Medical Education: the Forgotten Link

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Introduction

In 1908, the Carnegie Foundation for the Advancement of Teaching hired Abraham Flexner to produce a critique of American medical education. Flexner, a former high school teacher who started his own experimental school at 1926, spent the next 16 months visiting all 155 medical schools in the U.S. and Canada. In his report, Flexner deemed two-thirds of schools to be “hopeless.” The majority were proprietary, operated more for profit than education, with no uniform standards. Sixty percent required their students to have only an elementary school education; a mere 12 percent required two years of college. Flexner found “squalid classrooms lacking even chairs, desks, and blackboards. Teachers, of questionable training themselves, were routinely tardy or absent. Teaching was essentially “uninstructive”- heavy on long, droning lectures and short on dissection, lab work, or other hands-on experience”.

In the two decades following Flexner’s report, more than 70 medical schools closed. College education became the standard prerequisite for medical school admission, and two years of science followed by two years of clinical experience became the standard “2 + 2” curriculum taught by full-time faculty. Flexner recognized that medical education must respond to changes in both science and society in order to meet its mission. American medical education is indebted to Flexner for the reforms he sparked. Today, science is uniformly well taught as the underpinning of medical practice, and strict licensing and accrediting processes are in place.

However, this model of medical education and training is almost a century old. The so-called “Hopkins” model was designed and widely adopted in the early part of last century to ensure that medical education was rooted in a solid base of knowledge in the biomedical sciences and that students would be trained in clinical medicine through a staged, closely mentored process of increasing exposure and responsibility, primarily in a hospital setting. Those so gifted or inclined would have opportunities to pursue bioscientific and clinical research. This model has served us well. Therefore, even in this strong medical education foundation, the question has been raised: is it still the best model for our future? The answer is more likely negative and the medical education systems need to realign with the needs of the public so that we can fully serve the public health.

I think we need a Flexner to scrutinize our system of medical education in Iran. We need to go through all medical schools and see how deeply different curriculums are implemented. We need to inspect our residency and fellowship programs and see if they are competent in the training of capable medical doctors and specialist. We also need to see if our evaluation methods are right. We know that, in Iran, residency entrance exams (pre-internship examinations) are solely based on a multiple choice written questions and does not consider the students clinical skills and ability, communication skills, participation in team work and professionalism. We have the same problem with board certification examinations that totally depends on 150 multiple-choice questions written exam. There is also an oral part in form of objective structured clinical examination (OSCE), which is good, but nobody has ever examined the validity and reliability of these exams. There are numerous other questions that needed to be answered through research. Additionally, we should see if we are able to teach science uniformly by the underpinning of medical practice, and putting strict licensing and accrediting processes in place.

Therefore, I strongly believe that we need to reexamine our system of medical education. I am not sure how much we are successful in implementing Hopkin's model of education, a system that I believe is in need of major changes. Despite everything they do so well, medical schools have not kept pace with the ever evolving needs of the society they serve. I think the complexity of health care content and delivery has increased enormously, and the patient population is far more heterogeneous in origin, age and disease
Science and technology are advancing so rapidly that new practices must be incorporated quickly. In addition, health system reform in the current year needs more attention to education as this system requires physicians who understand that good health care is more than the provision of clinical services. Today’s doctors must learn new content and skills, including quality improvement, patient safety, communication, health economics, and the social determinants of health. To achieve these goals, we need to focus on research on medical education.

I know medical education research is not without challenges. Wartman described four major challenges facing the field of health professions education research: conceptual difficulties, pressures on the curriculum, financial concerns, and the need to link education to outcomes. Conceptual difficulties refer to methodological challenges in conducting medical education research. One of these challenges is the time between learning and important outcomes, which may be so long that the effects of the curriculum are obscured or that the link is indirect. Wartman has called this challenge the “educators’ uncertainty principle.” Since education itself can play only a part in the overall outcome it is expected to affect, we cannot know the precise effect of education on the outcomes of education.” Another important challenge to the field of medical education research is lack of a critical mass of skilled education researchers. Many clinical departments operate with a budget deficit that is being addressed by increasing the clinical productivity of their clinician-educators, which serves to erode the already limited protected time for educational research. This slows the academic advancement of clinician-educators, resulting in a paucity of senior mentors.

The editorial board of Academic Journal of Surgery (AJS) has decided to open an education corner in the journal in order to publish research in medical education. We believe that focus in medical education will improve the health care system fundamentally. We are especially welcome to all papers or commentaries on education to be published along a fast track in AJS.

References