

MEDICAL EDUCATION DIGEST



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NEW PERSPECTIVES SUGGEST MORE ENGAGEMENT *Fewer Speeches in Lecture Halls*



A perspective generated by faculty members from Stanford University said medical students are being taught the same way they were when the Wright brothers were tinkering at Kitty Hawk—in spite of a much more complex health system and major technical support. The authors pleaded for a change in the way future physicians are educated, including a more efficient use of time. The authors suggested improvements employing learning strategies that are self-paced and mastery-based, increasing engagement, and advocating the use of clinical scenarios that could serve as lead-ins to multiple topics.

The proposed scenarios can captivate learners and emphasize the relevance of recently acquired knowledge. Such activities generate curiosity, in the way television programs or newspaper medical diagnosis columns do for the laity. The authors said the use of patient stories serves as a scaffold on which facts and concepts can be reinforced and organized. The authors quoted Sir William Osler who said, “He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all.” More importantly, moving the lecture outside the lecture hall and using class time for more active learning is a more important strategy. In the 20th century, lectures transferred knowledge

efficiently, but today that method wastes time because of the expansion of technology.

The authors advocated the “flipped-classroom” where students absorb the instructor’s lecture digitally as homework, then use class time for applications and simulation exercises, case-based, problem-based, and team-based exercises. Instructors would be able to facilitate learning rather than make speeches.

The nonprofit Khan Academy provides online video lectures that allow elementary and high school students to obtain core concepts at their own pace. Stanford University adopted this model in its medical school biochemistry course where students were provided with short online presentations, while classes were used for clinical vignettes and interactive discussions. Atten-

dance increased from 30 percent to 80 percent, despite the fact that attendance was optional. Two sections in a physics course were held for students, with one using lectures delivered by a Nobel Prize-winning physicist and the other by teaching assistants using real physics problems. The Nobel Prize lecture series resulted in a course test average of 41 percent compared to 74 percent by students who took the active-learning session. A meta-analysis demonstrated that, on average, students in online learning situations did modestly better than those receiving face-to-face instruction and even better if these two were combined.

(Prober CG and Heath C. Lecture halls without lectures—a proposal for medical education. New England Journal of Medicine. 366(18):16571659; May 3, 2012).



Medical Schools Develop Competencies to Address Patients' Spiritual Needs

Ann Shaw, M.D., FACP, associate dean for medical education and professor of medicine at the University of Louisville School of Medicine, said it is important for medical students to understand the general principles of religion and spirituality and how those tenets will influence their medical decisions regarding treatment.

Over the past 20 years, more than 75 percent of U.S. medical schools have incorporated spirituality topics into the curricula compared to only 3 percent in 1993. In 1992, Christina Puchalski, M.D., director of the George Washington University Institute of Spirituality and Health, started a movement focusing on spirituality and health, integrating the theories into the curriculum and developing spirituality-based competencies. The curriculum was the first spirituality and health elective in a U.S. medical school and included mentored, reflective rounds to help students learn how to address the emotional and spiritual suffering of patients.

The spirituality practices have been adopted by many other medical schools and teaching hospitals, including Albert Einstein College of Medicine of Yeshiva University and Loyola University of Chicago Stritch School of Medicine, which offer communication exercises, group discussion, and periods for reflection geared toward spirituality and health. The Association of American Medical College's Medical School Objectives Project recently published competencies that relate to spirituality and health, indicating that spirituality is an essential part of humanity and part of the individual's search for meaning and purpose. A spokesman for the Albert Einstein College of Medicine said spirituality is broader than religion, including how people assign purpose and meaning in their lives and how they make sense of the good and bad things that happen.

(Greenberg R. More than a diagnosis: medical schools and teaching hospitals address patients' spiritual needs. AAMC Reporter: March 2014).



Value of Final Year of Medical School Requires Reexamination

The fourth year of medical school should accommodate the residency selection process without diverting attention from the training goals of the student. It has been noted that there is an overemphasis on the Match and a lack of focus in the fourth-year curriculum.

The goals of the fourth year should address transition to residency and the completion of the medical school experience, said Walling and Merando in a 2009 article in *Academic Medicine*. Many agree the fourth year of medical school could help to fulfill the unique aim of its program by focusing on community service to the underserved or encouraging research and other scholarly activities. Many think, however, it is a waste of time and leads to discontent.

Current examination of the fourth year of medical school coincides with a renewed interest in shortening medical education. In 2012, an article by Emanuel and Fuchs published in *JAMA* suggested the fourth year be shortened by as much as 30 percent, including reducing clinical experience. If there is not a clear vision in the value of the fourth year, some suggest it may become targeted for elimination. We will not know how much time is needed until there is agreement on the outcomes; however, medical schools owe it to their students to create a better final year.

(Sklar DP. Making the fourth year more meaningful. Academic Medicine. 89 (527-528);2014).

Wisconsin Considers Extending Residency Training for Medical Licensure

Both U.S. and foreign medical graduates (FMGS) seeking practice in Wisconsin may have to complete at least two years of graduate medical education (GME) before being eligible for a medical license. Many states now require two or three years of GME for a FMG to be eligible for a medical license, compared to one year for graduates of U.S. medical schools.

In case of hardship, exceptions could be granted. The proposed legislation would not affect existing license holders. Requirements for visiting physician licenses would change, creating an administrative physician license for those physicians not practicing medicine.

(Wahlerberg D. Bill would require doctors to complete more training to get license. Wisconsin State Journal; February 10, 2014).



Survey Offers Osteopathic Medical Students' Views on Unified Accreditation

A March 2014 survey of 5,307 osteopathic medical students revealed that 82.5 percent had some support for the combined graduate medical education accreditation system developed by the Accreditation Council for Graduate Medical Education, the American Osteopathic Association, and the American Association of Colleges of Osteopathic Medicine (AACOM).

The sample represented 22.9 percent of the total 2013 fall enrollment at AACOM member colleges. The students included 36 percent from the third and fourth-year classes and 63 percent from the first two years. Over 55.1 percent indicated strong support, while only 5.3 percent opposed the new initiative.

When examining each of the schools, there was a range of 93.5 percent of students supporting the new arrangement compared to 5.6 percent who opposed. Of those students who plan to enter primary care disciplines, there was a response of 78 percent in favor of the unified accreditation system compared to 85 percent who planned to specialize in a non-primary care discipline. Only 5 of the 34 osteopathic medical schools had less than 75 percent support, the lowest being 68 percent. Four schools had between 10 and 16.3 percent who opposed. The survey was conducted in cooperation with the AACOM Council of Student Government Presidents.

(Levitan T. Report on survey of osteopathic medical students' views on unified GME accreditation. American Association of Colleges of Osteopathic Medicine; March 25, 2014).

Medical Schools Offering Curriculum Focused on Underserved Win AMA Grants

The American Medical Association (AMA) offered grants to eleven medical schools for their initiatives or innovation focused on educational models addressing the unique needs of disadvantaged and underserved populations. Brown University Warren Alpert Medical School, for example, integrates population health into a primary care/population health program, providing students with a dual degree. The program provides medical students an emphasis on the delivery of balanced, innovative medical education that aligns medical knowledge and population health.

The program will include learning how to collect data and utilize it to institute system changes benefiting all. A new curriculum at Brody School of Medicine at East Carolina University places emphasis on the rural and underserved, continuing its mission of training underrepresented minorities and team-based population health.

Collaborative strategies address workforce gaps in the three-year education track of the University of California Davis School of Medicine. The track is designed to develop diverse, highly skilled physicians who will address the medically underserved, workforce diversity, and workforce gaps. The project—Accelerating Change in Medical Education—chooses students who are economically challenged and likely to work in underserved communities. The AMA Doctors Back to School program inspires physicians and medical students to visit school communities to discuss the need for more minority physicians to reduce racial and ethnic disparities.

(Medical school curriculum changes aim to eliminate health disparities. AMA Wire; 2/27/14).

Report Shares Statistics on Medical School Graduates' Focus on Primary Care

In its 20th report—Advancing Primary Care—the Council on Graduate Medical Education indicated that at least 40 percent of the physician workforce should focus on primary care in order to provide optimal health care and health system efficiency. The American Academy of Family Physicians (AAFP) conducted an online census of all residents in family medicine programs including M.D.s and D.O.s in American Council for Graduate Medical Education (ACGME)-accredited family medicine residencies. In 2012, there were 3,523 residents in first-year ACGME-accredited family medicine residencies. Of these, 44.3 percent were U.S. medical school graduates and 22.2 percent were D.O.s. Foreign medical graduates (FMGs) made up 33.5 percent of the residents.

In the Liaison Committee on Medical Education (LCME)-accredited medical schools, there were 34 percent more graduates of public schools than from private schools. While there were only three D.O. schools that had less than 10 graduates entering LCME-accredited family medicine residencies, nine schools had graduates that numbered more than 30 entering such programs. U.S. census regions show various graduation results: Only 4.7 percent of medical school graduates from the Middle Atlantic enter family medicine compared to the East North Central (8.8 percent), and the South Atlantic (8.4 percent).

Four out of 10 medical students enter a family medicine residency in the state in which they attend medical school. Medical schools west of the Mississippi provide a higher percent of family medicine residents than eastern medical schools. Of the 241 family medicine residencies accredited by the American Osteopathic Association, 114 are also accredited by the ACGME. The total number of D.O. graduates entering family medicine residencies in 2012 was 711. While tuition in osteopathic medical schools is comparable to that at M.D. schools, D.O.-granting schools graduate a higher percentage of graduates who enter family medicine residencies. This is in spite of the fact that 91 percent D.O. students versus 86 percent of M.D. students report debt at graduation. The average debt of D.O. graduates is \$205,674 versus \$161,300 for M.D. graduates. Only 35 percent of M.D.-granting medical schools that indicated in 2010 they planned to enact primary care initiatives did so in the subsequent two years.

(Biggs WS, Crosley PW, Kozakowski SM. Entry of US medical school graduates into family medicine residencies: 2012-2013. Family Medicine. 45(9):642-646; October 2013).



Nursing Homes Offer Distinct Learning Environments for Medical Students and Residents

A study conducted by faculty members from the Radboud University Nijmegen Medical Centre in the Netherlands aimed to answer the following questions:

- Which factors characterize the nursing home as a learning environment?
- What stimulates or hampers learning in the nursing home?

The first year and final three months of a three-year residency in elderly care conducted by Radboud take place in a nursing home. The medical school's family medicine residency curriculum includes a mandatory three-month rotation in a long-term-care facility.

On a weekly basis, residents came together for reflection and teaching sessions to gain insights into the learning process developed in nursing homes. Five focus groups met for one-hour sessions, each including 4-10 participants. Four of the groups included first- or third-year geriatric residents and one group consisted of family medicine residents. Discussions included information about the residents' most instructive experience in nursing homes, what they learned from them, and why. Exchanges also included a determination of the main learning opportunities in nursing homes and what makes the facilities unique learning environments. Participants determined what stimulates and hampers learning in nursing homes.

While residents perceived a lot of freedom and the ability to organize their own work, they also remarked that the nursing home had a paucity of advanced diagnostic tools and medical procedures, which was considered an obstacle to learning. Some residents felt the experience would cause them

to lose skills in interpreting laboratory results or electrocardiograms. In addition, residents described the nursing home learning environment as unstructured, with an unreliability of adequately skilled nursing staff during rounds or multidisciplinary meetings.

The absence of advanced diagnostic technologies, however, resulted in the development of clinical skills, expertise, and confidence in the physical examination and led residents to think more carefully about treatment options and to develop a strong sense of confidence. It was concluded that nursing homes having fewer resources and less structure often led to learning more.

(Molema F, Koopmans R, Helmich E. The nursing home as a learning environment: dealing with less is learning more. Academic Medicine. 89:497-504;2014).

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