

Medical Education Digest



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100 Years After Flexner: Historical Questions



The main goal of the *Flexner Report of 1910* was to raise the quality and standing of medical care in the United States. It became the basis for future medical education in addition to medical training and espoused that the university was the best setting for training physicians. Flexner believed there was not only one way to study medicine. Active learning, he felt, was not just learning the

sciences basic to medicine but active involvement. As he said, "The student no longer merely watches, listens, memorizes; he does."

The then-president of the Carnegie Foundation for the Advancement of Teaching, the sponsor of Flexner, wrote in the report that, "Our hope is that this report will make plain once and for all that the day of the commercial medical school has passed." Flexner also asserted that admission to medical school should require at least two years of college with knowledge not only of chemistry, biology, and physics but also humanities and cultural experiences. Furthermore, physicians should acquire social and preventive skills rather than only focus on the individual and be solely curative.

He advocated lifelong learning, patient safety, and efficiency in patient care as well as graduate education to develop the various specialties. He also was an advocate of the integration of basic and clinical information, even suggesting that laboratories be close to patients so as to stimulate research. After the Flexner Report, admission standards were improved and curriculum requirements became more strictly enforced by state licensing boards

and by the establishment in 1912 of the Federation of State Medical Boards. The report's influence resulted from the following factors:

- The timing of the report itself and the many views it included in the document.
- Its success in generating money from philanthropists for medical schools.
- Flexner's writing style resulting in galvanizing public opinion.
- The public's wish for reform of the nation's education system.
- The public now believing that the education of the physician mattered because medicine actually mattered. (It had the potential of affecting them and their children.)

Changes in the quality of medical education resulted due to the recommendations of Flexner during the 20th century. However, improvement has not been as extensive in the inclusion of public health, prevention, and population health in the education of physicians. For example, the United States and Canada have paid insufficient attention to key public health areas.

The Liaison Committee on Medical Education (LCME) recently introduced proposed changes to two accreditation standards. These add public health sciences to the required medical school curriculum. This includes an understanding of the critical basic sciences of public and population health, namely biostatistics and epidemiology, which are more important to current day physicians than they were to their predecessors in 1910 when the Flexner Report was published.

(Halperin EC, Perman JA, Wilson EA. Abraham Flexner of Kentucky, his report, medical education in the United States and Canada, and the historical questions raised by the report. Academic Medicine. 85:203-210;2010.)

"Medical Education Highlights for Primary Health Care"

Major Growth in Osteopathic Medical School Enrollment and Applicant Pool



In the last two years, the number of applications to osteopathic medical schools increased from 67,149 to 96,604, or by almost 44 percent. This represents 11,458 applicants for the 2007-2008 academic year and 12,617 for 2009-10—a 10.1 percent increase in applicants in three years.

The average applicant in 2009-10 applied to 8.14 osteopathic medical schools. While 70.3 percent of matriculants were classified as white and non-Hispanic, 7.9 percent were members of underrepresented minority groups, the largest percent of whom (4.5 percent) being Hispanic/Latino. For the 2009-10 academic year, 47 percent of those who enrolled were female; 53 percent were male. Almost one of every five students that enrolled in osteopathic medical school in the 2009-10 academic year identified him/herself as being Asian.

The mean age of matriculants was 24.4 years, while the median age was 23. Cumulative grade point averages (GPA) of enrollees in the 2009-10 academic year had a mean of 3.48 and 3.35 in the sciences. The group with the highest mean GPA was Native Americans (i.e., 3.61), but it only represented 35 enrollees in the 2009-10 academic year. MCAT scores had a mean of 26.19, with the highest score in biological science (i.e., 9.22). Of the enrollees, 96 percent (4,653) were U.S. citizens and 13 were Canadians.

Almost 55 percent of all enrollees represented eight states, namely California with the most (466), followed in rank order by Michigan, New York, Pennsylvania, Florida, Ohio, New Jersey, and Illinois. Almost one of every six D.O. students came from 12 colleges or universities in the 2009-10 entering class, and 20 colleges and universities were responsible for more than 22 percent of all matriculants. Three universities in Michigan produced more than 5.5 percent of all D.O. students who entered in 2009-10.

(AACOMAS Matriculant Profile 2009 Entering Class. American Association of Colleges of Osteopathic Medicine; 2009.)

Applicants and Matriculants to Allopathic Medical Schools in 2009

In 2009, each applicant applied to an average of 13 allopathic medical schools, resulting in 562,694 applications from 42,269 applicants. Of these, 31,063 (or about 73 percent) were applying for the first time. Of these applicants, 47.9 percent were women and 52.1 percent men, even though 57 percent of all B.A. and B.S. degrees in 2010 were granted to women. However, in the 1982-83 medical school entering class, just less than a third of enrollees were women (i.e., 31.4%). Furthermore, in 1983, women received only 26.8 percent of the M.D. degrees compared to 48.8 percent in 2009. In view of the physician shortage projected by 2020, the AAMC is aiming for a 30 percent enrollment increase from the 2002-03 level. In the 2009-10 entering class, there was an 11.5 percent increase over the 2002-03 level.

(AAMC. U.S. Medical School Applicants and Students 1982-83 to 2009-10. Association of American Medical Colleges; 2009.)

Surge of New U.S. Medical Schools

The Association of American Medical Colleges (AAMC) stated that a 30 percent increase in enrollment to medical schools is needed in order to respond to the growing need for physicians, which amounts to about an additional 5,000 medical students each year. This response is due to current population growth, the aging of the United States, impending retirement of as many as one third of currently practicing physicians, a more health conscious public, and an anticipated influx of people who will be newly insured.

Those who subscribe to the need for this increase believe it will result in improving care and an expansion of the number of physicians in rural areas and needed urban locations. They postulate it would result in reducing the waiting time many patients have to see a physician as well as produce more doctors who enter primary care. Others, however, say that U.S. physicians tend to practice in urban and suburban areas that already have adequate number of doctors. In addition, they further remark that physician assistants and nurse practitioners could be used to provide medical care and reduce health care costs. Six medical schools are in the process of development and have received preliminary accreditation, while another 11 have indicated their intention to go through the approval process.

(Hartocollis A. After years of quiet, expecting a surge in U.S. medical schools. New York Times. pp1 and 13; Monday, February 15, 2010.)

Family Med Helping Fill Geriatrician Void



Because of the projected increase in the U.S. population of those who are age 75 and older, there will only be one geriatrician for every 4,254 seniors in 2030 compared to one for every 2,590 in 2008. In addition, only 32 percent of all family medicine residencies have a geriatrician certified in geriatrics.

The American Society of Teachers of Family Medicine indicates that family medicine residencies should employ available resources to care for older adults through faculty development

in geriatric teaching and by providing preceptoring in geriatric care in family medicine centers. Research is minimal in how much geriatric content is included in residency training. A University of Virginia Family Medicine Department study of both residents and attending physicians observed patient encounters in a family medicine clinic to determine if geriatric issues were drawn from adults. Encounters were videotaped using cameras in the precepting room. There were 259 encounters observed of adult patients, including 33 patients over the age of 64.

The study demonstrated that during precepting encounters by those without certification in geriatrics, issues regarding older adults can be addressed. It also demonstrated the importance of family medicine continuity clinics as potential geriatric education sites. It further recommended that family medicine training programs should ensure that preceptors are able to train residents in geriatrics in outpatient environments and concluded that family medicine continuity clinics are sites for geriatric residency education.

(Bollins LK, Martirosian T, Gazewood JD. The glass is half full: geriatric precepting encounters in family medicine. Gerontology & Geriatrics Education. 30:341-350;2009.)

Peer Coaching in Faculty Development

Little emphasis in peer-assisted learning is employed in the acquisition of teaching competence. Common methods used include workshops, seminar series, short courses, and longitudinal programs. However, as accreditation requirements have become more stringent, faculty development has become far more emphasized.

Medical educators from the University of Adelaide in Australia have reported on the use of a colleague development program that is more acceptable to faculty since there is not an equal relationship when there is a teacher-learner relationship compromising effective feedback. Expert-led programs often make participants uneasy since they become the subject of evaluation and criticism. An eight-week program that involved faculty from six schools in the Faculty of Health Sciences at the University of Adelaide utilized peer observation partnerships.

Prior to serving as peer coaches, participating faculty members attended a seminar on how to identify personal learning objectives and provide constructive feedback. This was followed by having each instructor and observer meeting regularly in teaching sessions and having the colleague critically observe the teacher's performance, providing constructive feedback, and developing a written report documenting these observations and agreed-upon suggestions. Peer observation or peer coaching is underutilized but has appeal since it is done in the instructor's own environment, allows for individualized learning, and enhances collaboration.

(McLeod PJ, Stinert Y. Peer coaching as an approach to faculty development. Medical Teacher. 31:1043-1044;2009.)



Academies at Medical Schools: Recognizing Academic Excellence



An academy in medical education is a formal organization of academic teaching faculty members that have been formally recognized for excellence in their contribution to the education mission of medical schools and who serve specific functions on behalf of the institution. Such academies are functioning organizations and not just a group recognized by faculty. Since 2003, 21 medical schools indicated they had academies, and 33 more were considering their adoption. In a 2008 survey done by Baylor College of Medicine, it was noted that almost 70 percent of those selected to be distinguished educators were nominated by department chairs or deans. Criteria for selection included:

- quality of teaching
- educational leadership
- development of educational materials
- educational research efforts

- educational publication
- breadth of teaching
- quantity of teaching
- time taught
- participation in faculty development

Non-monetary individual benefits of membership included school-wide recognition, networking/collaboration opportunities, participation in faculty development activities, weight in promotion/advancement decisions, and mentoring for career advancement and skill development. More than 44 percent of the academies had annual budgets that were \$25,000 or less, and five had no funding at all. The academies' goals most frequently were to stimulate educational innovation, develop faculty education skills, provide mentoring, promote collaboration, enhance promotion, promote communication, and foster curriculum reform.

Services provided by the academies to members and to the institution included the provision of opportunities for members to discuss educational topics, educational grants to members, educational scholarship activities for members, and educational grand rounds and seminars for the school. The academies also provided peer review for educators at the institution, consultation to the dean of education, other educational decision makers, and the curriculum committee. It was reported that the academies appear to attract high-quality faculty members and provide them with incentives to devote more time to the educational mission of the medical school.

(Searle NS, Thompson BM, Friedland JA, Lomax JW, Drutz JE, Coburn M, Nelson EA. The prevalence and practice of academies of medical educators: a survey of U.S. medical schools. Academic Medicine. 85:48-56;2010.)



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