

Medical Education And India

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Abbreviations ME-Medical Education, IE-Indian Education, BC-Before Christ, AD-After death of Christ.
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I. Introduction

Medicine is an art of giving relief to the persons suffering from any mental or physical problem. So, it was needed since the human race developed the sense of thinking. Even today in the forest we see even animals treating their kith and kin in their own way. In olden days, the persons engaged in treating patients used to tell their sons and daughters about secrets of their treatment at the time of their death. But, if the specialist person dies young or remains single or had no issues, his secret of treatment used to go with him. Gradually such information were recorded in documents. Subsequently study of such documents systematically took the form of ME. Even during Pre-Vedic period (from 3000 BC) evidence of anatomical knowledge has been found in the form of cave paintings in Indus valley. Vedic period (around 1500BC) has been marked by writing of four Vedas, or sciences. They describe the aspects of anatomy, medicinal herbs and plants. Post- Vedic period (800BC-1000AD) is supposed to be golden age of Indian medicine in form of Ayurveda and Siddha system. In 13th century Unani system of medicine was introduced by Muslim rulers. From 1810 AD Homeopathy gained foothold in India till the advent of British in 18th century, which saw the beginning of western medicine or modern medicine in India.

India is a vast country with a very old civilization. If we see education as such, we find that education in a systemic form remained in India since long and even the people from neighbouring civilizations used to visit India for learning. Volumes of documentary evidence is there to support this. Medical education cannot be seen different from the education as physical and mental sufferings are there since the evolution of life on the earth.

II. History

“In the great teaching of the Vedas, there is no touch of sectarianism. It is of all ages, climes and nationalities and is the royal road for the attainment of the Great Knowledge.” –Thoreau (American Philosopher). Surprisingly, great advances were made in medical sciences in ancient India even in pre Vedic era. We have documents to see surgery done in ancient India, especially plastic surgery, cataract surgery and dental surgery, etc. Shushruta lived in Kashi in India in 8th century B.C. He documented a book on medical sciences, named ‘ShushrutaSamhita’. He gave an authentic description of Anatomy after studying the same on dead human bodies. Plastic Surgery can also be found in this book with details of steps of operation in rhinoplasty, which is more or less followed today also in this advanced age of reconstruction surgery.

Ashwinikumars and Dhanavantari were other medical practitioners in Vedic era and were accepted as God. Charak was also in Kashi in 8th century B.C. He was the first to focus on Physiology of the body and told us about digestion, metabolism and immunity. He revised the treatise written by two physicians Atreya and Agnivesa in 8th century BC. This book ‘CharakSamhita’ became very popular. Western medicine was introduced in India in 16th century AD by the Portuguese. In the year 1600, first British ship landed in India and with the British people medical officers were also there and they also helped to propagate western or modern medicine in India. Initially, medical departments, with surgeons, were setup to provide medical relief to the troops and employees of the East India Company. In 1775, hospital boards which comprised the Surgeon General and Physician General were formed. These were essentially constituted by staff of the Commander-in-Chief of the British Indian Army in each presidency. Medical departments were setup in Bengal, Madras, and Bombay presidencies in 1785, and these looked after both military personnel and British civilians. (1)

In 1822, the Native Medical Institution was established in Calcutta to provide medical training to Indians. Around 20 young Indian students were instructed in the vernacular medium. European texts in anatomy, medicine, and surgery were translated into the local languages for the benefit of students. Though

dissection was not performed, clinical experience in different hospitals and dispensaries was mandatory. Parallel instruction was given in both Western and indigenous medical systems.(2)The medical education is the result of the research, experiment and experience.In 1826, to offer Indians the opportunity to learn and practice Western medicine, an Indian medical school was started in Southern Bombay with surgeon John McLennan as the Superintendent. This school, however, did not run beyond 6 years.

In February 1835, Thomas Macaulay composed a powerful minute recommending that the government withhold further grants to institutions, “conferring instruction in the native languages”. (3)The termination of official patronage to indigenous systems of medicine sealed the fate of the students of the two leading oriental institutions in Calcutta. The Native Medical Institution was abolished. The classes held at the *madrasa* and the Sanskrit College were discontinued in 1835.In their place, a new medical school was established to train Indian students “in strict accordance with the mode adopted in Europe through the medium of the English language.” Calcutta Medical School was established in 1835 and it ushered in a new beginning to medical education in India. Youths between 14 and 20 years of age were trained in the principles and practices of medical science using methods of the West. Around 49 students were selected, some through a preliminary examination. They were to be trained for a period not less than 4 years and not more than 6 years, after which they had to appear in a final examination. Successful candidates were given certificates allowing them to practice surgery and medicine. They were called “native doctors,” and allowed to enter public service with an initial pay of Rs. 30 a month.(4) In Bombay, Sir Robert Grant became the Governor and was deeply moved by the vast number of Indians who died due to lack of proper medical care. He envisaged the idea of training Indians in Western medicine. In March 1838, a generous grant by philanthropist Sir JamsetjeeJeejebhoy made way for building a new general hospital in Bombay. The East India Company endorsed the proposal to setup a medical college on July 18, 1838. However, Sir Grant succumbed to illness 9 days before this news arrived. The new medical college was named after Grant as a tribute to him. The foundation stone of the Grant Medical College was laid in Bombay in March 1843 with an aim to “impart the benefits of medical instruction to the Natives of Western India through a systematic system.” The general hospital which was opened in 1845 is now known as the Sir JJ Hospital. (5) Two levels of instruction were offered. Indians could undertake a course to qualify as doctors and work as assistant surgeons or they could undertake shorter courses to allow them to practice as medical subordinates (sub-assistant surgeons, hospital assistants, and sanitary inspectors) for British government services. (6)

A medical school was established in Madras in 1835 to “afford better means of instruction in Medicine and Surgery to the Indo-British and native youths, entering the medical branch of the service in the Presidency.” Different courses were conducted for the medical apprentices of the apothecary branch and for pupils of the native branch of the military sub-medical department to be appointed as dressers later. The 2-year course consisted of Anatomy, MateriaMedica, Medicine, and Surgery. Later, Midwifery, Physiology, Ophthalmology, and Chemistry were added, and the course was extended to 3 years. Eventually, medical colleges were started in other provinces too, with the purpose of producing a cadre of doctors who could be recruited into the Subordinate Medical Services. (7)

The first medical school was started in Kolkata in 1824 followed by another at Chennai. In 1845 a medical college was started in Bombay followed by the opening of two more medical colleges at Hyderabad and Indore. After the establishment of universities at Kolkata, Chennai and at Mumbai the medical schools were upgraded into medical colleges.In 1840, the Portuguese started the Medicine and Pharmacy Licenciates, now known as Goa Medical College. (8) University-affiliated medical education became the norm in the 1850s, after the opening of the first three Indian universities in Madras, Bombay, and Calcutta. Madras Medical College was the first in India to open its doors to women students in 1875. Even so, in 1877, among the 8000 medical practitioners, only 450 were trained in Western medicine. The rest were practitioners of indigenous systems of medicine.(9)Gradually, number of medical colleges in India started going up and problem came to maintain the standards of ME there. A committee comprising of Norman Walker and Colonel Nudham submitted a report and based upon its recommendation, Medical Council of India was established in 1933 to give guidelines and set up standard of ME in these colleges. MCI was founded on the pattern of Medical Council of UK. 10In 1946, Bhore committee recommended major changes in medical education. 3 month’s training in PSM to prepare “social physician”. Indian Medical Council act 1956 is operational today. It was amended in 1956, 1964, 1993 & 2001. It acts as a statutory recommending body. It stipulates the rules for medical school curriculum, structure and content.

There was a rapid growth in the number of medical colleges in India after achieving independence in 1947. In 1956 the prestigious All India Institute of Medical Science (AIIMS) was established in New Delhi.10In 1975, Srivastava committee advocated and recommended reorientation of medical education according to national needs through a medical education commission on lines of UGC.

In 1977, reorientation of Medical Education (ROME) scheme was launched to link community based facilities with medical colleges. In 1983- National health policy provided directions to reconstruct the curriculum (train Undergraduate medical students as a Primary care physician). In1986, Bajaj committee report

emphasized on need of a Medical and Health Commission In 1992, the National Institute of Health and Family Welfare carried out a study on the effectiveness of the training given in the graduate course on issues relating to Maternal and Child Health and Family Planning. This showed that a large number of fresh graduates had no knowledge of simple procedures and conditions, like: immunization; nutritional advice; IV Fluids, oral pills, IUCD, etc. In the same year MCI organized a National Workshop for debating a Need based Curriculum for UG Medical education.

1997, Govt. of India, on recommendation of MCI, promulgated the “Regulations on Graduate Medical Education” through a gazette notification. In 2011 the Board of Governors of MCI had announced a fresh set of curricular changes entitled ‘Vision 2015’ to re-look at the various aspects of medical education, training and practice for the country. In 2014, total MBBS seats in India were 49530. Number of Government Medical Colleges were 181 with 24610 seats • Number of private medical colleges were 214 with 24920 seats. For MD/MS/Diploma there were 13913 Govt. seats and 8387 seats in private medical colleges. Selection of Students is being done by National Eligibility Entrance Examination (NEET). It was felt that common entrance examination is essential both for UGs and PGs as it ensures uniformity across the country sets a minimum standard and is convenient for the candidates, saves resources and takes care of malpractices.

Framework of Examinations -- For MBBS entrance, common syllabus throughout the country. Eligibility criteria is subject wise allocation of marks. 30% marks each for Physics and Chemistry and 40% marks for Biology

Now, Government of India have placed a bill in the Parliament in 2017-18 to replace Medical Council of India (MCI) by another statutory body, National Medical Commission. Indian Medical Association has objected to some of the sections of the bill and it has been referred to the select committee of Parliament to study and recommend. This Commission (NMC) when enacted will regulate the medical colleges, students and the faculties throughout the country to produce the upcoming doctors with presenting medical scenario in mind.

We hope for a better change in ME in India and wish all the best to the students, faculties and the nation.

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