Abraham Flexner (1867–1959): pioneer of modern medical education

Today, medical education in the UK is in a state of flux, so it is comforting to look back on the life and work of a pioneer in this field, who is recognized as having had a profound effect for good on the standards of medical training throughout the western world and who died half a century ago.

Abraham Flexner was born in 1867, one of nine children, his parents having emigrated from Bohemia to the USA. His brother Simon became a distinguished bacteriologist and director of the Rockfeller Institute for Medical Research. Young Abraham Flexner attended the Johns Hopkins University, Baltimore, and graduated in Arts in 1886. He first taught in a high school, then opened his own very successful school in Louisville, Kentucky, where he rapidly gained a high academic reputation for his teaching methods, based on a minimum of restraint and a maximum of encouragement for his pupils.

After visiting teaching institutions in Europe, Flexner published a monograph *The American College* in 1908, which led to his being invited by the Carnegie Institute for the Advancement of Teaching to investigate the training of medical students at the medical colleges of the USA and Canada, many of which were little more than diploma factories.

Flexner set to work with enormous energy. He visited 155 institutions and in 1910 published his Bulletin Number 4 of the Carnegie Institute – it ran to 346 pages, and was devastating: 'I struck from the shoulder, naming names and places', he wrote.

Flexner reviewed each school in turn: 'We have in America medical practitioners not inferior to the best elsewhere, but there is probably no other country in the world in which there is so great a distance and so fatal a distance between the best, the average and the worst'.

Some typical comments included:

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'The two Milwaukee schools are without a redeeming feature'.

Wisconsin College of Physicians and Surgeons – 'Anatomy is very poor and there is not even a complete skeleton ... clinical facilities are utterly wretched. Acute medical cases are seen, if at all, twice a week at the County Hospital, which is 5 miles away'.

His ruthless and destructive criticisms were followed by constructive and wise recommendations.

Flexner laid down sound principles for the future training of medical students, based mainly on what he had seen at the Johns Hopkins medical school in Baltimore. Flexner had had long discussions with the heads of departments there, in particular Claude Welch, the Professor of Pathology, who had had much to do with the recruitment of the full-time and distinguished faculty at Hopkins. Welch himself based his ideas on the German model, particularly from what he had seen of the pathologist Julius Cohnheim's department in Leipzig.

'Flexner laid down sound principles for the future training of medical students'

Flexner advised that a medical school should be a properly instituted university department. There should be a minimum entry requirement into it of a 2-year college course in which science is the prominent subject. The clinical work should be in a hospital, which should be situated in a major city and which should be under the complete control of the medical school. The heads of all the clinical departments should be full-time salaried teachers – and so the recommendations rolled on. There was a separate section on the training of women – Flexner was fully supportive, and wrote 'Women are assured a place in general medicine', at a time, of course, when the great majority of medical schools and examining bodies refused entry to women.

The results were astonishing! By 1924, Flexner could report that half the medical colleges in North America had closed down without a whimper. Of those that remained, there had been a great improvement in equipment and facilities, laboratory subjects were being taught by trained full-time professors and there had been a great reform of curricula, with pretty well universal adoption of a 4-year course, separating pre-clinical and clinical subjects.

In 1912, with his characteristic boundless energy, Flexner published a detailed report on medical education in Europe. This was timely, because the Haldane Commission (1910–13) was deliberating on medical education in England. Implementation of the Haldane report was held up by World War I, but after the war, the first whole-time professorial clinical units were being planned and opened in this country.

In 1917, Flexner joined the General Education Board of the Rockefeller Foundation, and became remarkably successful at persuading wealthy philanthropists such as JB Morgan and Rockefeller himself to donate large sums of money to improve medical education. He wrote 'The Rockefeller organisation estimated, in one school after another, what was needed – it offered a third, sometimes a half, provided the institution raised the balance. In the course of 10 or 12 years, the situation was transformed.'

In 1930 Flexner opened, and became director of, the Princeton Institute for Advanced Study. This he based on the model of All Souls, Oxford, where he had spent some time as a Fellow. Among the many eminent men he attracted to the Institute was Albert Einstein, who joined the faculty in 1933, as a refugee from Nazi Germany.

Flexner finally retired in 1939, the year of his death, at the age of 92 years. A truly remarkable career, from which we have much to learn today. **BJHM**

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