purchase of the Ear Examination Simulator is received it can be ordered and received in time for use during several of the intensive clinical learning sessions in NURS 506 Health Assessment and Diagnostic Reasoning Practicum in the spring 2014 semester. During the session in which examination of the ear is scheduled faculty will use the simulator to demonstrate the correct techniques for ear examination, explain normal and abnormal findings, discuss diagnostic considerations and then allow opportunities for students to practice and receive feedback. Faculty will then evaluate the assessment technique, skill and diagnostic ability of the students, providing further instruction for those that need it.

Budget

Although more expensive models are available ($2000-$3000) the same student outcomes can be achieved with the more economical model ($810). Otoscopes are already available in the Learning Resource Lab and the students will use these to perform the ear examination.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Grant Funds</th>
<th>Departmental Funds</th>
<th>Total Project Costs</th>
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<tr>
<td>Travel</td>
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<td>Supplies</td>
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<td>Equipment</td>
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<tr>
<td>Ear Examination Simulator</td>
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<tr>
<td>Line Item Justification</td>
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<tr>
<td>1) Personnel – A student aid will log all equipment and supplies when they are received.</td>
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<td>2) Travel – N/A</td>
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<td>3) Supplies – Needed supplies such as alcohol wipes for cleaning and products recommended for routine cleaning of the simulator.</td>
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<td>4) Operating services – N/A</td>
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<td>5) Equipment – The Ear Examination Simulator is necessary to provide family nurse practitioner students the opportunity to become proficient in the assessment and diagnosis of disorders of the ear, and to allow faculty to evaluate assessment and diagnostic skills of students.</td>
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PROFESSIONAL EXPERIENCE

2002 – Present University of Louisiana at Lafayette, Lafayette, Louisiana

Assistant Professor and LGMC/BORSF Endowed Professor in Nursing
- Coordinator of the Graduate Nursing Program (June 2013 – present)
- Coordinator of the Doctor of Nursing Practice Program Fall 2012
- First Semester Senior Coordinator for the undergraduate BSN program (Fall 2011-Fall 2012)
- Master didactic instructor of obstetrics for senior level BSN nursing course (NURS403 Care of the Childbearing Family).
- Previous clinical instructor of obstetrics for senior level BSN nursing course (NURS403 Care of the Childbearing Family)
- Master didactic instructor for graduate course (NURS504/604 Issues in Advanced Practice Nursing)
- Faculty member graduate course (NURS595 Focused Scholarly Project)
- Coordination and grant implementation of The Resource Center for Young Parents to Be at Lafayette Parish NP Moss Annex: education program for pregnant teenagers

2001 – 2002 Dauterive Hospital, New Iberia, Louisiana

Certified Nurse Midwife
- Low and High risk OB/Gyn care in rural health clinic.
- Implementation of Title X Family Planning Program.


Nursing Instructor
- Clinical instructor for junior level medical/surgical nursing course.

1992 – April 2012 Lafayette General Medical Center Lafayette, Louisiana

Staff RN

EDUCATION

Doctor of Nursing Practice
2008 Case Western Reserve University, Cleveland, Ohio

Master of Science in Nursing
1999 Case Western Reserve University, Cleveland, Ohio

Certificate in Nurse-Midwifery
1999 Frontier School of Midwifery and Family Nursing, Hyden, Kentucky

Bachelor of Science in Nursing
1992 University of Southwestern Louisiana, Lafayette, Louisiana

Bachelor of Science in Business Administration
1989 University of Southwestern Louisiana, Lafayette, Louisiana

PROFESSIONAL ASSOCIATIONS

2012-2013 Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) National Mentor in the AWHONN Emerging Leader Program
2011-2014 Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) Louisiana Section Chair
2012-2014 Sigma Theta Tau International Honor Society of Nursing: Delta Eta Chapter Secretary
2009-2012 Sigma Theta Tau International Honor Society of Nursing: Delta Eta Chapter Membership Succession Chair
2007- Present Office of Public Health Region IV Fetal & Infant Mortality Review Case Review Member
2005-Present National Council of State Boards of Nursing NCLEX approved Test Item Writer
2002-Present National League of Nursing

PROFESSIONAL POSITIONS

2011-2013 Editorial Board Member for Nursing for Women’s Health, a peer reviewed journal of the Association of Women’s Health, Obstetric, and Neonatal Nurses (AWHONN)
2009-2012 Editorial Advisory Board Member, Nurse Expert and Author for AWHONN’s Healthy Mom and Baby Advisory Board (including www.health4mom.org, www.health4women.org and the consumer magazine Healthy Mom and Baby)
2007-present Manuscript Reviewer for Clinical Simulation in Nursing, a peer-reviewed journal
2006-presenter Manuscript Reviewer for AWHONN’s Nursing for Women’s Health, a peer reviewed journal

HONORS, AWARDS AND NOMINATIONS

2012 UL Lafayette Summer Research Award
2011 UL Ray P. Authement Excellence in Teaching Award Nominee
2009 Acadiana Celebrates Nursing Acadiana’s Top 25 Nurses Honoree; presented by Louisiana State Nurses Association District VI
2009-2012 Board of Regents Support Fund/Lafayette General Medical Center Endowed Professorship in Nursing
2009 Association of Women’s Health, Obstetric and Neonatal Nurses National Award of Excellence in Education Nominee

PUBLICATIONS, GRANTS, PRESENTATIONS AND CERTIFICATIONS

Publications
Lemoine, J. & Hurst, H.M (2012). The integration of SMART pump technology in the NICU. Nursing for Women’s Health, 16(2), 151-158.
Hurst, H.M. (2009). Alpha-fetoprotein testing: understanding when you may want this second trimester screening. Available at http://www.health4mom.org/a/alpha_fetoprotein_testing_745
Leigh, G., & Hurst, H. M. (2008). We have a high-fidelity simulator, now what? Making the most of simulators.” International Journal of Nursing Education Scholarship. 5(1). Available at: http://www.bepress.com/ijnes/vol5/iss1/1 (peer reviewed)

**Funded Grants**

Broussard, L & Hurst, H. (2009) Student Anxiety in Maternal Child Simulation ($500 Research Award Delta Eta Chapter of Sigma Theta Tau International)
Hurst, H, & Broussard, B (2009). The Resource Center for Young Parents-To-Be ($3750 Junior League of Lafayette Community Grant Program)
Broussard, A., & Hurst, H. (2005) A Resource Center for Young Parents-To-Be ($650 UL Instructional Mini Grant)
Hurst, H., & White, J. (2004). Educational support of Wellness Wednesdays Health Promotion Clinic ($4162 The Woman’s Foundation, Inc.)
Broussard, A., & Hurst, H. (2002). A Resource Center for Young Parents-To-Be ($700 UL Instructional Mini Grant)
Grants Applied for
Hurst, H.M. (2012) Board of Regents Support Fund Graduate Fellows Program. ($210,000). Decision date April 2013

Presentations

2012 AWHONN Baton Rouge Chapter Meeting Presentation: “Role of the CNM.”
2011 AWHONN Regional Conference, New Orleans, LA: “Not Tonight I Have A Headache; women’s sexual dysfunction.”
2010 AWHONN Baton Rouge Chapter Meeting Presentation: “Fundal Pressure.”
2009 Association of Women’s Health, Obstetric and Neonatal Nurses Regional Fall Conference. “Fundal Pressure: Practiced Maneuver, Uncertain Rules.” Shreveport, LA.
2009 Drexel University Women's Health Conference. "Transitioning from Traditional Skills Testing to Scenario Based Validation for OB and Women's Health." Atlantic City, NJ.
2008 AACN Baccalaureate Education Conference, San Antonio Texas. "Transitioning to Scenario Based Group Skills Validation." Poster presentation

COMMUNITY SERVICE

- Office of Public Health Region IV Fetal & Infant Mortality Review Panel
- Research Mentor for Lafayette General Medical Center Research/Practice Counsel

UNIVERSITY SERVICE

- Institutional Review Board Member (University Level)
- Distance Learning General Awareness Task Force (University Level)
- Graduate Council (University Level)
- University Research Council (University Level)
- Graduate Faculty Subcurriculum Committee (University Level)
- Intellectual Property Committee (University Level)
- Student Authentication and Academic Integrity Task Force (University Level)
- Research Committee Chair (College of Nursing)
- Past Chair of Ad Hoc Committee Online Courses (College of Nursing)
- Graduate Faculty Curriculum Committee (College of Nursing/ICMSN)