The Marketplace and Medical Education

Kenneth M. Ludmerer, MD

Professor of Medicine, School of Medicine, and Professor of History, School of Arts and Sciences, Washington University, St. Louis, MO

Throughout the twentieth century, American medical schools have found themselves with two homes: one in the university, the other in the healthcare delivery system. Of the two, the ties to the university have traditionally been far stronger. Since the passage of the Medicare and Medicaid legislation in 1965, the patient care activities of medical faculties have grown enormously, and the ties of medical schools to the healthcare delivery system have correspondingly increased. This has resulted from both the financial incentives of the marketplace and the faculties' enjoyment of the much higher salaries and benefits they have received in the post-Medicare era (1).

In the past, medical schools have creatively modified the content and methods of their instruction to take into account changing scientific knowledge and social circumstances. However, at present, traditional curricular reform no longer suffices to meet the major educational challenges we face. This is because present-day market forces arc rapidly destroying the learning environment in which clinical education occurs. This essay will show that unless medical educators are able to correct the erosive effects on the learning environment that have occurred during the managed care era, the country faces the prospects that its physicians in the future will be ill prepared to meet their professional and public responsibilities.

Core Educational Principles

The details of medical education are always changing. Each school regularly revises the content and organization of its curriculum and introduces new methods for teaching the subject matter and evaluating the students. Nevertheless, medical education in the United States has developed around three underlying educational principles that have proved remarkably constant, even as the specific details and strategies of the curriculum have continually evolved. Since the late nineteenth century these principles have served as the ideal of what medical education *should* encompass, even though medical schools have usually fallen short of realizing their educational goals in full.

First, American medical education is based upon the premise that the most effective learning occurs when students are allowed to "learn by doing." This philosophy, which was heavily influenced by John Dewey and the school of progressive education, relegates traditional teaching devices like lectures and textbook reading to minor roles. Instead, it emphasizes "active learning" through laboratory work in the scientific subjects and hospital work with real

American medical education is based upon the premise that the most effective learning occurs when students are allowed to "learn by doing."

responsibility for patient care in the clinical years. Since the late nineteenth century, medical educators have believed that "active learning" represents the key for allowing students to master biological principles, develop independence, and become problem-solvers, critical thinkers, and life-long learners (2).

Second, to facilitate "active learning," the most important role of medical educators is not that of structuring a formal curriculum *per se* but that of creating a rich, student-centered "learning environment" that allows active learning to proceed. Stimulating

The most important role of medical educators is... creating a rich, student-centered "learning environment" that allows active learning to proceed.

classmates, well-equipped laboratories, and a good library are among the components of a rich learning environment. So are the presence of a knowledgeable and creative faculty and the provision of a large amount of personal contact between students and instructors. Most important is the availability of clinical learning opportunities that allow students to have sufficient time to study patients in depth. Of note, even though clinical learning takes place in the "real world" of healthcare delivery, not just any hospital, outpatient office, or clinical preceptor is considered acceptable. Rather, medical educators have long considered it axiomatic that good clinical teaching should illustrate exemplary patient care and thereby provide students a model for how medicine should be practiced.

Third, much of who physicians are, particularly in terms of their attitudes, values, and behavior, is shaped not by formal course work but by the so-called "hidden curriculum"—the broad social and cultural milieu in which medical education takes place. Numerous sociological studies over the past 5 decades have documented the profound impact of the entire institutional environment of the academic health center on the attitudes, values, beliefs, modes of thought, and behavior of medical students. These studies have found that attitude formation results from the totality of students' interactions with faculty, house officers, patients, hospital staff, and one another in laboratories, classrooms, wards

Much of who physicians are, particularly in terms of attitudes, values, and behavior, is shaped... by the so-called "hidden curriculum"...

and clinics (3). No matter how much caring and compassion may be emphasized in the formal curriculum, students are continually exposed to implicit messages about caring that emanate from the reality of how care is actually delivered in the academic health center. These messages often run counter to what medical educators are trying to convey. For instance, the effects of a brilliant lecture on caring to the assembled medical class can easily be undone should students return to a harsh ward culture where residents routinely speak of the "GOMERS" ("Get Out of My Emergency Room!"—a derogatory term in the argot of house officers for elderly or critically ill patients) who were just admitted.

The Erosion of the Learning Environment by the Marketplace

As academic health centers have entered the "real world" of healthcare delivery, they have been subjected to the same forces of the marketplace as all other hospitals, clinics, and doctors' practices. The most conspicuous external force—and the one posing the gravest danger to medical education—is the marketplace's current infatuation with increasing patient "throughput"—that is, seeing as many patients as possible, as quickly as possible, both in hospital and ambulatory settings (1). This state of affairs has had subversive effects on the ability of students to acquire the fundamental skills of clinical care and to

The most conspicuous external force--and the one posing the gravest danger to medical education--is the marketplace's current infatuation with increasing patient "throughput"...

learn caring attitudes and behaviors. Herein lies the overarching threat to the education of the country's physicians at the present moment.

The market's erosive effects on medical education can be seen in many ways. For instance, fewer and fewer clinical faculty are available to serve as teachers and mentors. Instead, today's faculty are under intense pressure to be "clinically productive"—that is, to see as many paying patients as possible so that they can help keep the medical center financially afloat. (Of note, the common definition of "clinical productivity" at medical schools refers to the amount of professional fees generated, not the quantity or quality of care. Delivering ordinary care to paying patients is considered being "clinically productive"; delivering outstanding care to charity patients is not). This writer has heard the chairman of internal medicine at a prestigious medical school tell his faculty, "If you want to teach, do so at lunch and keep your lunches short." Because of such pressures, many clinical faculty members presently have little time to teach, advise, serve as mentors, or conduct research. In addition, medical students have dwindling opportunities to observe faculty doctoring in a teacherly, caring way (1).

These conditions have not escaped the attention of faculty. Instructors at many medical schools are troubled at being unable to teach medicine, engage in research, and take care of patients in a way that fulfills their criteria of clinical and moral excellence. In particular, they have bemoaned the new rules of faculty practice that insist on maximizing "clinical productivity" because those rules have interfered with their educational duties. In the words of a pediatrics professor at the University of Texas Medical School at Galveston, because of the pressure to maximize clinical earnings, "We don't see how we can be educators" (4). If one tenet had helped ensure medicine's place as a university discipline in the 20th century, it was the importance of conducting medical education within a scholarly environment. This principle is being violated by the shift in emphasis from teaching and research to patient care and the conversion of a scholarly faculty to an exclusively clinical faculty.

If one tenet had helped ensure medicine's place as a university discipline in the 20th century, it was the importance of conducting medical education within a scholarly environment.

Though teachers are important to the learning environment, even more important is the opportunity for students to spend ample time with patients. In this respect, the marketplace has again been extremely injurious to clinical learning. Through the mid-1980s, the average length of stay at teaching hospitals was 10 to 12 days. Now, it is 3 to 4 days. In part this change reflects technological advances in medical care, such as the growing use of "minimally invasive" surgery. However, it largely represents the attempt by third party payers to reduce hospital costs. Short hospital stays have forced medical schools to conduct clinical education in an atmosphere in which the principal mandate for patient care is speed. As a result, students are being converted from active learners to passive observers, with deleterious consequences for their ability to acquire fundamental knowledge and skills.

Part of the negative effects of educating students in the present clinical environment is on the acquisition of cognitive skills. It is much harder for learners to develop problem-solving abilities when patients are admitted with their diagnoses known and treatment plans already determined. For instance, clinical clerks in surgery, meeting patients under the drapes of the operating table, can still learn about removing a gall bladder, but such encounters do not teach students to recognize the patients who actually might need the procedure, or to distinguish such patients from those who do not. Once admitted, patients are often discharged before a diagnosis has been made or the effects of therapy observed—or even before an attending physician has had the chance to confirm a physical finding. These circumstances deprive students of the opportunity to follow the course of disease and treatment.

Equally concerning, the hurried environment carries negative implications for the all-important latent learning of the "hidden curriculum." Habits of thoroughness, attentiveness to detail, questioning, and listening are difficult to instill when learning occurs in a clinical environment more strongly committed to patient "throughput" than to patient satisfaction. In addition, it is hard to imagine how it can be good for the development of caring attitudes to conduct medical education in a commercial atmosphere in which the good visit is a short visit, patients are "consumers," and institutional officials speak more often of the financial balance sheet than of the relief of suffering. Many medical schools today are attempting to develop professionalism through holding "white coat" ceremonies or giving lectures on ethics (5). However, none of these schools addresses the issue of how such efforts will succeed in the internal culture if the academic health center no longer readily reinforces the values and principles that the faculty wishes to impart (6).

The erosion of the learning environment at academic health centers represents the overriding threat to the education of physicians in the United States.

Conclusion

For the past century, the strength of clinical education in the United States has arisen mainly from the exceptional learning opportunities available to students in the wards and clinics of teaching hospitals. A diverse array of patients was present, and students actively participated in their care. Time was present for learners and teachers alike. Students could observe firsthand the natural history of disease and therapeutics, learn the nuances of clinical medicine, and explore in depth issues of particular interest. Faculty were not only well qualified to teach but had sufficient time to devote to that work.

In this context, the erosion of the learning environment at academic health centers represents the overriding threat to the education of physicians in the United States. The current medical marketplace has made it exceedingly difficult to maintain a nurturing learning environment where teachers have enough time to teach, learners have enough time to learn, and institutional

leaders care more about service to patients than cash flow or the capture of market share. If the medical profession and society do not address this problem, medical students will not be adequately prepared to enter the practice of medicine.

Going forward, medical education's greatest need is to modify the internal culture of the academic health center so that it once again facilitates active learning and better reinforces the values and attitudes that medical educators wish to impart. Medical educators have spent much time in recent years discussing how they can accommodate education to inpatient and outpatient settings without slowing down the flow of patients. They will now need the courage to slow down the flow of patients in teaching settings so that educational objectives can be better met. Preserving the learning environment, of course, represents no small task, as academic health centers have become much more commercial than they were even a few years ago—and far less friendly to patients and students. Faculties and administrators might have to make personal financial concessions for the sake of preserving the quality of medical education and patient care at their institutions. However, all who might ever be sick should hope that these steps will be taken. Until professional and public leaders succeed at making the internal culture of academic health centers less commercial, our efforts to produce competent and caring physicians will continue to be undermined.

Acknowledgement

Dr. Ludmerer's work was supported in part by a grant from the Charles E. Culpeper Foundation.

References

1. Ludmerer KM. Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care. New York: Oxford University Press, 1999.
2. Ludmerer KM. Learning to Heal: The Development of American Medical Education. New York: Basic Books, 1985. pp. 63-71.
3. Fox RC. The Sociology of Medicine: A Participant Observer's View. Englewood Cliffs, NJ: Prentice-Hall, 1989. pp. 72-107.
4. Mangan KS. Medical schools are reigning in the salaries of faculty members. Chronicle of Higher Education, 26 July 1996, p. A18.
5. Swick HM, Szenas P, Danoff D, et al. Teaching professionalism in undergraduate medical education. JAMA 1999;282:830-832.
6. Ludmerer KM. Instilling professionalism in medical education. JAMA 1999;282: 881-882.