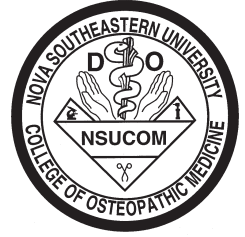


Medical Education Digest



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Integrating Formal Knowledge and Clinical Experience: Mayo Medical School Model

Advanced Doctoring is a new multidisciplinary second-year clinical skills training course that includes formal knowledge acquisition and experiential learning structured in a manner that provides integrated, learner-centered experiences. It brings relevance to didactic content, builds clinical skills, and supports the formation of individual professional integrity. While medical schools may provide students early clinical experiences, these are often in parallel and often in competition with other components of the preclinical curriculum rather than being integrated.

John Dewey espoused nearly 75 years ago that information learned in isolation is disconnected from other experiences. As a result, it is not available when life circumstances require one to recall knowledge. Mayo Medical School implemented a preclinical (year one and two) curriculum that includes multidisciplinary blocks. First-year students are assigned to didactic/small-group



learning and independent study in basic/clinical science in the morning. They then take Basic Doctoring in the afternoon, where they learn basic interviewing techniques as well as physical examination skills. This requires small-group teaching, peer physical examination, and standardized patients.

In the afternoon, second-year students take basic/clinical sciences, which are given in multidisciplinary blocks. The longitudinal Advanced Doctoring course takes place three or four mornings weekly in which second-year students provide care to medically underserved patients. In the course, students see, feel, and hear exam findings, interview patients, learn presentation skills, and apply basic/clinical science knowledge. The course's goal is to prepare students to function as part of the health care team beginning with the first day of their first clerkship. There are six components:

- integrated clinical experience
- integrated surgical experience
- integrated diagnostic experience
- integrated simulation experience
- outpatient community pediatric clinic
- reflective writing

The basic/clinical science blocks include fluids (six weeks), nutrition digestion (six weeks), oxygen (three weeks), endocrine (five weeks) and musculoskeletal (one week), and immunity and blood (six weeks).

(Dyrbye LN, Starr SR, Thompson GB, and Lindor KD. A model for integration of formal knowledge and clinical experience: The advanced doctoring course at Mayo School of Medicine. 86 (1130-1136);2011.)

“Medical Education Highlights for Primary Health Care”

Global Medicine Initiatives and Academic Health Centers

The Duke University Global Health Initiative and the Duke Medicine Initiative in Health Innovations described their perspectives of global medicine. The authors indicate that academic health centers have the capacity to assume a leading role in global medicine and possess the moral and business imperatives to do so. It is reminded that globalization is having a growing impact on health and health care.

While there may be potential financial, organizational, politico-legal, and reputational risks, the establishment of global partnerships can offset these by improving health both locally and globally. Such activities can impact academic research, education, and clinical care missions as well as prepare for the challenges of a rapidly changing world. Duke believes that investing in global medicine is critical to the long-term success of the U.S. academic medical enterprise. Opportunities of globalization in medical education include

- exchange programs (learners and/or educators travel)
- distance-learning education (learners and educators remain in the same place)
- development of full-fledged schools overseas

Among the examples of global activities cited with U.S. allopathic medical schools are

- **Columbia University** – partnering with a medical school in Israel
- **Duke University** – medical school in Singapore and partnership with Peking University
- **Johns Hopkins University** – collaborating with graduate medical school in Malaysia
- **Harvard University** – Dubai Center postgraduate institute
- **Weil Cornell University** – Qatar Doha medical school sister campus

The authors conclude it is encouraging that academic health centers are engaging in global medicine since they believe that despite the risks that may exist, the risks of inaction are greater.

(Ackerly DC, Udayakumar K, Taber R, Merson MH, and Dzau VJ. *Global medicine: opportunities and challenges for academic health science systems. Academic Medicine.* 86:1093-1099;2011.)

From Contemporary Art to Core Clinical Skills



The Keck School of Medicine (KSOM) of the University of Southern California, in partnership with Los Angeles Museum of Contemporary Art (MOCA), introduced an educational experience with the goal of enhancing the core clinical skills of medical students. Guided instruction is provided in observation,

description, and interpretation focusing solely on contemporary art and nonrepresentational art. KSOM first- and third-year students are in the Introduction to Clinical Medicine (ICM) course for three hour sessions, which occur in the morning before the museum opens to the public. The objectives of the experience are to

- identify visual and narrative elements in a series of works of art
- apply observational and interpretive skills in a nonclinical setting
- work as a team to integrate prior knowledge in the service of interpreting what is portrayed
- gain comfort with ambiguity as an inherent part of art, life experience, and clinical practice
- understand that there can be more than one answer to many questions

The course is led by two clinician educators with expertise in visual arts and literary studies and MOCA's director of education. Emphasis is made on terminology shared in physical diagnosis with visual arts. This includes shape, texture, line, and color with a focus on observation, exploration, listening, and interpretation, paralleling core clinical skills. Only 10 groups of students can currently be accommodated each year even though 20 of the 28 second-year ICM groups asked to participate in 2010-11.

(Shaff PB, Isken S, and Tager RM. *From contemporary art to core clinical skills: observation, interpretation, and meaning—making a complex environment. Academic Medicine.* 86:1272-1276;2011.)

An Overview of Changes in the Medical School Admissions Interview Process



Both academic and non-academic data are used to select the applicants chosen for an interview to medical schools. Examples of non-academic data include medical community service and personal statements, while academic data include MCAT scores and GPAs in undergraduate school.

To select the interview pool, the most weight is given to academic data. Application materials are typically reviewed by two or more people,

including members of the admissions committee and staff. However, 12 percent of the schools use computer algorithms to make this decision. These reviews may take 15 minutes or more. At 83 percent of medical schools, faculty and staff members, and sometimes medical students, conduct one-on-one interviews. However, almost two-thirds of the schools conduct two interviews with each interviewee. A typical interview lasts between a half hour to three quarters of an hour,

with interviewers looking at personal statements, GPA, letters of evaluation, and MCAT scores before meeting with the applicant.

Considerably more structure is part of the interview process today, with 64 percent of schools providing guidance to interviewers. More than 50 percent of interviewers employ a multiple dimension rating system or a numeric rating scale. Fewer than half of interviewers question an applicant's knowledge of subjects like biology, chemistry, or psychology. On the other hand, more than 85 percent question applicants about their motivation for a medical career, compassion, empathy, maturity, communication, service orientation, and professionalism.

It is encouraged that research is needed to determine the utility of the interview and the effectiveness of the interview structure. Such research should also determine whether the increased structure of the interview increases predictive validity.

(Dunleavy DM and Whittaker KM. The evolving medical school admissions interview. Analysis in Brief. Association of American Medical Colleges. 11(7); September 2011.)

Two-Thirds of Physicians in Final Year of Residency Receive at Least 50 Job Offers

New doctors are being recruited like blue-chip athletes, remarks Merit Hawkins & Associates, a large physician staffing company. Nearly half claimed they had 100 or more solicitations. However, because of large medical education debts, changes in the economics of health care, and how the new health care law may affect them, many future physicians are concerned about their choice of professions.

Kathrine Imborek, M.D., who finished a family practice residency at the University of Iowa Hospitals and Clinics, just began her first job at the university clinic and indicated she was worried about her inability to spend

time with patients and her large debts. This is in spite of her \$150,000 salary. She also was concerned about the influx of patients when the new health reform law becomes implemented.

As the law becomes effective, 30 million more people will be eligible to seek health care services. Combined with this is the concern about declining reimbursement, increasing health care costs, and worries about malpractice litigation. In addition, there are concerns about burdensome regulations and insurance company hassles as well as cuts in Medicare and Medicaid that are blooming.

However, because of demand, salaries for primary care physicians are increasing

sharply. Internists are being offered an average of \$205,000, compared to \$191,000 in 2009-10 while family practice physicians are guaranteed an average of \$178,000—up from \$175,000 a year ago. These salaries do not include production bonuses or benefits.

Medical specialists are the recipients of the largest increases. Examples include invasive cardiologists, whose salaries increased from \$495,000 to \$532,000 in a year. Urologists experienced the largest increase going from \$400,000 in 2009-10 to \$453,000 this past June.

(Japsen B. Young doctors worry about career choices. New York Times. October 6, 2011.)

Residents Seeking Quality of Life Vie for Hospital Positions

In a survey of 302 residents completing their programs, 32 percent are looking for hospital employment compared to only 3 percent a decade ago. With the short supply of physicians particularly in primary care, small practices have to go to significant lengths to attract a new physician. Only about 6 percent of the graduating residents prefer an income guarantee, while 78 percent want a sal-

ary with a production bonus. Compared to 2008, when the number of residents seeking their first practice consisted of 33 percent who were most concerned about free time, this year the percent has risen to 48 percent.

In related news, 68 percent of the residents said adequate call coverage was most important compared to 28 percent in 2008. Indeed, 64 percent say that life-

style is a top priority. Merritt Hawkins & Associates, a major physician recruiting firm, indicated there are simply not enough physicians coming out of training to fill available openings. New physicians want a quick path to partnership, some free time, and financial security.

(Elliott VS. Residents' desire for hospital employment poses recruitment challenge for practice. amednews. October 24, 2011.)

Multiple Mini-Interviews (MMI): Are They Useful in Medical School Admissions?

While many physicians support the use of the Multiple Mini-Interview (MMI), others challenge its efficacy and motivation. The MMI is used by 20 medical schools in North America. One rheumatologist stated that the MMI is not a single criterion for entry to medical school any more than GPA and MCAT's or letters of recommendation.

A surgeon remarked that he has seen, "kids enter medical school with compassion and idealism, and it gets trained right out of them by a system of education that itself is pathological. Unless the system changes, it doesn't matter what kind of admission criteria are used." A surgeon said, "Maybe this plan reflects that med schools acknowledge that they

are incapable of training students to communicate and cooperate."

It was concluded by the author that it will take years to see the effects of this test and that it is unlikely any consensus will be reached on how useful this approach will be.

(Cohen B. Are tests for interpersonal skills any use? Medscape; September 26, 2011.)



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