

# **NUS-Priority Research In Medical Education**

## **Monday 5 May 2014**

### **Technology Enhanced Learning in Health Professions Education: 3 Case Studies**



**A/Prof Goh Poh Sun**

MB,BS(Melb), FRCR(UK), FAMS(Singapore), MHPE(Maastricht) Associate Professor and Senior Consultant  
Department of Diagnostic Radiology  
National University Hospital  
National University Health System

Dr Goh has been practicing as a clinical radiologist for the last 24 years, been teaching at the National University of Singapore and National University Hospital for the last 20 years, including nursing, dental and medical undergraduates and postgraduates (in the departments of Radiology, Emergency Medicine, Gastroenterology, Surgery and Anaesthesia). His passions can be summarized in three key words – Technology enhanced learning, Education and Clinical Radiology. He has been developing and evaluating eLearning platforms and solutions for undergraduate and postgraduate teaching and learning for the last 12 years, and has presented this work at conferences, and invited symposia locally, and internationally. He completed the 2 year Master of Health Professions Education Program at Maastricht University in April 2012; and in the next 3 to 5 years, his focus in educational research will be evaluating and developing insight into the use of hyperlinked indexed clinical and radiology case repositories in undergraduate and postgraduate education and training, under conditions of deliberate practice and mastery training. Dr Goh is currently an appointed member of the AMEE (Association of Medical Education in Europe) eLearning committee.

“Passions - Technology enhanced learning, Education, and Clinical Radiology Technology as a tool, platform and enabler to support and augment face to face customized teaching and learning; with educational principles as the foundation; and radiology as my academic and clinical focus.”

#### **Synopsis:**

Technology enhanced learning or eLearning has become increasingly relevant as a pedagogical technique, not to mention becoming ever more topical and discussed not only at educational meetings, but also in the media. Bridging theory and practice however can be a difficult exercise. In this PRIME session, three case studies will be briefly presented to highlight the versatility and utility of technology enhanced learning to support, augment and personalize teaching and learning; in undergraduate health professions education, postgraduate training, and continuing professional development; illustrated in formal, informal and workplace learning settings.

***If you are interested to share your medical education research project, please email  
yeo\_su\_ping@nuhs.edu.sg to book a slot.***

***SMC CME / CNE / CPE accreditation are being finalised***

**Time: 1.00pm to 2.00pm**

**Venue: Room T11-03, Level 11, NUHS Tower Block, 1E Kent Ridge Road, Singapore 119228**

**(Lunch is provided from 12.30pm to 1.00pm. Please RSVP at**

**<https://www.surveymonkey.com/s/NUS-PRIME5May2014> before 29 Apr for catering purpose.)**

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### **Use of Standardized Patients (SPs) in Deteriorating Patient Simulations: Enhancing Emotional Learning through Added Simulation Realism**



**Dr Jeanette J. Ignacio**

Senior Lecturer  
Alice Lee Centre for Nursing Studies  
Yong Loo Lin School of Medicine  
National University of Singapore  
National University Health System

Jeanette is a Senior Lecturer at the Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore, and a member of the Centre for Healthcare Simulation (CHS) Committee, Yong Loo Lin School of Medicine. She uses simulation technology in her teaching and has attended instructor courses from Mayo Clinic Multidisciplinary Simulation Center, the Harvard Centre for Medical Simulation, as well as other simulation-related workshops, to hone her skills in the field. She uses the cardiology patient simulator to teach pathophysiology to undergraduate and postgraduate nursing students. She has also used the said simulator to teach cardiovascular physiology to medical students.

Jeanette has a psychology and nursing undergraduate degrees, and a postgraduate medical degree. She is trained in Anesthesiology and is presently involved with research using simulation-based education. Her initial engagement with simulation involved the use of high-fidelity simulators to enhance postgraduate student nurses' critical thinking. She found the strategy effective as students were able to correlate clinical manifestations with the underlying pathophysiological processes. Presently, Jeanette is doing her PhD studies with the School of Health Sciences, Maastricht University. Her research focuses on emotional learning in simulations.

#### **Synopsis:**

Year 3 student nurses are taught how to manage patients in deteriorating conditions in their Clinical Decision-Making module. Simulations using mannequins are utilized to facilitate this. This helped them to know the skills needed to assess and manage patients in said conditions. However, despite this knowledge, sometimes, emotional responses such as stress and anxiety affect their clinical performance when faced with real life patient deterioration. To train them to better manage these responses, standardized patients (SPs) have been included in their patient deterioration simulations. This is to provide psychological fidelity to the simulations that will prepare them better for their clinical attachment. This project aimed to determine whether added realism through the use of SPs promotes better stress management and enhances clinical performance during a high-acuity event such as patient deterioration.

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