

Physicians of colonial India (1757–1900)

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ABSTRACT

The period of British rule from 1757 to 1900 is marked by major sociopolitical changes and scientific breakthroughs that impacted medical systems, institutions, and practitioners in India. In addition, historians have debated whether the colonial regime used Western medicine as a tool to expand and legitimize its rule. This paper reviews the secondary literature on this subject with emphasis on the individual physicians. During this period, the practice of “Doctory” or Western medicine gained momentum in India, buoyed with the support of the British as well as Western-educated Indians. Many Indians were trained in Western medicine and employed by the administration as “native doctors” in the subordinate medical service, and the superior medical service by and large comprised Europeans. The colonial regime gradually withdrew most of its patronage to the indigenous systems of medicine. The practitioners of these systems, the *vaidyas* and the *hakims*, suffered significant loss of prestige against Western medicine’s claims of being a more rational “superior” system of medicine. Some of them became purists and defended and promoted their systems, while others adopted the methods and ideas of Western medicine into their education and practice. European doctors now rarely interacted with practitioners of Indian systems, but seriously pursued research into medicinal plants and tropical diseases. There is no mention of specialist physicians in this period, and all physicians and surgeons were generalists. Folk practitioners continued to be popular among the masses.

Keywords: History of Indian medicine, Indian physician, prosopography, social history

Introduction

In the last three decades, the subject of medicine in colonial India has attracted much scholarly attention. A large chunk of work has focused on the relationship between medicine and colonialism, drawing on Foucault’s exposition on knowledge and power. Historians have hotly debated the extent to which medicine helped in the establishment of colonial power and hegemony in India. Scholars have delved deeply into the public health measures adopted during the British rule, and studied these in the context of specific diseases and epidemics. Others have studied the development of medical education, services, and institutions during this period. The response of Indians toward Western medicine and British public health measures, as well as the relationship between the Indian medical systems and Western medicine, has been studied in detail.^[1,2]

In this paper, I review the available secondary sources on this subject with a particular focus on the individual physicians – their lives, backgrounds, education, and social status. I searched for relevant papers through online search engines, libraries, and correspondence with subject experts.

Historical Context

By the middle of the 18th century, India had physicians of diverse backgrounds. There were the *vaidyas* and the *hakims*, who practiced Ayurveda and Unani, respectively. Ayurveda had emerged in India around 600 BC and its practice was based on classical Sanskrit texts.^[3] Unani or Greco-Arabic medicine was introduced in India in the 12th century with the establishment of Muslim power.^[4-6] Since then, *hakims* and *vaidyas* had co-existed and freely borrowed from each other.^[4,7] The *vaidyas* and the *hakims* in general belonged to the Hindu and Muslim community, respectively.^[5,8] Additionally, there

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were the folk practitioners, popular among the masses from the ancient times.^[7]

There were also the European physicians, who started arriving in India from the 16th century onward in the employ of the European trading companies. They were trained in the then current medical practices in Europe and took care of the medical needs of the company soldiers and officials. It was these physicians who introduced the Western system of medicine in India.^[7] Western medicine was generally known as *Doctory* in India and its practitioners were called “doctors.” The “doctors” were different in appearance, attire, and the way they talked from the *vaidyas* and the *bakims*.^[5]

During the initial years of their interaction, Western medicine, Ayurveda, and Unani shared similar conceptions about the humoral constitution of the human body and humoral imbalance as the primary cause of disease. There was mutual respect, and European doctors were willing to learn from Indian physicians, especially the treatments of tropical diseases. However, with the rise of rational thought in Europe, and the increasing importance being given to observation and scientific process over tradition and wisdom, European doctors felt that their system was superior to Indian systems, and limited their interaction to finding new medicines or therapeutic measures.^[9]

Of all the European trading companies in India, the British East India Company emerged dominant in the 18th century. In the later half of the 18th century, the foundation of British rule was laid in India. Starting with Bengal in 1757, the British East India Company started acquiring territorial possessions in India. By the mid-19th century, the company was ruling over most of the Indian subcontinent. The rule of India was transferred to the British Crown in 1858.

Phase 1 (1757–1820): Experiments in Co-existence

The British East India Company employed many surgeons trained in Europe. For recruitment, these surgeons had to take examinations held by the Corporation of Surgeons of London and also faced the examining board of the company. Additional examinations were conducted in India for advancement in service and for British aspirants in India. Indians were not eligible for these examinations.^[7] Bengal Medical Service was instituted to formalize the employment of British surgeons in Bengal, and similar “superior” medical services came into being in Madras and Bombay presidencies.

Owing to recurrent warfare from the mid-18th century, most surgeons of the British East India Company had primarily military duties and accumulated a wealth of experience. Indian soldiers recruited by the company were the first Indians to receive medical treatment from British surgeons. High-caste soldiers were often unwilling to accept medicines prepared by Europeans, due to their rigid caste rules. Therefore, the company hired Indian practitioners for new Indian regiments

to compound and dispense medicines prescribed by British surgeons.^[7]

In addition, Indians were being recruited to take up the roles of medical assistants and hospital orderlies from the 17th century.^[1,10] After 1760, a Subordinate Medical Service (SMS) was created in each presidency to organize them, and this service co-existed with the “superior” medical service till 1947. They usually had some understanding of native medical systems and acquired additional skills while working under European surgeons. There was no formal training for them till the early 19th century.^[11] The Indian assistants trained by the British were called “native doctors.”^[10]

The few civilian British surgeons had lower workload, as there were no medical facilities for the Indian masses, and private practice was limited to big cities.^[7] This started changing in 1792 with the setting up of the first hospital in Calcutta open to the general Indian public.^[7,11] British surgeons now treated Indians of all socioeconomic strata, and Indians turned to them for help, especially in critical illnesses. The turn of the century saw setting up of hospitals in all the three presidencies. Later on, hospitals came up in other provinces, often under the leadership of individual Company surgeons.^[7,11]

In the early 18th century, Europeans employed Indian medical practitioners in some exceptional cases. However, by the mid-18th century, Europeans refused to be treated by them. The wealthy and noblemen among Indians also requested the services of European physicians, especially for surgical operations. Some Indian royals started hiring European physicians to their courts in addition to multiple *vaidyas* and *bakims*. The Nawab of Arcot in 1778 was served by eight European physicians and surgeons of various nationalities.^[7]

Vaidyas and *bakims* were found all over India and continued to be popular among the masses. They also received patronage from local rulers, nobility, and the elite classes.^[4,5,12] The practice and teaching of Ayurveda and Unani continued in an orthodox manner. The students of Ayurveda received their training in the houses of practicing *vaidyas* called *Tols*.^[10] The knowledge of Unani was imparted by the *bakims* themselves, often by fathers to sons as a family tradition.^[5] The most prominent families in this period were the Sharifi family of Delhi and the Azizi family of Lucknow.^[4,5] These families ran their own clinics and actively trained students in Unani Tibb, who then practiced in various regions of India.^[5]

Folk practitioners, present since ancient times, continued to be popular in rural areas. They outnumbered *vaidyas* and *bakims*, but had no written texts. Their cures were mostly based in superstition and blind faith. Europeans at times had trouble differentiating between classical and folk practitioners, and often concluded that all Indian practitioners were quacks.^[7]

British surgeons mostly utilized European cures, but often altered their curative regimens to suit the Indians' constitution and the

Indian environment. They replicated some effective Indian remedies. They disapproved of the lack of books on specific illnesses, replication of traditional remedies across generations without changes, and lack of any major surgeries by Indian practitioners.^[7] Anatomical concepts in the Indian systems did not match European observations based on human dissections and William Harvey's discovery of the circulation of blood.^[7,9] These observations and the advances in European medicine in the 17th and 18th centuries led the British surgeons to believe that Western medicine was superior to the Indian systems.^[7]

However, Indian–European interactions continued despite these conceptual differences. The British East India Company, in a bid to reduce drug imports, encouraged scientific research into Indian medicinal plants. By 1750, Company officials established botanical gardens to cultivate and study local plants that might be exported or used as cures. Europeans and Indians freely shared their knowledge of medicinal plants with each other.^[9] Some medically trained Orientalists translated the classical Ayurvedic and Unani texts. Europeans were awed by the medical accomplishments of Indians in earlier times.^[7,9] However, these discoveries made them more critical of the present-day Indian medicine. Europeans could now study traditional Indian treatises for themselves, and were no longer dependent on Indian practitioners for the knowledge of Indian pharmacopoeia.^[9] In 1789, the *Journal of Asiatic Researches* was founded by Sir William Jones, an Orientalist who supported research into Indian medical systems and medicinal plants. The Madrasa at Calcutta, established in 1781 by Warren Hastings, imparted education in the Unani system in Arabic.^[7,9,13]

Phase 2 (1820–1900): The Game of State Patronage

In 1822, the British set up the Native Medical Institution (NMI) to prepare medical staff for the SMS. Courses were taught in Urdu and included both Western and Indian medical concepts.^[9-11,13] Similarly, Sanskrit College in Calcutta, founded in 1824, also imparted medical education to Indians in both Western and Indian medicine.^[9,10]

The period after 1820 saw rapid advances in Western medical science resulting in further distancing of European and Indian physicians.^[9] The new science of pathological anatomy prescribed that disease was limited to specific organs or tissues, rather than an imbalance of humors in the whole body.^[7,9,10] There were breakthrough advances in obstetrics, amputations, other surgeries, and management of fractures, especially with the arrival of chloroform in India in 1849.^[7,10] In addition, the work of Linnaeus and others improved the classification of diseases based on better understanding of disease syndromes and their causation. Western medicine also came to be identified with modern instruments such as thermometer, stethoscope, and microscope, which improved the diagnostic capabilities of the clinicians.^[10] Germ theory became well established and vaccination emerged as a novel preventive approach. Many infectious diseases were “conquered.”^[9,10]

Advances in Western thought and technology shook the foundations of Orientalism – that the East had something significant to teach the West. There was severe criticism of Indian thought and Indian medicinal practices by Christian Evangelicals and radical Utilitarians like James Mill. They strongly believed in the superiority of Western rational thought and blamed India's penury on the stagnation of religious and scientific thinking. They saw no utility in rediscovering India's past. Similarly, British surgeons were starting to believe that Indian medical systems were not rational, and increasingly derided Indian practitioners.^[9]

Another criticism against Indian medical systems was lack of hands-on clinical training in contrast with Western medicine which emphasized practical learning in hospitals and clinics.^[10] Lord William Bentinck (Governor General of India, 1828–1835) convened a committee that reasserted the above criticisms and shed light on the poor organization of medical education in India. Based on its recommendations, the company started training its personnel in Western medicine only, and stopped all support toward Indian medical systems.^[7,9-11] NMI was abolished in 1835.^[9-11] Medical education at Sanskrit College was also stopped.^[2,14]

Calcutta Medical College was established in 1835 to impart Western medicine in English.^[1,11] Colleges were also opened in Bombay and Madras. All the three were recognized by the Royal College of Surgeons. Courses included anatomy and human dissection, and the course length was increased to 5 years.^[6,8,11] Another medical college was set up in Lahore in 1860.^[8,11]

The company also began insisting for formal diplomas for entry into the superior medical service starting from the 1820s. Registration with the General Medical Council (GMC) was mandatory after 1858.^[8] The 1850s also saw the gradual reorientation of the medical service's outlook from mainly military to civilian. The civil surgeon looked after hospitals, clinics, and prisons, in addition to private practice. Military surgeons engaged in medical research in peaceful periods. The Indian Medical Service (IMS) was formed in 1897 by amalgamating superior medical services of the three presidencies.^[7]

In addition, medical schools were set up between 1860 and 1880 to train paramedical staff who were later known as “licentiates.” Their admission process was less stringent, and courses were shorter. They were given roles in lower rungs of hospital administration. They received government stipend while studying, and were bound to serve in government service after completion. They rarely set up private practice.^[8]

In many provincial institutions, training in Western medicine was imparted in local Indian languages. Although pragmatic, this was detrimental to the continual upgradation of professional knowledge as most medical texts were only in English.^[1]

Native doctors thus comprised a heterogeneous group, with training ranging from Western medical education in English or vernacular to on-the-job training in the Company hospitals.^[10]

Western medical education now was in the reach of Indians.^[10] Europeans, Eurasians, native Christians, and Parsis formed the majority of medical college students.^[8,15] Initially, the study of Western medicine did not appeal to high-caste Hindus, due to its emphasis on human dissection, but this reluctance gradually receded after 1836, when Pandit Madhusudan Gupta conducted the first human dissection.^[7] There were many takers now in all social groups, even among the Brahmins, as it led to recognized status as doctor, and a chance to get into the Company's medical service.^[10,14] After 1855, a competitive entrance test was conducted in London to recruit doctors into IMS, and Indians could also apply, but the distance and age requirements kept this out of reach of most Indians. Registration with the GMC, another requirement for entry into IMS, also became difficult after 1886.^[8]

Western-educated Indians supported Western medicine, and considered it a superior form of knowledge.^[5,9,10,15] They increasingly assigned to themselves the task of rooting out ignorance and spreading rationality. In their eyes, promoting Western medicine was an integral part of that enterprise.^[9] The British tried to prove their supremacy in every field including medicine to justify their rule in India. This involved highlighting the differences between the indigenous and Western systems of medicine.^[9,14]

Aided by the availability of scholarships, free medical texts, and well-equipped institutions, Western medical practitioners started giving significant competition to Indian practitioners.^[8,9,10] Many Indian practitioners responded by advertising themselves practicing Western medicine to attain higher social standing, although some had no exposure to Western medicine.^[10]

With easy accessibility and low fees, traditional Indian medicine continued to be popular in villages, despite losing the support of the British.^[4,12,14] *Vaidyas* and *bakims* were also patronized by the indigenous elites.^[4,10,14] However, Indian physicians who had enjoyed huge remunerations under Mughal rule experienced a downturn as the indigenous ruling class declined during British rule.^[10]

The onslaught of Western medicine resulted in a gradual decline in the prestige of traditional Indian medical systems and their physicians. This decline resulted in very different reactions. Some indigenous practitioners completely turned away from Indian systems and accepted Western system as the only rational science. There were others who were completely opposed to modern medicine. They upheld the indigenous systems, advocated their practice in the purest forms, and rejected inclusion of Western concepts in their medical education. Supporters of “pure Ayurveda” (*Shuddha* Ayurveda) and the Azizi family of Lucknow fall in this category.^[5,6,10,12,14]

A few indigenous practitioners advocated the synthesis of Ayurveda, Unani, and Western medicine. They believed in the scientific superiority of Western medicine, but at the same time remained supportive of the indigenous systems.^[5] Many others started vigorous promotion of their own systems of medicine to counter Western medicine. They inculcated aspects of modern medicine into the indigenous systems to ensure their continued survival.^[5,10] The Sharifi family of Delhi inculcated aspects of both Ayurveda and Western medicine into Unani-Tibb. Madrasa-e-Tibbia was established in Delhi by Hakim Abdul Majid of the Sharifi family. Instruction and exams at this institution were carried out in a pattern similar to state-run colleges, and the graduates were sought-after all over India. There was no government aid, but nobles, officials, and affluent classes provided patronage to the Madrasa.^[5]

Vaidyas Gangadhar Ray (1789–1885) and Gangaprasad Sen (1824–1896) helped develop Ayurveda in the post-1835 period, by training many ayurvedic practitioners. Gangaprasad Sen, along with Neelambar Sen, adopted several modern ideas into their practice, such as fixed prices for consultation and medicines, placing advertisements, and publishing classical texts and research journals. *Vaidyas* also established drug companies to prepare and sell Indian medicines, and even exported them to Europe.^[10,14]

Efforts to reduce the import of drugs from Britain continued. However, Indian remedies were accepted only after strict scientific scrutiny. New discoveries were elaborated extensively in journals and books. In 1868, the Pharmacopoeia of India was published.^[7,9] As Europe moved toward industrial production of pharmaceuticals, Western practitioners increasingly used drugs with a single “active ingredient,” distancing themselves from the traditional Indian preference for the whole herb or mineral.^[9]

Despite emphasis on Western medicine, the British often needed to accommodate indigenous practitioners too. In Punjab, *bakims*, after a brief training in Western medicine, were employed in villages as this was economical, and more appealing to people.^[9,10,14] Success of this program led to the formal training of *bakims* and *vaidyas* at the Oriental College in Lahore in 1872. This stopped within a few years due to severe criticism from Western practitioners. Enough Indians trained in Western medicine were now available to fill posts in the SMS. At times, indigenous medical practitioners were still employed, for example, to increase public acceptance of preventive measures during the 1896 plague.^[9]

Medical specialization had started emerging in most of the Western world in the middle of the 19th century. However, British medical fraternity was slow to adopt specialization and remained fiercely opposed it for most of the 19th century.^[16] This reflects in the absence of references to specialized physicians in India. The physicians and surgeons of this period, whether trained in Western or indigenous systems of medicine, provided care as generalists.

Training of Indian women in medicine started gaining momentum in 1880s, with the establishment of the Dufferin Fund. Women were encouraged to get medical licenses as well as degrees to increase facilities for the treatment of female patients.^[1,11]

Conclusion

The period from 1757 to 1900 saw the emergence of doctors trained in Western medicine in India. Various levels of training in Western medicine were imparted to Indians, initially in local languages, but later, more and more in English. Initially, there was some dialogue and cooperation between practitioners of Indian medical systems and those trained in Western medicine. However, with significant advances in Western medicine, and the emergence of Utilitarianism as the dominant thought guiding British policy in India, the distance between practitioners of different systems widened. By the end of the 19th century, Western medicine had a significant presence in big cities and towns. *Hakims* and *vaidyas* felt threatened and neglected due to the complete loss of state patronage and decline in their social status. Some started questioning their own system, and adopted various different ways to stay relevant. Others stood up for their systems through vigorous defense and promotion of their systems.

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Conflicts of interest

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