

Public Health History Corner

Abraham Flexner: the iconoclast



Abstract

Abraham Flexner, in 1910, led an attack on the inadequacy of the medical schools in the United States. In opposition to the traditional clinical type training he proposed a new laboratory centred model, with a strong emphasis on basic sciences. These university lab experiments were one of the main driving forces in the development of medical sciences in the USA. The work of a pedagogue caused a real medical revolution, the outcomes of which were important but not all positive.

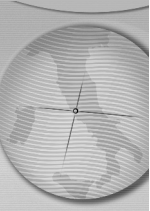
Introduction

America today is a world leader in medicine. The most important discoveries in the biomedical field are made in the States, with international recognition for their world class laboratories. The great advances in diagnostic and therapeutic medicine, that today give great hope of cure to once fatal diseases, come from the medical advances in America during the last century. It has led to the development of more effective therapies and diagnostic methods all of which are quickly made available to the population. But how and when was this medical leadership born? Is it responsible for one or many scientists? We will try to tell the story of a man whose biography is titled "The Iconoclast". His achievements will help us answer these questions.

Abraham Flexner: who was he?

Abraham Flexner was born in Louisville, Kentucky, in 1866. He and his eight brothers were sons of German-Jewish immigrants who wished to provide better opportunities for each of their children. Flexner did not disappoint them. He earned his A.B. degree in the newly formed Johns Hopkins University in Baltimore and was a real forerunner of modern learning, basing his theories on small classes, personal attention, and hands-on teaching. They were the real foundations of his pedagogical intuitions, and represented the Flexner's new approach to medical training. He got the first confirmation of the validity of his theories when, after graduation, he returned to Louisville. In his hometown he founded a school that was soon to be come known throughout the city as "the school of Mr Flexner". He immediately understood that his educational theories were well founded. In fact its graduates were able to be admitted in to some of the most famous colleges at a much earlier age.

Mr Flexner was a strong and enterprising man. The fame of his success gave him a national reputation and he seized the opportunity to write his first book, which may have seemed temerarious: *The American College*. His pupil and biographer Thomas Bonner defines it as an "unrelievedly critical attack on American higher education"¹. Flexner's critical analysis was based mainly on the didactical methods used during that period. The criticisms were quite fierce: stating that the traditional lecture styles allowed colleges to "handle cheaply by wholesale a large body of students that would be otherwise unmanageable and [to give] the lecturer time for research".



His ability as a scientist, his style as a writer, and the courage of his unscrupulous attacks on such a sacred institution as the medical university drew him to the attention of another man with a strong personality, of Welsh extraction: Henry Pritchett. He was the president of the Carnegie Foundation, founded by philanthropist Andrew Carnegie in 1905 and approved by the U.S. Congress in 1906. The foundation was one of the results of the American cultural tumultuous growth in the early part of the century. It was an institution independent of the policy that aims to collaborate with teachers, researchers, politicians and organizations working in education to analyze and develop new methods to bring about positive changes in education. At that time, in the field of education, and more exactly professional education, Pritchett was looking for a scientist who could establish new methods in medical studies. Flexner had never been inside a medical school, but Pritchett had a particular capacity to put the right man in the right place. In 1910 there were 155 medical schools in North America. They were very diverse across many areas, in particular with respects to admission requirements, however, they were similar in one aspect: "Each day students were subjected to interminable lectures and recitations. After a long morning of dissection or a series of quiz sections, they might sit wearily in the afternoon through three or four or even five lectures delivered in methodical fashion by part-time teachers. Evenings were given over to reading and preparation for recitations. If fortunate enough to gain entrance to a hospital, they observed more than participated".

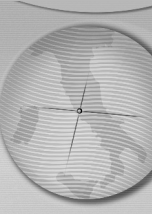
Flexner's work was untiring: he visited all of the 155 medical schools and wrote *Medical Education in the United States and Canada*. New York: Carnegie Foundation for the Advancement of Teaching, a report that changed medical teaching in America.

His describing style was unmistakable. Concerning the 14 medical schools in Chicago he wrote: "a disgrace to the State whose laws permit its existence ... indescribably foul ... the plague spot of the nation". His strong critiques on medical education in the USA became famous. However he was not only a destroyer. His real ability was link these critical assessments of the American medical school with excellent plans to reconstruct medical education by private philanthropy cooperation (he had a fundamental role in deciding which medical schools would benefit the most from interventions provided by the 6 billion dollars package made available voluntarily by the private sector in order to upgrade medical education. Flexner was in fact a hard enemy of commercial motives in medicine. Furthermore, he encouraged meritocratic learning, both for poor people and African Americans or women.

He was the author of the didactical project for an experiment in New York: the Lincoln School, which became a symbol of the progressive school movement, and, above all, The Flexner Model of medical education which is still current today. "An education in medicine" wrote Flexner "involves both learning and learning how; the student cannot effectively know, unless he knows how." Today, we can explore how his ideas have played an important role in promoting Public Health philosophy in medical education. He considered the physician as a "social instrument ... whose function is fast becoming social and preventive, rather than individual and curative".

One of the most frequent Flexner's assertions was that the purpose of the university must be "intellectual inquiry" and not "job training", a view that he repeated in his 1930 book *Universities: American, English, German*. Of course this deep criticism caused many discussions but the results were a progressive breakaway of students from the bedside towards research laboratories. The Hippocratic model of the practitioner who "stay in a desert isle with his patient", as said Ernst Schweningen, the Cancellor Otto von Bismarck's personal doctor, began its sunset.

He exerted, as wrote Bonner, "a decisive influence on the course of medical



training and to leave an enduring mark on some of the nation's most renowned schools of medicine".

As described by Delese Wear², Flexner was "a brilliant, tireless, extraordinarily persuasive visionary".

So, as we can read in the Bonner's biography Flexner, a pedagogist, was "the severest critic and the best friend American medicine ever had".

Abraham Flexner was also a member and then the executive secretary of the General Education Board (GEB), an organization created to organize the donations of John D. Rockefeller.

Upon his retirement from the GEB, Flexner accepted the prestigious invitation to take up residence at Oxford for the Rhodes Trust Memorial Lectures and he received a gift of \$5 million to create and direct the Institute for Advanced Study at Princeton.

When he died (1959), the history of one of the most remarkable scientist's ended, but the results of his work would continue and have an incredible impact on the history of medicine and public health.

The evolution of the Flexner Revolution has played a significant role in the success of technological thought in medicine.

What good was in the Hippocratic tradition, attention to the patient and personalization of the doctor-patient relationship, has been gradually set aside.

Less time at the patient's bedside and more time in the research laboratories may have led to many extraordinary medical discoveries, however perhaps it has also marked the beginning of the age of patient loneliness.

It is also interesting to note that in the U.S., where the developed Flexner theories favoured the research-born technological obesity of medicine, has also come the counter-balance in the form of "Medical Humanities". And as Flexner was the prophet of the Copernican revolution in medical education, the prophet responsible for correcting the balance, in the sign of humanism, is another American scientist: Edmund Pellegrino, who we will be discussing at a future juncture.

References

- 1) Bonner TN. Iconoclast: Abraham Flexner and a Life in Learning Baltimore: Johns Hopkins University Press, 2002.
- 2) Delese W. Iconoclast: Abraham Flexner and a Life in Learning. NEJM; 347(25): 2088-9.

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