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ARTICLE

The science of dentistry and Dr R. Ahmed Dental College and Hospital, Calcutta: An institutional history c.1920s-1950s

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Abstract
Oral health was comparatively an uncharted domain in India in the late eighteenth century, and dental health is an integral part of medical science. The mouth, tongue, teeth, jaws, and their shape, as well as the art of dentistry, diagnosis of diseases, and their treatment, are essential parts of dental science. Although dentistry is commonly perceived as limited to the teeth, in actuality, it encompasses the shape of the mouth, jaws, face, and forehead. It traces its origin to the term dontology. Biomedicine, or modern medicine, initially began in India for the employees of the East India Company and later for officials of various British administrations. Medical officers were trained, and mostly British doctors were invited from the United Kingdom. The medical doctors expanded their private practice to the public, and in the middle of the nineteenth century, the British Government established medical colleges in India to train South Asian doctors, who could supplement the practice of British physicians. Dental care was restricted to the extraction of teeth at such hospitals by medical personnel, doctors, and assistants. Despite this, for a long time, dentistry predominantly remained in the hands of the unqualified. The year 1920 marks a milestone in the history of dental health with the establishment of the first dental College in Calcutta, also the first of its kind in Asia.

Keywords Oral health · Scientific dentistry · Dr R. Ahmed · Calcutta dental college · Bengal dental board · Dental council

1 Introduction

Scientific institutions are modern icons that arrived in India as part of the colonial legacy and soon became carriers of new ideas, serving as symbols of modernity itself (Kumar, 2010a, 2010b, p. 3). The general subject of the science institutes becomes even more striking when one stops momentarily to think of the range they represented while helping the Indian empire to its feet (Dasgupta, 2010, p. xvi). Dentistry as a branch of medical science began its journey with the institutionalisation of this science with the pioneering efforts of Dr R. Ahmed, and since then, it has found its pedestal in Calcutta Medical College, which was taught as a discipline under the category of 'umbrella institutions' (Dasgupta, 2010, xvii). Hygiene was not only a subject of scientific interest to the student or medical men, but that to the political economist and the legislator its problems and discoveries ought to be of great practical importance (Buck, 1879, p.5). There is a German proverb to the effect that "the better is often an enemy to the good," and this often applies to the actions taken on propositions for improving public health (Braidwood et al., 1871, p. 10). A man seeks the advice of a physician because he knows or thinks he is sick. The community will do the same under similar circumstances, but how can it be expected to seek hygienic advice so long as it knows nothing of the necessity for it (Radcliffe, 1878, p. 225). This knowledge can only be obtained by the collection and collation of positive data as to the amount of character of disease prevailing (Smith, 1876, p.363). It is only to be expected that the human body, the centre of every individual's interest and curiosity, should play a part in the realm of symbolism. Every organ and each limb has played and continues to play its part in this respect. The eye, the ear, the head, the heart, the organs of procreation are severally concerned there in, but none is so profoundly concerned as the teeth. The reason for this is probably the outcome of several factors. Firstly, every other organ is present at the

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time of birth, while the teeth grow into existence long after the birth of the child. No other organ can be restored after loss, but the teeth, which come back after they have been shed in childhood. They alone can be removed without grave material damage to the organism as a whole. Their whiteness makes them conscious, especially in coloured races. The hardness renders their preservation possible for long periods after their owner's death. The sensation of a toothache is known and dreaded worldwide. Ignorance of the extra number of teeth is worldwide (Berkeley-Hill, 1940, p. 22).

Although dentistry was an integral part of modern medicine, oral health was comparatively an uncharted domain in India. There was a paucity of literature in this branch of medicine till the year 1728, when Pierre Fouchard of France, who is considered the father of modern dentistry, wrote and published his book, *Le Chirurgien Dentiste* (Fauchard, 1728). In other European countries like England and Germany, it passed through many stages, for instance,

... intense interest has been taken in respect to the position and time of eruption. In Germany and the Tyrol, "standing far apart" means the owner is a great traveller, while in Switzerland, a child whose teeth are close together will be a stay-at-home. Italians think that teeth which stand far apart bring good luck, while in ancient times, anyone whose teeth stand far apart and whose eyes are blue has the "evil eye". Small, sharp teeth, which do not stand too close together, are a sign of wit, good nature, and manageable honesty. Irregular teeth mean fickleness; yellow teeth, insanity; large front teeth, sensuality, and long life...The cutting of ice in the world over is considered one of the most momentous periods of life. In most countries, children born with teeth or the premature eruption of teeth are considered highly ill-omened (Gerhard, 1936, p. 250).

This paper will endeavour to trace the evolution of a pioneering institute in twentieth-century Bengal, a province in British India. Since a major part of the discourse falls within the colonial period, it necessitates comprehending the establishment of an institute and the evolution of a science predicated on the growth of Western biomedicine, technology, and the socio-cultural milieu prevalent at that juncture. In the process, two questions arise, akin to those in other medical sciences: whether 'scientific dentistry' was pivotal in determining the effectiveness of practitioners through the activities and curricula of this institute, and whether the institute's role contributed effectively to disseminating public health initiatives. Besides, within the purview of this period, the vernacular literature, along with the press, played a leading role not only in awakening political consciousness among the masses but also in publishing major tracts on public health, including dental health, to spread awareness (Mukharji, 1895).

As late as the nineteenth century, dental care was not attributed the status of a discrete profession. Normally, the barbers or other physicians were entrusted with the responsibility of dental care/treatment. Barbers were often assigned the responsibility of tooth extraction, a painful process that, in some cases, even led to the development of a critical dental disease. In the fourteenth century, Guy de Coliaq discovered Dental Pelicans, which resembled the beak of a Pelican bird and were used for tooth extractions until the eighteenth century (Coliaq, Coliaq, 1363, p.724). A pioneering work on dental care was published in 1530, known as '*Operator for the Teeth*', written by Charles Allen, and it was published in 1685(Allen,1685). French Physician, Pierre Fauchard, is known as the 'father of modern dentistry'. Despite a lack of surgical instruments, Fauchard had established himself as a very skilled dental surgeon by the end of the seventeenth century and the beginning of the eighteenth century. Fauchard had also invented the technique of replacing a decayed tooth with an artificial one. His inventions received recognition through the publication of his book, *Le Chirurgien Dentiste*, or *The Surgeon Dentist*, in 1728 (Fauchard, 1728).

Imprints of 'scientific dentistry' were first witnessed in India in the nineteenth century, at the behest of the British, and with the spread of Western biomedicine in the arena of dental care, the study of this discipline was initiated a hundred years ago. Biomedica was initiated in India for the army and the employees of the East India Company, and later on for officials of various British administrative departments. R. Ahmed, in an editorial of the *Indian Dental Journal,* illuminated that the differences between the two were gradually tapering; however, differences in the attitudes within the echelons of power were evident,

> The Second World War is upon us. Its effect on dentistry will be many and varied. The World War of 1914-18 taught us many lessons. The most important were (i) the realization that the co-operation of the dental surgeon and the medical man was necessary for the prevention and treatment of general diseases, and (ii) incorporation of the dental corps into the medical corps of the armies of the various nations. The remarkable work of the dental surgeons in the fields of fracture and plastic surgery brought the profession recognition from administrative centres. At the present time, it may be said that the medical corps of every army contain some dental surgeons, except the Indian Army. The Indian Army and Navy are modelled on the British pattern and it passes our comprehension why (sic). dental surgeons have not yet found a place in the Indian Medical Service. It is an anomaly that requires immediate correction and we desire to draw pointed attention of the army authorities in India to the imperative need of recruiting dental surgeons in the Indian Medical Service (Ahmed, 1940, p. 25).

This could be further inferred as an immediate need for dental medical practitioners in the Indian army, and it was forcefully reiterated that it was the need of the hour, expressed persuasively by Ahmed. It seems that the Indian army authorities have the wrong conception that the Indian troops have good teeth and that they require no dental attention...We have personal experience of many cases where Indian soldiers suffered badly from dental diseases that they had to consult private dentists, on payment of fees, which they could ill-afford. It requires no great knowledge of medical science to state that a soldier suffering from neglected dental health is not in a fit condition to give his best to the service of his country. We see no reason why immediate steps should not be taken to remedy this glaring defect in the Indian Army Medical organization. We trust that this will attract the attention of the army authorities in New Delhi, and they will take the much-desired step at an early date. A beginning can be made at once, as we understand that many qualified dental surgeons have already applied to act as volunteers in the Army Medical Service. Let it not be said that the efficiency of the Indian troops suffered from the fact that they had diseased or painful dental organs. The experiences of England, France, and the U.S.A. should be given effect to, and that as soon as possible, if the Indian Army is to be as up to date as any other army in the world (Ahmed, 1940, p. 26). Medical colleges were established in the three presidencies in India to train South Asian doctors, who could supplement the practice of British physicians. Hospitals and dispensaries (clinics) were built in the districts and in towns. Dental care was limited to the extraction of teeth at these hospitals by medical personnel, doctors, and assistants (Mukherjee, 1993, p. 21). Despite this, dentistry predominantly remained in the hands of the unqualified for a long time (Ahmed, 1940, p. 27).

Dr Hayden and Harris of America established dentistry as a profession and organized the Baltimore College of Dental Surgery in 1840 (Mukherjee, 1993, p. 36). Following the organisation of the Dental School, dentistry was gradually gaining popularity in the West. Since the colonial government was unable to procure enough medical personnel in Europe to care for their employees, they turned to training “Native Doctors” at the Calcutta Sanskrit College and Calcutta Madrassa, where Western medical textbooks were translated into Sanskrit and Urdu (Ahmed, 1940, p. 28). In 1835, Lord William Bentinck abolished those two colleges. He established the Calcutta Medical College, where instruction was given through the medium of the English language and in strict accordance with the mode adopted in Europe. No attempt was, however, made at that time to establish a dental department in the Medical College or anywhere in India, for the simple reason that dentists were not initially needed for the army.[1]

The only practitioners of Western medicine in the arena of dentistry in Calcutta were a few Americans working under the Smith Brothers and Englishmen under Woods and Rangers (Hunter, 1873, p. 15). Practitioners of general medicine practiced dentistry as an additional area of specialization, as one Dr L.M. Chakraverti, L.M.S., used to practice dentistry along with general medicine. Europeans and rich Indians who went to them for dental treatment were charged high fees (Bose, 1938a, 1938b, p. 20). Some Indians who worked as dental mechanics for those foreigners picked up some dental work and began practicing as dentists. Consequently, quacks flourished, not only Indians but also foreigners from all parts of the world. In the absence of a dental educational institute and no dental laws of any kind, they easily earned a livelihood by exploiting poor, ignorant people (Ahmed, 1938, p. 39). The practice of scientific dentistry was something unheard of in those days, except for a few qualified European dental surgeons whose activities were limited to the upper strata of society. Dentistry existed more in the nature of a trade or a craft than a profession in those days. Getting people interested in a profession that did not exist and creating facilities for training in a career whose future was uncertain was an uphill task.

One had to tarry a few more decades for dentistry to be introduced as a special subject in the Calcutta Medical College in 1861. Dr J.P. Smith was subsequently appointed to the post of lecturer in dentistry.[2] The “Chair of Dentistry” was instituted back in 1861 (Bhattacharya, 2025, p. 286). On April 4, 1867, a General Order (No. 370) was passed to the effect that, "Minor Professorships of Botany, Hygiene, Dental Surgery and Comparative Anatomy" were established.[3] In 1873, Messrs. Gorfield & Co., Ltd., an English Firm dealing in medicine, started a dental clinic in Chowringhee, Calcutta. In 1875, this company closed its business and went into voluntary liquidation. Dr W.T. Woods, who was brought from England by the aforementioned druggists, started an independent practice and was appointed as a part-time lecturer in dentistry at the Medical College (Sen, 1942, p. 20). Dr J. P. Smith was succeeded by Dr W. T. Woods in 1875. Since 1893, dental classes were made compulsory for military students, and the department had been fully functional,

[1] Government of India, Education, Health and Land, Sanitary Branch, June 1933, Proceedings No. 25A, F16/33, National Archives of India (NAI).

[2] Imperial Conference,1926, regarding co-ordination of medical research in Health, Education, Health and Land Dept. 1928, *Proceedings No. 2, F/23*, NAI, p. 20.

[3] Bhattacharya, Jayanta (2025) The Calcutta Medical College, 1822–1897: Medicine, Social Psyche and the Making of Modern Citizenry, New Delhi, Primus Books.

focusing on tooth extraction, until 1933, when Dr E.H. Bramwell improved it. Honorary visiting dental surgeons, clinical tutors, and demonstrators were then appointed.[4] Dr W.T. Woods was succeeded by Dr G. O. Rangers in 1910, by Dr J.H. Taylor in 1918, Dr J. E. Gill, L.D.S., in 1931, Dr E. H. Bramwells in 1933, and Dr B. R. Jennings, L.D.S., R.C.S. (Edin.), in 1938 (Berry, 1965, p. 106). Another significant aspect was the great drive of capital to popularize dentistry, or, in a more specific sense, to focus only on teeth and gums. For example, by 1873, Colgate had mass-produced the first toothpaste, and mass-produced toothbrushes followed a few years later.

The establishment of the first dental College in Kolkata, as well as in Asia, was a milestone in the history of dental care.[5] Significantly, this perspective found expression in the endeavors of Dr Rafiuddin Ahmed and the institute he established in Kolkata, India, in 1920, which came to be known as the Calcutta Dental College and Hospital, and later, after its founder, the R. Ahmed Dental College and Hospital. He advocated for the American model of dentistry, rather than the British model, which emphasized the study of basic medical subjects. He initiated his clinic in Calcutta and soon became a name, revered in the Calcutta medical circles. However, he was not one of those who sought contentment in money alone; he had a missionary zeal with unremitting desire not to be restricted by any circumstances. The Calcutta Dental College made a humble but confident beginning and soon became the life and soul of its students.

2 Inspiring trajectories

After completing his formal education in Calcutta and Aligarh, respectively, he chose the University of Iowa in the United States, since its fees seemed affordable and it offered better avenues of self-support.[6] This was subsequently followed by his desire to replicate this acquired training and transpose it into his own land. He acquired all available dental equipment, packed and shipped them to reach Calcutta by the time he arrived there. With the end of the Great War in 1918, he began his preparations to returnHe realised that, although there were some dentists in cities like Calcutta and Bombay, the number of dentists for the country as a whole was negligible. There was an influx of Chinese dentists in the country who, according to Ahmed (1965a, 1965b, 1966), did more harm than good to the innocent masses. Besides, there were no dentists in the districts of most provinces. Thousands suffered from dental diseases with few options, and many had to travel a distance of two hundred miles just for an extraction of a painful tooth.

An admixture of 6 part-time professors and 10 demonstrators who devoted their persistent services to the College for a nominal honorarium proved to be its forte. The curriculum was designed meticulously, tendered with ingenuity: The first year was an all-pervasive approach to the discipline and incorporated -(i) Anatomy, (ii) Physiology, (iii) Materia Medica, (iv) Dental Metallurgy, (v). Bacteriology and Pathology, (vi) Chemistry, (vii) Operative Dentistry (Technique work and lecture). The second year involved a substantial number of surgical exercises that were intrinsic to the discipline—(i) Prosthetic Dentistry (lectures and hospital work) (ii) Operative Dentistry (Technique work and lectures and hospital work)., (iii) Orthodontia, (iv) Local Anaesthesia and Exodontia, (v) Radiology, (vi) Dental Jurisprudence, (vii) Professional Ethics (Berry, 1965, p.106).

From the session beginning 5 July 1926, the course was raised to three years, and the curriculum was developed accordingly to include subjects like: (i) Oral surgery, (ii) Pathology, (iii) Radiology, (iv) Dental jurisprudence, (v) Ceramics, (vi) Operative dentistry (clinical work and lectures), (ix) Professional ethics, (x) General and dental hygiene (Mukherjee, 1993, p.25).

The income accruing from students and patients was too insignificant to cover college expenses (Mehta, 1965, p. 25). Subsequently, the Executive Committee decided to continue the short course and to open a mechanical course for training Dental Mechanics. The teaching was imparted by practical demonstration and technique work on models. The course duration was six months, and the fee for the mechanical course was rupees 20 per month (Leroy, 1990, p. 15).

[4] *Home, Medical Proceedings, B 38–50*, West Bengal State Archives (WBSA), Dec., 1920, p. 10–15.

[5] Government of India, Education and Health, Medical Branch, *Proceedings No. 1, August, 1942*, NAI, p. 10.

[6] A resident of Dhaka in undivided Bengal, he was born on December 24, 1890 at Bardhanpara, Dhaka His father, Maulvi Safiuddin Ahmed, Deputy Collector, and mother, Faizunnesha Khatun. In March 1906, he appeared for the Entrance Examination at the age of sixteen. As soon as the examinations were over, he told his classmates that he would join them in college after his return from Singapore and Hong Kong. His experiences had a profound impact on his mind, with strange places, quaint people, unfamiliar customs and habits, However, it was his vivid memory of these places, which he had read about in travelogues, illustrated brochures, and railway timetables before embarking on his journey, that truly made an impression. His hopes were rekindled after reading a few articles in '*Sanjibani'*, a Bengali newspaper published in Calcutta, which described how he had worked his way through Japan to California. His relentless efforts to find a path in darkness yielded a positive direction as he learnt that self-support was possible in American universities and that Sikhs were successfully settling down to farming in the undeveloped parts of California and the lumbering business in British Columbia. Another piece of useful information delighted him: a New York lawyer, Myron H. Phelps, had founded the Friends of Freedom for India Society, with its headquarters, India House, located on East 133rd Street in New York.

Students were not allowed to work in the hospital unless they had completed their technique work in the 2nd year and satisfied the superintendent regarding their proficiency (Ahmed, 1965a, 1965b, p. 70). One student was allotted for the day to examine outdoor patients under the supervision of the House Dental Surgeon. The total number of students in the regular course was approximately 75 in 1932 (Mehta, 1965, p. 25). Hence the Executive Committee decided to abolish the special short course and the mechanical course in the same year and another move was made to more spacious quarters at 249B, Bowbazar Street premises which was the chosen site for the College and owing to the fact that this street was located in a densely populated neighbourhood, there had never been any dearth of a daily supply of patients and instructive cases (Mukherjee, 1993, p.25).

The College did not have sufficient funds to train the graduates abroad. During the same year, Dr R.N. Ghosh and Dr R. Chanda, graduates of the College, returned to Calcutta after completing their training at L'École Dentaire de Paris and joined the College as Deputy Superintendents of the Hospital. Later on, some energetic students who had studied in France and the United States of America began their practices in Calcutta and served the Calcutta Dental College and Hospital as professors, including Dr. N.C. Barory, D.D.S., a graduate of the University of Pennsylvania, joined the College in 1935 as Professor of Dental Ceramics and later as Professor of Prosthetic Dentistry, which included crown and bridge work (Ahmed, 1965a, 1965b, 1966). A tremendous amount of persuasion and concerted efforts by the authorities of the institution culminated in the Government of Bengal conceding to the appointment of a Dental Education and Registration Enquiry Committee in November 1934.[7]

This Committee appointed a subcommittee, consisting of four dental surgeons: Drs. Taylor, Jennings, Majumdar, and Ahmed.[8] This sub-committee submitted a report to the Dental Registration and Education Enquiry Committee, which ultimately recommended a standard of dental education and a curriculum of study to the Government of Bengal.[9] The minimum entrance qualification was decided as the Intermediate Science Examination of any Indian University with a focus on Chemistry, Physics, and Biology. At the suggestion of Sir Kedar Nath Das, it was also decided that the examinations for the Diploma would be held under the auspices of the Bengal State Medical Faculty, to which some dental members would be appointed. It suggested that a Dental Registration Act would be passed in the province. A separate Board of Dentistry should also be established, which would be responsible for registering graduates, collecting fees, and performing other administrative tasks. The affiliation of Calcutta Dental College and Hospital to the proposed board was recommended, subject to its curriculum conforming to the requirements of the board, namely, a pre-educational qualification and a four-year study program according to the syllabus outlined by the sub-committee. The Committee suggested that medical subjects would be taught at the Calcutta Medical College and dental subjects at the Calcutta Dental College (Leroy, 1990, p. 15).

The Calcutta Dental College and Hospital authorities were willing to conform to the curriculum proposed by the Enquiry Committee and the proposal for instituting a Dental Board. Accordingly, the College was reconstituted in 1935 and subsequently relocated from 249/B, Bowbazar Street to 114, Lower Circular Road—the building, which had an area of 2 bighas (0.66 acres). Of the land, a 10-year lease was taken, and the hospital building was built at the College's expense. Lecture halls were well-furnished with chairs, a writing desk, and an epiastron for projection. The hospital was equipped with 25 pump chairs and brackets, X-ray apparatus, and other accessories (Mehta, 1965, p. 25). Many important books were purchased, and subscriptions to journals were made for the library. Some rare specimens, including casts of deformities and irregularities of the teeth, and other instructive models were collected to expand the College Museum. The entrance requirement was raised from matriculation to intermediate science from an Indian university (Ahmed, 1965a, 1965b, 1970). The course of study lasted four years, as outlined in the syllabus provided by the Dental Registration and Education Enquiry Committee.

Approximately rupees 20,000 was spent on such improvements, with the expectation that the government would provide all possible assistance for the college's improvement, as they found that they were unable to style themselves as dentists even after spending four years in the college and a significant amount of money (Berry, 1965, p.106). As there was no future prospect, except for one's own private practice, the guardians hesitated to send the boys into the branch of science (Leroy, 1990, p. 20). The government seemed indifferent to the matter and did not encourage the intending students by offering scholarships or employment opportunities. No protection was provided to the college graduates. As a corollary the number of new students was meagre. After a two-year struggle, the College authorities decided to lower the entrance requirement from Intermediate Science to the matriculation examination (Mukherjee, 1993, p. 25).

[7] Government of India, Education and Health, *Medical Branch, Proceedings No. 1, August, 1934*, NAI.

[8] *Home Medical Proceedings, WBSA*, *July 1934, A/116* p.40–50.

[9] *Home Medical Proceedings*, *Aug. 1938 B/213* p 45–50.

3 Governmental commissions and omissions

Once an idea had been turned into an efficient, well-organised, pioneering institution through herculean efforts, he tried to get the educational authorities in Bengal interested in helping him establish dentistry in its due place, alongside the teaching of medicine. His idea was to introduce the teaching of dentistry at the University Level or, at the very least, at the State Medical Faculty level. His plea was turned down as early as it was made. This attitude very often pained him but did not discourage him, and he used to say that "Education is the responsibility of the state, an individual cannot discharge such responsibility, but if no one is willing to carry the cross, I will as long as I can" (Leroy, 1990, p.15). The years from 1928 to 1938 attest to his concerted efforts to that effect.

However, the then government of Bengal showed little interest in this institution and never encouraged it in any way, except for occasional words of appreciation from visiting government officers (Sen, 1942, p. 60). Unhampered by such obstructions, he went on recruiting young dental teachers willing to join him in his missionary work. These noble young men joined his work willingly and without any considerable financial benefit for themselves, just out of sheer pleasure of working for the profession. These additions to his staff lightened his burden and gave him an opportunity to devote more of his time to mustering public and official opinion for the recognition of dental education at the university level (Mukherjee, 1993, p. 30). After several unsuccessful appeals and representations to the government for recognition of dental education on par with medical education, his tireless efforts were partially successful (Mehta, 1965, p. 25). The government of Bengal formed a commission to examine the state of affairs in dental education and for necessary recommendations.[10]

This commission reported that the entrance qualification to the dental college should be intermediate science with biology, followed by a four-year course in dentistry leading to an examination by the State Medical Faculty of Bengal.[11] The prescribed syllabus in dental subjects was more or less on the pattern of L.D.S. courses offered in England in those times. It was noted with satisfaction that the syllabus, framed more than 75 years ago, compares very favourably with any B.D.S. syllabus of Indian universities of today. However, the introduction of higher secondary education as the minimum qualification proved to be a serious setback, as the annual admission fell to 4 students from 25 students admitted in the previous year. At his request, the State Medical Faculty lowered the entrance requirement for matriculation, keeping it in line with other medical schools.[12] The school relocated to its current address in 1936. The increase in the number of teaching staff, additional floor space, new quarters, and reorganization of the various departments made it possible for the school to meet the requirements of the State Medical Faculty. During the Second World War, the institution suffered a serious setback due to economic hardship, a high cost of living, low student enrollment, and various other difficulties.

Since the institution's inception, Ahmed has borne the entire financial burden, with the exception of an early grant of rupees 3,000 from the Calcutta Corporation in recognition of services rendered to the school children of Calcutta Corporation Schools from the late 1930s. In the post-independent period, an increased awareness of dental health problems and a special interest of the former Chief Minister of West Bengal, Dr B.C. Roy's involvement in dental education led to the transfer of responsibility for the institution to the West Bengal government. Ahmed made a gift of the college and all its properties to the state government in 1950, leading to the introduction of the Bachelor of Dental Surgery (B.D.S.) course. by Calcutta University in 1952.

The spread and popularity of dental education in India in the last few decades has shown that the undaunted spirit of Ahmed and through the collective efforts of all the leading dentists, states, universities and the Dental Council of India, independent India could boast of thirteen dental colleges affiliated to various universities where about 500 students sought admission in the dental course every year (Mehta, 1965, p.25).

4 Future proclivities

Dental education in the post-war period was deemed to be evaluated in light of the experience gained during the war. A clearly emerging trend from the pre-war period of tribulations was that medical and dental education would be closely related. A dentist should be more of a medical man, and the medical practitioner would be more familiar with dental diseases and their treatment. This does not imply that every dentist should be a medical graduate, but the medical training provided was intended to be thorough (Ahmed, 1965a, 1965b, p. 75). In fact, in some centres of learning, it was already in vogue, and dental education would be combined

[10] *Government of India, Education and Health, Medical Branch, Proceedings No. 1, August, 1942*, NAI, p. 10. Imperial Conference, 1926 regarding co-ordination of medical research in Health, Education, Health and Lands Dept. 1928, *Proceedings No. 2, F23, NAI*, p. 25–27.

[11] *Proceedings of the govt. of India, Education. dept. Meld. June – Aug, F-3–2/47, A* I, July 1947, S I, NAI,

[12] *Proceedings of the govt. of India, Education*. dept. Meld. June – *Aug, F-3–2/47*, A *I,* July 1952, S I, NAI.

with medical education, enabling dental graduates to tackle research problems facing dentistry with greater confidence. Problems like dental caries and pyorrhoea required a profound knowledge of the discipline, which was still a field left to be explored in the field of dental science. There was a realisation that preventive measures for dental diseases needed to be improved, coupled with mechanical processes for dental structures (Graham, 1940, p. 176).

By the mid-1940s, dentistry was universally recognized as any other sound and comprehensive Public Health Scheme that would provide adequate dental care for the population. No post-war reconstruction programme designed to improve health conditions could possibly be considered complete or fully effective unless provision was made for an adequate dental service to cater to the needs of the population at large (Ludwick, 1946, p. 178). Modern dentistry, in its widest application, is acknowledged to be an important phase of preventive medicine. The fact that hospitals in the United States of America, in order to receive a "Class A" rating, were required to establish an adequate dental department to work in full and close co-operation with all other departments validates the interdependence between medicine and dentistry and illustrates the importance given to dental health service in that country (Thomas, 1946, p.178).

A brief separate memorandum, based on the recommendations of the American College of Surgeons, (Buck,1879, Hunter,1873) outlining the minimum standards for dental departments in hospitals, and a plan of management was presented to the Health Survey and Development Committee (Beal, 1945, p. 174). Along with this, a report was placed for their perusal as it was considered very important and relevant to the proceedings of the Committee for both medicine and dentistry. This was considered an integral part of the whole post-war scheme. It was also important to bear in mind that this interdependence between medicine and dentistry related not only to hospital services but also to any contemplated improvements and extensions in dental education. The modern dental curriculum includes a wide range of subjects. In addition to the special dental subjects, it was resolved that courses of lectures, practical classes, and clinical classes would be taken in the subjects of Anatomy, Physiology, and Bacteriology, as well as Medicine and Surgery (Shah, 1946, p. 178). These subjects were always taught in the corresponding medical college under the professors concerned, and suitable provisions would therefore be made. be made in all medical colleges selected to participate in this programme. This added burden necessitated considerable additional accommodation in various departments, the appointment of a lecturer in each subject, and an adequate number of demonstrators for the practical classes; it would also involve increased expenditure for equipment and materials.

It was agreed that there was an urgent need for the extension and improvement of Dental Education in India and for the provision of adequate facilities for Dental Services (Ahmed, 1965a, 1965b, p. 179). Any Scheme was to be based on the assumption that State aid would be available for dental education and relief during the post-war period. In Western countries, even a basic minimum of one dentist for every 3,000 people in the population was not considered sufficient to adequately provide for their dental needs. The fact that recent researchers in India have shown a lower incidence of dental caries in this country than in the West was largely offset by the much higher incidence of periodontal disease. It was, therefore, resolved that it would be unsafe to set our minimum aim at less than one dentist for every 5,000 or 20 dentists for each lakh of the population (Mishra, 1946, p. 179).

In India, one was required to formulate a policy that took into account all relevant parameters. The Bhore Committee Report presented a nuanced view of the way forward, and it seemed like a practical proposition, although critics thought it was more like building castles in the air. The only silver lining was that a beginning had been made. If any country was in need of socialized medicine and dentistry, India was among the foremost. The State was aware that it ought to take care of the health of its population. The consciousness was evident amongst the legislators as well as the intelligentsia. However, the problem was so vast that it appealed to the greatest detractors. Initial steps were taken, but were to be shaped according to the tempo and tenor of the hour. Great Britain had taken confident strides and put on the Statute Book the National Health Insurance Act and in India with the constitution of the Dental Association and promulgation of the Dental Council Act and the enactment of dental legislations, dental service was gradually transforming itself from a 'luxury service' (Ahmed,1946, p.144) to a health care service of the country with the concerted efforts of pioneers like Ahmed and his team of doctors.

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