# Stony Brook School of Nursing $\star$

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### Introduction

Physiological Transmission of Pain Purpose connections with the sensory nervous system. First, nociceptive and noxious stimuli, such as a heel lance. These nerve endings are equal to or greater in number than those in adult skin and present at 20 weeks gestation. Sensitizing substances (prostaglandins, bradykinin, otonin, substance P and histamine) change the pain information Methods nursing Interactiv To gain practice with the ventilator controls, ch To gain practice with the specific patients, cho RDS 1 Pneumothorax BPD **Neonatal Nurse Practitioner Program** An interactive, non-linear, asynchronous website © 2011 The University of Texas at Arlington and TI • Simple interactives • Professor notes • Complex interactives – Multimedia lectures Respiratory distress syndrome 1 • Multimedia library - Simple interactives • 3-D Neonatal Intensive Care Unit – Videos (Virtual NICU) – Xrays – Audio files Patient Interpretation HBOARD VIRTUAL NICU PROFILE SUPPORT CONTENT. Diagnosis Respiratory dis Category (please mail Respiratory Respiratory Alk Compensated (please When you have finish ABG pH 7.18 X-ray and Profile Excellent! Now click the ventila

Trainees are increasingly required to attain a minimum competence prior to providing patient care, and many accreditation bodies now mandate demonstration of competence prior to licensure or board certification. The opposing forces of increased expectations and reduced resources have greatly impacted the training of health care professionals. A hybrid of new technologies may offer one step towards the reconciling of this paradox. The purpose of this education project is to prepare neonatal nurse practitioners (NNPs) within a virtual world. Providing clinical learning experiences in the virtual NICU will enhance students' opportunities to learn to care for the culturally diverse populations they will serve as NNPs. This is a longitudinal, observational study comparing traditional method of education to non-linear asynchronous, internet based portal. Neonatal experts developed multi-media learning modules for NNPs. Students enrolled in the University of Texas at Arlington College of Nursing and Stony Brook University are participating.

www.PosterPresentations.cor

Interactive Learning Assets		
Ventilator Interactive on neonatal ventilator management self assessment with corrective feedback.	t Interactive on physiology of pain	Virtual NICU     3D virtual game to     evaluate ontical     decision-making ability     while assessing and     treating neonate     patients
Professor Notes		Professor Insight Videos
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Embryology: Integumentary System		Media Library
Embryology: Muscular System		
Embryology: Pulmonary		Anemia and Thrombocytopenia
		Bronchopulmonary Dysplasia
Embryology: Skeletal System		
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## A Revolutionary Approach to Neonatal Nurse Practitioner Education: Preparing the 21<sup>st</sup> Century NNP

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## **Evaluation and Implications for Practice**

lab experiences.

knowledge application.

a pace that suits their learning style. the content.

pattern recognition or 'deliberate practice' over logic. Our research with high-fidelity simulation has found that students who quicker.

Therefore, increasing virtual simulated clinical opportunities may decrease the time to transition from novice to expert.

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**Project Funded by Health Resources and Services Administration** 



Assessment/evaluation is "built into" the virtual NICU and the simulation

- Data is being collected throughout student experiences.
- Preliminary data suggest computer-based learning, gaming technology,
- and the use of virtual patients can enhance knowledge acquisition and
- Asynchronous learning system allows students to complete the training at
- It also allows them to train as often and as long as they desire.
- No educator is required to be present while students are working through
- **Evidence suggests that the clinical reasoning of experts emphasizes**
- experience opportunities to apply knowledge transition to practice

### **References on request.**

## Acknowledgements