The Pediatric Educator

Volume 13 Issue 2 **Summer 2006**

EDITOR
Gary Freed, DO
Emory University School of Medicine

President's Message
Robin Deterding

I hope all of you are enjoying your summer and the launch of the new academic year! It seems like just yesterday that we were all together in Utah dancing the night away. The final evaluations have been completed on the meeting and they were outstanding! Thanks again for a great meeting Chris and the committee.

Since the meeting there have many exciting on-going activities that should have a positive impact on COMSEP. I would like to share a few of these with you.

First, thanks to the efforts of Larrie Greenberg who chaired this process and many others who helped. We have selected our first round of COMSEP educational grants. Congratulations to the selected COMSEP members!

- **COMSEP Investigator: Su-Ting Li, MD, MPH; University of California, Davis**
Title: "Improving oral presentation skills in pediatric medical students using a web-based oral presentation module."

- **COMSEP Investigators: Mary Ellen Valletta, MD, JD, FAAP and Maureen Novak, MD, FAAP; University of Florida College of Medicine, Gainesville.**
Title: "Bedside Teaching: Can It Survive In The Current Medical Education Milieu?"

As you will recall, grants will be supported for a total of $5,000 ($2,500 from COMSEP and $2,500 from the Chairperson at their institutions). To be selected, Investigators submitted grants that were reviewed by the COMSEP grant committee. Every individual who submitted a grant received individual feedback on their submission.

Other individuals involved that deserve thanks include the COMSEP Educational Grants Committee of Robin Deterding, Lindsey Lane, Sherilyn Smith, Karen Marcdante, and Bruce Morgenstern and individual grant reviewers: Fred McCurdy, Lynn Manfred, Ben Siegel, Leslie Fall, Roger Berkow, Susan Bannister, Bruce Morgenstern, Bill Raszka, Helen Loeser and Larrie Greenberg. The next grant cycle will start this fall. Be thinking of ideas as this is a great way to recognized by your chair and your COMSEP peers in addition to improving Pediatric Undergraduate Education.

Second, COMSEP has initiated efforts to collaborate in more ways with the APPD. Members of our task forces attended task force meetings at the APPD meeting and I attended the APPD board

meeting. In general the response was very positive and most groups found ways they felt collaboration could be initiated. We hope to have APPD task force representatives at our 2007 COMSEP meeting. In addition, everyone is excited about the possibility of exploring a combined meeting in Baltimore - 2009!

Additionally, our COMSEP/AMSPDC committee chaired by Bruce Morgenstern to address CLIPP is actively pursuing their charges. We look forward to important recommendations from this group by the end of the year.

Finally, planning for the upcoming 2007 meeting in San Antonio is also underway. The Pediatric Chairs committee and our COMSEP planning committee are discussing topics that will be jointly attended by COMSEP and AMSPDC members. These topics include the possibility of mentorship and development for educators, simulations and CLIPP, etc. It is sure to be another great meeting - stay tuned!

The following section includes reports from those Task Forces that have filed reports.

Evaluation Task Force Report (ETF)
Paula Algranati and Lindsey Lane.

The first session of the Evaluation Task Force at the 2006 COMSEP meeting was attended by 34 members. Preliminary results of the Evaluation and Grading Surveys were shared.
(Complete data will be available at a later date and will be sent to all COMSEP members.) The following general areas came up for discussion.

1. Basic evaluation guidelines and tools would be helpful to members who are relatively new to the job of running a clerkship.
2. Evaluation of competencies is relevant to all programs; especially what methods and tools are available; "how to" logistics and information about the reliability and validity of the various evaluation methodologies are critical.
3. It would be helpful to have a list of members who have evaluation expertise and who might serve as "consultants" or "mentors."
4. Faculty development is needed in the area of evaluation in order to obtain accurate evaluation and consistency across training sites in how students are evaluated.
5. It was suggested that the TF might focus on a specific area for evaluation e.g. professionalism.

The second session of the Evaluation Task Force at the 2006 COMSEP meeting was attended by 22 members. Three members of the LTTF attended the first part of the meeting and helped make plans to address area #3.

Plans to address areas # 1 and # 2
Members were given the ED2 guidelines that relate to evaluation and the URL for the LCME Web site. The ACGME Web site which has a discussion of each evaluation methodology including a paragraph about the psychometric properties of each methodology was shared with the members. The ACE Web site that has the new Guidebook for Clerkship Directors was also recommended and the URL was provided. Bruce Morgenstern will create links to these Web sites from the evaluation Task Force web page at the COMSEP site.

Plan to address area #3:
COMSEP members will be asked to update their profiles on the Web site. The information will include expertise in the area of evaluation. This will give a searchable database for members seeking help in this area. It was also suggested that, if a specific evaluation problem needed to be discussed, the LTTF could help the ETF create a chat room.

Plan to address areas # 4 and # 5
A tool to train evaluators is needed. Some members had attended a workshop that showcased a new web-based tutorial to train evaluators. The creator of the tool – Elizabeth Stuart (Stanford) will share her materials and we will explore the possibility of creating an addendum to the Evaluation Guidelines that focuses on training evaluators. A search of the ACGME and ACE Web sites did not yield any guidelines on this topic; it was suggested that this would be a good collaborative project with the ETF of the APPD.

Two projects will be undertaken this year:
1. Four of the pediatric specific competencies will be chosen and criteria for basic competency will be developed. The long-term goal is to develop criteria for all the competencies. The ETF members will send their top 4 selections to the task force leaders who will make the final selection.

2. Many schools are either already using or are in the process of purchasing proprietary software for submitting student evaluations and/or tracking of patients seen on the clerkship. Guidelines about "ideal specifications" will be written that can be used by members to inform decisions made by their school/department. A working group consisting of Scott Davis, Bruce Morgenstern, Elizabeth Stuart and Maria Marquez will serve as liaisons with the LTTF and work on development of a document.

Other business:
Lindsey Lane is stepping down as co-task force leader; Scott Davis and Starla Martinez will assume the co-leadership roles with Paula Algranati who will serve to bridge continuity in leadership.

Learning Technology Task Force (LTTF)
David Levine, Mary Ottolini, and Chris White, Co-Leaders

We had a very productive Task Force meeting in Salt Lake City, and with input of new task force members and great new ideas have an excellent agenda for work in the next year. After conducting an impromptu needs assessment of our group, we began as we usually do with a "show and tell" of new technology products. Chris White showed us a very cool new USB drive "Swiss Army Knife." We also began a discussion that we resumed later of "POD casting."

One issue that was high priority was the issue of using technology to log students' patient encounters to document ED-2 compliance and for obtaining evaluations. Some programs are beginning to use these products to conduct formidable 360-degree evaluations. The members of the task force compiled a preliminary list of products that our members were using, ranging from the comprehensive (and expensive) to limited (and inexpensive). It was decided that an excellent project for LTTF this year would be to compile a list of the products that our members were currently using along with a short review. Interestingly, at the follow up general membership meeting, that issue was also on the agenda of the Evaluation Task Force and we look forward to collaborating with them to develop recommendations for our members. Some representative products were New Innovations used at Louisville and E Tennessee, One 45.com used at Medical College of GA, HanDBase 3.0 used at Morehouse School of Medicine, internal forms created using Adobe Acrobat Pro used at Uniformed Services, and others, both good and bad. We also discussed obstacles to PDA logs, including base machines not being the most durable and HIPAA compliance issues. Mary Ottolini will lead this initiative in collaboration with the Evaluation Task Force.

We then turned our discussion to synchronous and asynchronous distance learning products. More and more schools have students with dispersed experiences, some quite distant from main campus. Technology that has been developed is gaining momentum; however, none of the LTTF members in attendance has fully worked out integration at own institutions as of yet. Products being developed and plans for integration developed include POD casting – video IPOD, or PC, or other video PDA. This is being developed at Medical College of GA, using Integrity software. Louisville is using MP3 recordings – using Macromedia Breeze software, Morehouse School of Medicine has been developing Webstreaming – using Mediasite Viewer. Uniformed Services is developing Blackboard's new module, Live Classroom. However, since the products and integration of the technology is still being developed, we will defer further work on this for 1 year and allow members to continue to develop at own institutions. Hopefully in 2007 San Antonio, we can again begin to produce a document as a resource for the COMSEP membership from LTTF about this promising new technology.

LTTF next turned our attention to the growing concern about electronic medical records (EMR) and Computerized Order Entry (COE). We are concerned about the potential negative effect on medical student education. Will students still be able to write a full history and physical or office visit note? Or will this no longer be a necessary competency as the medical community becomes more dependent on EMR and COE? We did have a consensus perception that medical education has been ignored in development of these products. EMR/COE is driven by need for reimbursement and efficiency in clinical practice – with variable results, but with unclear effects on education. Currently, EMR is advancing but is not universal

and many different software companies make adaptation for education difficult. We brainstormed that software companies could be approached to adapt to medical education teaching mission – certainly patient logs for ED-2 compliance could automatically be generated from EMR. We also discussed the idea of the proposed universal EMR under the system advocated by Tommy Thompson (Secretary of HHS) currently used in the VA, called Vista. The Vista software is reputed to be more than acceptable by VA docs; they are pleased with it. Mike Pelzner from Uniformed Services is most familiar with the product. We decided we would pursue information from folks at national AAP working on pediatric EMR issues, +/- COPE. We will also discuss/and possibly network with other specialties in medical student education (or ACE). David Levine and Chris White will lead this initiative. David has already brought this up to the APA Informatics SIG, since they will have some EMR discussion panel folks at their SIG.

We began our second Task Force meeting on Saturday visiting other Task Forces to learn how the COMSEP Web site and LTTF could assist. We also learned from the Executive Committee that APPD wishes to share programming with us since their Task Forces are now identical to ours, allowing for more collaboration. Mary Ottolini, co-Director, has agreed to attend the APPD LTTF meeting in San Francisco April 27.

From the other Task Forces, Curriculum plans to survey and post ED-2 and curriculum effectiveness and to post a dress-down curriculum with competencies only (no prerequisites or processes). Interestingly Scholarship, Faculty Development, and Evaluation all independently expressed a desire for a searchable database of expertise. David Levine will explore customizing the profile database in the community pages of the Webpage to include academic rank, subspecialty, areas of interest, and mentoring interests. Evaluation also expressed an interest in resurrecting the Web site discussion boards to see the threads of discussions since sometimes e-mails are not as effective as following threads. Although this has not worked before, since many now have experience with blogs and other communication tools, we may have more participation this time. The Evaluation Task Force also recommended we revisit the idea of a vendor fare for San Antonio meeting (also suggested by Faculty Development), since we will have a larger audience and the Chairs will be in attendance. The technology companies invited to this meeting declined our invitation. David Levine will discuss and assist the San Antonio program director.

Learning Technology also discussed the idea of an annual COMSEP survey as the number and quality of surveys of our members continues to expand and scholarship from these surveys increases. LTTF made a proposal to the Executive Committee that an annual Survey be conducted, most likely in June, to combine questions from the Task Forces. Each Task Force designee that contributes questions would also assist in editing the overall document and in follow ups to ensure maximal data. This last is so that the Survey leadership is not overwhelmed by work on the issue. We also had a debate as to whether the data should be owned by the submitter or by COMSEP and open; it was decided that it would be the submitter who decided that issue. Other surveys, such as that for independent research projects by members, could still be approved by the Executive Board. Chris White will work on this with members Mike Pelzner and Bob Drucker.

We also discussed possible Web site enhancements and David Levine will involve the web editorial board much more in design now that he has the hang of manipulating and changing the Web site.

We turned our attention to discussing workshops for the 2007 meeting in San Antonio. We will work on the following ideas:

- Distance learning/pod casting for 2007 with Steve Tinguely from Faculty Development TF, Mary Ottolini, and Norm Berman
- Blackboard/WebCT – Chris White and Mike Pelzner; Bill Raszka (Curriculum), Lisa Leggio, and James Graham were also suggested to possibly contribute
- Playing with our own member Technology Products – Kathy Previll and Pradip Patel volunteered
- CLIPP Editorial Board will develop a workshop

Also for the San Antonio meeting, if able to be developed, David Levine will demonstrate use of

the new database along with the Web site. As noted we will also work on a Vendor fair for that meeting.

Finally we discussed preliminary results from the survey administered at the meeting. Anton Alerte, a member, developed a survey on the progress of technologic integration into our clerkships. Preliminary results showed that we are progressing well with majority of clerkships using PDAs and faculty using many technology products, especially the CLIPP. Anton will compile the remainder of the surveys and return some preliminary findings to be disseminated.

We welcome participation by others who could not come to Salt Lake City or from folks that were involved in projects with the other Task Forces. If you wish to be on the LTTF e-mail list, please send a message to David Levine.

Curriculum Task Force (CTF)
Bill Razka

The CTF met twice during the Salt Lake City Meeting of COMSEP. During the first meeting of the CTF the group addressed LCME standard ED-2. The CTF reviewed the LCME grid that had been written the previous year and published this past summer as an appendix to the revised curriculum to make sure that it was still current and to address any issues that had arisen in those schools that had been using the document. The CTF felt that the grid remained appropriate and useful for clerkships and was flexible enough to meet individual clerkship needs. The CTF then moved on to set an agenda for the next three years. The CTF periodically does this after three years or so. After a broad and free ranging discussion, the CTF opted to pursue 1) the development of tools designed to teach clinical skills in Pediatrics and means to assess both the tools and students; and 2) an assessment of the curriculum itself. The CTF also thought it appropriate to publish an article describing the development of the new curriculum. The CTF then moved on to review how new leaders for the CTF are selected and the process for affecting leadership change. During the second meeting of the CTF, curriculum evaluation tools were developed. Working in teams, participants developed questions for a possible national survey to determine if and how the curriculum is being used in across the country. It was expected that work on the survey would continue during the year.

Journal Club

I would like to use my position as editor to personally thank all of those involved with putting this Journal Club Section together. This includes the "organizers" Bill Raszka, Bruce Morgenstern, and Leslie Fall as well as all of those who reviewed and contributed articles including: Sandy Sanguino, Margaret Golden, Elizabeth Stuart, Michael Barone, Lindia Willies-Jacobo, Randy Rockney, Sherilyn Smith, Harold Bland, Antoinette Spoto, Starla Martinez and Bill Wilson. If I have missed anyone I apologize!

This issue's Journal Review is the result of a wonderful (and typical) collaborative COMSEP effort. Thank you to all who contributed, either by reviewing journals or by reviewing articles, and turned their work in on time! A special thank you to my partners-in-crime, Bill Raszka (WVR) and Bruce Morgenstern (BZM), for shouldering the burden of organizing the reviews and providing typically pithy commentaries. Steve would be proud. – Leslie Fall (LHF)

1. Personal life events and medical student burnout: A multicenter study. Dyrbye LN, Thomas MR, Huntington JL et al. Academic Medicine 2006; 81(4):374-384.

Reviewed by Sandy Sanguino, Northwestern University.

Burnout, a marker of professional distress, is prevalent among residents and practicing physicians. Little is known about burnout amongst medical students. The authors were interested in determining the frequency of burnout among medical students and the relationship between burnout and personal life events.

All medical students (1,089) attending three medical schools (one private, one public, and one public with a focus on primary care) in Minnesota in 2004 were asked to participate in this study. The

students were surveyed electronically in April 2004. The students were blinded to the specific hypotheses of the study. Students complete a 118 item questionnaire. Questions asked included demographic information, recent personal life events, burnout, symptoms of depression, alcohol use and quality of life questions. Validated survey instruments were used to identify burnout, symptoms of depression, at-risk alcohol use and mental and physical quality of life.

The survey was completed by 545 students (50% response rate). The researchers found that 239 students (45%) met the criteria for burnout. Overall, the prevalence of burnout increased with advanced years of training. 56% of students screened positive for symptoms of depression and 22% had at-risk alcohol use. While the frequency of a positive depression screen and at-risk alcohol use decreased as year of training increased the frequency of burnout increased. 37% of students experienced at least one major negative personal life event (divorce, major-illness-personal or close family member, death of a close family member) in the previous year. 14% of students experienced at least one positive life event (marriage, birth/adoption of a child). The number of negative personal life event in the last 12 months correlated with the prevalence of burnout. Personal life events demonstrated a stronger relationship to burnout that the year in training on multivariate analysis.

Limitations to the study include a low response rate (50%), use of self report data, and the limited number of personal life events explored.

This study suggests that medical educators need to be aware of the prevalence of personal and professional distress as well as the impact that life events can have on students. Given the impact of life events on student's well-being, appropriate services need to be in place to address these needs. As burnout is common at all levels of the profession, formal education about stressors and management of stress including use of available resources seems important. Stressors are unlikely to disappear and learners need to have strategies and skills to deal with these important issues.

Comment: Burnout is not unique to older physicians. Many factors affect burnout including personal life events. This study re-affirms the importance of monitoring these events and developing systems to help students both prevent and manage stress. –WVR

2. In-training assessment; qualitative study of effects on supervision and feedback in an undergraduate clinical rotation. Daelmans, HEM, Overmeer, RM, Vander Hem-Stokroos, HH et al. Medical Education 2006; 40:51-58.

Reviewed by Margaret Golden, SUNY Downstate College of Medicine.

"In-training assessment" (ITA) goes to the heart of the LCME mandate for "timely formative feedback." As used in this study, ITA is a term of art for a specific program of "systematic observation, feedback, and documentation of student's performance during clinical training," which these authors had shown to be a feasible and reliable method to document frequent assessments during the day-to-day work routine by many different assessors.

This study was done the year ITA was instituted for the medicine clerkship at a school in the Netherlands. The authors were interested in how the program translated from paper into action, and was based on semi-structured interviews with a sample of students (9/30), residents (9/13) and attendings (9/12). Standard procedures were used for transcribing, coding, and reviewing the interviews, which each lasted 30-45 minutes.

The findings were not surprising, but discouraging nonetheless. In spite of a carefully designed form specifying which competencies to assess in which kinds of encounters, very little feedback was reported by either the students or the assessors. Although the authors did not report about the actual documented assessments, they do report that borderline or failing assessments were almost never given. In the interviews, on the other hand, the assessors indicated that they had occasion to give borderline/fail assessments, but chose not to do so. One reason they forebore to give true but painful assessments is that they would not be the ones to follow up with the student, and they were not sure of how remediation would come about. Certainly faculty improvement might have improved

outcomes.
Valid assessment of clinical skills remains the Holy Grail for clerkship directors. This study suggests that in addition to other parameters those assessing the learners need to have a long enough time with a learner to feel comfortable conveying negative assessments/feedback, and that both the learner and the evaluator need to know in advance how learner deficiencies will be remediated.

Comment: Feedback remains central to improving medical student performance. This study confirms that despite our best efforts feedback is lacking and made to "taste good" and be "less filling."
– WVR

3. Parish SJ *et al*, Teaching Clinical Skills Through Videotape Review, Teaching and Learning in Medicine, 18(2) 92-98.

Reviewed by Elizabeth Stuart, Stanford University.

Parish and colleagues examine the question of how feedback is accepted and valued by students during videotape review of standardized patient encounters. Most studies in this area explore the impact of one-on-one sessions between students and faculty although group feedback sessions have also been shown to be effective. Based on a pilot study showing no difference in students' acceptance of group vs. individualized video reviews, the authors undertook a randomized trial to compare the two approaches.

The study subjects were third year students participating in a required 7-station clinical competency exam. Videotapes were reviewed at varying lengths of time after taking the exam. Exclusion criteria included poor performance (2 SD below the mean). 128 students were randomized to one of two feedback approaches: (1) 90-minute, one-on-one sessions with a faculty member, (2) 2-hour group sessions, with four students and one faculty member per group. Students pre-selected the segments of their taped encounters that they wished to be reviewed. Faculty facilitators attended a half-day faculty development session in preparation for the reviews.

The authors used an 11-item questionnaire (9 Likert scales; 2 open-ended questions) to assess students' perceptions of the utility of the sessions, their comfort level in receiving feedback, and their opinions of the session format.

71 students participated in group reviews; 57 had individual feedback sessions. The two groups of students did not differ significantly by gender, age, or performance on the clinical competency exam. In general, students' reactions to the feedback session were positive. Students in the individualized feedback group were statistically significantly more likely to agree that:

- the review was a positive experience (88 vs. 73%);
- the length of the session was right (91 vs. 78% of students);
- the amount of feedback on individual performance was appropriate (95 vs. 79%);
- the reviews gave them new ideas for improving their performance (83 vs. 66%).

Students in the individualized feedback group were more likely to agree that they felt comfortable doing the reviews in the assigned setting (88 vs 73%. $p < .01$), but the two groups agreed equally that "the review was much less stressful than I had expected" and that they would do another videotape review if given the chance. More students who participated in group reviews agreed that they would have preferred to do the reviews "the other way," but numbers in both groups were fairly small (8 vs. 23%). Students who did individualized reviews were more likely to have selected a video segment where they perceived they had performed poorly.

Limitations to the study include post-randomization drop-out (128 of 159 eligible students enrolled in the study); a "negative Hawthorne effect," and the use of an opinion survey to evaluate the efficacy of the feedback sessions. Given that the two review formats differed both in terms of time spent per student (90 vs. 30 minutes) and the presence of peers, it is difficult to gain a full sense of the advantages and limitations of each approach. A more in-depth qualitative evaluation might have provided helpful clarification.

The results of the study suggest that individualized videotape feedback sessions may be preferable to group reviews. However, before the study was even finished, the investigators' institution implemented group reviews for all students based on the finding that both formats were well-received by a majority of students.

Comments: Whether in real time or taped, learners love feedback. The more specific and personal the feedback, the better it is. Individual review of tapes is valuable but in many institutions may be too costly – WVR

4. Student perceptions of the professional behavior of faculty physicians. Szauter K, Williams B, Ainsworth MA et al. Med Educ Online [serial online] 2003; 8:17. Available from http://www.med-ed-online.org

Reviewed by Michael Barone, John Hopkins University.

The medical community believes, and the public demands, that physicians not only be knowledgeable, but also demonstrate the attitudes and values on the profession. Many organizations have published statements or standards on the elements and measurement of professionalism in trainees. Medical students learn much through modeling of behaviors. This study attempted to create a "snapshot" of student perceptions of faculty professional behavior.

Over the course of one academic year, medical students at the end of each clerkship were asked to anonymously complete a 7 item questionnaire evaluating faculty professional behavior along a scale that included "consistently," "frequently," "occasionally," and "never." For example, "I observed my faculty treating non-physician healthcare workers in a disrespectful or inappropriate manner." Students were asked to complete a form for each faculty member with whom they worked. Forms did not identify faculty by name.

Two hundred students completed more than 2600 evaluations during the study period. The data were primarily analyzed and presented in binary fashion, examining the proportion of "never" responses compared to the proportion of "issue identified" responses, i.e, any recording of "consistently," "frequently," or "occasionally." The clerkship discipline names were suppressed by the authors in order to not fuel stereotypes. Identifying which clerkship had the most unprofessional faculty was not a stated objective of the study. Nevertheless, the author found that, in comparing clerkships, there were large differences in the prevalence of "issues identified" vs. "no issues identified" for certain questions. For example, "I observed my faculty making derogatory comments about other services;" responses ranged from 98.9% "never" to 73% "never." Derogatory comments about other services, patients or their families were the most common misbehaviors. Other areas identified by students were inappropriate humor or language, and disinterest in teaching.

While this study is limited by its cross-sectional nature and reliance on students interpreting and reporting comments similarly, it provides a basis to understand areas for cultural change. Many curricula on "Professionalism" deal with issues of patient confidentiality and disclosure. Many times, disrespectful behaviors are overlooked, particularly if an individual displaying them is highly influential in the clinical or research arenas. Until we move toward an institutional standard of attitudes and behaviors, to which all are subject, we will continue to expose our students to an "environment of conflicting guidelines and practices."

Comment: Despite copious instruction, medical students continue to auscultate the lungs through the shirts of their patients because they see that behavior modeled. Is it any wonder that we still turn out physicians who act unprofessionally toward each other? We need to ensure that those people who are in a position to influence behavior demonstrate the correct behaviors. – WVR

5. Teaching medical students the important connection between communication and clinical reasoning. Windish DM, Price EG, Clever SL, et al. J Gen Intern Med 2005; 20:1108–1113.

Reviewed by Michael A. Barone, Johns Hopkins University.

Training in clinical reasoning skills and communications often occur separately. Often data gathering and communications training are a "pre-clinical" thing and clinical reasoning skills get developed through the clerkships. A group of general internists explored whether enhanced communication, particularly regarding psychosocial issues, would lead students to have more thorough and accurate clinical reasoning skills.

A curriculum entitled AIME (An Integrated Medical Encounter) was created through a six-step process. It was then administered as a randomized trial to students in a second year clinical skills course. The existing clinical skills course did not have specific training on communication skills or clinical reasoning skills. The AIME curriculum taught these skills using the modalities of role-play, feedback, self-reflection, and review of videotaped standardized patient encounters. An emphasis was placed on how communication strategies impact the quality of data gathered.

One half (n=60) of the class of 121 students was randomized to the AIME curriculum. All intervention and control students underwent baseline self-assessments of their proficiency in communication skills and clinical reasoning. All students completed two standardized patient encounters in which the SP's scored students on communication ability. Fifteen general internists, who were not the investigators, scored the students SP case clinical reasoning on the basis of a generated problem list and differential diagnosis. Student satisfaction with the curriculum was also measured.

At baseline, AIME students had more familiarity with the process of developing a differential diagnosis based on prior health professions training. Other self-assessment measures were equal. AIME and control students showed no differences in data gathered from the SP, numbers of items on the differential diagnosis, and accuracy in predicting the diagnoses of hyperthyroidism and rheumatoid arthritis. AIME students, on average, generated one more problem per patient (8.4 vs. 7.5, P=0.05). Of AIME students, 65% listed at least one psychosocial problem on the list compared to 44% of non-AIME students (P=0.008). Along a 5-point scale scored by the SP, AIME students ranked better in establishing rapport than their control colleagues (4.09 vs. 3.91, P=0.05). 95% of AIME students found it beneficial to learn communication and clinical reasoning strategies simultaneously.

This small study was limited by, among other things, a brief time interval between he intervention and the SP case evaluations, leaving little time for students to practice the skills learned in AIME. In addition, there is not likely to be consistency in what each student learns from his or her preceptor in the clinical skills course, meaning that some non-AIME students may understand the link between the two skills. Despite the under whelming results, many of continue trying to demonstrate that enhanced communication helps the diagnostic process.

Comment: In our heart of hearts we want to believe that better communication will result in better information and eventually improved patient care. It may be that these findings are too subtle and not easily identified on a standard checklist or differential diagnosis list. – WVR

6. The risks and benefits of being a young female adolescent standardized patient. Blake KD, Gusella J, Greaven S, and Wakerfield S. Medical Education 2006; 40(1): 26-35.

Reviewed by Lindia Willies-Jacobo, University of California San Diego.

Background: The adult standardized patient (SP) was first described 40 years ago for use as a teaching tool in undergraduate medical education, and has since become common practice. While significant importance is placed on the adolescent interview, there is little research looking at the use of adolescents as standardized patients.

Methodology: In this prospective study, the authors sought to determine whether adolescents could be trained to portray risk-taking individuals during SP encounters with medical students without themselves developing adverse effects from role-playing. Additionally, they sought to capture the viewpoint of the adolescent SPs over time, and to describe the process of using adolescents to portray risk-taking SPs. Eight female adolescents from two local middle-class private schools (in the Halifax, Nova Scotia area) were selected for the study, with

8 matching controls. The medical students were in their final 16 months of training. Each adolescent SP was interviewed by a different medical student for 1-3 times a month over 14 months. A validated written feedback form (SCAG-Structured Communication Adolescent Guide) was completed by the adolescent and the SP mother. Focus groups of 8 adolescents were conducted at 3 points in the study. The parents of the adolescent SPs were interviewed and asked to complete an end-of-study questionnaire where they were asked if their adolescents had shown any decline in home behavior, schoolwork or an interest in risk-taking. Main outcome measures were pre-and post-interviews using the Achenbach's Youth Self Report (YSR), the Piers Harris Children's Self Concept Scale (SCS), and focus groups. The YSR assessed the degree to which adolescents displayed behaviors or characteristics such as depressed mood, obsessive compulsive, and aggressive behaviors. The SCS assessed how adolescents felt about themselves in the areas of behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity and happiness.

Results: The researchers found that neither of the standard questionnaires were in clinical range of concern either prior to or at the end of the study. The adolescent SPs rated their anxiety before the first simulation and towards the end of the study, with mean ratings of 3.5 and 1.2 respectively, on a 0-10 scale ('0'-very relaxed; '10'-very anxious). Several significant themes emerged from the focus groups. The adolescents were somewhat concerned about the amount of risk taking of their characters. Once told that these were real-life scripts, all but one adolescent felt relief. The adolescents also expressed concern about giving feedback to the medical students while in character, as they were worried about being viewed as the actual risk-taking individuals. The protocol was subsequently changed, and the adolescents were allowed to give feedback out of their character role. The parents who were interviewed rated the experience as highly positive. There was no increased interest among the SPs in risk-taking behaviors as reported by the parents. All parents interviewed stated that they would allow their daughter to volunteer for this experience again.

Limitations: The sample size was small, and the researchers recruited high-performing, middle-class, female adolescents to participate in the study. Expanding the sample size, as well as recruiting male participants and adolescents from different socioeconomic and cultural backgrounds would have greatly enriched the study, and may have yielded entirely different results.

Implications: This research suggests that female adolescent standardized patients can be used in undergraduate medical training without any risk to the adolescent, and may be well worth the cost to institutions.

Comment: This reminds me of the debates regarding condom use or even the HPV vaccine in adolescents. The study, like so many others, shows that teens can do the task without increasing risk taking behaviors. – WVR

7. Residency Selection Criteria: What Medical Students Perceive as Important. Brandenburg S, Kruzick T, Lin CT, Robinson A, Adams LJ. Med Educ Online 2005; 10:17.

Reviewed by Lindia Willies-Jacobo, University of California San Diego.

Background: The criteria which program directors use to select candidates to residency programs have changed over the past several years, with more importance placed on a candidate's academic record. Recent surveys of residency program directors show that Dean's letters and other letters of recommendation are viewed as unimportant and in need of improvement. Little is known about which criteria students perceive as important in this process. A 1995 survey of graduating seniors at one institution found that students rated the interview, letters of recommendation, academic performance, and communication skills as the most important factors of their applications.

Methodology: The authors sought to determine the attitudes of medical students towards specific residency selection criteria. An anonymous web-based questionnaire was sent via electronic mail in the fall of 2002 to all medical students at 3 medical schools (University of Colorado, University of Utah, and Vanderbilt University). Students were asked to rate the importance of certain criteria in obtaining a residency position of their choice. A 4-point Likert scale was used with choices of extremely, moderately, mildly, or not important. Student responses were analyzed by year in school

and by competitiveness of their chosen specialty, excluding those who were undecided.

Results: 49.2% of the students responded to the questionnaire. 16.3% of students had not yet decided on a specialty. Of those surveyed, 15.7% were interested in surgical subspecialties, 14.5% in internal medicine, 9.3% in family medicine, 9.1 in pediatrics, and 8.7% in emergency medicine. Criteria perceived as extremely important by the majority of students were the interview (80.6%), grades in courses in their chosen specialty (73.3%), letters of recommendation excluding the Dean's letter (65.3%), grades in third and fourth year clerkships (55.9%), and USMLE Step 1 score (46.7%). Of note, criteria considered mildly or not important by most students included grades in the first and second years of medical school (56.8%), academic awards (55.2%), extracurricular activities (52.6%), published research (50.9%), class rank (49.3%), and membership in AOA (46.5%). Students in the clinical years of training were more likely than the preclinical students to place importance on number of honors grades and AOA membership and were less likely to place importance on grades in fourth year electives that were not in their chosen specialty, scores on USMLE Steps 1 and 2, and the Dean's letter.

Limitations: This study was a convenience sample of only 3 medical schools, which may limit the generalizability of the findings. Additionally, no demographic information on the students is known. Characteristics such as race, gender, and age might have influenced student perceptions.

Implications: This study shows that there is significant discrepancy between what residency program directors and medical students perceive as important for residency selection. While we don't know why students' perceptions are what they are, the findings in this study suggest that there may be a problem with how students are advised, or from whom they're obtaining this advice. It would be worth ensuring that all students are aware of the importance of objective criteria in residency selection, and that this be done early in the process.

Comment: Most residency applicants all read the same little black book. It needs an update. On another note, what does it mean when more than half of all medical students surveyed don't think grades in the basic sciences matter much? – WVR

8. The impact of preclinical preceptorships on learning the fundamentals of clinical medicine and physical diagnosis skills. Nieman et.al.: Academic Medicine 2006; 81:342-346.

Reviewed by Randy Rockney, Brown Medical School.

The authors set out to ascertain whether completion of a preclinical primary care preceptorship resulted in demonstrable clinical performance benefits to medical students. Two previous studies using actual clinical performance data to investigate the relationship between participation in a preclinical preceptorship and subsequent clinical performance yielded conflicting results.

Medical students at the University of Texas Medical School at Houston are offered the opportunity to participate in a four-week preclinical preceptorship in family medicine, general internal medicine, or pediatrics at the conclusion of the first year of medical school. Written curriculum goals for the preceptorships state that students would gain practical hands-on primary care experiences, skills, and objective exposures to a community-based primary care specialty. Participation was voluntary but the authors of this retrospective study could find no statistical differences between participants (267) and non-participants (310) at entry into medical school as measured by MCAT total scores or at the end of the first year of medical school as measured by the final examination of the Introduction to Clinical Medicine course administered at the end of the first year.

The results of the second year physical diagnosis course's final OSCE and the final examination of the second year Fundamentals of Clinical Medicine were used as outcome measures. Students who participated in the preclinical preceptorships performed better on average than non-participants on both outcome measures. The authors concluded that this was the "first demonstration that a primary care preceptorship as brief as four weeks can contribute to better subsequent academic performance of preclinical medical students." The authors admit that the results may have been influenced by selection bias because participation or non-participation in the preclinical preceptorship was voluntary and "students choosing a preceptor-

ship early in their medical training may have been more self-motivated than their classmates to do clinical work and gain clinical knowledge from direct patient care."

As clerkship directors, we all know that students are not always adequately prepared for the clinical competencies necessary for success in the core clinical clerkships. This study demonstrates the benefits of expanding clinical education into early medical training, an effort that is already underway at most medical schools. What remains to be determined is the best way of introducing that early clinical education: brief focused clinical preceptorships like the ones studied in this paper or more longitudinal experiences in place or in development at many other medical schools. And what, more precisely, should be the expectations and content of these early clinical experiences to best prepare students for the clerkships?

Comments: It is nice to have data to support what those of us who have strong preclinical clinical preceptorship programs have known for years, although I wonder if the effect is sustained after the first few clerkships? I would also be curious to know how many medical schools now offer an elective or required clinical experience in the "pre-clinical" years. The number is probably high enough that the first two years of medical school should probably be renamed the "pre-clerkship" years, instead. Hopefully this data may strengthen the argument for those of you who are starting or expanding a preceptorship program. – LHF

9. Making Fun of Patients: Medical Students' Perceptions and Use of Derogatory and Cynical Humor in Clinical Settings. Wear D, Aultman JM, Varley JD, Zarconi J. Academic Medicine 2006; 81: 454-462.

Reviewed by Sherilyn Smith, University of Washington.

What is the problem (issue) and what is known about it so far? Medical students acquire cynical behavior as they progress in their clinical training. Two models have been proposed to explain this phenomenon: 1) intergenerational transmission model (e.g. students develop habits modeled by their superiors) and 2) professional identity model (e.g. cynicism is a by-product of the difficulties students face during training, a defense mechanism).

Why did the researchers do this particular study? These authors observed students "making fun" of certain patients during a psychiatry rotation and wanted to explore the causes of these behaviors.

Who was studied? 58 clinical medical students (42 3rd year and 16 4th year) at a single institution volunteered to participate. Most were on their psychiatry rotation. The demographics of the study population roughly paralleled that of the institution.

How was the study done? Non-clinical researchers using qualitative methods conducted five focus groups. They first asked open-ended questions requesting students to describe types of derogatory humor they witnessed during their rotations. There were a series of follow up questions designed to find out the students' responses to these scenarios, who initiated the humor, why they thought the humor happened and if there were rules about the humor. Researchers analyzed the responses and placed them in categories and gave examples from the transcripts to support their findings.

What did the researchers find? Making fun of patients is a well-recognized behavior in clinical medicine. Students observe both residents and attendings participating in the humor but generally feel uncomfortable when attendings participate in the humor. Certain types of patients are often made fun of. Those with "preventable/self-inflicted" illnesses are most commonly targeted and obese people were the most commonly identified group. Students explained the behavior as a mechanism for putting distance between patients so not to "feel too much" or as a coping mechanism for stress. The researchers went on to make recommendations about how to face and modify this behavior for future students.

What were the limitations of the study? This was a single institution study (not a problem for a qualitative study) and the students were all volunteers, thus perhaps more willing to talk about what they saw/heard. The researchers didn't explore whether the students thought patients who were the subject of the humor received inferior care.

What were the implications of the study?

Making fun of patients is common and there are specific types of patients who are made fun of. Both residents and attendings model this behavior.

This paper clearly identified and discussed one modifiable threat to professional behavior in medicine. Perhaps, once we recognize the behavior, we can change it and provide other "coping mechanisms" for our learners and ourselves. On a personal note, this article made me very sad and I reflected on what I had seen as a student and vowed to work on this at "home."

Comment: I agree with Sherilyn; this article makes me sad, but I'm sure none of us are surprised at the results. The article didn't address differences across specialties. I wonder how pediatrics stacks up to other disciplines in making fun of our patients, or patient's parents? I'd like to think we'd do better than most, but I fear that may be wishful thinking. More importantly, what can we do to immunize our learners against cynicism and negative stress? How do we protect ourselves, and our colleagues? - LHF

10. Training experiences of U.S. combined internal medicine and pediatrics residents. Melgar T, Chamberlain JK, Cull WL et al. Academic Med 2006: 81: 440-446.

Reviewed by Sherilyn Smith, University of Washington.

What is the problem (issue) and what is known about it so far?
The number of combined medicine pediatric residency programs has expanded in the past 15 years and the demographics of residents and their training experiences have not been recently reviewed.
Why did the researchers do this particular study? Previous studies relied on program director's knowledge thus were felt to be limited/biased.
Who was studied? Survey of 4th year residents in combined medicine/pediatric residencies.
How was the study done? The survey design was similar to that sent to 3rd year pediatric residents, containing 27 identical questions and 11 questions designed specifically for medicine pediatric residents. This was sent to 340 eligible residents and 212 returned the survey 62% response). Demographics were similar between respondents and non-respondents except respondents were younger and more likely to be women.
What did the researchers find? Forty six percent of residents were women, 76% were living with partners and 36% had children. Eighty two percent had educational debt and the mean indebtedness was $119,000. Residents overall were satisfied with the amount of time spent training in the two fields However they felt that they had too much NICU training, too little training in office management and outpatient procedures. Additionally they felt they needed more career counseling even though they expressed high levels of confidence in preparedness for fellowship or practice. The majority (89%) would choose Med/Peds again and 98% planned to take both boards. The article also outlines the types of practices and fellowships these residents choose.
What were the limitations of the study? Overall a good survey although a higher response rate would help insure the responses are reflective of all respondents.
What were the implications of the study? This is a helpful article to provide to students who are considering Med/Peds residencies if you don't have a program in your institution and are asked to provide career counseling. It also provides a different point of view of the adequacy of training from that of program directors.

Comment: This article is timely, at least for me. I have seen a significant increase in the number of my students applying to med-peds residencies, and wonder if this is more than a local trend. It is reassuring to see that med-peds residents are quite satisfied with their choice of combined specialty and with their training. From a program director's perspective, I continue to be frustrated with the delicate act of balancing intensive care training time against important outpatient competencies such as office management and procedures (especially in the era of duty hours!). - - LHF

11. The impact of the changing health care environment on the health and well-being of faculty at four medical schools. Schindler BA, et al., Academic Medicine 81(1): 27-34.

Reviewed by Elizabeth Stuart, Stanford University.

Background: This is a descriptive study that broadly explores the issue of faculty well-being in

US medical schools. Though studies are few, available evidence on the well-being of medical school faculty suggests that environmental changes, including shifts in funding, increasing emphasis on research, and growing pressure to generate clinical revenues have had an adverse impact on this group as well. Schindler et al. expand on previous studies, examining health and well-being in a large group of faculty in multiple disciplines at four institutions. The authors hypothesized that changes in the academic health care environment, institutional instability would have had a negative impact on the personal and professional lives, mental and physical health of full-time academic faculty, particularly older faculty. They also hypothesized that changes in the health care environment would have different effects on faculty in different disciplines.

Methods: Study participants were 3519 clinical and basic science faculty members, working at least half-time, at four geographically diverse medical schools. The authors developed a 136-item, self-administered questionnaire, adapted from the Linn et al study in 1984. The questionnaire included five pre-existing scales exploring physician job satisfaction, anxiety and depression, life satisfaction, and work related strain.

Findings: 1951 faculty members (54.3%) returned the questionnaire. The largest groups of respondents were in internal medicine (29%), pediatrics (13%), and surgery (8%). Faculty were distributed evenly across academic ranks. 66% of the respondents were male; 34% female (in keeping with the composition of the general academic faculty population published by the AAMC in 2001.) Respondents' mean age was 47%. 90% reported being in a stable marriage or partnership. Among the study's many findings, here are a few highlights:

Compared to respondents in the Linn et al. 1984 study, academic physicians in 2001 reported spending more of their time in patient care (41 vs. 23%), less time doing research (29 vs 15%); and less time supervising residents and students (21 vs. 15%). 21% of questionnaire respondents reported symptoms of depression using the CES-D; rates were fairly similar in men vs. women. To put this in context, the authors note in their discussion that the prevalence of depression in the general, non-patient population is roughly 9%, with higher rates in women. The rate of depression among faculty in the 1984 study was 14%. Women were slightly more likely than men to report depression and anxiety. Younger age was negatively correlated with depression and anxiety, positively correlated with job satisfaction, work-related strain, and life satisfaction. Respondents exercised infrequently (32% never to several times per month); only 23% reported getting adequate amounts of sleep; and 29% reported withdrawing emotionally from family and friends up to several times a month. Health-related problems and depression scores were similar across institutions.

Respondents reported being moderately satisfied on most measures of job satisfaction scale. They were most satisfied in terms of "status and prestige associated with your work," "ability to remain knowledgeable and current," "ability to derive personal gratification from your work," and "the degree to which your work is educationally stimulating." In rating their institutions' financial health, only 19% of respondents had a positive outlook – choosing either "we're in pretty good shape" or "the best it's ever been."

Limitations: As with most survey-based investigations, the questionnaire response rate was fairly low. The authors note, however, that 54% is consistent with return rates in other physician surveys and higher than they had expected given the length and sensitive nature of the survey. Considering the content of the questionnaire, the potential for selection bias seems high, though the large number of respondents and consistency in findings across institutions suggest that the sample may be reasonably representative. As a descriptive study involving correlations among variables, the paper is limited to raising questions, rather than providing answers, on the impact of the changing health care environment.

Implications: As the authors note, their findings "add to the growing evidence that American medicine is in trouble." A prime concern is that our students' teachers and role models are increasingly depressed, dispirited, and discontent in their jobs. The authors call for additional research to look more closely at causes of faculty distress and encourage institutions to develop strategies (e.g. CME, faculty development programs) to help faculty members cope with ongoing pressures.

Though the findings of the study are in general disheartening, the authors do note the presence of a "reservoir of satisfaction and well-being" - reflected in positive responses regarding the educationally stimulating, personally gratifying nature of academic life. Tapping this reservoir may be an important component of helping faculty respond to rapid change.

Comment: I find this article even sadder than the one before. Medicine is a wonderful profession, filled with great challenges and profound rewards. How do we take back our profession, and our lives, thereby providing the best care possible to our patients and our learners? I know at least one important avenue: the fellowship and support of the COMSEP membership. - LHF

12. Use of Critical Incident Reports in Medical Education- A Perspective. Branch WTJr. J Gen Intern Med, 2005 Nov; 20(11):1063-7.

Reviewed by Harold Bland, Florida State University.

The author reviewed the literature on the use of critical incident reporting in medical education, and then provided his perspective as to the benefits of this type of reporting on reflective thinking by medical students.

Definition of critical incident reporting: Critical incident reports are narrative accounts that focus on an event chosen by the student as having especially influenced his or her professional development. This reporting may be in the written or oral format.

Background: Critical incident reports are being widely used in medical and nursing education. Their first published large-scale educational use in medical education was a component of Harvard Medical School's required third-year Patient-Doctor Relationship Course.

Who was studied? 600 medical students

How was the study done? Each medical student wrote 3 critical incident reports each year, and shared them with other medical students.

What was found?

1. By focusing the reports on experiences in doctoring, they are never unrelated to professional development
2. The use of these reports in group-reflection provides emotionally charged and meaningful material as the point of departure for discussion
3. Being personal, these reports engage the learner on the level of deeply held professional values and attitudes
4. Although these reports are used for self-reflection, their educational value is most pronounced when critical incidents are used as a focus for group reflection
5. Individuals are generally more willing to write about emotionally charged events than they are to tell such stories
6. A sense of trust in the group emerges when a member shares a personal story and then receives support from others. This encourages other participants to share their stories of critical incidents
7. Critical incidents shared with others may reframe experiences from "negative" to "positive' or constructive. Such group support is generally experienced as healing and reaffirming
8. Critical incident reports provide an effective learning method to address ethics and professional values in medical education
9. Students utilizing critical incident reporting were significantly more adept at patient-centered interviewing in blindly judged videotaped interviews.

Comment: The critical incident report is rapidly becoming one of the most accepted teaching and evaluation methods for the professionalism competency in residency education. This study, and work done by others such as Tom Inui, has provided important information of how to use these sensitive data effectively. I have recently begun a similar session within our clerkship. I would be very interested to hear others' experience, both good and bad, with this tool. - LHF

13. Wimmers, PF, Schmidt, HG, and Splinter, TAW (2006). Influence of Clerkship Experiences on Clinical Competence. Medical Education, 40, 450-458.

Reviewed by Antoinette Spoto-Cannons, USF.

Medical student experience in the clinical years varies between students, different clinical sites,

different preceptors, and different schools. It is imperative to determine the consequences of this variation on clinical competence. The evidence regarding the learning value of the patient encounter and clinical supervision is limited.

The objectives of the study by Wimmers, et al were "to determine the variation in students' clinical experiences within and across sites, to identify the causes of this variation, and to investigate the consequences of this variation on students' competence."

During the 1999-2000 academic year, 227 medical students were studied during their 12-week internal medicine clerkship at Erasmus MC-University Medical Center Rotterdam, the Netherlands while rotating at 14 different hospital sites (3 academic and 11 affiliated hospital sites). The variation in student experiences was established by their clinical patient encounters entered in a logbook and evaluation of the quality of supervision. The variation in patient encounters between different hospitals was evaluated based upon number of beds, number of beds used for educational purposes, number of staff, average length of patient stay, number of patient admissions, site occupancy, and number of peer clerks. Clinical competence was established utilizing 3 indicators: the practical end-of clerkship examination; the theoretical end-of-clerkship examination, and professional performance.

The study supported that differences between hospital sites were greater than expected. Only length of stay, number of patient admissions, and quality of supervision significantly explained the variation in patients. However, this variation did not significantly impact student competence. It was the quality of supervision which had the greatest impact on students' clinical competence; especially, when the number of patients and variability of diseases was low.

Limitations of the study include the reliability of the logbook data, the assessment of clinical competence, and the assessment of the quality of supervision. Furthermore, this was not a multi-center study.

There is no doubt clinical clerkships are an essential part of becoming a clinically competent physician. However, the model currently used to educate students may need to be changed in order to incorporate effective repetitive experiences ('deliberate practice') in combination with high-quality supervised training. Further studies need to be done on the clinical impact of the patient encounter and what aspects of clinical supervision are important in promoting optimum clinical competence.

This data validates what several of our COMSEP colleagues have demonstrated in U.S. medical schools. "Numbers and kinds" may be less important than the quality of the teacher. We keep trying to tell the LCME…… - BZM

13. Analyzing the concept of context in medical education. Koens F, Mann KV, Custers EJFM and Ten Cate OTJ. Medical Education 2005;39:1243-1249.

Reviewed by Starla Martinez, Northeastern Ohio University.

The issue and what is known about it so far:
In medical education circles we talk about the "context" of learning, and we generally mean either education that takes place in the classroom or in a clinical setting, with PBL being thought of as closer to the clinical setting than the traditional classroom. It has been suggested by PBL champions that students who learn basic science in a PBL setting are better able to apply their knowledge in a clinical setting compared to students taught in the traditional model.

What did the authors do?
These educators, from Utrecht, Holland, and from Halifax, Nova Scotia, first review what little information there is on context in medical education literature and discuss concepts such as same-context advantage (e.g. when a list of objects is memorized in a specific setting, the list will be easier to recall if the learner is in that same setting rather than another setting); independent versus interactive contexts; and the internal context of a learner (i.e. a learner's prior knowledge and experience informs how the learner responds to the current learning situation).

The authors then go on to identify three dimensions

of context in medical education that have not previously been identified. They propose that these dimensions be considered when devising curricula or learning tasks. Two of their dimensions of context, the physical and the commitment/ motivation dimensions, are ones that are readily apparent to all of us when we give some thought to it, but the third I find a bit harder to see. The physical dimension is of course the physical environment in which learning takes place. The commitment/motivation dimension refers to a learner's desire to learn and willingness to put forth effort and depends not only on the learner but also on the perceived importance of the learning task (e.g. learning from standardized patient cases versus learning on the wards while caring for "real" patients.)
The third proposed dimension of context is the semantic/cognitive dimension, defined as "...where the knowledge of the learner and the information in the context, which can be used to perform the learning task, connect," and it includes the prior knowledge of the learner.

The discussion was particularly interesting and included ideas about the context in which basic science might best be learned. It also considered how being aware of these three dimensions might lead to studies that would answer some of the outstanding questions surrounding the issue of the best context for teaching basic science. One statement I found fascinating: "...it has also been suggested that PBL students are better able to apply their basic science knowledge to solving clinical problems. This may be true, but it is irrelevant if the application of basic science knowledge is seldom necessary in clinical practice." Wow! That is quite an important "if," don't you think?

Limitations and implications: The article is theoretical but not obscure and contains untested ideas, but it certainly made me think about context in our medical school and clerkship. It contains some very interesting ideas that required me to see medical education in a broader perspective, and it opens up new areas for research. I was most interested in the comments the authors made in regard to PBL in their discussion, but in actual fact I did not think the discussion related well to the body of the paper. In spite of that, I still found this a worthwhile article and recommend it to you when you want to exercise your powers of thought.

Comment: I'm not sure I "got" the third context either. Certainly, we can be mindful of the fact that, on average, 85% of students who rotate through Pediatrics as clerks will NOT be either pediatricians or family physicians. Those 85% sometimes benefit from clarification of the importance of their Pediatrics experience as students. There may be some interesting studies on the effects of enhancing the "semantic/ cognitive dimension" for clerks, if only we knew what that was… BZM

14. Multidimensional effects of the 80-hour work week at the University of Michigan Medical School. White et. al. Academic Medicine 2006; 81: 57-62.
Reviewed by Randy Rockney, Brown University.

Three years ago, July 2003, ACGME regulations to restrict resident work schedules to 80 hours a week went into effect in U.S. residency programs. Residency work hour restrictions were implemented because of concerns for residents' personal lives, to create a more appropriate learning environment, and to promote patient safety. Concerns were raised that work hour restrictions might compromise both patient care and medical education. So far, not surprisingly, there is some evidence that the work hour restrictions have increased students' interest in surgery, but students have also expressed the concern that residents will be less available to teach them. The authors of this paper examined the effects of resident work hour restrictions on medical student education in four core clerkships at the University of Michigan.

The perceptions of students completing four core clerkships—Pediatrics, Internal Medicine, Surgery, and Obstetrics and Gynecology—measured in the year just preceding the implementation of the work hour restrictions (2002-2003) were compared to the perceptions of students completing those same core clerkships in the first year of implementation of the work hour limitations (2003-2004). Of note, the authors used clerkship evaluation data on questionnaires to assess students' satisfaction with their core clerkships in use for over ten years. In other words, at the times the two groups responded, the authors had not planned or discussed their study on the

effects of resident work hour restrictions on medical student education. The four clerkships were chosen because it was known that residents shared significant responsibility for medical student education on those clerkships.

The researchers found that there were significant decreases in student satisfaction with their clerkship experiences after implementation of the resident work hour restrictions in all the clerkships except pediatrics. These downward trends were most notable in the surgery-oriented clerkships, Surgery and Obstetrics and Gynecology, where students reported less access to faculty (OB and Surgery), less access to residents (OB), lower quality of house staff teaching (OB), lower quality of feedback (OB and Surgery), lower overall quality of clerkship (OB and Surgery), less observation of clinical skills (OB), reduced clarity of expectations (Surgery), less ability to manage patient problems (OB and Surgery), more time in unproductive activities, i.e., "scut," (Surgery), and less time in independent study (Surgery). Students in the Internal Medicine clerkship reported a significant decrease in the quality of the feedback they received and an increase in the amount of time spent in unproductive activities. Students in the Pediatric clerkship reported increased accessibility of faculty, increased quality of faculty teaching, and increased quality of feedback. A trend toward increased quality of the Pediatric clerkship did not reach significance.

Completion of the end of the clerkship evaluation questionnaires was voluntary and response rates varied by clerkship ranging from a high of 100% for Obstetrics and Gynecology in the 2003-2004 cohort to a low of less than 50% in the 2002-2003 cohort for surgery. Another study limitation was that, while there were no differences between the credentials of students (MCAT scores, GPAs) in each cohort, the qualifications of the residents, or the goals, objectives, and expectations of the clerkships, important changes had occurred in each clinical department from one clerkship year to the next. Physicians assistants had been hired by the Surgery department and hospitalists by both the Internal Medicine and Pediatrics departments. Differences in student perceptions may be attributable to the different roles assigned to those new hires: pediatric hospitalists focussed more on teaching while the internal medicine hospitalists and surgery physician assistants served more to take on overflow clinical responsibilities. Also, probably of most significance, the second cohort of students completed their clerkships in the first year of the resident work hour restriction regulations, a situation in which most departments would be expected to experience "growing pains" as necessary adjustments had to be made. From a personal perspective, problems experienced at my program during that first year improved dramatically in the subsequent two years. Indeed, the Obstetrics and Gynecology clerkship at the University of Michigan made changes designed to improve students' experiences including adoption of a night float system and the addition of "laborists" (labor and delivery hospitalists), that led to increases in positive perceptions by the students of their clerkship experiences.

The major implications of this study are that, obviously, significant changes like resident work hour restrictions are going to be felt by all stakeholders including the medical students. If residents are less available to teach the students and faculty are called upon to perform some of the patient care responsibilities formerly assigned to residents, something has to be added or changed to limit the negative impact of such changes on medical student education. Learning from experience and anticipating changes, programs can make adjustments to adapt to those changes and hopefully create improvements in education that go beyond mere adjustments or filling in the holes.

Two things strike me: 1) it's really critical to have baseline measures in place if you plan a change. It's hard to learn from experience if you have not figured out where you are. 2) Consumer Reports always advises not to buy a car in its first model year. The third year's data will be critical. How did the clerkships adjust to the growing pains? - BZM

15. Not knowing that they do not know: self-assessment accuracy of third year students. Langendyk A. Medical Education 2006; 40:173-179.

Reviewed by Bill Wilson, University of Virginia.

The ability to self-assess is an integral part of problem-based learning and, ultimately, "life-long learning." Previous studies, cited in this article, suggest that self-assessment varies widely, and that higher achievers tend to underestimate their performance while lower achievers tend to overestimate their performance. Few of these studies were done in medical school settings.

The author, from the University of Sydney (Australia), designed a study to compare student self-evaluation and evaluation by a peer with evaluations by faculty. Third year medical students (175) were studied. Each student completed a 90 minute written case-based formative assessment that required use of clinical reasoning and understanding of the relevant basic sciences. The students were then provided a model answer booklet and marking sheet, and were asked to evaluate specific areas in their own assessments on a 0-3 scale. They were also asked to evaluate the responses of a peer (randomly assigned) using the same scale. All assessments were also marked independently by a faculty member using the same scale. Differences and correlations between self- and peer- marking, self and faculty marking, and faculty and peer marking were analyzed. In addition, the students were divided into 3 groups, based on their scores from faculty (borderline, satisfactory, high satisfactory and the correlations between self-marking and peer and faculty marking were studied for each group.

In general, there was good correlation among self-scores, peer scores, and faculty scores. However, the lowest-performing group tended to mark themselves "generously," while the highest-performing group tended to mark themselves harshly. The lowest-performing group also tended to mark their peers more highly, while the middle group and the highest performers showed good accuracy (relative to the faculty scoring).

Based on this study, the lowest-performing students were more likely to overestimate their performance. One implication of this is that these students may not have accurate self-assessment skills, and that this lack of self-assessment may be playing a part in overall low performance. Helping students develop appropriate self-assessment skills early may help them in judging their level of mastery of material and skills, and could be helpful in guiding their educational efforts. "The challenge now is to determine appropriate ways to assist those students who are caught in the paradox of not knowing, and not knowing what they do not know."

Comment: With the push toward individualized learning plans and practice improvement, this study is particularly timely. I am particularly struck by the dilemma of poor self-assessment skills of low performing students, and the clear need to develop better teaching methods to improve these skills. In addition, 360 evaluations often include peer assessments. This study also provides additional insight into the reliability of this form of assessment. – LHF

Closing Thoughts

Finally, some words of wisdom to get you through your stressful days:

I dialed a number and got the following recording: "I am not available right now, but thank you for caring enough to call. I am making some changes in my life. Please leave a message after the beep. If I do not return your call, you are one of the changes."

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Aspire to inspire before you expire.

~~~~~

My wife and I had words, but I didn't get to use mine.

~~~~~

Frustration is trying to find your glasses without your glasses.

~~~~~

The irony of life is that, by the time you're old enough to know your way around, you're not going anywhere.

~~~~~

I was always taught to respect my elders, but it keeps getting harder to find one.

~~~~~

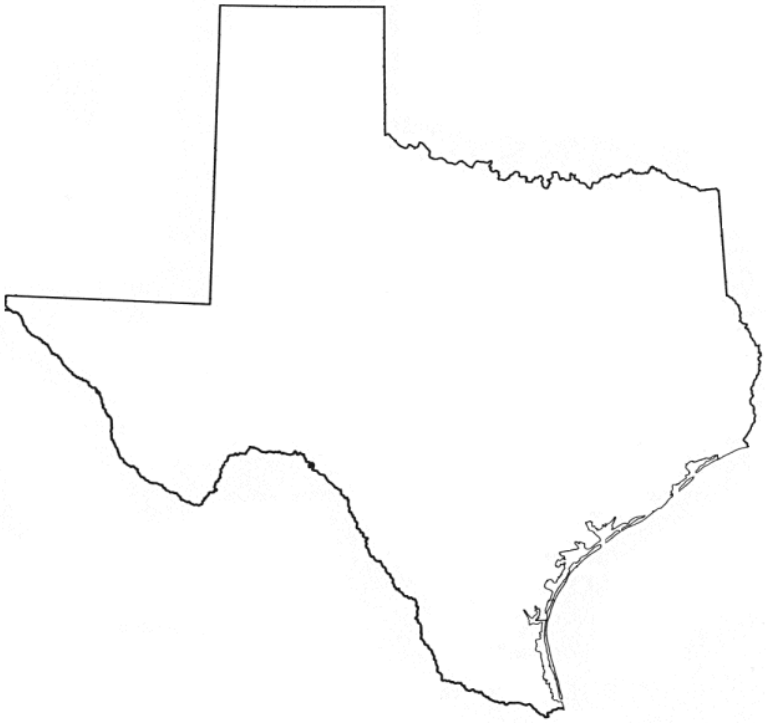
Every morning is the dawn of a new error.

~~~~~

And, from the mind of Kermit the Frog:
"Time is fun when you're having flies!"
~~~~~

See Y'all in Texas!

Joint Pediatric Chairs and COMSEP Meeting
March 9-12, 2007
Westin La Cantera
San Antonio Texas



Texas - The Lone Star State