οεα newsletter of the office of educational affairs

nov 2008
vol 2 issue 2

In this issue:

Editors:

Ann Maderer and Scott Epstein, MD

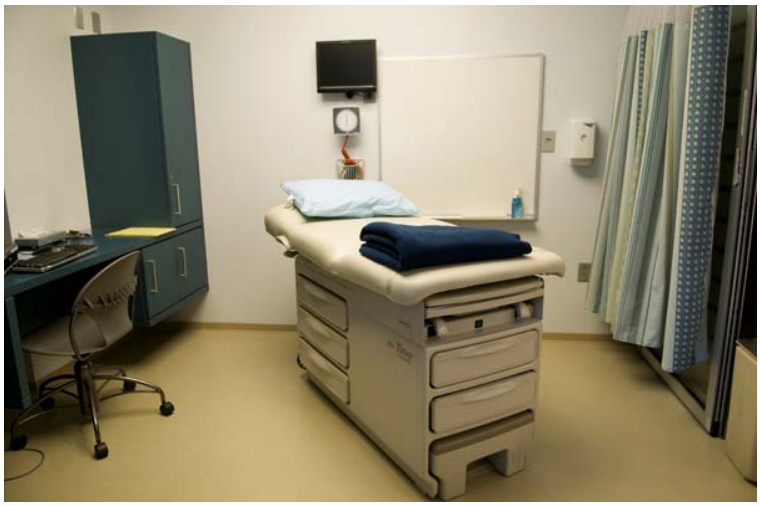
οεα is published six times a year by the OEA. We welcome your feedback and ideas for future articles. Please direct your comments to Ann Maderer, phone 617-636-2191, email ann.maderer@tufts.edu.

Visit us at http://www.tufts.edu/med/about/offices/oea/index.html

Tufts University School of Medicine

Introducing the Clinical Skills and Simulation Center

The Tufts University School of Medicine Clinical Skills and Simulation Center (TUSM-CSSC) is a recently renovated 9000 square foot training facility located at 35 Kneeland Street (3rd Floor) on the Boston Campus. The Center consists of a 50 person classroom, 12 patient exam rooms, 3 simulation rooms, 4 conference rooms, 2 observation/monitoring rooms, a lounge for standardized patients (patient actors), and a suite of offices for Office of Educational Affairs staff who administer the space. The Clinical Skills and Simulation Center is fully wireless to maximize connectivity to the Internet and to TUSK. Beginning in January 2009, the TUSM-CSSC will be the principal teaching venue for the Physical Diagnosis I Course for first year students.



Patient Exam Rooms

These rooms are principally used to teach medical students essential clinical skills including medical interviewing and physical diagnosis. The rooms have been used extensively since July to support the Objective Structured Clinical Examination (OSCE) taken by 4th year students at TUSM (see below). Standardized patients, actors who realistically portray patients with a wide array of medical problems, are used to train and to assess student competence in clinical skills. Each patient exam room is fully equipped with a camera and microphone allowing faculty to remotely observe students during the encounters with standardized patients. *(continued on page two)*

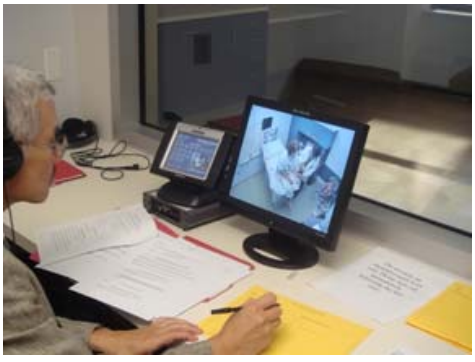
(continued from page one) The rooms contain a desktop computer and a specialized monitor to which images can be projected to enhance student learning. The patient exam rooms are constructed with special walls that allow these spaces to be doubled or quadrupled in size. This feature provides flexibility to create additional teaching space for simulation and learning procedures.

Simulation Rooms

Medical simulation makes use of high fidelity manikins capable of accurately and realistically depicting human physiology and pathophysiology. It allows medical students the unique opportunity to diagnose and treat an acutely ill "patient" in a setting where errors can be made without jeopardizing patient safety. This experiential educational technique also allows student to learn the importance of working as a team to enhance patient care. The simulation rooms are fully equipped with cameras and microphones for remote monitoring. This sophisticated system is supplemented by an adjacent monitoring room (with one way mirror) that allows for direct observation. A core group of TUSM faculty, with expertise in simulation, have developed a four year simulation curriculum. Simulation space is also used to house task trainers. These devices allow students to refine psychomotor skills, practice physical diagnosis and practice commonly performed procedures (e.g. phlebotomy, insertion of an intravenous line, placement of an artificial airway).

Conference Rooms

Four multipurpose conference rooms provide an ideal small group environment to debrief students after they have participated in a simulation exercise. The rooms will also be used for small group teaching in Problem Based Learning and other courses throughout the first and second year.



Dr. Bob Bing-You of Maine Medical Center precepts an OSCE exam from the observation room; a Standardized Patient and student are seen on the monitor.

Director of Evaluation and Assessment

We are very pleased to announce that Dr. Yung-Chi Sung has joined the Office of Educational Affairs as the Director of Evaluation and Assessment.

Dr. Sung holds a B.S. in Psychology from Soochow University, Taipei, Taiwan, a M.A. in Linguistics (minor in Psychology), a M.A. in Educational Psychology (minor in Cognitive Science), and a Ph.D. in Educational Psychology (minor in Cognitive Science, Linguistics, psychology, and Neuroscience) from the University of Minnesota. His general academic interest is to apply scientific research to quality education.

Yung-Chi and Duke

Dr. Sung comes to Tufts from the University of Maryland (Adelphi, Maryland) where he was an Adjunct Assistant Professor in the School of Undergraduate Studies and the Graduate School of Management and Technology, and the Assistant Director of the Office of Outcomes Assessment. He previously worked in Educational Development and Research, Office of Education, Medical School, University of Minnesota from 1998 to 2005. During that time Dr. Sung served as a Statistics/Program Evaluation consultant to manipulate small and large data sets and design algorithms for database setup and statistics analysis. *(continued on page seven)*

Jesse Rideout, M.D., Director of Simulation Education, in a Clinical Skills and Simulation Center patient exam room.

TUSK Faculty Development Course Website

We are pleased to announce the launching of our TUSK Faculty Development Course website (Link: http://tusk.tufts.edu/view/course/Medical/1891)
On this website you will find videotapes and materials of our faculty development workshops, as well as a compilation of our TUSM Faculty Development Handouts.

Please take five minutes to complete the corresponding evaluation form after you review any of these materials. Completed evaluation forms should be sent to Sharon Freeman at Sharon.freeman@tufts.edu. Your feedback will help us improve our faculty development efforts and better address your teaching needs.

We hope you find these materials useful and look forward to learning from your feedback.

OEA Faculty Development Website

Please see:
http://www.tufts.edu/med/about/offices/oea/facultydevelopment/index.html for more information about teaching opportunities, research, workshops, journal club and downloadable handouts.

Jesse Rideout, MD Director of Simulation Education

We are pleased to announce that **Jesse Rideout, M.D.**, has been appointed Director of Simulation Education at the Tufts University School of Medicine (TUSM).

In this capacity he will oversee simulation educational activities at the new TUSM Clinical Skills and Simulation Center located at 35 Kneeland Street on the Boston campus. Dr. Rideout will serve a key role on the TUSM Simulation Curriculum Committee, co-chaired by Dr. Neal Seymour (Vice Chair of Surgery, Baystate Medical Center) and Dr. Lelan Sillin (Medical Director for Professional Development and Simulation, Lahey Clinic). Dr. Rideout will be charged with implementing the Committee's recommendations for simulation education for TUSM students.

Dr. Rideout attended medical school at McGill University's Faculty of Medicine in Montreal. He then completed a four-year residency in Emergency Medicine at the New York University Medical Center and Bellevue Hospital in New York City. During that period he devoted considerable effort to running the simulation lab, developing and programming clinical scenarios with high-fidelity patient simulators, and debriefing and instructing residents.

Dr. Rideout recently joined the Department of Emergency Medicine at Tufts Medical Center as an Attending Physician, and Assistant Professor of Emergency Medicine at TUSM. His academic interests include curricular development and instruction through medical simulation, disaster preparedness, and international emergency medicine. Please join us in welcoming and congratulating Dr. Rideout on his appointment.

The OSCE: Student Perspective

What was most useful about the Objective Structured Clinical Examination (OSCE) experience?

For me, the direct, specific feedback from both faculty and standardized patients was the most useful part of the OSCE experience. I found that during my 3rd year of medical school I needed to actively seek out feedback from my superiors. Most of the time, the feedback I received was directed at my patient presentations, preparedness for rounds, or participation in teaching sessions. Rarely was I able to obtain feedback during clinical encounters with patients. This is largely because I had the privilege of seeing patients on my own and only would involve the doctor I was working with after I had completed my encounter with the patient, so that my interactions with patients went mostly unobserved. During the OSCE, after each patient encounter there was a significant amount of time dedicated to feedback from the standardized patient. I think the most helpful feedback is immediate and specific which was exactly the kind of feedback we received throughout the OSCE day. I found myself incorporating elements of what I had learned from the prior standardized patient interaction into the next encounter so that any changes I had made to my performance could be re-enforced immediately. I think I learned the most from feedback I received from the faculty member who had observed me on two separate encounters throughout the day. This physician was able to give me feedback on my medical reasoning and the specific kinds of questions I asked the standardized patient which was very helpful since standardized patients do not have the level of training to provide this type of criticism. Additionally, although I have not taken the USMLE Step 2 Clinical Skills exam yet, I think this experience has prepared me well for this examination.

For OSCEs to be most effective students must suspend their disbelief. Did the exam rooms and the standardized patients seem realistic? How does the experience compare to an interaction with a "real" patient?

I think the exam rooms and standardized patients were quite realistic. The exam rooms in the clinical skills center really look and function like exam rooms I have been in with real patients, although they were much nicer and more modern! Of course, there are many differences between standardized patients and real patients. The biggest difference comes during the physical exam since most of the findings on exam cannot be "acted out" by the standardized patient. Also the student is charged with ignoring findings that pertain to the actor and not the "patient" depicted by the actor. I find I am forced to interrupt the encounter briefly during the exam and ask the actor "did I find anything on cardiac exam" while ignoring the obvious crescendo-decrescendo systolic murmur I *actually* heard on exam.

During the OSCE you received feedback from each standardized patient and from a faculty member who observed you by way of a remote monitoring system. What did you find most valuable about those interactions? How does the experience differ from those in which a faculty member (or resident) is sitting in the room with you?

We so rarely, if ever, get feedback from patients. Although the standardized patients are not "real" patients, they can give helpful feedback from a

(continued on page five)

Michelle Long, M'09

continued from page four) patient's perspective. For example, the standardized patients I worked with were able to give me feedback on how I explained my diagnoses to them.

Since they are not trained to know the underlying pathophysiology of the conditions they are acting out, they truly can provide helpful feedback on how clear and understandable my explanations were for their symptoms. Additionally, since the encounters were being observed over a camera, we had the benefit of interacting with the patient on our own without a physician in the room. This helped make the encounter with the patient more realistic. Sometimes when a physician is in the room the patient may direct their responses to the physician instead of the student which can interrupt the interaction. Also, since the camera is located on the ceiling it was easy for me to forget that I was being watched. I was able to just act as I normally do with patients which allowed the feedback from faculty to be more helpful since I didn't alter my actions because there was someone else in the room.

What did you find most challenging about the experience?

For me, keeping up with the fast pace of the day was the most challenging aspect of the OSCE. Each patient encounter lasted only 15 minutes. In that short time we were expected to do a complete, but focused, history and physical, explain to the patient what was most likely going on and provide a treatment strategy. Although this reflects what is expected in an actual patient encounter (and on the USMLE step 2 clinical skills exam), this is unlike any encounter I had on my own with patients so far in training. On my family medicine rotation, I was allowed to spend as much time as I wanted with the patients to complete my history and exam. I then would wait for my attending to be ready for my presentation so I often had time to think about the encounter and form a differential diagnosis in my head as well as possible treatment ideas. After a discussion with the attending we would both return to re-exam the patient together and discuss the diagnosis and treatment with the patient. So for me, the OSCE was the first time I provided my own diagnosis and treatment plan to patients without first discussing this with a resident or attending. Also, there were a few patients during the OSCE that had both complicated medical and social issues which were hard to manage well in such a short amount of time.

What career path have you chosen?

I have chosen to enter a career in Internal Medicine. Medicine is a great fit for me because I enjoy the depth of intellectual challenges and the variety and complexity of patients and diseases encountered in addition to the opportunities to form a close doctor-patient relationship.

Brien Barnewolt, Director of the Clinical Skills and Simulation Center

We are pleased to announce that Dr. Brien Barnewolt has been appointed the Director of the Clinical Skills and Simulation Center (CSSC) located at 35 Kneeland Street.

A graduate of Northwestern University Medical School, Dr. Barnewolt completed residency training in Emergency Medicine at the University of California-San Francisco School of Medicine and the Fresno-Central San Joaquin Valley Medical Education Program. He joined the faculty of TUSM in 1992 and for the past 13 years has been the Course Director for two important clinical courses: Clinical Skills for first year students and Physical Diagnosis for second year students.

Dr. Barnewolt has been the Emergency Physician-in-Chief at Tufts Medical Center since 1999. He has received numerous awards for teaching excellence, including the prestigious Aisner Award for Excellence in Teaching Physical Diagnosis and the Zucker Clinical Teaching Prize. (*continued on page eight)*

The OSCE: Faculty Perspective

Kalyani Murthy, MD is in the department of medicine at Lahey Clinic and is Assistant Clinical Professor at TUSM. She was a preceptor in the pilot OSCE program and now serves on the planning committee.

From your perspective what aspect of the OSCE contributes most to student learning*?*

a) Cased-based approach: Students get exposed to some very important case scenarios that they would encounter in actual clinical settings. This exercise definitely helps them acquire preliminary medical knowledge essential for their clinical rotations. This includes history-taking and focused examinations, and formulating a differential diagnosis and preliminary treatment plan for the patient.
b) Patient-focused approach: Students get to interview simulated patients in detail. The emphasis is on obtaining experience with realistic situations they will face in practice. They face the task of dealing with a variety of scenarios spanning office based to acute conditions, and handling pleasant and difficult patients.
c) Distant video monitoring: This allows faculty to monitor in great detail the process of evaluation used by each student while indeed creating as realistic an experience as possible. This type of setting creates a comfortable atmosphere for each student without having to feel the pressure of being watched directly in the exam room.

What do the students get from the OSCE that they may not get elsewhere in their TUSM education? (e.g. What educational or assessment gap does this fill?)

The direct patient encounter in a more controlled setting is definitely a vital aspect of OSCE that cannot be obtained on a regular clinical rotation in a hospital setting. This interaction allows each trainee to be a clinician and a student at the same time. They can question, examine, establish a diagnosis and a preliminary treatment plan as a true clinician and then step outside of themselves to be a student and deconstruct the entire experience.

The feedback that the students receive from the standardized patient with respect to their overall interview process is invaluable. The direct feedback given immediately after an encounter imbibes in them the most crucial aspects of focused history-taking and the proper way to approach some of the most common scenarios. The feedback from the faculty that follows such encounters is, in my opinion, the best for the student. It helps reinforce their medical knowledge about the cases. It also helps students directly ask/clarify with the faculty any questions they may have regarding the cases the same day, thereby adding to their learning curve tremendously.

Kalyani Murthy, MD

As a faculty member what was most rewarding about the experience?

The entire process of observing a medical student prepare him/herself into the role of a medical provider is really amazing. The eagerness and enthusiasm with which they approach each case shows their dedication to the field. The interaction with the student after seeing a patient and discussing the case is truly a rewarding experience.

From the perspective of the observer how accurately does the student-standardized patient encounter portray the doctor-patient interaction?

The simulation center examination rooms are quite similar to a typical hospital based clinic setting. The standardized patients spend a great deal of time training to accurately portray various clinical conditions with utmost accuracy and precision. Overall the student-standardized patient interaction simulated real life situations quite accurately and appropriately.

Schwartz Compassionate Care Faculty Development Program

The main goal of the Schwartz Compassionate Care Faculty Development Program is to train a core group of health care educators from the hospital affiliates of TUSM to be 'master teachers' of compassionate patient care. Each participant will join a site-based team to develop, implement, and assess an educational compassionate care project at their clinical site.

The poll of participants is composed of thirty-three compassionate and committed health care educators (clinicians, nurses and clergy representatives) who are eager to contribute to TUSM's compassionate care educational effort. The first workshop was held on Tuesday, November 21. The participants highly rated the workshop and appreciated the group discussion and meeting other colleagues. They started to brainstorm ideas for their site-based projects. The next workshop is scheduled for Friday, December 12. Participants will discuss ideas and define the implementation of their site-based projects at this workshop.

Paul Summergrad, MD
Robert Kalish, MD
Tom Campfield, MD
Maria Blanco, EdD

Innovations in Education Grant Deadline Approaching

For more information, please see:
http://www.tufts.edu/med/about/faculty/educationalgrants/overview/index.html
Letter of Intent due: December 15, 2008
Final application due: January 30, 2009
Contact: ann.maderer@tufts.edu, 617-636-2191

Yung-Chi Sung, PhD

(continued from page two) As a central part of the job, he routinely turned research ideas into practical algorithms, and refined those algorithms to improve efficiency. He has ample experience in program and curriculum evaluation and assessment across the medical education continuum including undergraduate, graduate and continuing medical education. He has collaborated extensively with faculty in educational development, faculty development, evaluation of students and programs, and educational research and development.

Please join us in welcoming Dr. Sung to our team.

Norman S. Stearns, MD, Grant to Promote Education in Ethics and Professionalism

In recognition of the importance of Ethics and Professionalism in medical education and medical practice we are delighted to announce the Norman S. Stearns, MD, Grant to Promote Education in Ethics and Professionalism. The grant is designed to promote and support teaching and learning innovations developed by our faculty that will enhance student and resident education in Ethics and Professionalism.

For more information, please see
http://www.tufts.edu/med/about/faculty/educationalgrants/Normangrant/index.html

Important Deadlines:
Letter of Intent: December 15, 2008
Final application: January 30, 2009

Awards will be announced the first week of March for the funding period to begin July 1, 2009.

If you have questions, please contact ann.maderer@tufts.edu, 617-636-2191.

Medical Student-Nurse Partnership Program: A Pilot Study of Pre-clerkship Medical Student-Nurse Interactions on the Wards

In reconsidering our third-year clerkships, it was evident that student experiences were strongly determined by interactions with nurses on the wards. This motivated us to collaborate with nurse coordinators to design, implement and examine a medical student-nurse partnership program to promote student-nurse interactions on the wards.

A mixed methods comparison group design was used. The intervention group consisted of 56 second-year (pre-clerkship) students rotating through four sites for Physical Diagnosis training (participating students); the control group was 116 second-year students rotating through 34 other sites; and 37 nurses participated as nurse partners. Data sources included a student pre- and post-program survey and participating student program questionnaire; and a participating nurse pre-program survey and program questionnaire. The Committee on the Use of Human Subjects in Research at each clinical site approved the study.

Results showed that prior to the study nurses reported a relatively low nurse-medical student level of interaction at their sites. Students from both the control and intervention group reported a relatively low level of knowledge of nurse roles before the program. Students from the intervention group increased their level of knowledge of nurse's roles as a result of their participation in the program. Participating students and nurses found the program useful and relevant to student medical training.

We concluded that the program effectively enhanced nurse's teaching contributions and mutual understanding and respect for medical student and nurse roles, which is the essential first step towards collaboration and teamwork. We are looking forward to: (1) expanding this program to more sites, and within those sites to more hospital areas, to better assess the impact of different environments; and (2) adopting a developmental framework to expand this type of experience throughout student training and help students examine their work as part of a team. We seek to add robust interventions during the clinical years, ideally coupled with team training in our Clinical Skills and Simulation Center.

We are extremely grateful to the nurses, Physical Diagnosis preceptors and M’10 class for their commitment and contribution to this educational effort.

Maria Alejandra Blanco, Ed.D.
Assistant Dean for Faculty Development
Assistant Professor, Department of Psychiatry

Barnewolt, Director of CSSC

(continued from page five) In the role of Director of CSSC, Dr. Barnewolt will work closely with the Office of Educational Affairs and Dr. Jesse Rideout, the Director of Simulation Education. The Clinical Skills and Simulation Center is a state-of-the-art 9000 sq. ft. facility containing classroom and conference room space, 12 patient exam rooms with audiovisual technology to allow remote monitoring, and three simulation rooms for use with high fidelity manikins and task trainers. The CSSC will be the center of clinical skills training including physical diagnosis and standardized patient experiences.