CHAPTER I

THE ORIGIN AND EVOLUTION OF MEDICAL EDUCATION
1835 – 1945
THE ORIGIN AND EVOLUTION OF MEDICAL EDUCATION 1835 - 1947

The year 1835 could be rightly called as the “Sheet Anchor” of the chronology of the History of Medical Education in Tamil Nadu. It was from this year, that the East India Company’s Madras Government began to foster and encourage Medical Education in a systematic manner.

THE MADRAS MEDICAL SCHOOL
1835 - 1850

The Madras Medical College, one of the pioneering institutions in the Indian Subcontinent, was inaugurated as a Medical School by the Governor Right Hon’ble Sir Frederic Adam in accordance with the General Order of Government, dated 13th February 1835. The school began its first session on 1st July 1835, the classes assembling for instruction at first in the rooms adjoining the quarters of a surgeon of the General Hospital.¹ The Medical School was opened with the object of affording better means of instruction to Indo-British and Indian Youth entering the Medical branch of service in this Presidency and to make the Medical Subordinates more efficient in the performance of their professional duties and to give them a more

systematic course of study and training under capable officers than was possible under arrangements then existing.²

The Medical School thus established in temporary rooms, started its work with 10 Medical apprentices and 11 Indian pupils. As the accommodation was insufficient for the purpose and as the arrangements were otherwise inconvenient, sanction was accorded for the erection of a separate building which consisted of four departments—a library, a lecture room, a museum and a laboratory.³ The school buildings erected at a cost of Rs.9,861/- were occupied in July 1836.⁴

The main purpose of establishing the school was to train the subordinates for the Medical Services in the army. Volunteers were enrolled and given a small stipend for their subsistence and were designated as 'paid candidates'. They were given training at hospitals, preferably at the General Hospital and other Presidency Hospitals. The training was thus of a practical nature. The trained apprentices were posted as Medical Subordinates in the Medical Department.

Gilbert, F.L., Madras General Hospital, A Booklet Published as a Memento of the laying of the Foundation Stone of the New Out Patient Department by the then Governor of Madras, Madras: 1928, P-6.

Ibid.

The first batch of eleven ‘Locals’ and ten ‘Eurasians’ were admitted at this institution and after qualifying, the Eurasians were employed as ‘Apothecaries’ and the Locals were designated as the ‘Dressers’ in the army.\(^5\)

The staff at first consisted of a Superintendent, an Assistant Superintendent and two Indian Assistants. The British Officers received a staff allowance of Rs.400 and Rs.300 respectively in addition to their military pay.\(^6\)

The duration of the course was two years and the curriculum comprised of Anatomy, Materia Medica, Medicine and Surgery.\(^7\) In 1838, the school was thrown open to the civilians or private students who received along with the Government students, a free education. This was done in accordance with the ideal principle of the authorities, that the institution like this had a higher mission and a noble cause to fulfil, than that of shaping the subordinates for the Medical Services.\(^8\)

But the prejudices against the Western Medicine ran so high at the time, that for eight years no civilian came forward to register especially from the Indian and

\(^5\) Ibid.

\(^6\) Ibid.

\(^7\) Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health, Government of India, *Directory of Medical College in India*, New Delhi: 1964, P-120.

\(^8\) *Souvenir Book of Madras Medical College Centenary*, Madras: 1965, P-18.
Anglo-Indian Communities of Madras. But the Institution developed gradually during the second decade of its inception due to certain changes introduced in the curriculum of studies and the character of the examination. As the school continued its work, three additional professorships were sanctioned viz., (1) Anatomy and Physiology (2) Mid-Wifery and Ophthalmology (3) Chemistry and Materia Medica. The duration of the course was also extended to three years.

When some of the civilians finally joined, it was decided to conduct three different courses, one for the Physicians to extend over a period of five years, another for Apothecaries to run for a period of four years and a third one for training the Dressers for over three years. The numerical strength of the classes was increased by admitting civil stipendiary students to qualify for the grade of Civil Sub-Assistant Surgeons or Native Surgeons through a course of five years. As years passed, more and more students joined this institution and this enhanced the popularity of the school, which became a recognized centre of Medical Education and was considered on par with Calcutta & Bombay Medical Schools.


10 Souvenir Book of Madras Medical College Centenary, op.cit., P-18.


13 General Order No.92, 23rd April 1847.
THE ESTABLISHMENT OF THE UNIVERSITY BOARD

In the year 1841, a University Board was constituted for the management and administration of an institution to be styled as the Madras University which was to incorporate a High School and a College on the model of Scottish Universities.\textsuperscript{14}

The high school was opened in 1841 and the then Advocate General George-Norton, while inaugurating the Madras University made a pointed mention about the need for the wide diffusion of Medicine and Engineering Education.\textsuperscript{15}

Previously the Board of Governors mooted a suggestion in 1842 for opening 'A Collegiate class in the Faculty of Medicine in that Institution' by amalgamating the existing Medical school with the proposed class.\textsuperscript{16} This plan was not acceptable to the Court of Directors on the basis that, any idea of establishing a Medical College would be unwanted by the state of preparation in the Native Community.\textsuperscript{17}

The University Board despatched to the Court of Directors of the East India Company in London, a memorandum suggesting the opening of a Medical College.

\textsuperscript{14} \textit{Administrative Report of the Madras Presidency}, 1875-76, Part II, P-356.

\textsuperscript{15} \textit{Public Consultations M.R.O.}, Volume 743, dated 26th July, P-1842.


\textsuperscript{17} 'Despatch No.20 of 18th October 1843', cited in Richey, J.A., \textit{Selections from Educational Records}, part II, op.cit., P-331.
But the latter declined to accept this idea on the contention that it was a premature one in 1843.  

In the meantime the Medical Board's most experienced Medical Officers of the Medical Department advocated the introduction of Medical classes at the Madras Medical School and this continued till 1850, in which year, the Government changed the name of the Madras Medical School to that of Madras Medical College.  

THE ESTABLISHMENT OF THE MADRAS MEDICAL COLLEGE

1850 - 1860

On 1st October 1850, the Madras Medical School was raised to a higher status of a 'College' on the basis of the representations made by the School Council through the Medical Board and henceforth the Madras Medical School was known as the Madras Medical College.  

Since then the Institution attained professional status and in the same year a 'Chair of Botany' was created with a Professor appointed as its Head, with it was

\[\text{\textsuperscript{18} Public despatch from England, dated 18th October 1843, M.R.O., S.No.154, Paras, 1-13.}\]
\[\text{\textsuperscript{19} Souvenir Book of the Madras Medical College Centenary, op.cit., P-22.}\]
\[\text{\textsuperscript{20} University of Madras, History of Higher Education in South India. Volume II, op.cit., P-221.}\]
combined Materia Medica instead of Chemistry. In the same year, the course was extended to three years for the Vernacular class and to four years for the Apothecary class.  

The Madras Medical College trained students for private or independent practice and for the Public Service within a short span of time. By the year 1850, there were three categories of students undergoing training.

1. The private and stipendiary students who had five years course, qualifying for the diploma of ‘Graduate of the Madras Medical College’.

2. Apprentices qualifying for the Apothecary grade of the Medical Department after a four years course.

3. Medical pupils qualifying for second grade Dresser of the Medical Department with a three years course.

Sir Henry Pottinger, the then Governor of Madras in 1851, advocated the introduction of Medicine and Engineering under the direction of the Madras University.

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21 Jaggi, O.P., Medical Education and Research, op.cit., P-49.


Meanwhile in 1854, a requisition was made to the Royal College of Surgeons, London, for the recognition of the Madras Medical College ‘as one of the Colonial Schools of Medicine and Surgery’. This was granted in 1855.24

A few years later, recognition was obtained from the Royal College of Scotland and Ireland. The possession of a Madras M.B. degree entitled the graduates to register themselves in the British Medical Register and to the privilege to practice in Great Britain and its colonies.25

Meanwhile in 1854, the then Governor General of India Lord Dalhousie appointed a Commission under the Sir Woods to study and analyze the then existing condition of education in the country and to submit its report in the form of suggestions and recommendations for its improvement.

In 1854, the famous ‘Wood’s Despatch’ was submitted and since then the Educational policy of the Madras Government was largely influenced and guided by its principles and policies till the year 1857.26

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24 Ibid, P-330.


By a Government Order dated 1st June 1855, the College was placed under the Supervision of the Council of Madras Medical College and the Director of Public Instruction, in accordance with the order of the Hon'ble the Court of Directors.\textsuperscript{27}

THE PRIMARY MEDICAL SCHOOL

By the General Order of 12th October 1857, a Vernacular Primary Medical School was opened at Vepery and placed under the superintendence of the Surgeon of the Second district and he was to be assisted by teachers from the subordinate department.\textsuperscript{28} The aim and purpose of the school was to train the Indians for the admission into the prestigious Madras Medical College. But this experiment proved to be a total failure and hence the school was abolished in the year 1860 and its pupils were transferred to the Medical College itself.\textsuperscript{29}

Meanwhile the Inspector General of Hospitals and three other Medical Officers formed a Committee in 1856 - 57 to conduct the Annual Examinations of the Madras Medical College.\textsuperscript{30} This brought rapid progress in systematizing and

\textsuperscript{27} University of Madras, \textit{History of Higher Education in South India}, Volume II, op.cit., P-224.

\textsuperscript{28} Jaggi, O.P., \textit{Medical Education and Research}, op.cit., P-49.

\textsuperscript{29} Ibid.

improving the Medical Education in the Madras Presidency on the whole and this led to the Madras Medical College being recognized all over the world. It was hailed as a great pioneering centre of Medical Education in the Sub-continent which could be well justified from the despatch sent by the Hon’ble Court of Directors dated 5th August 1857, informing the recognition of the Madras Medical College by the College of Surgeons in Dublin and Edinburgh.

DEVELOPMENTS

1860 - 1875

Radical Changes

In 1860 - 61, the Madras Medical College in its administrative set up underwent radical changes, which was totally reorganized in a systematic manner. The prestigious Institution was now opened to all, became a common place for all people irrespective of caste, colour, creed, sex, religion or other narrow sectarian divisions of the Indian society, to share the knowledge of Medicine equally on par with each other. The candidates were admitted to all these departments on the basis of a competitive examination. The entire system of Medical Education was divided into three main distinct departments and they are as follows:

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32 Ibid.

1. **Senior Department**: This department trained the students for the M.B. (Bachelor of Medicine) and C.M. (Master in Chirgery) degrees of the Madras University. The course of study was for five years.\(^{34}\) Later this department also trained candidates for L.M.S. (Licentiate of Medicine and Surgery) degree, which required only four years of study. The candidates who passed out from this Senior Department were taken as Sub-Assistant Surgeons.

2. **Second Department**: Military Hospital Apprentices qualifying for Military Apothecaries and Civil Hospital Apprentices to be employed as Civil Apothecaries in the Government or at other Local Boards were trained in this department. It was a three years course and the students were to work in a hospital for a year before admission.\(^{35}\)

3. **Junior Department**: Medical pupils who were trained here were to be employed as Military Hospital Assistants and Civil Medical Pupils, as Civil Hospital Assistants under the Local Boards or the Government, received their training here.\(^{36}\)

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\(^{35}\) Ibid, P-27.

\(^{36}\) Ibid, P-28.
The Transfer of Administrative Power from Madras Medical College to the Madras University

In 1863, the Madras University which has been constituted by the Act XXVII of 1857, claimed the exclusive right to award Medical degrees and diplomas. The Government made it mandatory to all those students who wished to obtain their academic degrees in Medicine to pass the University Examinations conducted by the Medical Faculty of the Madras University.

Though the Madras University came into existence as early as 1857, it asserted its right to conduct examinations and to issue Degrees and Diplomas only by 1863. Due to this transfer of 'Attorney of Power' from the Medical College to the Madras University, a new leaf was turned in the History of Medical Education in this part of the country aiming towards a brilliant future. It was a decisive turning point in the evolutionary growth of the Medical Education and from then onwards it developed very rapidly by widening its jurisdictions in all directions in order to achieve the state of fulfilledgedness and self-sufficiency.

From that time, commenced a 'New Era' in the history of the Senior Department of the College. Hitherto, the Institution had significantly failed to draw into the ranks of the profession, educated Indian Youth in anything like the numbers


that were attracted by the Legal and the other Professions. But now more and more private students joined its classes every succeeding year in large numbers.\textsuperscript{39} As the preliminary standard of education was raised, well educated youth were attracted to join the Medical Profession. It provided them with a respectable status in the society. In 1867, the number of the staff was increased and the number of major professorships were raised to eight besides adding five more minor professorships.

One of the main objectives of the Government in establishing the Medical Institution was achieved namely to reach a large number of educated Indians by providing them a golden opportunity to have an access to a superior Medical training, so as to make them ardent Medical Practitioners and thereby diffuse the Western Medical System as widely as possible throughout the length and breadth of the Indian Subcontinent.

Subsequently the reputation of the college had a meteoric rise due to the marked success of its students in acquiring Degrees and Diplomas and for commissions in His Majesty's British and Indian Medical Services.\textsuperscript{40} The name and fame of the college skyrocketed further in 1870, when the University of Edinburgh agreed to recognize the Degrees of the Madras Medical College.\textsuperscript{41}


\textsuperscript{40} Administrative Report of the Madras Presidency, 1868 - 69, P-15.

\textsuperscript{41} Administrative Report of the Madras Presidency, 1870 - 71, P-173.
PROGRESS

1875 - 1947

Admission of Women

By the General Order No. 6 of 11th January, history was made in the Madras Medical College, when Women Candidates were admitted for the first time on the recommendations of Surgeon-General Balfour. Interestingly this was possible in Madras Medical College when no other Medical College in India had even dreamt of such a thing and even in Great Britain the doors of Medical Course were not yet opened for Women.

Introduction of Licentiate of Medicine and Surgery

On 24th September 1875, again history was made when the Government Instituted the 'Licentiate of Medicine and Surgery' (L.M.S.) for the first time in the country at the Madras Medical College. This degree was on par with that of Calcutta and Bombay Universities and its requirements were much lesser than that of the M.B. degree. This paved the way for larger number of students to enter the Medical Profession. In the same year, the pupils without any restrictions were permitted to join the Civil Apothecary and Civil Hospital Assistants Course, which were previously confined only to those who entered Military Service. Subsequently the strength of


\(^3\) Ibid.
the college along with its popularity increased tremendously. In 1877, the Government closed admissions to the Senior Department of the Madras Medical College to private pupils which placed the elite youth of the Middle class of Madras in the most disadvantageous position.

After a lot of hue and cry by the Public spirited men of Madras, who submitted a memorandum to the Governor urging him to withdraw the controversial order, the Government reopened the department to the private candidates on an increased fees fixed by it and it was in force till 1922.44 There was a steady inflow of private students which increased year after year and those who completed their course in the Senior Department proceeded to England for higher studies.45

The Hospital Assistants Department or the Junior Department was closed in 1882 and the pupils were moved to the Auxiliary Medical School at Royapuram.46 This system continued to work till August 1887, when it was shifted back to the college.

44 'G.O.No.65', Education Department, dated 14th February 1878.
46 Administrative Report of the Madras Presidency, 1883 - 84, P-188.
Representation to Various Communities

A unique feature introduced in the year 1884 was that, various communities were represented in the Madras Medical College. Of the total 182 students in the Senior and Second Departments, three fifths belonged to the European and Eurasian communities, followed by the Sudras and the high class Hindus and last but not the least the Brahmins and Native Christians ranking next.\(^47\)

By 1885, after half a century of existence, the Madras Medical College had trained 1,523 Indians and Europeans for the Subordinate Medical Service, of whom 24 became graduates of the college.\(^48\)

In that year it had a staff of fourteen Professors and lecturers and four assistants. Religion wise, the students were numbered as follows:

1. Europeans and Eurasian Christians - 82
2. Native Christians - 40
3. Brahmins - 33
4. Lower caste Hindus - 49
5. Mohammedans - 8
6. Parsees - 3.\(^49\)


\(^48\) *History of Madras Medical College, from its foundations in 1835, and of the Old General Hospital*, Madras:1885.

\(^49\) *Indian Medical Gazette*, (J.M.G.), 21., 350, 1886.
The College and the School functioned satisfactorily according to an assessment made in that year.\textsuperscript{50} By an Order of the Government in November 1885, the vacancies in the Warrant Medical Branch were to be filled up in future only by those students who had graduated themselves from the Madras Medical College which consequently enhanced the reputation of the college.\textsuperscript{51} After completing this course here, some of the students obtained 'August Offices' in the Royal Navy and in the Army Medical Departments.

In September 1887, the Auxiliary Medical School at Royapuram was closed and was shifted to the college while the clinical training of the students was given in the Monegar Choultry Hospital.\textsuperscript{52} In 1889-90, a new laboratory and a new office building were added to the college premises.\textsuperscript{53}

Changes in Admission

The Madras University brought about two important changes with regard to the admissions to the L.M.S. degree and Hospital Assistant post in 1893. The candidates should have obtained the standard of 'Fellow of Arts' as the minimum


\textsuperscript{51} Ibid.

\textsuperscript{52} Madras Tercentenary Commemoration Volume, Oxford University Press: 1939, P-59.

\textsuperscript{53} Administrative Report of the Madras Presidency , 1889 - 90, P-32.
educational qualification to join L.M.S. degree course which ultimately led to the decrease in the college strength from 96 students in the previous year to 50 pupils in 1893 in the L.M.S. section.\textsuperscript{54}

A course of Hygiene known as the 'Sanitary Inspectors' course was started in 1894 for the Sanitary Inspectors of Municipalities after several representations made to the Sanitary Commissioner.\textsuperscript{55} This also led to the increase of the college strength.\textsuperscript{56}

One of the important changes initiated at this time was the change in the session which formerly extended from 1st October to 30th June. The 63rd session of the college began on 2nd August 1897 and terminated on 31st March 1898 and from that time onwards, the college has enjoyed a summer recess in the months of April, May and June.\textsuperscript{57}

Changes in the College Curriculum

From 1895-1900, several changes were effected in the system of teaching in the different departments which are as follows:

\textsuperscript{54} Administrative Report of the Madras Presidency, 1893 - 94, P-34.

\textsuperscript{55} 'G.O.No.19194' - M, dated 10th December 1894.

\textsuperscript{56} Administrative Report of the Madras Presidency, 1894 - 95, P-191.

\textsuperscript{57} University of Madras, History of Higher Education in south India, Volume I, op.cit., P-235.
1. **College department**: The students were trained for the Bachelor of Medicine and Master of Chirgery (M.B.& C.M.) and Licentiate of Medicine and Surgery (L.M.S) degrees in this Department.

2. **The Apothecary Department**: Students of both sexes belonging to the Military Personnel were only trained to become Military Assistant Surgeons.

3. **The Chemists and Druggists Department**: The students were given a two years training course to become good Chemists and Druggists.

4. **The Hospital Assistant Department**

5. **The Sanitary Inspectors Department.**

By the dawn of the 20th century i.e. 1900 A.D. the total strength of the college was 510, manned by 17 professors and 8 Assistant professors.

In 1902, the Government approved a plan to provide increased accommodation for the physiological laboratory at the Medical College.

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60 'G.O.No.690', *Education Department*, dated 6.11.1902.
By the Orders of the Government the Hospital Assistant Department was again transferred to Auxiliary Medical School at Royapuram on 15th April 1903 under a new management and with better facilities.\textsuperscript{61}

The increased number of students attracted by the college and the demands of the new curriculum of studies naturally required more elaborate accommodation in the laboratories and the Government Order No.1977 - W, dated 9th September 1907, sanctioned the construction of the Hygiene and Physiology laboratories at a cost of Rs.1,70,000/-.\textsuperscript{62}

During this period, important changes in the regulations relating to the Medical degrees were effected. In 1914, classes were opened for the first class Health Officers and Candidates preparing for the B.Sc. degree of the University of Madras and with opening of these classes, the Hygiene Department grew in importance and utility.\textsuperscript{63}

Consequent to the reports of the Inspectorate of the General Medical Council, the Government undertook elaborate programmes for the construction of the Medical College and General Hospital and for the reorganization of the Medical

\textsuperscript{61} ‘G.O.No.320’, \textit{Education Department}, dated 10th June 1901.


\textsuperscript{63} Ibid.
Staff. The L.M.S. degree was abolished in 1925 and the new regulation which came into force in July 1928 for the M.B.B.S (Bachelor of Medicine & Bachelor of Surgery) degree introduced a pre-registration course of 6 months, thus lengthening the course from five to five and a half years.\textsuperscript{64}

On the advice of the Director General of the Indian Medical Services, the Government issued orders to reorganize the Indian Military Department. Hence entrants to the Indian Military Department for services as Military Assistant Surgeons in the army had to possess the same initial qualifications as entrants to the University degree courses and had to pass the University degree examinations.\textsuperscript{65}

With the close of the 1928-29 session, the last batch of lady Apothecary Students passed out and henceforth the teaching in the college was limited to one grade of Civil Medical students - the M.B.B.S. students alone.

By far, the most important change with regard to the buildings was the construction of a combined block for a Pathology Institute for the Medical College and an Administrative Block to the General Hospital sanctioned by the Government in October 1929 at an estimated cost of 12 Lakhs of rupees. The new buildings were opened for use on 1st July 1935.\textsuperscript{66}

\textsuperscript{64} Ibid.

\textsuperscript{65} Ibid.

\textsuperscript{66} Ibid.
Concurrently with the developments in the college, the affiliated clinical institutions have also been very considerably enlarged and remodelled. The General Hospital, the Ophthalmic and the Maternity Institutions were thoroughly renovated. The total staff of the college was increased to 118, consisting of 27 Professors, Additional Professors and Lecturers, 58 Tutors, Assistant Professors and Assistant Lecturers and 25 Demonstrators.\(^67\)

A new degree course on B.Sc., Pharmacy was instituted from July 1939 and from 1949, it was called B.Pharm.\(^68\)

The Appointment of a Dean

A new post of 'Dean' was created in the year 1949 on the recommendation of the Educational Sub-Committee.\(^69\) Dr.R.V. Rajam, the Principal of the College was appointed as the First Dean and he took charge on 23rd January 1950. He being the Professor of Venereology, Obstetrics and Gynaecology, those departments were improved and upgraded.\(^70\)

\(^67\) Ibid.

\(^68\) Ibid.

\(^69\) 'G.O. No.4114', *Health Department*, dated 22.11.1949.

\(^70\) 'G.O. Ms.No.3929', *Health Department*, dated 16.11.1951.
The degree of Bachelor of Dental Surgery through a four years course was instituted in the academic year 1953-54 and in that 15 students were admitted.\(^{71}\) Another course known as the Diploma in Venereology was started in 1953.\(^{72}\) In the following year the Bicentenary of the Madras General Hospital was celebrated in a grand fashion. In 1953 the World Health Organization's team of Medical Men visited the college and that gave a boost to the research and training programmes.

From 1965, the postgraduate courses in Periodontology and Oral Surgery were started with the financial assistance rendered by the Ministry of Health, Government of India.\(^{73}\) Since the 1st of May 1979, a separate Dental College was inaugurated which was hitherto attached to the Madras Medical College.\(^{74}\) By the passing of each year, more and more developments were undertaken in the field of Medical Education and today the Madras Medical College once the 'Mother' of all Medical Schools and Colleges in India, shines almost alone as the Pole Star on top of the Medical Map of India.

\(^{71}\) 'The Madras Medical College', *Directory of Medical Colleges in India*, 1976, P-122.


\(^{74}\) *Tamil Nadu Administrative Report*, 1979-80, P-135.
THE EVOLUTION OF MEDICAL CURRICULUM

During its inception, the Madras Medical School had only Anatomy and Physiology with Dissection, Materia Medica, Elementary Pharmacy, Medicine and Surgery as its subjects which were taught in the medium of English.\textsuperscript{75} By 1846, a Professor of Chemistry was added followed by Midwifery and Ophthalmology in 1847 and Botany in 1850.\textsuperscript{76}

In 1884, subjects like Diseases of Women and children, Comparative Anatomy, Medical Jurisprudence, Dental Surgery and Pathology were added besides a class for Chemists and Druggists.\textsuperscript{77}

Lectures were conducted for Chemistry, Medical Jurisprudence, Comparative Anatomy, Organic Chemistry, Practical Chemistry, Botany, Physiology and Practical Pharmacy. These classes were conducted for Apothecary Hospital Assistant Department and Sanitary Inspectors.


\textsuperscript{76} Ibid, P-330.

Medical Examinations

By 1835, there was an Examination Committee unconnected with the school to conduct the examinations for Medical Officers. When the Madras University was formed in 1857, it claimed the exclusive right to conduct Medical Examinations and award Degrees and Diplomas to the students. The University regularised the system of Medical Education.

Degree of Licentiate in Medicine and Surgery (L.M.S) - five years course

Requisite qualification to join the course was matriculation. After the culmination of two years, exams were conducted for Anatomy, Chemistry, Botany, Materia Medica and Dissection.

Only after passing this examination, the candidates were permitted to sit for the final year examinations in the subjects of Physiology, Surgery, Hygiene, Medical Jurisprudence, Midwifery, Comparative Anatomy, Ophthalmology, Medicine, General Pathology, General Anatomy. These examinations included oral, written and practical tests.


80 Ibid.
The Honours Examination

The candidates who have passed the L.M.S. in the first division at the final examinations were admitted to this course in Comparative Anatomy or in Physiology.

Doctor of Medicine

A candidate with a Bachelor of Arts coupled with an L.M.S. and subsequent Medical Practice was eligible to join the course of Doctor of Medicine.81 The examination was by the method of evaluating the printed papers of a thesis on any Professional Medical Subject chosen by the candidate such as Medicine, Surgery, Midwifery, Medical Jurisprudence and General Pathology besides a Public Viva Voce test.

The L.M.S. course was changed into a more advanced course known as M.B. and C.M. degree course in 1855 for which a candidate had to pass three examinations

1. Preliminary and Scientific
2. First M.B & C.M. examination and
3. Second M.B & C.M.82

81 Ibid.
82 Ibid.
By 1875 - 76, the L.M.S. course was revived and the eligibility for its admission was F.A. (Fellow of Arts). From 1895 onwards the duration of the L.M.S. course was fixed as four years and M.B. & C.M. as five years.

The final year candidates of M.B & C.M. who had not passed the examination were permitted to appear for the L.M.S. final examinations. Again pupils who have passed second year L.M.S. or third year M.B. & C.M. examinations and had undergone a course of study at least for an year were entitled to sit for the L.M.S. final examinations.

**M.B.B.S. and L.M.S.**

The Medicine Baccalaures and Baccalaures Surgery (Bachelor of Medicine and Bachelor of Surgery) or M.B.B.S. is the first degree course in Medicine offered in various Universities and Colleges in India. The nomenclature from M.B.C.M. to M.B.B.S. was changed in 1918 and this course was meant to provide the student with the basic concepts of the theory and practice of Modern Medicine and Surgery. It was uniform throughout the country and was for five and half years after the qualifying examination, which was the pre-university examination or the equivalent to it. If a student failed to comply with the requirements to M.B.B.S., he was directed to join L.M.S.\(^3\)

\(^3\) Ibid, P-109.
L.M.S. Degree Abolished and M.B.B.S. Modified

In 1925, the L.M. & S degree was abolished and in July 1928, a pre-registration course of 6 months for the M.B.B.S. degree was introduced. But the Government made provisions for the L.M.P. doctors to get themselves qualified for M.B.B.S. degree in 1931 subject to certain conditions.

The pre-registration examination for M.B.B.S. was abolished in 1951 and the duration of the second year M.B.B.S. course was changed in 1954.\textsuperscript{84}

Sanitary Science

A specialized degree course known as the Sanitary Science Course known as L.S.S. (Degree of Licentiate in Sanitary Science) was introduced in 1894 - 95 and the qualifying degree for its admission was a L.M.S. or M.B.C.M. degree.\textsuperscript{85} The subjects of study included Chemistry, Experimental Physics, Sanitary Law, Vital Statistics, Drawing and Mensuration, Sanitary Engineering, Sanitation, Hygiene, etc. The name was changed in 1913 to B.S.Sc. (Bachelor of Sanitary Science) and by 1914-15 the examinations were divided into part I and II to obtain this degree.


\textsuperscript{85} Ibid.
B.Sc. Pharmacy

A course for Pharmaceutical Chemistry was introduced in 1938 and its name was changed to B.Pharm in 1949.86

B.Sc. Nursing

A degree course in Nursing was introduced in 1944 and the duration of study being four years after matriculation. The first two years was known as ‘Intermediate in Nursing’ and the next two years ‘B.Sc.in Nursing’.

THE CONCEPT OF UNDERGRADUATE MEDICAL EDUCATION

The World Health Organization’s Concept of Health has been clearly defined in its preamble as ‘a state of complete physical, mental and social well being and not merely absence of disease or infirmity’.87 This implied a wider concept of Undergraduate Medical Education than that which was accepted thirty or forty years ago. The objectives and aims of Medical Education have undergone tremendous changes and the duties and responsibilities of a Basic Doctor have widened and increased in an enormous way.

86 Ibid, P-110.

Gone are the days when the one and only target of the doctor was to cure the disease of the individual patient. To comply with the slogan 'PREVENTION IS BETTER THAN CURE', now the doctor has to concentrate more on preventive measures against the disease and a Medical Student, during the whole period of his clinical studies, had to attend to the role of Preventive Medicine in promoting health.\textsuperscript{88}

The aim of Undergraduate Medical Education was not to provide training in the highly specialized fields of Medical and Surgical treatment but to give a thorough grounding in knowledge and a synthesis of General Medical and Surgical diagnosis. Undergraduate Medical Teaching served only to lay the foundations for creating interest in a subject of ever increasing nature and to create in the student a psychological curiosity to pursue and develop the basic methods and principles that have been ingrained in him.

Broad understanding, scientific aptitude and approach, powers of accurate reasoning, judgement, resourcefulness, initiative and a determination to put to test, of the knowledge that has been gained through study and observation were provided by the course.\textsuperscript{89}

\textsuperscript{88} Ibid.

\textsuperscript{89} Ibid, PP.265 - 266.
THE HISTORY OF MEDICAL SCHOOLS

The three Medical Colleges at Madras, Calcutta and Bombay did not have enough capacity to train doctors to fulfil the needs of the country. More doctors were needed for subordinate jobs and they were supplied by the Medical Schools opened for the purpose. These schools taught the students in the vernacular languages such as Tamil, Bengali, Marathi etc., and had shorter courses of study. Later on they also switched on to English Medium. Hence it is necessary to trace the history of Medical Schools of Tamilnadu as well.

The role of Medical Schools in the history of Medical Care in India is of equal importance to that of Medical Colleges and the qualification required to join was generally matriculation. The Schools include the Auxiliary Medical School at Royapuram, the Native Infirmary and apart from the above two, there was the Prince of Wales Medical School at Tanjore by the Year 1886.\[90\] By the year 1937-38, there were 27 schools with a total enrolment of 96,492 students in the country.\[91\]

The general standard of these Medical Schools were poor and naturally this had its reflection on the quality of Licentiate Medical Men trained in the schools. However, it was considered that such Medical Men would find more opportunities

in villages with less competition from University Qualified Doctors. It was also felt that instead of leaving the rural population at the mercy of 'quacks', it was better to send licentiates however much inferior their qualification may be.

Vernacular Schools

*Vepery Medical School*

It was separated from the Medical College by the General Order of 12th October 1857 and was added to the Medical College in 1860.

*The Auxiliary Medical School/The Stanley Medical College*

The School was established at Royapuram to enhance the strength of the Medical Subordinate Department in order to combat the famine in Madras.92 Later this school got affiliated to the Madras Medical College in 1879.93

In 1883, the Government abolished the Junior Department of the Madras Medical College and the students were transferred to the Medical School which was established on a permanent basis to train the 'Hospital Assistants'.94 The students were admitted based on merit to which competitive examinations were held.

92 'G.O. No.408', *Education Department*, dated 27th August 1878.


94 'G.O.No.367', *Education Department*, 18th November, 1882.
In August 1887, the Auxiliary Medical School at Royapuram was abolished and the students were transferred back to the Madras Medical College. This Junior Department worked there till 1903, when it was again transferred to the Old Bullet Factory at Royapuram order. The school underwent many changes in curriculum, designation and became popular. In the year 1911, the L.M.P. (Licensed Medical Practitioner) diploma was awarded to the first batch of outgoing students who were appointed as Sub-Assistant Surgeons.

As a policy decision the Government closed all the Medical Schools from 1900-1920 except the Auxiliary Medical School at Royapuram.

According to Major General Sir Cuthbert Sprawson, the then Director General of Indian Medical Service, the condition of Medical Schools in the country was very poor. Hence he set a standard of rules and norms for a ‘Good Medical School’ based on his experience.

To him only the ‘Stanley Medical School’ fulfilled all the requirements of a good school while the rest were deficient in one or more aspects.

In 1933, the Government introduced the five years D.M.& S. course and a detailed curriculum was drawn up with a view to provide for a more extended and

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95 ‘G.O.No.320’, *Education Department*, dated 10th January 1901.

a higher standard of Medical Education and to place the diplomates professionally on par with those who qualify themselves by taking the Medical diplomas of the Royal College in Great Britain. His Excellency, the late Right Honourable Sir George Frederick Stanley the then Governor of Madras, inaugurated the five years course and graciously consented to the naming of the school as the 'Stanley Medical School'.

On 2nd July 1938 the school was raised to the status of 'Stanley Medical College' by the late Hon'ble Dr. T.S.S. Rajan, Minister for Public Health.

In 1941, the L.M.P. (Licensed Medical Practitioner) was altered to that of D.M.C.S. (Diploma in Medicine and Surgery).

With the construction of Pharmacology, Anatomy and Physiology Departments, the college became fullfledged in its capacity in training students in the Medical Curriculum. The first batch of M.B.B.S. students were admitted in the academic year 1952-53.


98 Ibid.


The Government of Madras sanctioned the creation of the post of a 'Dean' for performing the administrative, executive and supervisory duties attached to the post of the Principal, Stanley Medical College and Superintendent, Stanley Medical College Hospital, Madras.\textsuperscript{101}

By the year 1959 - 60, the college strength was 893 out of which, 717 men and 180 women for the Medical Course and 132 students under Non-Medical Course out of which 2 were women candidates.\textsuperscript{102}

Now the Stanley Medical College Madras offers courses in Allopathic Bachelor degrees, Postgraduate degrees, diplomas etc. of the Madras University. Instructions are also imparted in Para-Medical Sciences also.

\textit{The Missionary Medical School/ The Christian Medical College, Vellore (C.M.C)}

The Missionary Medical Physicians incharge of the hospitals felt the necessity of training Indian Women as doctors, to meet the increasing demand for Medical aid for Women and Children. In 1914, a committee was formed to set up a school for women in South India. It was first accommodated in a rented building. In 1918, Lord Pentland declared the Medical School open.

\textsuperscript{101} 'G.O.Ms.No.2479', Health Department, dated 4th August 1952.

\textsuperscript{102} Administrative Report of the Madras Presidency, 1960, P-147.
CHRISTIAN MEDICAL COLLEGE, VELLORE.
Dr. Ida Scudder, a grand daughter of the first American Medical Missionary in India with a group of Medical Women founded this Institution in 1918, as a Medical School for Women.\textsuperscript{103} The students were trained for L.M.P. diplomas till 1933 and then for D.M.S. diplomas.

In 1942, the Medical School was raised to that of a College and a batch of 25 women students were admitted to the M.B.B.S. course.\textsuperscript{104} By the year 1947, the Madras University Syndicate allowed 11 male students to join the college along with 25 other women candidates and then it became a co-educational Institution.\textsuperscript{105}

In January 1950, the Madras University accorded recognition to this college and it was also recognized for the postgraduate M.D. and M.S. degrees and diplomas in Tuberculosis.\textsuperscript{106}

The college was supported by 39 Churches and Mission Societies in India, U.S.A., Canada, U.K., Australia and Denmark and is administered by a Council in India consisting of their representatives.\textsuperscript{107}

\textsuperscript{103} 'Christian Medical College, Vellore', Directory of Medical Colleges in India, 1976, P-113.

\textsuperscript{104} Ibid.

\textsuperscript{105} Ibid.

\textsuperscript{106} University of Madras, History of Higher Education in South India, Volume II, op.cit., P-235.

\textsuperscript{107} Ibid, P-236.
The unique feature of this Institution is its international character. Men and Women candidates from each and every State of India and from Pakistan, Ceylon, Burma, Malaya, Mauritius, Kenya and U.S.A. study here. Its staff consists of men and women from India, U.S.A., England, Scotland, Ireland, Canada, Germany and Australia.\textsuperscript{108}

Today the Christian Medical College is one of the foremost Medical Institutions in India.

**TRAINING OF PARA-MEDICAL STAFF**

**Vaccinators**

In the beginning, the Inoculators (tikkadars) were trained in the method and practice of vaccination by the Medical Staff of Vaccination Department. They learnt it by observing their officers at work which proved to be a disaster. Hence a uniform system of training and theory of vaccination and knowhow to preserve the potency of the vaccine was imparted to the vaccinators to get the best results.

The duration of the training ranged from three months to ten months and it included instruction in elementary hygiene also. Practical training in the field was given by the Senior Vaccinator under the supervision of the Health Officer. In most

\textsuperscript{108} Ibid, P-238.
of the Provinces, additional training was also given at the local Vaccine Institute where vaccine lymph was manufactured.\textsuperscript{109}

**Stretcher - Bearers**

According to General Orders of 1886, the stretcher-bearers were expected to undergo professional training. Two men at least per Company had to be trained as the stretcher-bearers of corps in ambulance and stretcher drill and in rendering first aid to the wounded, as laid in the Manual for the Medical Staff.\textsuperscript{110}

'On the formation of a class, whether in connection with one or more corps, officers and men of any branch of the service were allowed to attend; the course of instruction which consisted of at least 12 lectures and drills, of which attendances had to be certified by the Instructing Officer before application was made for examination as to proficiency. A class should consist of not less than eight persons. To ensure efficiency, all recognized regimental stretcher-bearers were required to attend at least four stretcher drills annually'.\textsuperscript{111}


\textsuperscript{110} Ibid, P-162.

\textsuperscript{111} Ibid.
Health Visitors

There were training schools for Health Visitors in Madras, Calcutta, Bombay, Lahore, Delhi, Poona, Lucknow and Nagpur. The preliminary educational qualification required for admission to these schools, the periods of training, the syllabi followed and the languages in which instruction was given varied considerably.

In the Madras School, Matriculation coupled with a Midwifery Diploma or its equivalent was the minimum required qualification to join the Health visitors course. The period of training extended from nine to eighteen months and the medium of instruction was either in English or the Local Vernacular.

The final examination was held by the Provincial Nursing Council or by authorities appointed by the Provincial Government. The course of training included, work in Maternity and Child Welfare Centre, maintained either by the local Health Department or by a Voluntary Agency. Field training in rural and urban health centres was also included in the course.

The best type of Health Visitors available in the country was normally a qualified Midwife with elementary training in general hygiene and preventive health work. Her main duties were to supervise the domiciliary work of Midwives and

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Ibid.

Ibid, P-163.
trained Dais and to participate in preventive work associated with the hygiene of pregnancy and of the post-natal period.  

Sanitary Inspectors

The Provinces where the course was held regularly were Madras, Bombay, Punjab and Sindh. These four together provided training facilities for about 500 sanitary inspectors each year, while the number of those who qualified was approximately 200.

In Madras the period of training was one year and the basic qualification required for a candidate to join was the Secondary School Leaving Certificate (S.S.L.C.) or Matriculation.  

Public Health Engineers

There was a Sanitary Engineering Branch of the Public Works Department in Madras, which gave special training to its candidates in Public Health Engineering.

14 Ibid.
15 Ibid.
Laboratory Technicians

There were very few institutions in the country in 1940, which trained technicians who were needed in large numbers as auxiliaries to the Medical Services. Facilities for the training of laboratory technicians were organized in a few Mission Institutions particularly at Vellore, Madanapalli and Allahabad, under the auspices of the Christian Medical Association of India and Ceylon.

The rules for such training included a minimum educational qualification corresponding to the Matriculation or its equivalent and a course of study lasting for not less than nine months. The candidates were given a fairly comprehensive practical training for the type of work connected with Pathological and Biochemical laboratories. The rules required that the training should be given in a hospital with a well equipped laboratory and with a minimum of 2000 in-patients per year and daily average of 100 in-patients. The number of students allotted to each member of the teaching and demonstrating staff was limited.\(^{116}\)

X-Ray Technicians

In 1940s, in Madras a training course of Radiographers was organized at the Government Radiological Institute. The course was for the Diploma of Certified radiological Assistant (C.R.A. Madras) and was open to those who had passed the
Secondary School Leaving Certificate Examination (S.S.L.C.) with science subjects or the Matriculation of its equivalent. The period of training lasted for one year and consisted of 3 parts.\textsuperscript{117}

Part I comprised instruction in Elementary Anatomy, Physiology and Pathology. This was followed by Part II, which included Radiography, Radium and X-ray treatment and Electrology. Part III of the course lasted three months and was devoted to Practical Training. An examination was held at the end of each of these parts.\textsuperscript{118}

There were no training facilities available in 1940s for Physical Therapists, Dietitians, Occupational and Dental Hygienists and Technicians for Public Health work.

**THE DAWN OF POSTGRADUATE MEDICAL EDUCATION**

Organized Medical Research is stated to have started from 1894 when the Indian Medical Congress, urged the Government to establish a Research Institute with sufficient endowment. Prior to that, Individual Medical Officers made some research and added significantly to the existing knowledge.

\textsuperscript{117} Ibid.

\textsuperscript{118} Ibid.
The Doctor of Medicine and Master of Surgery

The M.D. degree examination was introduced in 1858, which incorporated the following Medical disciplines, viz., Medicine, Surgery, Midwifery, Medical Jurisprudence, Tropical Medicine and General Pathology and those who had passed L.M.S. and M.B.B.S. along with three years of subsequent experience in the Medical Profession or Art graduates with two years of Medical Practice were entitled to join the course.\footnote{119}

By 1914, the M.S. degree examination was introduced and the subjects included Surgical Anatomy and Pathology, Operative Surgery, Chemical Examination, General Surgery, besides a subject of specialization.\footnote{120}

In 1934, the degrees of B.Sc. and M.Sc. by research were introduced to graduates in Medicine.

THE MEDICAL RESEARCH INSTITUTES ESTABLISHED PRIOR TO 1947 A.D.

By the beginning of the 20th century, Modern Medicine and Medical Education had attained a stage of Self-reliance. Many independent Research

\footnote{119} University of Madras, History of Higher Education in South India, Volume 1, op.cit., P-106.

\footnote{120} Ibid, P-109.
Institutes were started all over the country. Some of them which were set-up in Tamil Nadu were as follows.

The King Institute of Preventive Medicine, Guindy

The king Institute was founded as a Provincial Public Health Laboratory for the Madras Presidency in 1903. The chief functions of the Institute were public health laboratory work, advisory work and research. These included:

1. Bacteriological, Serological and Pathological examination of specimens from all hospitals in Madras city and from Government hospitals and dispensaries throughout the Madras Presidency.

2. The manufacture of bacterial vaccine used in the treatment of diseases and manufacture of sterilized solutions intended for injections.

3. The manufacture and distribution of therapeutic sera to various hospitals.

4. The manufacture and distribution of vaccine lymph for the use of Public Health Department.

5. The conduct of Public health laboratory for water examination.

121 Jaggi, O.P., Medical Education and Research, op.cit., P-187.
6. The conduct by the Government analyst of examination of foodstuffs in connection with the administration of the prevention of Adulteration Act.

7. Blood Bank for the city of Madras.\textsuperscript{122}

Advisory work was carried out on a large scale which included technical advice to the Government of Madras including the Medical, Public Health, Fisheries and Hydroelectric Departments in connection with Medical and Public Health Problems of all kinds.

Research work was an important function of the Institute and among the subjects on which special research was undertaken were Cholera, Typhoid, Plague, Leprosy, Diphtheria, Virus diseases, Malaria, Filariasis and Protozoal Helminthic diseases and subjects relating to Water Supplies including Water Bacteriology, Algology and Endemic Fluorosis.\textsuperscript{123}

There were three mobile units for being despatched to the affected areas at a short notice, so that preventive measures could be taken without delay.

Regular courses of instruction were organized at the institute for

\textsuperscript{122} Ibid.

\textsuperscript{123} Ibid, P-188.
a. Students taking the Bachelor of Sanitary Science degree of Madras University, received instruction in the manufacture and use of vaccine lymph.

b. Students undergoing training for the Government diploma in Laboratory Science received advanced training for one month in serological methods.

c. Students of the Sanitary Inspector class were given training in vaccination work.

d. Medical graduates were given training in general bacteriological methods, usually for a period of three months.\textsuperscript{124}

The facilities for the manufacture of vaccine lymph, was better organized than any where else in India and was considered to meet world standards.

The Pasteur Institute of Southern India, Coonoor

It was opened in 1907, with the major portion of the funds provided through the munificence of Henry Philips, an American Philanthropist.\textsuperscript{125} In 1940, the Institute became the property of the Pasteur Institute Association and its

\textsuperscript{124} Ibid.

\textsuperscript{125} Ibid, P-189.
management came to rest with the Central Committee, of which the Surgeon-General of the Government of Madras was the Chairman and the Director of the Institute - the Secretary. The sale of anti-rabic vaccine and diagnostic laboratory work gradually increased the revenue and the Institute became fully self-supporting.

The Nutrition Research Laboratories, Coonoor

The credit for bringing up the Institution goes to Major General Sir Robert M.C. Carrison of the Indian Medical Service. It was in 1925, that the Nutrition Research Laboratories was established on a semi-permanent basis. In 1929, the Governing Body of the Indian Research Fund Association converted it into a Centre of Nutritional Research with Dr. M.C. Carrison as its first Director.\textsuperscript{126}

The chief functions of the Laboratories have been to conduct research on problems of nutrition, to act as an Advisory Bureau on all questions of nutrition, to do a limited amount of routine work and to hold Annual courses on nutrition.

Considerable attention was given to the study of the nutritive value of foodstuffs and data were compiled regarding the content of calorie, protein, fat, carbohydrate, phosphorus, iron, vitamin, etc. Diseases related to nutrition were investigated. Named at present as the National Institute of Nutrition, Hyderabad, where it was transferred, its work in the field on nutrition is known all over the world.

\textsuperscript{126} Ibid, P-195.
Thus, by the advent of Indian Independence, Modern Medicine and Medical Education had come of age and had become quite self-reliant to a certain extent, through independent Medical Research in every field.

THE EARLY ADMINISTRATION OF MEDICAL EDUCATION

The rapid progress and development of Medical Education was possible only due to the proper system of its administration and encouragement rendered by the Medical Stalwarts at every period of time.

The Administrative History of Medical Education incorporates in itself the composition and functions of the Governing Councils of Medical Education, Courses of Study and Examinations, Scholarships, Medals and Prizes.

The Medical Department

The first Medical Department of the English East India Company was created in 1740.\textsuperscript{127} It consisted of British Military Surgeons who were imported from England along with their subordinates and the native doctors who had no other qualifications except some practical training at the Military Station Hospital.

During the great famines of 1770, the Medical Department required Medical Staff to provide Medical relief to victims and the Company could not import Medical Personnel from England. Hence a Medical School was opened in 1835 to train the natives which developed into a college by 1850.

The Medical Board which comprised of experienced Medical Officers evolved the nature, standard and growth of Medical Education in their Provinces, by supervising the Medical School Council and the College Council, from 1835 to 1855, in which year the latter came under the control of the Director of Public Instruction.\(^\text{128}\)

The Medical School Council

The Medical School Council was vested with the powers to administer the institution, to fix the duration of the course, frame the Medical curriculum and to suggest any improvement on it. The Council comprised of the teaching staff of the school placed under the control of the Medical Board. The Council proposed to upgrade the school into a 'college' and from then onwards it became the 'College Council'.

The College Council

By 1850, the College Council was formed and it comprised of the teaching staff and a President nominated by the Government. In 1858, the President resigned and in his place a Principal was appointed and he was entrusted with the responsibility of manning the college on efficient lines. Again in the same year, a Consultative Council consisting of the Professors of the college was created as a Governing Body and the College Council was abolished.\textsuperscript{129}

The Consultative Council was taken into concurrence by the Principal before any major decision was taken regarding the development of Medical Education. In November 1858 a set of rules were brought in for the administration of the Medical College.\textsuperscript{130}

1. The Government of the Medical College shall be vested in a Principal, aided by a Consultative Council composed of all the Professors and of any other member who may be appointed by Government, subject to the general control of the Director of Public Instruction.

\textsuperscript{129} Administrative Report of the Madras Presidency, 1858 - 59, P-15.

\textsuperscript{130} Souvenir Book of the Medical College, Centenary, op.cit, PP.25-26.
2. All correspondence on the business of the college shall be conducted by the Principal or by the Secretary under the instructions and in the name of the Principal.

3. The Principal shall convene a meeting of the Council whenever he may think it expedient to do so or whenever a requisition signed by three Professors was made to him.

4. At a meeting of the Council, the Principal or in his absence, the Senior Professor present, shall take the chair. The Chairman shall have a vote on all questions put to the meeting and in the event of opinions being equally divided, shall have a second or casting vote.

5. Minutes of the proceedings of all such meetings shall be forwarded to the office of the Director of Public Instruction for record or for such Orders as may be necessary.

6. Any proposal involving a change in the prescribed cause of instruction or in the general management of the college which the Principal may desire to submit for the sanction of the superior authorities shall be laid before a meeting of the Council for discussion before being so submitted and the Principal in forwarding his own proposal shall forward also any resolution which may have been passed on the subject by the Council.
7. All notices, orders, etc., relating to the delivery of lectures and other matters connected with the routine of the college shall be signed and issued by the Principal who shall exercise a general superintendence over the interior economy of the college and supervision of the building, museum and laboratory.

This system of governance was in effect till 1911.¹³¹

REGISTRATION OF MEDICAL DEGREES

In India, the practitioners of the Indigenous Medical Systems such as, Naturopathy, Ayurveda, Siddha, Unani, Homoeopathy, Allopathy and a host of others practised Medicine and anybody could style himself as a 'Doctor' and start treating the patients. Even the failed students of the Medical colleges were not de-barred from practising side by side with the qualified doctors. The result was that, in a poor country like India, the practitioners who charged less had patients flocking to them even though their treatment was more quackery, often with disastrous consequences.

Naturally there was the need to protect patients from such unscrupulous healers.

¹³¹ 'G.O.No.761', Public Department dated 11th July, 1911.
Dr. W.K. Hatch in a letter states, 'It is a pity that the Indian Public are so supine in regard to this most important matters which generally affects both public and private interest'.\textsuperscript{132}

In the first Indian Medical Congress in 1894 at Calcutta, this matter was again brought to the notice of the Profession by Surgeon-General Harvey in his Presidential Address.

The Bengal Medical Act

In April 1914, the Bengal Medical Act was passed in view of curbing unauthorized and self-constituted bodies granting licences and certificates to practice Medicine, to the serious detriment of the Medical graduates of the Indian Universities.\textsuperscript{133} This Bengal Medical Act conferred upon the Bengal Council of Medical Registration, the duties of general supervision over the interests of the Medical Profession and the progress of Medical Education.

The Bombay Medical Act

This was passed as early as 1911 to protect the public and Medical Profession from irregularly qualified practitioners who had received training in Medical Science

\textsuperscript{132} \textit{Indian Medical Gazette,} 25, 148, 1890.

\textsuperscript{133} \textit{Indian Medical Gazette,} 43, 315, 1908.
at unrecognized institutions and to afford a ready means of ascertaining whether any particular Medical practitioner possessed certain scheduled qualification.

The scheduled qualifications were

1. Doctor - Bachelor and Licentiate of Medicine.

Also any person trained in a Government Medical College or School and held a diploma or certificate granted by the Government declaring him to be qualified to practice Medicine, Surgery and Midwifery or to be qualified for the duties of a Military Assistant - Surgeon, Hospital Assistant or Sub-Assistant Surgeon.134

All India Medical Act

A more comprehensive Bill encompassing the whole of British India was introduced by Sir Pardey Lukis at the meeting of the Imperial Legislature Council held at Simla on 22nd September 1915 and it was passed in 1916. This was meant to prevent the grant to unqualified persons of the titles implying qualification in Western Medical Science. 135

135 Ibid, P-117.
This Bill prohibited all persons except certain specified authorities from issuing or alleging that they were entitled to issue any degree or diploma in Western Medicine. It also penalized persons who voluntarily and falsely assumed any Medical title which was granted either by the Local or the General Council of the Medical Education of the United Kingdom. The Bill did not affect the right of any person to exercise the profession of Medicine or to practice as a physician or surgeon provided that he does not pretend to qualifications which he did not possess and its operation was rigidly restricted to the Western methods or Allopathic Medicine and Surgery, Practitioners of the Homoeopathic, Ayurvedic and Unani System being excluded from the purview of the Bill.\textsuperscript{136}

**THE MEDICAL ASSOCIATIONS**

*The Indian Research Fund Association (I.R.F.A.)*

An important milestone in Medical Research and Development in India was the creation of the Indian Research Fund Association in 1911, with a view to place Medical Research on an organized basis, to initiate aid, develop and coordinate Medical and Scientific Research in India, to promote special enquiries and to assist institutions in the study of disease, their prevention, causation and remedy.\textsuperscript{137}

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\textsuperscript{5} Ibid.

An annual grant of Rupees five lakhs was given to the Association to provide facilities for Medical Officers who engaged themselves in full time research institutes and who were not filling specified appointments in those institutes. The I.R.F.A. gave ample assistance towards a number of Research Projects on Malnutrition, Malaria, Rabies, Plague, Cholera, Leprosy, Kalazar etc.

The Government of India appointed a Committee in 1927 under 'Walter Flecher' to review the development of Medical Research in India. The Committee commended the contribution of the I.R.F.A. in promoting Medical Research in the country. The main work of Medical Research in India from 1911 to 1947 was done under the auspices of I.R.F.A. After Independence there were several important changes both in organization as well as in the activities of the Indian Research Fund Association. In 1949 Indian Council for Medical Research (I.C.M.R) took up the work of I.F.R.A. in the field of Medical Research.


Indian Research Fund Association and Indian Council of Medical Research, *Fifty years of Progress* (1911 - 61), New Delhi: P-14.
The Indian Journal of Medical Research, the official Journal of the Indian Research Foundation started its publication in July 1913. This was the first Medical Journal ever to be published in British India.\textsuperscript{141}

It was a quarterly journal and accepted for publication only from outstanding Research papers produced by Medical Researchers in India.

**The Indian Medical Council 1933**

Medical Education in India was under the supervision of the General Medical Council of the United Kingdom till 1933. Hence the Indian Medical Council was constituted in 1933 by an Act of Indian Legislature, under the Indian Medical Council Act No.XXVII of 1933, with powers of supervision over the courses and examinations for the Medical degrees, besides maintaining a minimum uniform standard of higher Medical Education for the whole of British India.\textsuperscript{142}

Recognition of Indian degrees outside India was the job of the Indian Medical Council. 'Efficiency at Home and Honour Abroad' was the watchword prescribed by Fazl Hussain in his inaugural address to the Indian Medical Council in 1933.\textsuperscript{143} This

\textsuperscript{141} Venkatratnam, R., 'A History of Western Medicine in India', *Indian Journal History of Medicine*, loc.cit., P-12.

\textsuperscript{142} Ibid, P-10.

Act provided for the membership of the Council to the Licentiates, formation of an All India Register and inclusion of Postgraduate Medical Education under the purview of the Council.\textsuperscript{144}

The Council consisted of members of whom five were nominated, one was elected from among the members of the Medical Faculty of British Indian University and one elected from among the Registered Medical Practitioners from each Provincial Medical Register. The Council was not entrusted with the duty of registration of Medical graduates nor was it vested with any disciplinary powers over Medical practitioners. Further it had no power to lay down strict rules for the curriculum to be followed by the Universities.\textsuperscript{145}

Immediately, after the constitution of this council, it successfully negotiated with the General Medical Council of Great Britain for the recognition of degrees granted by the British Indian Universities which were themselves recognized by the Council. This recognition came with retrospective effect from February 25, 1930, the date on which the General Medical Council (G.M.C.) withdrew its recognition for certain Medical degrees.

\textsuperscript{144} Ibid.

\textsuperscript{145} Venkatratnam, R., 'History of Western Medicine in India', \textit{Indian Journal of History of Medicine}, loc.cit., P-10.
The first Provincial Medical Councils were established in Bombay, Madras and Calcutta and the laws for the purpose were enacted in 1912 and 1914. The aim of these legislative actions was to improve the status of qualified Medical practitioners, and regulate the practice of Scientific Medicine without interfering with the practice of Indigenous System.\textsuperscript{146}

The Madras Medical Council was established in 1914 in pursuance of the Acts with the functions of supervising Medical Education, inspection of examination, exercise of disciplinary control over Medical practitioners and that of advising the Local Governments with regard to the recognition of the various Medical qualifications apart from the function of maintaining a register of qualified Medical practitioners.\textsuperscript{147}

In the state of Tamil Nadu, incentive to research was being given by the State Research Committee with the financial resources available, the purpose being to stimulate research activity but not totally support major research undertakings involving large sums of money.\textsuperscript{148}

\textsuperscript{146} Ibid.

\textsuperscript{147} Ibid, P-11.

As regards the absence of research in Medical Colleges and Universities, a clinical Research Advisory Committee was appointed as early as 1945, as a first step to enable greater attention being paid to clinical research and development of research in Medical Colleges. In order to encourage the various Medical Colleges to undertake some research activity, the Council took several other measures such as the holding of the annual meetings of the Advisory Committees and the Scientific Advisory Board in Medical Colleges by rotation and the programme of training junior members of the staff of Medical schools in research methodology.\textsuperscript{149}

THE BHORE COMMITTEE

In 1942, the Government of India set up a Health Survey and Development Committee under Sir Joseph Bhore in order to quench the thirst of Indianizing the Modern Medical Education, to make a broad survey of existing health conditions and health organizations in British India and to make recommendations for future development. It submitted its findings in the form of a Report in 1946.\textsuperscript{159}

It stated that, ‘Having given serious consideration to the suggestion that in the conditions now prevailing in the country, it might be desirable to provide both fully trained doctors and a less elaborate type of Medical Men, the conclusion which the

\textsuperscript{149} Jaggi., O.P., \textit{Medical Education and Research}, op.cit., P-287.

\textsuperscript{159} Gupta., S.P., \textit{Modern India and Progress in Science and Technology}, op.cit., P-93.
majority of us arrived at in, that having regard to the limited resources available for the training of doctors, it would be to the greater ultimate benefit of the country, if these resources were concentrated on the production of only one and the highly trained type of physician whom we have termed the 'Basic doctor'.

On Undergraduate Medical Education

Among the other recommendations of the Bhore Committee were the changes suggested in the undergraduate curriculum which included the following.

1. A reduction in the number of didactic lectures in certain subjects and an emphasis on the inclusion of principles and methods which will enable the student to learn for himself, think, observe and draw conclusion.

2. The establishment in every Medical college of a department of preventive and social medicine so as to give the student an insight into social health problems by contacts with home and community life.

3. The inclusion of a year of internship after the 'qualifying examination, of which three months will be devoted to work in public health unit and the remaining period in a hospital of approved standard.

151 Jaggi, O.P., Medical Education and Research, op.cit., P-166.
4. The importance of research should be stressed and the whole-time teachers should themselves engage in research and encourage any student showing an aptitude or leaning towards this aspect of his work to participate in research.\textsuperscript{152}

On Postgraduate Medical Education

About the postgraduate Medical Education, the Committee recommended that the same should be given to meet two different needs:

1. The training of consultants and specialists and
2. The training of practitioners, desirous of practising a speciality without the definite status of a specialist.\textsuperscript{153}

In the case of the first category it was recommended that such training would naturally involve several years of work in special departments and hospitals, leading to a higher qualification, such as the M.D. or M.S. In the case of second category, the training in the speciality may range from 12 to 18 months depending upon the particular speciality and under some suitable guidance.

The Committee recommended the institution of diplomas in the following subjects:

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\textsuperscript{152} Ibid.
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\textsuperscript{153} Ibid, P-167.
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It also recommended the establishment of a special organization, the Central Committee for Postgraduate Medical Education to be responsible for laying down standards in respect of Postgraduate training in particular subjects and for promoting the development of facilities such as education in different parts of the country on a co-ordinated basis.\textsuperscript{155} Analyzing the causes of the lack of research in Medical colleges in the country, the Committee suggested importation of research workers for short periods, the appointment of Associate Professors for central research organization, the institution of a programme of exchange of professors, appointment of atleast one full time member of the staff to be in charge of research and co-ordination in each Medical college, the organization of periodical group conferences of the teaching staff; the provision of adequate equipment for research and award of scholarships to promising Medical and Science graduates to enable them to acquire proficiency in research methods and to pursue research careers.\textsuperscript{156}

\textsuperscript{154} Ibid.

\textsuperscript{155} Ibid.

\textsuperscript{156} Ibid, P-284.
The Committee also recommended that in addition to the creation of the All India Institute of Medical Sciences, Postgraduate training institutes at different Provincial centres be created and also special centres for diseases like Cancer, Leprosy, Mental Health, etc.\textsuperscript{157}

It was stated by the Committee that the main factor which impeded the expansion of Medical Education was the great shortage of teaching staff. The solution offered for meeting the shortage was (1) Training of Medical teachers at the All India Institute of Medical Sciences, which was expected to supply a 'steady stream of teaching personnel of the highest quality', (2) Inviting experienced teachers from foreign countries on a short term basis. (3) Training abroad of at least 200 selected members of the Medical Profession from the various Provinces of India for periods ranging from two months to two years to acquire a knowledge of the improved methods of teaching particularly in Anatomy, Physiology, Bio-Chemistry Pathology, Bacteriology and Pharmacology. (4) Encouraging younger men of the profession in increasing numbers to acquire postgraduate qualification in this country and later rounding off this education by visits abroad for periods ranging from six months to one year.\textsuperscript{158}

\textsuperscript{157} Ibid.

\textsuperscript{158} Ibid, P-167.
To preserve a uniform standard of Medical Education, it was urged that the only Body for the grant of Medical qualification be the Universities. One of the main recommendations of the Committee was the conversion of Medical Schools into Medical Colleges, improvement of existing colleges and starting of new Medical Colleges.

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