The Flexner Report: 100 Years Later

The Flexner Report of 1910 resulted in revolutionary changes in medical education in North America. However, since that landmark report, advances in medicine and the sciences have led to the conclusion that the current approach to medical education is inadequate. A new series in the New England Journal of Medicine (NEJME) refers to the medical curricular structure as being "ossified with a persistent focus on factual minutiae, distracted and overcommitted teaching faculty, archaic assessment practices, and regulatory constraints abound."

The article calls these challenges that threaten the integrated acquisition of technical knowledge, the appropriately supervised mastery of professional skills, as well as the internalization of essential values. These together make for an informed, curious, compassionate, proficient, and moral physician. It was concluded that Flexner himself would have supported, and would have found overdue, the fundamental restructuring of medical education needed today. One of the supporters of the NEJME article series was the Carnegie Foundation for the Advancement of Teaching—the same group that supported the century-old Flexner Report.

In the first half of the 20th century, medical education included the integration of investigation with teaching and patient care. One notes that gifted clinical investigators became equally gifted teachers. The authors point out that as medical research became more molecular in orientation, patients were bypassed in most cutting-edged investigation. They also strongly recommend that the approach to the evaluation of learners must reach beyond knowledge to the rigorous assessment of procedural skills, judgment, and commitment to patients.

Allopathic Medical School Enrollment Climbs

According to the Association of American Medical Colleges (AAMC), 28 of the 125 U.S. allopathic medical schools grew by 5 percent or more, including 9 schools that increased by 10 percent or more, in 2006. The school that grew the most was Florida State University College of Medicine, which increased its student body by 36 percent, followed by Brown University Medical School, which grew by 25 percent. Boston University and St. Louis University schools of medicine expanded by 15 percent. Five other medical schools, including Pennsylvania State University, Wayne State University, West Virginia University, Drexel University, and the University of Alabama, increased between 10 and 13 percent.

As a result, the number of medical students enrolled in schools granting the M.D. degree rose for the second year in a row to 17,400 or a 2.2 percent increase over last year. Applications to these schools increased this fall from 37,373 to 39,000. In addition, MCAT scores were the highest in more than a decade. Medical student diversity also improved, with applications from Mexican Americans and Puerto Ricans rising by more than 8 and 6 percent respectively. African American enrollees increased to 1,100 or by 8 percent. While the number of women approached half of all enrollees, there was a slightly larger percentage of males, with 8,924 men and 8,446 women in the 2006 class. Of the 39,109 applicants, 17,370 were enrolled, or a total of 44.4 percent of the applicants.

AAMC President Darrell G. Kirch, M.D., was quoted as saying, "With the looming doctor shortage, these results are good news indeed, and we hope that this encouraging trend continues."

(AAMC Press Release. "U.S. Medical School Enrollment Continues to Climb: Class Sizes Increase in All Regions for Second Straight Year." October 18, 2006.)

Center to Enhance Learning and Training Established at Tufts University

In order to enhance the education and teaching experience for Tufts University students, a Center for the Enhancement of Learning and Teaching (CELT) was created. CELT is housed in the School of Arts and Sciences and is supported by a $250,000 two-year grant from the Davis Educational Foundation.

Part of the new center’s mission is to identify potential leaders with diverse learning styles, especially as demographics change and new technologies emerge. CELT’s director, Dean Robert Sternberg, Ph.D., indicated it is important that there be more attention on how they can enable all students to maximize their potential. People think and learn in different ways with some being memory and analytically oriented. Those people tend to do well on conventional tests, learning through traditional approaches.

However, those who are more creative and more practical learners often have difficulty. But that group of learners still may succeed even though it may not excel in classrooms that employ traditional instruction and assessment. The center has created as its first initiative the selection of several fellows, including some who come from Tufts University School of Medicine. These fellows will attend weekly professional development seminars designed to examine new ways they will approach the challenges they face.

(Newswise. "University Launches Center to Enhance Learning and Teaching." www.newswisew.com/articles/views/524025/?sc=dwhp; Wednesday, October 4, 2006.)
"Above All, Do No Harm" Message Resonates

Dennis O'Leary, M.D., president of the Joint Commission on Accreditation of Healthcare Organizations, believes that the concepts of patient safety are not being provided to medical students. He concludes that this is because the schools do not provide instruction in systems thinking or in the applied experiences needed in examining the patient processes. Furthermore, these omissions permit human error that kills patients daily. He wonders why this is not an area of emphasis in medical schools, where it should be a priority to prevent iatrogenic patient deaths.

In addition, minor attention to communication is also a deficit of medical school education. Ineffective communication and errors due to worker fatigue contribute to patient deaths daily. According to Dr. O'Leary, almost 80 percent of preventable patient deaths are caused in part by communication failures.

Two victims are involved when a patient care error is made—the patient and the practitioner. Too often, we teach that the victims are the physicians, responsible for all good and bad outcomes. There is a need to develop a strategy to remediate this serious and unsettling state of affairs.

"O'Leary DS. "Is 'First Do No Harm' a Lost Concept in Medical Education?" Medscape General Medicine. 8(3); 2006.

Essential Steps for Sharing Bad News

One of the most difficult and challenging problems for healthcare workers is to share bad news. Walter Baile, M.D., of the M.D. Anderson Cancer Center in Houston, describes essential steps to deliver bad news known as the SPIKES Procedure.

"S" Setting - It ought to be a place that is private and where the patient is comfortable. Standing at a patient's doorway or in a corridor is not a good beginning. Health care workers need to take their time to identify non-medical terminology that patients lacking a medical background can understand.

"P" Perception - How much does the patient understand about his condition and what may happen? Patient autonomy requires reducing complex medical concepts into simple lay language. To tell a patient, "There is nothing I can do" is really a form of abandonment. There is always something that can be done.

"I" Invitation - Asking patients what they want to know, and how much detail they would like, is essential. People have different backgrounds. Some want to read about their condition; some want to talk to other patients who have survived their condition; some want a four-year medical science curriculum; some want almost no medical detail.

"K" Knowledge - To have the essential knowledge before they hear you say, "I wish there was something I could do, or I guess you were not expecting bad news, but I must share some information you will need to make important decisions."

"E" Empathy - When you drop part of the bad news, watch and listen for the emotional response and respond to it. Just saying, "I understand" says you are listening and you care how they feel.

"S" Strategy and Summary - The patient now knows what he has asked to know and needs to know what options are available to make treatment decisions. Many people have survived serious cancers, and the numbers keep increasing with improvements in treatment.

First-year students at the University of Texas Medical School at Houston (UTMSH) are introduced to core nutrition competencies and clinical skills. In the second year, these are applied in a clinically relevant format to problem-based learning (PBL) cases. Clinically oriented multiple-choice examinations are used to assess student knowledge. More than half of the 40 PBL cases developed by UTMSH faculty contain nutrition issues. These include those related to diagnosis, treatment, and prevention.

In the first year of the curriculum, students acquire competencies in the following areas: macronutrients, micronutrients, energy requirements/components, protein requirements and nitrogen balance, criteria for a healthy diet, principles of nutrition assessment, nutritional supplements, and vegetarianism.

PBL cases nutrition content includes the following areas: cardiovascular block, endocrine block, rheumatoid and neuromuscular block, renal block, cancer cases, pediatric cases, osteoporosis cases, and HIV/AIDS cases.

In the third year, internal medicine clerkship nutrition assessment and clinical nutrition guidelines are reviewed.


According to a study conducted by Albert Einstein College of Medicine faculty at the Parker Institute for Health Care and Rehabilitation, after at least 15 years of practice, 80 percent of 88 physicians certified in geriatrics chose to continue to treat mostly elderly patients. Almost 90 percent indicated they had or planned to pursue recertification in geriatric medicine. More than a quarter of the geriatricians had yearly incomes of more than $200 thousand, and 64 percent had incomes between $100 and $200 thousand.

Close to 90 percent would recommend to colleagues that they pursue fellowship training. Just more than two-thirds of the respondents were males, and almost 30 percent were graduates of U.S. medical schools. In addition, it was noted that only 10 percent of the 145 osteopathic and allopathic U.S. medical schools had a required geriatrics curriculum, including five schools with a department of geriatrics.

(Shah U, Aung M, Chan S, and Wolf-Klein G. "Do Geriatricians Stay in Geriatrics?" Gerontology & Geriatrics Education. (27(1): 57-65; 2006.)