

# The Third Annual MHPE Summer Conference

## **EDUCATIONAL LEADERSHIP IN CHANGING TIMES**





# Master of Health Professions Education Summer Conference

July 25-26, 2002

Faculty/Alumni Center, 119 CMW

Sponsored by:

*Department of Medical Education*

*Conference Co-Chairpersons:*

*Mark Gelula and Rachel Yudkowsky*

The MHPE Online Summer Conference is devoted to presentations of the work of MHPE students and alumni. This meeting provides a unique opportunity to network with other health professions educators, to learn about the educational innovations taking place in other institutions while they are still in developmental stages, and to participate in discussions tackling some of the major issues in health professions education.

**Purpose:** The purpose of this activity is to discuss issues and innovations in health professions education that have been spearheaded by MHPE students, faculty, and alumni.

**Intended Audience:** Health professions educators, including but not limited to current and former MHPE students.

**Program Objectives:**

At the conclusion of this program, participants should be able to:

1. Restate presented innovations in areas of medical education
2. Apply presented innovations to educational challenges in their own institutions
3. Discuss presented innovations and evidence of their effectiveness

*For further information, contact: Conference Co-Chairperson Mark Gelula, Research Assistant Professor and Director of Faculty Development, COM at [mgelula@uic.edu](mailto:mgelula@uic.edu) or Rachel Yudkowsky, Associate Director of Faculty Development and Director, Clinical Performance Center at [rachely@uic.edu](mailto:rachely@uic.edu)*

The University of Illinois at Chicago (UIC) is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

The University of Illinois at Chicago (UIC) College of Medicine designates this continuing medical education activity for a maximum of 10 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

# Conference Schedule for Thursday July 25

**8:30 AM Continental Breakfast**

**9:00 AM Welcome**

**Leslie J. Sandlow, MD**

*Professor and Senior Associate Dean for Medical Education*

**9:05 –10:00 AM Opening Plenary Session**

*Introduction of the Speaker by Mark Gelula, PhD*

**Dale Dauphinee, MD**

Title: 'Leadership: Preparing Yourself and Others for the Lifelong Role of Mentoring.'

**10:00 AM Break**

**10:15 –12:00AM Session - "The Leadership Frame-Up"**

*MHPE 504 Course Faculty: Alan Schwartz, PhD and Joseph York, PhD*

**12:00 –1:45 PM Lunch Break**

**1:45 PM Session # 1: "Communication and the Qualitative-Quantitative O-nundrum"**

Moderator/ Discussant: *Steven Downing, PhD*

**Using Q-Methodology to Develop an Interpersonal and Communication Skills Rating Scale**

*Maureen Valaski, MHPE*

**Development of a System for Qualitative Coding of Clinical Teacher-Student Interactions**

*Gordon Woods, MD*

**Evaluation of a Communication Skills Assessment Tool**

*Naomi Smidt-Afek, MD*

**3:25 PM Break**

**3:40 –5:00 PM Session #2: "Needs Assessment for Program and Course Planning"**

Moderator/ Discussant: *Philip Bashook, EdD*

**An Educational Needs Assessment and Strategic Plan for the Development of a New Degree Program in Prosthetics and Orthotics Format: *Work in progress***

*Mark Edwards*

**The Educational Gaps in Child Abuse: Responding with Improved Instructional and Assessment Strategies in the Pediatric Clerkship.**

*Robin Deterding, MD*

**5:00 PM Break including Poster Setup**

**5:15 - 6:00 PM Poster Session**

**Development of a Longitudinal Faculty Scholars Fellowship**

*Gordon L. Woods, MD*

**Using Stimulus Videotape to Teach Normal Development**

*Geri Fox, MD*

**Improving the Impact of a Faculty Development Program for Pathophysiology Workshop Facilitators.**

*Janet Riddle, MD*

**A Proposal for a Curriculum in Women's Health for Medical Students in Israel**

*Naomi Smidt-Afek, MD*

**Analyzing Case Mix is Essential for Curriculum Development in Graduate Medical Education**

*Mark Goldszmidt, MD*

**The Use of Standardized Patients to Assess the Head to Toe Physical Examination Skills of Medical students**

*Rachel Yudkowsky, MD, MHPE, Barbara Eulenberg, BJS, Maureen Valaski, MHPE, Debra Klamen, MD, MHPE*

**6:00 - 7:30 PM MHPE Graduate Recognition Ceremony and Reception**

## Conference Schedule for Friday July 26

**8:30 AM Continental Breakfast**

**9:00-9:05 AM Greetings**

*Leslie J. Sandlow, MD*

*Professor and Senior Associate Dean  
for Medical Education*

**9:05-10:00 AM Faculty Keynote Address**

*Introduction of Speaker: Rachel Yudkowsky, MD., MHPE*

**Georges Bordage, MD, Ph.D.**

**Title:** 'Encouraging House Staff to Express and Learn from Their Diagnostic Errors.'

**10:00 AM Break**

**10:15-11:45 AM Session #3 "Teaching and Learning: Improving Thinking and Outcomes"**

*Moderator/ Discussant: Memoona Hasnain, MD, MHPE, PhD*

**Developing a 12-week Clerkship in Family Medicine and Community Health**

*Carol Spector, MS, MHPE*

**Soliciting Feedback: Teaching Students to Ask Questions that Promote Thinking**

*Mari Elizabeth Egan, MD*

**An Exploration on Pediatric Resident's Performance in Evidence-based Medicine in Association with Learning Preference and Knowledge Dissemination Characteristics**

*Satid Thammasitboon, MD*

**11:45 –12:00 AM Wrap-up and Best Paper Presentations**

*Mark Gelula, PhD*

**1:30 - 4:30 Institutional Review Board Training (Investigator 101)**

**Clyde Wheeler, PhD**

## **"The Leadership Frame-Up"**

**Opening Plenary Speaker: Dale Dauphinee, MD**

**‘Leadership: Preparing Yourself and Others for the Lifelong Role of Mentoring.’**

The development of personal skills to be a leader in education is no different than in other areas of activity. Therefore, general notions of leadership will be identified, including key operative principles. The discussion will cover what constitutes leadership and an approach whereby one builds leadership skills. The focus will then shift to preparing for leadership (What are core characteristics?) and situational skills that are required for leaders. The argument will be made that colleagues are critical and that to optimize all resources for leadership and for the development of colleagues, young and older, mentoring is critical. In fact, mentoring is the key role for all educators and leaders in education. Mentoring is bi-directional – the educator for others, and in turn, others for the educator. The talk will close with personal examples to reinforce the key messages.

*Joe York, PhD and Alan Schwarz, PhD: Introduction to the session’s process and frame analysis*

*10:20 Breakout Session*

**Tasks/Objectives:**

- Identify obstacles to the development of mentorship in health education organizations and academic medical centers, relative to your frame.
- Recommend frame-relative changes that could be made to better support mentorship in such organizations.

*10:50 Discussion.*

*11:30 Response from Dr. Dauphinee*

**Session I Paper Abstracts**  
**Communication and the Qualitative-Quantitative Q-nundrum**  
*Steve Downing, Ph.D., Moderator/Discussant*

**Using Q-Methodology to Develop an Interpersonal and Communication Skills Rating Scale**

*Maureen Valaski MHPE, University of Illinois at Chicago*

**ABSTRACT: Introduction:** To facilitate the development of a new standardized patient rating scale for the assessment of interpersonal and communication skills of first and second year medical students, a study was conducted at the University of Illinois College of Medicine at Chicago. Written feedback comments from the 2001 standardized patient examination for first year medical students were collected and arranged into common themes. A small group of experienced standardized patients singled out those statements, which most clearly embodied recurrent positive and negative behaviors of beginning students. A group of physicians also contributed to and revised this list of key descriptive statements.

Fourteen standardized patients portrayed four different patient cases in workshops for second year students for a total of 162 student/patient encounters. Using Q-Methodology, a technique used to quantify subjective data, these standardized patients were asked to rank-order feedback statements based on the feelings of their patient character about students with whom they interacted. The factor analysis that resulted from the data revealed five distinct types of students consequently labeled *The Consummate Communicator*, *The Test Taker*, *"The Liver in Room 12"*, *The Hesitant Beginner*, and *Half-Way Home*. From the rankings of the statements for each of these five different types of students, a new rating scale for the assessment of interpersonal and communication skills of first and second year students was developed. The *UIC-COM Standardized Patient Communication and Interpersonal Skills Rating Scale* is currently being piloted at UIC-COM for use in standardized patient workshops, and has received positive feedback from the standardized patients who assess these students.

**Development of a System for Qualitative Coding of Clinical Teacher-Student Interactions**

*Gordon Woods, MD, University of Illinois College of Medicine at Peoria*

**ABSTRACT: Introduction:** Videotaped standardized student scenarios allow educational developers to observe the teaching of clinical educators in carefully constructed, predetermined situations. Qualitative coding systems have been used to characterize recorded interactions between physicians and patients, but have not been used to characterize recorded interactions between clinical educators and students.

**Objective:** This paper describes the development of a qualitative coding system to characterize and analyze recorded clinical teaching interactions between clinician-educators and students.

**Methods:** The Roter Interaction Analysis System (RIAS) (1), a validated method used to code the statements and characteristics of doctor-patient interactions, was used as a framework, and was modified to allow coding of clinical teacher-student interactions. Video recordings of residents interacting with standardized medical students were coded and the coding system was further modified, adapted, and simplified until nearly all of the verbal utterances could be assigned a code. In addition, interactions were scored using a global affect rating. The coding system was incorporated into a software program to facilitate coding of videotapes in real time with tabulation of results and transfer of data into a database file.

**Results:** Repeat, real-time coding of a single interaction yielded intra-rater reliability above 90%.

**Conclusions:** A system for real-time qualitative coding of video taped clinical teacher-student interactions was developed.

1. Roter DL. The Roter Interaction Analysis System (RIAS) Coding Manual. Baltimore, Md: School of Hygiene and Public Health, Johns Hopkins University; 1991.

## Evaluation of a Communication Skills Assessment Tool

Naomi Smidt-Afek, MD, Case Western Reserve

**ABSTRACT: : Introduction:** Doctor-patient communication skills is an essential part of the curriculum of medical schools worldwide. As a relatively new discipline, teaching methods, as well as assessment tools, are still developing. No optimal tool has yet been developed to assess these skills. The more complex tools are more comprehensive and easier to validate, but are too cumbersome for daily use. The more “practical” tools are less time consuming and are not taxing of other resources, but are difficult to validate.

**Research Objectives:** The purpose of this research is to evaluate some validity evidence for a new assessment tool (the Macy tool), which was developed to evaluate the communication skills of students or physician in an Objective Structured Clinical Exam (OSCE), designed specially for this purpose. The new tool will be compared with an assessment tool which has been widely used in research literature for evaluation of doctor-patient communication- (the Roter Interaction Analysis System- the RIAS).

The Macy tool is a performance-based evaluation instrument, completed by the Standardized Patients (SPs). The theoretical model it is based upon is the Functional Model of Medical Interviewing (1). The Macy tool includes a list of twenty-one consensus competencies that were agreed upon by a steering committee of experienced teachers of communication skills at three medical schools, based on an extensive literature review.

The RIAS is one of the most commonly used tools in medical communication research (2). It has a 40 category coding system, applied to the smallest unit of expression or statement (utterance) in the interview, to which a meaningful code can be assigned. The conceptual framework for the RIAS coding is also the Functional Model of Medical Interviewing (1) but its adaptation to other models, like the Patient Centered Model (3), has also been demonstrated in the literature (4). The coding is verbal and assigns each utterance to a category, which is part of the exhaustive group of mutually exclusive categories, reflecting the medical interview in its different components.

**Methods:** 58 videotapes of third-year medical students’ OSCE performance, obtained in a previous research for the purpose of communication skills assessment will be used. The chosen videotapes were taken from two stations out of the ten, which had the largest *N* (for statistical purposes). The second station’s analysis will be considered as a replication of the first one.

This research will analyze each interview, using both tools, and will compare the results. The comparison of the tools, which are a checklist and a rating scale, will be done by using previously researched theoretical constructs created from the RIAS categories (2,5,6,7) which will enable transforming the “neutral” rating scale into a ranking checklist- like scoring. Then, it will be possible to compare the resulting scores with the Macy tool’s categories. The end result is to create validity evidence for that new tool. Inter-rater and intra-rater reliability will be measured as well.

**Results:** TBA.

### References

1. Cohen-Cole S. The medical interview: The three function approach. St. Louis, MO: Mosby, 1991.
2. Boon H, Stewart MA. (1998) patient –physician communication assessment instruments: 1986-1996 a review. *Pat. Educ. & Counc.* 1998; 35:161-176
3. Stewart M, Brown JB, Weston WW, McWhinney IR., McWilliam CL, Freeman TR. *Patient-Centered Medicine: Transforming the Clinical Method.* Thousand Oaks (California): Sage, 1995.
4. Roter D. *The Roter Method of interaction process analysis.* Baltimore, MD: Johns Hopkins University Press.(1989; Revised in 2000)
5. Roter DL, Stewart M, Putnam SM, Lipkin M, Stiles W, Inui TS. Communication Patterns of Primary Care Physicians. *JAMA.* 1997; 277: 350-356
6. Bertakis KD, Roter D, Putnam SM. The relationship of physician medical interview style to patient satisfaction. *The J Fam Prac.* 1991; 32:175-181
7. Hall JA, Dorman MC. What patients like about their medical care and how often they are asked: a meta-analysis of the satisfaction literature. *Soc Sci Med.* 1988; 27:935

## Session II Paper Abstracts

### Needs Assessment for Program and Course Planning

*Phil Bashook, EdD, Moderator/Discussant*

#### **An Educational Needs Assessment and Strategic Plan for the Development of a New Degree Program in Prosthetics and Orthotics**

*Mark Edwards*

*Northwestern University Prosthetic and Orthotic Center*

**ABSTRACT: : Introduction:** There are currently eight university-based programs offering education and training in prosthetics and orthotics in the United States. Three of these programs train students at the undergraduate or baccalaureate level. The five remaining programs train students at the post-baccalaureate level of education leading to a professional certificate. At the present time, there are no programs that offer graduate-level training in the USA. Furthermore, there is only one program internationally involved in the Masters level of education in prosthetics and orthotics. The need for graduate education in the profession of prosthetics and orthotics has yet to be researched. The National Commission on Orthotics and Prosthetics Education (NCOPE) in 1995 commissioned a work force study. The results of the study found increased demands for future prosthetists and orthotists in the United States. Many disabled individuals would be unable to find qualified individuals to serve them in the future if the current rate of 200 graduates continues.

The development of a new graduate degree program would have a direct benefit to the disabled population and allied health professions. The profession of prosthetics and orthotics is relatively small in numbers. The American Board for Certification has granted certificates to a total of only 4000 clinicians in the United States. An increase in the number of highly trained specialists will be needed in the future to serve the aging population and keep abreast of biomaterials and other technologies.

The lack of graduate education in prosthetics and orthotics, combined with the increased demands for efficient and functional healthcare delivery, requires a better-trained P & O clinician. At the present time graduate education in the profession is unavailable in the United States. A graduate education program would advance the profession and positively affect rehabilitative patient-care. The changing healthcare management system and the advancement of technology, will create higher educational and technological demands on the clinicians of tomorrow. The increasing age of current certified clinicians combined with a consistent influx of approximately 200 new graduates create work-force demands that will never be reached. A new graduate program will provide better trained, more qualified practitioners in prosthetics and orthotics.

#### **The Educational Gaps in Child Abuse: Responding with Improved Instructional and Assessment Strategies in the Pediatric Clerkship**

*Robin Deterding, MD; University of Colorado.*

**ABSTRACT : Introduction:** Child abuse is a significant health issue with immediate and long lasting effects. It is one of the few curricular areas in medical school that include legal mandates for all physicians. Despite these facts, deficiencies in educational training and professional competency persist.

**Methods:** An extensive review of the child abuse literature to include deficiencies in professional competency, scope of instruction, and methods of assessment at all of levels of medical training was completed as part of an external needs assessment. An internal needs assessment of the child abuse curriculum at the University of Colorado was also completed and obstacles to instruction were identified. Based upon the needs assessment, a child abuse curriculum blueprint was developed that mapped newly created performance objectives to instructional and assessment activities. Instructional activities to include a problem-based learning (PBL) case and a standardized patient (SP) experience and assessment activities to include short answer scenarios and a standardized patient experience were created to supplement the existing didactic lecture and short answer questions. Full implementation was completed during the 2000-01 academic year. Results of the assessment data were analyzed using descriptive statistics with SPSS software.

**Results:** Eighty percent of our students had never seen a child abuse case and 13% had only seen one case during their clinical clerkships. However, after completing the revised child abuse curriculum, the majority of students answered the multiple choice and clinical scenario questions correctly on the end of Pediatric clerkship high-stakes examination. Performance on the end of third year SP station showed that approximately 80% demonstrated acceptable professional competency in child abuse history taking and reporting actions. Students positively rated their learning experiences in the curriculum.

**Conclusion:** Despite little clinical experience in child abuse, acceptable competency can be acquired through performance-based objectives that guide instructional and assessment activities. The strategies developed at the University of Colorado may have implications for other health care professional educators.

## Poster Abstracts

### Development of a Longitudinal Faculty Scholars Fellowship

*Gordon L. Woods, MD*

*Gwen J. Lombard, PhD, Lynne Meyer, PhD*

*University of Illinois College of Medicine at Peoria*

**ABSTRACT:** Clinicians who join the faculty of a medical school or residency program must develop skills beyond those learned in their medical school and residency training. These include the skills of inpatient and clinic teaching, facilitating small group discussion, presenting to large groups, conducting independent research, developing community health programs, and providing leadership and administration. Recognizing this, the University of Illinois College of Medicine at Peoria (UICOMP) is developing a longitudinal fellowship designed to help clinical faculty members extend and enrich their skills in these areas.

In planning for the fellowship, needs assessment was conducted through interviews, focus groups, surveys, and a prioritization exercise conducted during a faculty retreat. Fellowship programs at the University of Michigan and the University of Wisconsin were used as models in the design of the fellowship curriculum. The needs of the organization were drawn from the conclusions of the strategic planning process conducted by the UICOMP organizational leadership. The goals of the fellowship curriculum were aligned with the four key goals of the medical school's strategic plan, and include a focus on the development of collaborations between community healthcare organizations and the medical school. Funding was obtained from external sources.

The fellowship will be 16 -months in duration, and will be implemented using three integrated educational activities. Content will be delivered through a weekly series of interactive afternoon seminars, with topics including improving clinical teaching skills, curriculum development, leadership and administrative, community health program development, program assessment, developing an academic portfolio, and research methodology. Each fellowship scholar will conduct an independent project, and blocks of protected time for projects will be scheduled throughout the duration of the fellowship. The seminar topics are scheduled to progress in parallel with the stage of project development. In addition, relationships with mentors will be cultivated to facilitate project and skill development.

The fellowship scholars will be evaluated by tracking the number of projects, collaborations, presentations, articles published, and academic promotions obtained. The fellowship curriculum will be evaluated through weekly "educational dissections" of seminar presentations, and through mid-course and end-of-course reviews. Program evaluation will be accomplished through participant-oriented assessment of how well the fellowship meets the needs of the scholars, and decision maker-oriented assessment of how well the fellowship fulfills the organization's mission and goals.

### Using Stimulus Videotape to Teach Normal Development

*Geri Fox, MD*

*University of Illinois at Chicago*

**ABSTRACT:** This is the only stimulus videotape available for use in teaching normal development that follows the growth of one child longitudinally. This videotape has been created specifically for teaching purposes by a child and adolescent psychiatrist who has taught normal development to psychiatry residents since 1987. It provides an innovative and useful aid to teaching normal development from infancy through middle childhood. There is no voice-over narration: the tape consists of 201 short video clips (6 hours 20 minutes) that can be used to illustrate teaching points, with an accompanying explanatory log. The complete version (seven videotapes) covers ages 2 weeks to 10 years in detail. The "Greatest Hits" version (one 55 minute videotape with 31 video clips), covers ages 2 weeks to 10 years very briefly. The film provides enjoyable, classroom-tested examples of one child's ten-year development in the realms of temperament, cognition, morality, gross and fine motor activity, verbal ability, attachment, separation-individuation, normal anxiety, etc., utilizing both formal and informal assessment and observation. Academic, social, and family arenas are addressed, including peer group interaction, sibling issues and parenting techniques. The film is designed to be equally useful whether shown in segments or in its entirety, at the instructor's discretion. The clips are short, clearly identified, and easily located. At this poster presentation, I will show clips from the VHS and DVD versions, with a demonstration of how to utilize the accompanying tape log. I will also discuss potential applications and teaching methods.

## **Improving the Impact of a Faculty Development Program for Pathophysiology Workshop Facilitators**

*Janet Riddle, MD, L.S. Hauge, S.H. Shah; Rush-Presbyterian-St. Luke's Medical Center; S.M. Mathe; Cook County Hospital; M.H. Gelula; University of Illinois at Chicago.*

The M2 Pathophysiology course at Rush Medical College was redesigned to decrease lecture hours, increase workshop hours, and incorporate clinical faculty in student-centered teaching methods. Eight groups of 15-16 students met with a faculty preceptor for two-hour workshops held twice a week. Preceptors were recruited from faculty who were viewed by residents and students as excellent teachers. An effort was made to preferentially recruit general internists as preceptors. Two faculty development workshops were held to orient faculty to techniques for workshop facilitation. Faculty evaluations and interviews revealed the need for further faculty development in encouraging a student-centered learning environment and using teaching methods to engage students as active learners.

During the next year, we will engage in a research project that is designed to improve the impact of our existing faculty development program. Specifically, this project will focus on whether preceptors who self-select learning goals for the faculty development program will have greater improvements in teaching effectiveness compared with preceptors who have learning goals identified by a faculty development expert. This poster will describe the research study and the outcome measures.

## **A Curriculum in Women's Health for Israeli Medical Students**

*Naomi Smidt-Afek, MD, Case Western Reserve*

Women's Health (WH) is a subspecialty that got its broad recognition in the last decade and is slowly entering medical schools in the Western world. It had offered, as a new scholarly domain, the insight into the difference between sex-based medicine and gender-based medicine, two recent terms that represent the two realms of women's health. By understanding how sex (genetically determined definition) and gender (socially determined definition) influence the individual person's health and illness, the educated physician can do his job better.

### **Why a curriculum in WH?**

Women have different biological characteristics (sex-based) which determine:

- Healthy preventive needs such a special nutritional needs, certain screening programs, etc.
- Specific disease prevalence and patterns
- Specific response to drugs and other treatments
- Specific natural courses of disease dependent on hormonal and other biological influence

Societal factors (gender-based) influence women's health and disease in many ways, e.g:

- Domestic violence, which mainly affects women
- Social role expectation of being the caretaker and child raiser.
- Prejudiced perception from the physician about women's roles and abilities
- Research discrimination of women
- Societal factors influencing health belief and health behavior
- Societal factors influencing disease prevalence and patterns

A curriculum in WH will promote the patient centered approach in the medical students education

### **Curriculum Goals**

To help the medical student acquire the knowledge, skills, and attitude needed to provide better health care to women in Israel.

### **Curriculum components**

- General history of women's health development
- Sex-based medicine
- Data about Israeli women's health
- Anthropological/sociological research findings on women's status in Israeli society, the approach to women's bodies in religion and culture, to childbearing and to other aspects that influence health and illness
- Effects of domestic violence, incest, and harassment on women's health and illness
- Research issues: past inequality and corrected approach
- Eating disorders, gender and sex aspects
- Mental health issues specific to women (the sex and gender components)
- Cultural & ethnic diversity and their relation to women's health.
- Gender-sensitive Doctor patient communication.

### **Expected difficulties**

- Resistance to change in Medical School.
- Different views about importance of WH.
- Curriculum developed outside the Medical School.

### **Incorporating the new curriculum into the existing one**

A central body (either national committee or a medical school committee) will prepare 3 different components:

- 1) Basic science related WH - for the different basic science courses' instructors in the format of problem-based cases to be added to the courses.
- 2) Clinical clerkships related WH – also developed as problem-based cases will be introduced into the different clerkships with the committee's guidance and support.
- 3) Gender medicine issues, which will be introduced in a separate course, to be negotiated in each school where & when. This course will set the stage for introducing Men's health issue from the gender perspective in the future.

## **ANALYZING CASE MIX IS ESSENTIAL FOR CURRICULUM DEVELOPMENT IN GRADUATE MEDICAL EDUCATION**

*Mark Goldszmidt, University of Western Ontario; Mark Gelula, University of Illinois at Chicago; Janet Wilson, University of Western Ontario*

**Abstract:** Purpose of study: Rotation objectives in graduate medical education are often developed without using case mix data. As part of a larger curriculum development project for surgical trainees rotating through a one-month internal medicine consult service, the study's purpose was to determine the necessity and feasibility of collecting this data using resident logbooks.

**Methodology:** Over three months, each surgical resident rotating through the consult service was asked to log data on cases seen. Case frequencies were then compared with suggested objectives for the service. For frequency verification, the number of logged cases was also compared with those billed by the supervising consultants.

**Results:** During their rotation, residents each saw an average of 31 (19-44) cases. Approximately 57% (53-65) were seen pre-operatively. Although residents were involved in a variety of cases, some cases representing important objectives were infrequently seen (<1-2% of the time). These included (1) pre-operatively: valvular heart disease-anticoagulation and endocarditis prophylaxis; respiratory risk assessment; correction of bleeding dyscrasias and (2) post-operatively: COPD exacerbations; MI; DVT and PE; electrolyte abnormalities; alcohol withdrawal. Logged cases represented > 98% of the inpatient consults billed on the service during that time.

**Conclusions:** Collecting data on case mix is an important component of curriculum development in graduate medical education. Knowledge gained from logbook data can be used to modify and/or negotiate the appropriateness of the objectives for a rotation; Logbook data can also be used to develop alternative instructional methods for meeting important objectives highlighting infrequently seen problems. The authors conclude that using resident logbooks is a feasible method of collecting this data.

## **THE USE OF STANDARDIZED PATIENTS TO ASSESS THE HEAD TO TOE PHYSICAL EXAMINATION SKILLS OF MEDICAL STUDENTS**

*Rachel Yudkowsky, MD, MHPE, Barbara Eulenberg, BJS, Maureen Valaski, MHPE, Debra Klamen, MD, MHPE*

Standardized patient (SP) based exams are fast becoming the gold standard for assessing medical students' clinical skills. Many schools utilize SPs to teach and assess specific physical exam (breast exam, male/female GU) and interpersonal skills; far fewer use SP exams to assess students' ability to put together a comprehensive "head to toe" (HTT) physical exam. Such a program would contribute to accountability by ensuring basic competence in physical exam and interpersonal skills before a student begins to work with real patients on clinical rotations.

Daunting logistical and practical details often hinder the development of HTT exams. Questions arise, such as: how long of a checklist can SPs reliably complete? What kind of SP training works best for such a task? Do faculty raters need to be present? How should a head to toe exam be scored? Remediated? Can the exam be used to provide feedback and teaching? Do students find it valuable? What does it cost?

This poster presentation will provide the experience of a large medical school that has designed and utilized just such a HTT exam and has assessed over 9000 students over the past 13 years.

# MHPE Graduate Recognition Ceremony

Thursday, July 25, 2002 at 6:00 PM

Welcome and Introduction: Leslie J. Sandlow, MD; Head, Department of Medical Education

Greetings: Gerald Moss, MD; Dean, College of Medicine

Clark Hulse, PhD; Dean, Graduate College

Remarks and Presentation of the Graduates and their Advisors by the Director of Graduate Studies:

Dr. Georges Bordage, MD, PhD

Graduates and Advisors:



**Elza Adachi: Spring 2002**

*"Identifying Needs and Preferences for Faculty Development on Evidence-based Medicine for Pediatricians at Marília Medical School"*

◆ Advisors: **M. Gelula**, A. Schwartz,  
L. Oliveira (State University of Londrina)



**Maureen Valaski: Summer 2002**

*"Using Q-Methodology to Develop an Interpersonal and Communication Skills Rating Scale"*

◆ Advisors: **R. Mrtek**, R. Yudkowsky,  
D. Klamen



**Lee Manchul: Summer 2002**

*"Interprofessional Education and the Radiation Oncology Team: Benefits, Needs, Organizational Challenges"*

◆ Advisors: **M. Gelula**, G. Bordage,  
A. Rothman (U of Toronto)



**Paulo Marcondes Carvalho Jr:  
Summer 2002**

*"An Online, Problem-Oriented Course of Health Information Systems for Undergraduate Health Students: Design, Implementation and Assessment"*

◆ Advisors: **A. Schwartz**, A. Elstein, A. Tekjian



**Jonathan Rubens: Spring 2002**

*"A Needs Assessment of Leadership Education in Emergency Medicine Graduate Medical Education"*

◆ Advisors: **M. Gelula**, J. York, G. Strange (UIC  
Emergency Medicine)



**Marcy Mintz: Summer 2002**

*"Self-Perceived Competencies of Internal Medicine Residents in the Ambulatory Care Setting"*

◆ Advisors: **A. Schwartz**, G. Bordage,  
J. DesCoteaux (U of Calgary)



**Salvatore Spadafora: Fall 2001**

*"Development of a Curriculum for the Academic Half-Day Program at the University of Western Ontario School of Medicine and Dentistry"*

◆ Advisors: **M. Gelula**, A. Yonke,  
J. Kronick (U of Western Ontario)



**Hirotaka Onishi: Summer 2002**

*"Effects of Clinical Experience and Case Difficulty on the Type and Distribution of Diagnostic Errors"*

◆ Advisors: **A. Elstein**, G. Bordage, A. Schwartz



**Satid Thammasitboon: Summer 2002**

*"Evidence-Based Medicine Performance: Its Association with Learning Preference and Knowledge Dissemination"*

◆ Advisors: **R. Mrtek**, A. Schwartz  
J. Hupert (UIC Pediatrics)



**Sonia Akiko Hirazawa: Summer 2002**

*"Improving Health Professional Faculty's Ability to Construct Objective Tests"*

◆ Advisors: **A. Tekjian**, R. Williams  
(SIU), G. Bordage



**Valeria Lima: Spring 2002**  
*“Learning Issues Raised by Students during PBL Tutorials Compared to Curriculum Objectives and Tutor Guide Topics at Marilia”*

◆ Advisors: **A. Tekjian**, G. Bordage, A. Yonke



**Karen Fung Kee Fung (nee Ash): Fall 2002**  
*“Evaluation of the Interactive Voice Response Tool for Assessment of Residents’ Laparoscopic Skills”*

◆ Advisors: **G. Bordage**, A. Tekjian, G. Norman (McMaster)



**Cleber Mazzoni: Spring 2002**  
*“Comparison of OSCE Scores to Prior Formative Student Assessments by Faculty Members”*

◆ Advisors: **R. Williams (STU)**, G. Bordage, A. Tekjian



**Rukhsana Zuberi: Summer 2002**  
*“Validation of the SETOC Instrument—Student Evaluation of Teaching in Outpatient Clinics”*

◆ Advisors: **G. Bordage**, S. Downing, G. Norman (McMaster)

*Closing: Leslie J. Sandlow, MD*

***A Note on Academic Regalia and the Presentation of Stoles***

*Academic regalia originated in the twelfth century medieval European universities of Bologna, Oxford, Cambridge, and Paris. The academic costume that we have today developed from the long robe and hood garments worn by scholars who were primarily monks and friars. Their dress met practical needs and incorporated church and state ceremonial traditions. Later, the beautiful robes of Roman Popes and the garments of church prelates set the tradition followed by bishops and vice chancellors as they became heads of universities. Universities developed regulations dictating costume styles to distinguish their officials from doctors, from lesser clerics, and from townspeople.*

*The use of academic costumes in this country was limited and sporadic before the Civil War. Subsequently, a renewed interest was spurred by the growth of American universities and their graduate programs and by increased contact with European universities. Also, students wanted to wear garments that would distinguish them as graduates at their graduation ceremonies.*

*Academic regalia include a gown, a cap, a hood, and a stole worn over the hood. Each of these components of the regalia contributes to the identification of the degree, the institution, and the field studied. At this ceremony, we are presenting each graduate with a stole. The sky blue identifies the specialty training area of the graduate as Health Professions Education.*

## Session III Paper Abstracts

### Teaching and Learning: Improving Thinking and Outcomes

*Memoona Hasnain, MD, MHPE, PhD, Moderator/Discussant*

#### **Developing a 12-week Clerkship in Family Medicine and Community Health**

*Carol Spector, MS., MHPE*

*Rajesh Parikh, MD, MHP; Donald J. Sefcik, DO, MS; Margaret Lechne, RN, MS.*

*Midwestern University*

**ABSTRACT: Introduction:** The report of "The AAMC Project on the Clinical Education of Medical Students," published in October, 2001, noted that medical schools increasingly recognize the need to cover topics related to contemporary issues in medicine — such as end-of-life care, the principles of population health, nutrition, and bioethics — in the clinical curriculum. However, the report also noted that "schools face a formidable challenge in trying to integrate these topics into the clinical curriculum" since they "do not necessarily fall in the purview of a single discipline." The Chicago College of Osteopathic Medicine and the Department of Family Medicine have chosen to address this issue by assigning coverage of these topics to the Department of Family Medicine and by lengthening the third year Family Medicine clerkship to accommodate this change. The objective is to implement a new 12-week MS3 clerkship in Family Medicine, including a new 12-week didactic program, emphasizing community-based practice, and incorporating significant content on the needs of culturally diverse and underserved patients, on behavioral science, and on public health and prevention, specifically the COPC model of practice and the objectives of Healthy People 2010.

**Methodology:** We proposed to the CCOM Curriculum Committee that we extend the FM clerkship from 8 to 12 weeks by integrating the 4-week MS3 rotation in Community Medicine (currently coordinated through the Illinois AHEC) with the 8-week MS3 FM clerkship. A survey was sent to current preceptors to deduce how many would be able/willing to accept a student for 12 weeks. An accompanying letter stated the reasons for and the benefits of making this change. We have put forth newly integrated goals and objectives for the new rotation and plan to increase didactic time in the rotation from the current 11 hours to 33 hours and to include training in cultural competency, new simulated patient scenarios on difficult patients, health promotion/disease prevention, COPC training, and a small group COPC project. The AHEC is partnering with the Department of Family Medicine to assure the success of this project.

**Results:** We will introduce the new rotation and didactic curriculum in June 2002. The proposal unanimously passed the CCOM Curriculum Committee. We are still planning the details.

**Conclusions:** Curricular reform is a lengthy and challenging process, but it is possible when the faculty and staff are committed to change.

#### **Soliciting Feedback: Teaching Students to Ask Questions that Promote Thinking**

*Mari Elizabeth Egan, MD*

*Northwestern University School of Medicine*

**ABSTRACT: Objective:** Most strategies to improve learning in medical education focus on the preceptor. This study evaluated an alternative approach by teaching medical students to ask more effective questions. Effective questions are defined as those that allow for a range of appropriate responses and are directed toward problem solving. Asking effective questions allows the student to direct the preceptor to address the student's learning needs.

**Methods:** The experimental group was taught effective questioning strategies in three workshops. Pre- and post-study measures consisted of each student writing questions in response to vignettes. Questions were coded using two instruments to assess the cognitive level of the question.

**Results:** revealed that the experimental group asked significantly more open-ended questions and more questions expressing difficulties and/or uncertainties.

**Conclusions:** This pilot study suggests that workshops can improve students' questioning skills.

## **An Exploration on Pediatric Residents' Performance in Evidence-based Medicine in Association with Learning Preference and Knowledge Dissemination Characteristics**

*Satid Thammasitboon, MD, Baylor University College of Medicine*

*Teodor Butiu, M.D.; Robert Gillespie, M.D.; Jordan Hupert, M.D.; Alan Schwartz, Ph.D.; Robert Mrtek, Ph.D.,  
University of Illinois at Chicago*

**ABSTRACT: Introduction:** Evidence-based Medicine (EBM) has been proposed as a promising solution for effective medical practice. A better understanding in psychometric features of EBM is crucial for developing an innovative curriculum to teach EBM to physicians.

**Objective:** The objective of this study is to investigate the relationships between potential facilitators and barriers regarding the use of evidence processed by pediatric residents and their learning preferences and attitudes toward knowledge dissemination. These findings could be used to set a new agenda and lay out the projection of learning modules that might be constructed to enhance EBM performance.

**Methods:** This is an exploratory study, using a combination of qualitative and quantitative research techniques on data from two pediatric residency programs. The residents were asked to rank-order 49 opinion statements about knowledge dissemination. By-person factor analysis was used to structure an opinion typology from their rank-ordered statements. Rezler's Learning Preference Inventory was used to identify preferred modes of learning. Each resident completed a validated EBM test to assess ability in evaluating evidence and making clinical decisions using both the evidence, and a Bayesian approach to information and choice.

**Results:** Fifty-seven residents completed the tests. The EBM instructions in both institutions were similar in the format of resident-directed, small group seminars. The residents were classified into 4 groups by factor analysis and varimax rotation, representing different views regarding knowledge dissemination: 21 Practice-oriented, Knowledge Seekers; 9 Practice-oriented Knowledge Users; 5 Research-oriented, Problem Solvers; and 3 Potential Knowledge Users. The method of learning preferred by the most residents takes a concrete approach (68%). This was followed by interpersonal (30%); teacher-structured (28%); individual (25%); student-structured (14%); and abstract (7%) approaches. The Practice-oriented, Knowledge Seeker attitude was correlated with a high EBM score with an odds ratio of 52.85 ( $p=0.007$ ), compared to an odds ratio of 0.04 ( $p<0.05$ ) for the Potential Knowledge Users. No correlation was found between learning preference and EBM performance. The level of training and institution did not affect the findings.

**Conclusions:** 1) The majority of the pediatric residents we studied preferred concrete learning. 2) The group displayed four types of attitudes about knowledge dissemination: Practice-oriented, Knowledge seeker; Practice-oriented, Knowledge user; Research oriented, Problem Solver; and Potential Knowledge User. 3) More residents who were practice-oriented, knowledge seekers tended to have higher EBM performance in our study sample of pediatric residents.