

Ambulatory-Based Clinical Education: Flexner Revisited

How can medical schools make sure that their students will regularly encounter patients with common clinical conditions during their clinical training? This is a major challenge because patients who previously would have been hospitalized for the management of such conditions can now be cared for in ambulatory settings, thanks to advances in medical practice. As a result, most of the patients seen by students during their inpatient clerkships have serious complications of underlying diseases, or complex conditions that require specialized care. Also, changes in the organization and financing of medical care have adversely affected students' experiences on those clerkships by altering the way care is provided on inpatient services and by shortening the length of hospital stays. As a result, clerkships based on the inpatient services of major teaching hospitals no longer provide the optimal range of experiences for students to learn clinical medicine.

Many schools, recognizing this to be the case, have increased the amount of time students spend in ambulatory settings during their clerkships. But there is still a significant imbalance between the time students spend on inpatient services during most clerkships and the time they spend in ambulatory settings. One of the problems schools face in changing their clerkships is knowing how to organize ambulatory-based experiences so they provide quality education. To remedy this, models of ambulatory-based clerkships need to be established around the country so that schools can learn from them what might be effective at their institutions. The model being employed by the Florida State University College of Medicine and the pilot project under way at Harvard Medical School and the Cambridge Health Care Alliance are examples of the kinds of innovative approaches for teaching clinical medicine in ambulatory settings that are badly needed.

Now, I recognize that some faculty are more than a little uncomfortable with the

notion of moving to a more ambulatory-based model of clinical education during core clerkships. They see this as too dramatic a departure from the longstanding and strongly held view that students must learn clinical medicine primarily on the inpatient services of hospitals. They see the move to ambulatory-based clinical education as one that threatens to undermine the quality of medical students' education by abandoning the Flexnerian model established in this country over 75 years ago. But those who believe that Flexner argued that medicine has to be learned on the inpatient services of hospitals fail to appreciate fully Flexner's views.

In his famous 1910 report, Flexner did emphasize how important it was for medical schools to enter into arrangements with hospitals so that the students could gain first-hand experience in the diagnosis and care of patients afflicted with a variety of clinical conditions. In the years that followed, medical schools and hospitals worked together so that students could become involved in the care of hospitalized patients. It goes without saying that over the years, medical schools have come to depend heavily on teaching hospitals to provide quality educational experiences for their students.

Even so, Flexner did not view the inpatient services of hospitals as the primary site for students to begin to learn clinical medicine. Quite the contrary: Flexner believed that experiences in the "dispensary" were essential to the clinical education of medical students, and that those experiences should precede the study of clinical medicine on the hospital wards. Indeed, in his report, Flexner recommended that the third year of the curriculum should be devoted to learning clinical medicine in the dispensary and that inpatient experiences should occur during the fourth year. In this regard, it is useful to recall what Flexner had to say about what schools should do to ensure that students had appropriate opportunities to learn clinical medicine:

The backbone of the structure is the clinic in internal medicine. This central fact cannot in America be too strongly emphasized. The sufficiency of the school's clinical resources depends at bottom on its medical clinic; the value of its training depends on the systematic thoroughness with which it is in position to use an adequate supply of medical cases. To sample a school on its clinical side, one makes in the first place straight for its medical clinic, seeking to learn the number of patients available for teaching, the variety of the conditions which they illustrate, and the hospital regulations in so far, at least, as they determine (1) continuity of service on the part of the teachers of medicine (2), the closeness with which the student may follow the progress of individual patients, and (3) the access of the student to the clinical laboratory. It matters much less what else a school has by way of clinical opportunity if it has this, though, of course, the school that has it will have whatever else it needs too.¹

Now, in Flexner's time internal medicine was viewed as a much broader field than it is today, one that encompassed neurology, dermatology, and pediatrics. So while one might want to tweak a few of the words and phrases in that quote to make it fully applicable to today's situation, the general concept it expresses is clear. It is in the ambulatory care setting that students will encounter patients with the kind of clinical conditions that they need to see to begin to learn clinical medicine. There can be little doubt that the changes that have occurred in recent decades in the organization, financing, and delivery of medical care have made this the case today, just as it was in Flexner's time.

It isn't surprising that many in the medical education community are not aware that Flexner placed so much emphasis on the teaching of clinical medicine in ambulatory settings. One reason is that in the early 1950s most medical schools switched the third and fourth years of their curricula. The clinic experiences provided in year three (the Flexner model) were moved into year four, thus creating a third year devoted to

inpatient-based clerkships. And then in the 1960s and 1970s, schools largely eliminated the clinic-based experiences required in year four to create a fourth year devoted to electives. So in one sense, the move I am proposing to a more ambulatory-based model of clinical education in year three is simply a return to the traditional Flexnerian model for the medical school curriculum.

But efforts to improve the clinical education of medical students will require much more than simply a move to more ambulatory-based clerkships. Equally important is the need for new models to teach students clinical medicine on the inpatient services of major teaching hospitals. Why? Because without the chance to interact with seriously ill patients also, students will not experience the full spectrum of patients' conditions that they must have to fully appreciate what it means to be a physician. But there is no reason why these inpatient experiences should be provided in the third year of the curriculum. And in thinking about how these experiences might be provided, it is important to recognize that simply tinkering with the existing clerkship

models to ensure that attending physicians spend an adequate amount of time teaching students and providing them formative assessment—two major needs in many clerkships at present—will not be adequate. Instead, there must be a fundamental redesign of how students spend their time when assigned to inpatient services. Students should be able to explore with inpatients the evolution of the clinical manifestations of their underlying diseases, and how the onset and clinical course of those diseases affected them, the immediate members of their family, and their community. They also need to be able to follow those patients once they leave the hospital, to gain an appreciation of the challenges patients face when they return to their homes and resume ambulatory-based care.

So what is needed to improve the clinical education of medical students is a commitment by medical schools to provide in sequential fashion a series of clinical experiences that are developmentally appropriate for the students' stages of learning. To make this happen, schools need to learn from the ambulatory-based clinical education

models that some schools have had in place for decades, and from those more recently implemented by others. They also need a much better understanding of how the dynamics of the patient care provided on the inpatient services of their major teaching hospitals affect the clinical education of their students and how the students' roles can be redefined to enhance their learning of clinical medicine. And then, armed with this information, they must be willing to break with the traditional approach to inpatient-based clerkships to design a better clinical education for their students—one that will allow them to learn the fundamental clinical skills they need as they begin their residencies and, most important, one that will allow them to truly learn what it means to be a physician.

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Reference

- 1 Flexner A. Medical Education in the United States and Canada. A Report to the Carnegie Foundation for the Advancement of Teaching. Bulletin No. 4: Boston: Updyke, 1910:93–94.