Nova Southeastern University College of Osteopathic Medicine

Medical Education Digest

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Study Concludes Now Is the Ideal Time to Restructure Medical Education

With at least two dozen new allopathic and osteopathic medical schools being planned, a Josiah Macy, Jr. Foundation study concluded that this provides an opportunity to advance the effectiveness of medical education. It also concluded that this expansion will not address the financial burden averaging $130,000 that more than 80 percent of medical students assume. This is discouraging future physicians from entering specialties that may be less lucrative but not as socially responsive. Furthermore, the debt of medical graduates will not be addressed by the expansion of medical schools.

The panelists on this Macy Foundation initiative also expressed concern about the conspicuous gap "between the rhetorical commitment to high professional standards and the actual behavior on display in many present-day learning environments." Panelist also made recommendations to increase the diversity of the applicant pool to medical school as well as to increase their emphasis on professionalism. A number of other key areas addressed include the following:

- increase educational emphasis on quality improvement, patient safety, and patient- centered care
- prepare students to work effectively as part of a team
- increase the use of community-based settings with less hospital emphasis
- improve emphasis in public health and social issues
- increase emphasis on problem solving and self-directed learning

(Cohen JJ. Chairman's summary of the conference. revisiting the medical school educational mission at a time of expansion. Josiah Macy, Jr. Foundation. Charleston, SC. 2008.)

Concern About Decline in Interest in Manipulative Medicine by Future D.O.s

In a letter to the editor of the *Journal of the American Osteopathic Association*, Professor Emeritus Paul G. Kleman, D.O., of the West Virginia School of Osteopathic Medicine expresses concern about students in osteopathic medical school who report that they do not show an interest in osteopathic medical manipulation nor do they anticipate using it in practice. He also remarked about the lack of manipulative medicine in "osteopathic" continuing education programs. Furthermore, he questions why students who have no interest in manual medicine apply to osteopathic medical schools. Dr. Kleman believes that the phenomenal growth experienced by the profession has been the difference of osteopathic medicine from allopathic medicine rather than a result of copying from them. He concludes by saying that he hopes the profession does not give away its uniqueness.

(Kleman PG. Intent to "teach" and pay to play in osteopathic medical education. Letter to the editor. Journal of the American Osteopathic Association. 109(1):62;2009.)

Benefits of Learning in Interprofessional, Complementary Teams

When two or more professions learn with, from, and about each other to improve collaboration, then quality of care interprofessional education occurs. It is a behavior where people from different professional and working backgrounds behave with each other and are respectful of others regardless of their role and traditional place in the health care system. In addition, it includes recognition of individual scopes of practice and where there is an overlap facilitates knowing about the contribution of each to the needs of patients.

A team consists of a small group of people with complementary skills who are committed to a common purpose, goals, and approach. In addition, they hold themselves mutually accountable, have regular communication, coordinate with each other, and have distinctive roles and interdependent tasks. Teams have clear objectives, clear structures, agreed ground rules, trust, respect, cooperation, and support. They regularly review their processes and recognize group achievements. An interprofessional team is a group of people from different professional backgrounds. They deliver service and coordinate care in order to achieve different patient needs. Interprofessional teams set goals by collaboration through consensual decision-making resulting in an individualized care plan. In interprofessional learning teams, the facilitator needs to draw out preconceptions and stereotypes held by the members. This may be elicited by

- specific statements about the value of each participant's contribution
- acknowledging that people bring different and complementary knowledge and understanding to the learning team
- agreements about the use of jargon since this can be excluding
- permission that it is acceptable to ask for clarification of uncertain points and to express disagreement

(Hammick M, Olckers L, Campion-Smith C. Learning in interprofessional teams: AMEE guide no. 38. Medical Teacher. 31:1-12;2009.)

High-Tech Classrooms: Where Are the Lectures Going?

After many years of debate and experimentation at the Massachusetts Institute of Technology (MIT) and physicists across the country pushing for universities to improve teaching science, MIT has made a major change. Research has shown that most students learn fundamental concepts more successfully and are better able to apply them through interactive, collaborative, student-centered learning. Other universities recognizing this include Harvard, Rensselaer Polytechnic Institute, North Carolina State University, the University of Maryland, and the University of Colorado at Boulder.

A pioneer in this new approach is physicist Eric Mazur, who states that the traditional 50-minute lecture was geared more toward physics majors. He indicated that you have to go through the process of doing science and not just watch your instructor do it. Nobel Prize winning physicist Carl Wieman of the University of British Columbia indicated the human brain can hold a maximum of seven different items in its short-term working memory and can process no more than about four ideas in an hour. However, we are surprised to find out that students are able to take away only a small amount of what is presented to them in an hour-long lecture.

Instead of chalkboards, MIT meets in a high-tech classroom where about 80 students sit at 13 tables equipped with networked computers. After the professor makes a brief presentation to small groups of students, they work out related concepts and conduct experiments together assisted by graduate assistants. The failure rates in courses using this technique dropped from 10-12 percent to 4 percent. MIT students look at lectures as dispensable and that they can get the information from a book more efficiently stated John Bechler, who, while receiving rave reviews from students for his lectures, saw attendance in his course drop by 50 percent. Attendance in the courses employing interactive collaborative learning is up by 80 percent.

(Rimer S. At MIT large lectures are going the way of the blackboard. New York Times. A12 and A16; January 19, 2009.)

Clinical Informatics: A New Subspecialty

A two-year Robert Wood Johnson Foundation-supported project has led to the development of core content and requirements for a new two-year fellowship leading to board certification in clinical informatics. Those in the specialty would combine their clinical skills with an understanding of informatics concepts, methods, and tools. The three spheres of activity the new specialty would encompass include clinical care and the health care system, as well as information and communication technology.

Four major categories of core content must be mastered for the subspecialty. The first is the fundamentals or basic knowledge that provide clinical informaticians with a common language and understanding of the field. The second is clinical decision making and care-process improvement, which enable the subspecialist to implement effective clinical decision-making systems and to participate in developing safe, efficient, timely, and equitable clinical processes.

The third component on the core competency list is health information systems, which include knowledge and skills that enable the clinical informatician to participate in the development or selection of an information system for clinicians. It also includes ongoing operation of a clinical information system as well as evaluation of its effectiveness in meeting clinical needs. The fourth core competency is leadership and management change. This includes the knowledge and skills that enable the clinical informatician to lead and manage changes that are associated with the introduction and adoption of clinical information systems.

(Gardner RM, Overhage JM, Steen EB, Munger BS, et al. Core content for the subspecialty of clinical informatics. Journal of the American Medical Informatics Association. 16 (No. 2):153-157;2009.)

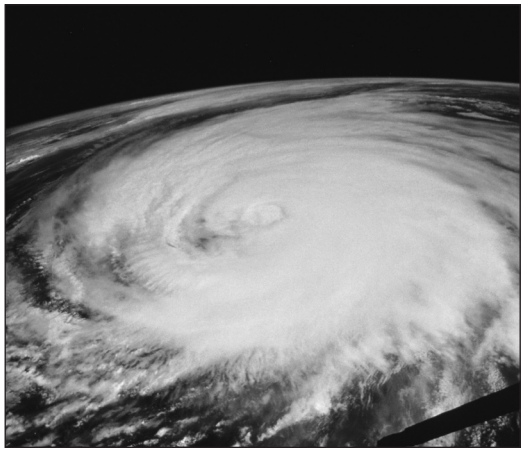
Shortage of Dentists Leads to Physicians Learning to Provide Dental Care

Residents in Maine at the Dartmouth Family Practice Residency in rural Fairfield are learning basic dental skills because of the short supply of dentists in that state. The residency conducts one of two dental clinics for the residents, who learn such skills as administering anesthetic injections, extracting teeth, performing basic dental procedures, and treating abscesses. There is no dental school in Maine, and dentists from other schools do not choose to practice in its rural communities. While there is one dentist for every 1,600 people nationally, in Maine there is only one for every 2,300.

In addition to Maine, a program has been created to train pediatricians to apply fluoride and look for signs of dental decay in other states such as Iowa, Illinois, North Carolina, and Washington. This is a result of discussions with the American Dental Association and the American Academy of Pediatrics. About two-thirds of the family practice residents who trained in the Dartmouth program now practice in the state, and many do so in rural communities. The Maine Dental Association has specified its support of the program but indicates it would prefer to recruit more dentists who would practice in the state. Other innovative programs include the one at the University of New Mexico School of Medicine in which medical residents are allowed to learn basic dentistry.

(Zezima K. Short of dentists, Maine adds teeth to doctors' training. New York Times. Tuesday, A12. March 13, 2009.)

Hurricane Ike Causes University of Texas Medical Branch to Lay Off 3,800 Employees



Hurricane Ike, which devastated parts of Texas in September 2008, inundated 85 buildings at the University of Texas Medical Branch in Galveston with up to eight feet of water. The radiology department, blood bank, and hospital kitchen were virtually destroyed. As a result, about one-third of the teaching hospital's 12,000 workers, or 3,800 people, were laid off.

The University of Texas (UT) System is unable to cover the needs of the hospital, and Federal Emergency Management Agency (FEMA) funds cannot be used to cover operating expenses or wages and benefits. A few faculty members were among those laid off, but they would be paid until the end of the academic year.

While the hospital was insured, only $100 million was paid by insurance while actual losses sustained by the university came to $700 million. It was anticipated by the UT System that the impact of the job losses could be reduced by placing staff at other open positions within the UT System or by assisting them in job searches elsewhere.

(Ike-damaged hospital, med school laying off 3,800. Associated Press. November 13, 2008.)

Centers for Disease Control and Prevention Offers Free Online Public Health Image Library

A service of the Centers for Disease Control and Prevention (CDC), the Public Health Image Library (PHIL) contains thousands of public health-related images that can be used by medical and health professions faculty. These include high resolution, print-quality photographs, illustrations, videos, and multimedia files. The collection can be used to illustrate presentations, web sites, and written reports. PHIL images are available at no cost and are of print quality. They are accessible through the Internet to both PC and Macintosh users. In addition, PHIL images are copyright cleared with only a few exceptions. Access to PHIL can be obtained at *http://phil.cdc.gov/phil*. PHIL provides links to sites at other CDC and Health and Human Services image libraries that may be of interest to faculty:

- CDC DPDx Parasite Image Library
- Indian Health Service Photo Galleries
- National Institutes of Health Photo Galleries
- National Library of Medicine's Anatomy Images, AnatLine
- National Library of Medicine's Images from the History of Medicine
- National Library of Medicine's Medical Stock Images
- National Library of Medicine's "Visible Human"
- Public Health Training Network, PHTN

(The Public Health Image Library. http://phil.cdc.gov/phil.)

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Health Professions Division
College of Osteopathic Medicine
3200 South University Drive
4th Floor, Room 1495
(954) 262-1469
Fort Lauderdale, FL 33328-2018
http://medicine.nova.edu

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Editor
Leonard Levy, D.P.M., M.P.H.
Associate Dean

Associate Editor/Art Design
Scott Colton, B.A.
Director of Medical Communications