A University of Western Ontario medical school study was conducted to determine if there were differences between specialties as to how comfortable patients were with medical student involvement. This was done to help address the issue of consent and to assure that patients who are involved in medical education are as comfortable as possible. No previous study had been performed to investigate whether patient comfort varies between specialties.

Five specialties in their university outpatient clinics were selected, including family medicine, obstetrics and gynecology, urology, general surgery, and pediatrics that included the practices of 11 physicians. Demographic information was derived from patients, including age, gender, country of origin, specialty of the clinic, and prior experience with students.

In total, 625 surveys were collected, and 429 had prior student involvement experience. The majority of patients ranged in age from 30-65 years, the mean age being 39 years with 62 percent of the group being female. There were more patients from family medicine and obstetrics and gynecology than any other specialty. The patients were asked to rate the following statements on a five-point scale:

- Medical student involvement improves the quality of my care.
- I am satisfied with the amount of time I have had medical students involved in my care.
- I am satisfied with the level of involvement of medical students involved in my care.
- Medical students should become involved in patient care early in medical school.
- Clinical teaching using real patients is important in medical student education.
- I enjoyed my experience with medical student involvement in my care.
- Given a choice between attending a teaching hospital with medical students or a nonteaching hospital without medical students, I would prefer a teaching hospital.

Patients in each of the five specialty clinics had similar comfort levels and attitudes regarding medical student involvement. Patients who indicated they were uncomfortable may still allow student involvement because of altruism. However, the authors conclude that there is an ethical obligation to make the patients as comfortable as possible.

They further state that it is important to obtain the patient's consent prior to involving students and to provide information for them to make an informed decision. Such consent should include the student's gender, degree of involvement, and level of training. They believe this would ensure future patient participation in medical education as well as improved student-patient relationships.

(Answarnita K, Higgins J, Power S, and Taylor T. Do patients' comfort levels and attitudes regarding medical student involvement vary across specialties? Medical Teacher. 30:48-54; 2008.)
A survey was performed of faculty members and resident physicians at teaching medical centers in three regions of the United States to determine if medical errors were reported and what factors impede and facilitate such reporting. The study revealed that physicians' attitudes about reporting are not congruent with their actual behavior. This is in spite of professional, legislative, and federal efforts to encourage error reporting, including the 2005 Patient Safety and Quality Improvement Act. In fact, obstacles to reporting and underreporting errors remain pervasive.

It was recommended that the causes of this should be addressed and that health care institutions should create learning environments in which the discussion of medical errors is valued. This includes respect for those who discuss their own errors. The connection between the analysis of errors and system improvement should be cited by these facilities, and there should be assurances by institutions that the reporting of errors will be confidential, simple, and worthwhile.

Part of this process is the provision of instruction in how to report errors as well as what errors should be reported. In addition, efforts need to be made to change the institutional culture toward the reporting of errors by physicians. If this is not accomplished, the federally protected patient safety reporting system will not be likely to reduce medical error. By promoting patient-centered ethical values, it may motivate physicians to report errors. This is especially true in teaching hospitals since role models are vital in forming trainees' attitudes and practices. This not only may result in good systems but also should enhance good care of future patients.

The study was anonymous and had a response rate of 74 percent, which resulted in including 138 faculty physicians and 200 resident physicians from internal medicine, family medicine, and pediatrics, almost evenly divided between males and females.


A study that involved pediatric teaching hospitals of Harvard, Stanford, and George Washington universities identified that 20 percent of the 123 pediatric residents were depressed and 75 percent were burnt out. Among those who were depressed, there were six times more medication errors identified than their non-depressed peers. The study focused only on pediatric residents and indicated that mental health was considerably more important a factor in medication errors than had been suspected. It was found that depression in the residents studied was twice that expected in the general population. On the other hand, even though the prevalence of burnout was considerably greater than depression, there was no measurable association with medication errors in residents with burnout alone.

However, virtually all of the depressed residents had been burnt out. About half of the depressed residents were unaware of their depression, and only a small number were receiving treatment. Reduced resident work hours in the United States did not have a link between medical error and depression, but it did reduce burnout. The study concluded that because there are a significant number of depressed pediatric residents committing a high rate of medical errors, this is a cause for concern.

Furthermore, there should be efforts to screen residents for signs and symptoms of depression and ensure treatment. Finally, because of the relationship of patients being of potential risk of unintentional harm by health providers who are depressed, the mental health of doctors needs to be a priority.

Decrease in Medical Student Empathy

The Balanced Emotional Empathy Scale (BEES) was used to determine if there was a change in vicarious (i.e., visceral vs. emotional) empathy in medical students during the first three years of their four-year program. In the past, solutions to reduce the loss of empathy that were reported most frequently included the institution of courses emphasizing empathetic communication skills. However, these have shown gains that are modest or temporary.

Employing problem-based curricula or six-year medical schools appear to have greater opportunities to integrate empathy in medical school curricula. The authors feel that maintenance of professionalism should be part of the medical school curriculum combined with effective bedside teaching. Students at the four-year medical school where the study was performed took the BEES voluntarily, four times initially at the beginning of year one and finally at the end of their third year. A significant decrease in vicarious empathy was demonstrated.

While BEES was not taken at the end of the fourth year, other studies have shown that a significant decrease in vicarious empathy would continue even into residency training. Their seemed to be no difference in those who chose primary care specialties compared to those who entered other training programs. It was questioned that perhaps the decrease in vicarious empathy that appeared to occur was a coping or survival mechanism. It was suggested that empathy be reinforced through the use of constantly reinforced role-playing throughout the medical school program and even into residency and medical practice.

(Newton BW, Barber L, Clardy J, Cleveland E, and O'Sullivan P. Is there a hardening of the heart during medical school? Academic Medicine. 83(3):244-249; 2008.)

Medical School Expansion Strategies

By 2013, it is expected that allopathic medical school enrollment will increase by 20 percent, most of which being due to larger classes in existing institutions. However, there are a number of other models for increasing class size at existing medical schools. One is the concept of a two-year regional campus where most commonly the clinical portion of the curriculum is offered. A second model is the four-year clinical campus in which all four years are provided under the umbrella of the main medical school campus.

Among the challenges of expansion are those involving student affairs, finances, and planning. Challenges regarding student affairs included concerns about the size and quality of the applicant pool, maintaining student support services, and the adequacy of financial-aid resources. Financial challenges included the costs for new space and facilities, student services and staff, and equipment. Planning challenges were those involving the difficulties of administrators and faculty to accept that not everything could be predicted with certainty. Another was the lack of experience of medical educators and the lack of time for planning.

(Analysis in Brief. Association of American Medical Colleges. 8: No. 2; 2008.)

Planning for Changes in USMLE

The Committee to Evaluate the USMLE Program (CEUP) is addressing a number of key areas regarding the examination. One is the competencies that need to be assessed by the licensing examination. The USMLE is looking for these competencies to be measured in a way that is valid, reliable, and practical. A second is the assessment of the basic science elements that are most important for current and future clinical practice. Another is the determination of the potential impact of the changes proposed on the continuum of medical education as well as on state medical board licensing procedures. The committee also is examining issues regarding score reporting formats. Reconsideration is being given to an integrative approach to the scientific foundations of medicine across all components of the USMLE program.

(Update on the comprehensive review of USMLE. USMLE. February 1, 2008.)
Analyzing Stress in Medical Education

Studies show that 61.4 percent of medical students suffer from stress, and as many as 2.4 percent suffer from this at a high level. A study attempts to assess stress increases in 140 medical and 96 dental students at the University of Heidelberg in Germany through the use of a survey instrument called the Trier Inventory for Assessment of Chronic Stress, which assesses tension in the following areas:

- work overload
- social overload
- overextended at work
- lack of social recognition
- work discontent
- social tension
- performance pressure at work
- social isolation
- worry propensity

The authors suggest that when teaching and learning methods are implemented in a new curriculum, there should be consideration given to stress-related items.

(Schmitter M, Mirjam L, Beck J, and Rammelsberg P. Chronic stress in medical and dental education. Medical teacher. 30:97-99; 2008.)

Training Osteopathic Medical Students in Palpatory Diagnosis

The Virtual Haptic Back (VHB) has been assessed as to its potential value in training osteopathic medical students to learn palpatory diagnosis. Osteopathic physicians palpate the human back in the diagnostic assessment of musculoskeletal abnormalities. Haptics, which refers to the human sense of touch, is employed in osteopathic medicine to detect altered tissue texture that reflects altered tension in the underlying muscle and connective tissue. The VHB is being developed at the Ohio College of Osteopathic Medicine as an aid to teaching and learning palpatory diagnosis. It studied whether the VHB increased users' ability to detect small abnormalities in the back. The study employed 21 first-year osteopathic medical student volunteers who received preliminary training and engaged in eight 15-minute practice sessions. Objective and subjective responses from the students indicated VHB to be of potential value and useful as a teaching aid in learning palpatory diagnosis.

Continuing Medical Education Credit

One (1) hour of continuing medical education credit may be obtained by reading the Medical Education Digest and completing the following evaluation that is being used to assess the reader's understanding of the content. Please circle the answers you believe to be correct for all four questions. To acquire CME credit, physicians must mail, fax, or deliver the form (also available online at http://medicine.nova.edu) and completed quiz by April 15, 2008 to:

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The correct answers will be published in the next issue of the Medical Education Digest.

1. Federal legislation that encourages reporting medical error is the:
   a. Health Insurance Portability and Accountability Act of 1993 (HIPA)
   b. 2005 Patient Safety and Quality Improvement Act
   c. Public Health Services Act
   d. Health Professions Education Assistance Act
   e. Health Professions Education Partnership Act

2. A study of pediatric residents at teaching hospitals of Harvard, Stanford, and George Washington universities revealed that:
   a. Burnout was the most important source of medication error
   b. Depression was not a major problem in pediatric residents
   c. Residents who were depressed were much more likely to make medication errors
   d. Mental health issues were not a major source of medication error
   e. The overwhelming majority of residents who were depressed were aware of their depression

3. USMLE is considering changes in its examination that:
   a. Determine the most important basic sciences for current and future practice
   b. Increase the number of items in the clinical sciences
   c. Expand the time designated to assess physical examination ability
   d. Employ a greater degree of electronically offered examinations
   e. Add a separate section on medical ethics

(Please flip over to answer question four and view accreditation statements.)
4. A Canadian medical school study of patient involvement in medical education concluded that patients:
   a. Prefer to be seen in community, non-teaching hospitals
   b. Are completely comfortable with medical student involvement
   c. Permit student involvement because of altruistic reasons
   d. Do not need to be approached for informed consent
   e. Had major differences in comfort level in clinics of different specialties

Answers to the January/February 2008 CME questions: 1. (e)  2. (b)  3. (b)  4. (a)

Accreditation Statements

ACCME
Nova Southeastern University College of Osteopathic Medicine is accredited by the ACCME to provide medical education for physicians. This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through Nova Southeastern University College of Osteopathic Medicine.

Nova Southeastern University Health Professions Division designates this educational activity for a maximum of one (1) hour towards the AMA Physician's Recognition Award Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

AOA
Nova Southeastern University College of Osteopathic Medicine is an accredited Category 1 sponsor of the American Osteopathic Association. One (1) hour of continuing medical education credit in Category 1-B is being offered through the American Osteopathic Association for this program.

Grievance Policy
Complaints should be submitted in writing to the Department of Continuing Medical Education, Nova Southeastern University Health Professions Division, Terry Building, 3200 S. University Drive, Room 1379, Fort Lauderdale, FL 33328.