G.M.M.C. Diploma of the Madras Medical College, 1847–1863

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Abstract

The *Report of Proceedings at the Madras Medical College for the Purpose of Granting Diplomas to Native Candidates for Graduation* published by the Medical College in Madras in 1852 provides fascinating details of the diploma programme 'Graduate of the Madras-Medical College' (G.M.M.C.), which should have been launched in 1847. With the birth of the University of Madras in 1867, and the Faculty of Medicine within it, the G.M.M.C. programme was replaced with a new M.B.C.M. degree programme (equivalent to the modern day M.B.B.S.) in 1863. The five-year long G.M.M.C. programme offered comprehensive training in medicine, surgery, and midwifery, further to other relevant medical subjects, such as anatomy, physiology, biochemistry, pharmacy, and medical jurisprudence. The 1852 Report includes the questions posed to the examinees in the final examination. That the Royal College of Surgeons of London recognized the G.M.M.C. diploma in 1855–1857 appears a milestone development, which enabled the Madras Medical-College diploma holders to sit for the membership examinations of the Royal College of Surgeons (M.R.C.S.) in London. The 1852 Report has remained unknown until this point of time. The present article brings this fascinating report to light, clarifying many a gap in the chronicles of medical education in Madras. These details should create vibrant ripples in the chronicles of medical education in India.

Key words: Ambrose Blacklock, Robert Davidson, Examination process, Graduation ceremony, Indian students, Subjects taught, James Shaw, Thomas Key.

1 Introduction

The *Report of Proceedings at the Madras Medical College for the Purpose of Granting Diplomas to Native Candidates for Graduation* (henceforth, the '1852 Report') published by the Medical College in Madras (Anonymous 1852) (Figure 1) was fascinatingly revealing.

Until this point of time, we have known that a 5-year long training was offered in the Madras Medical College (M.M.C.) (Durairajan et al. 2007), supposedly from the late 1840s, but nothing further about this training was clear. The 1852 Report, intended as the proceedings of the graduation ceremony of three Indians who had completed their study in 1852, provides details on the quality and nature of medical education at M.M.C. through the diploma programme of 'Graduate of the Madras Medical College (G.M.M.C.)[1] offered in those years. Before going into details of and analyzing the 1852 Report, a brief review of the academic training offered in M.M.C. from

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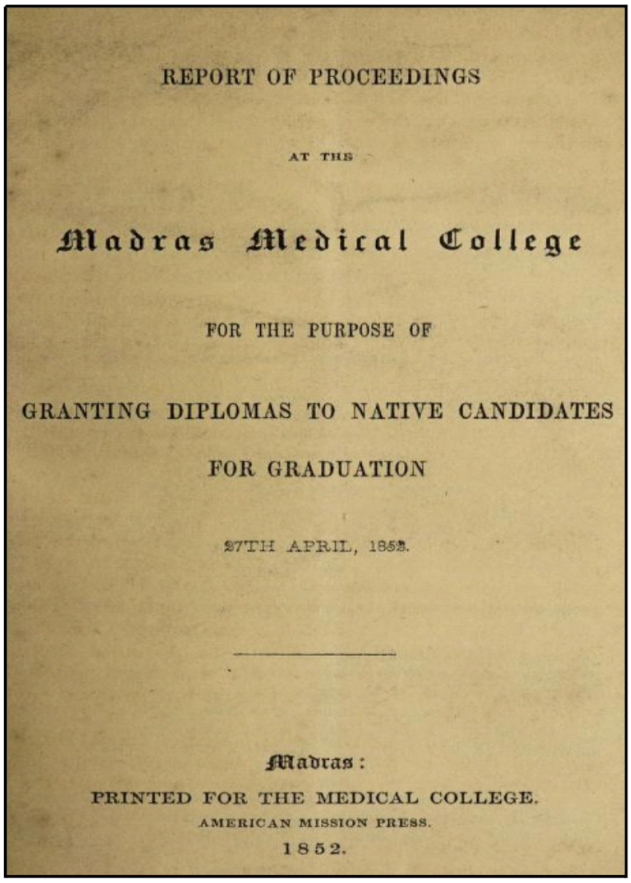
[1]Nandakumar Hemraj Keswani (1970) incorrectly explains 'G.M.M.C.' as 'Graduate in Medicine, Midwifery, and Chirurgery'. For many years, even after the commencement of the University of Madras, diplomas issued by professional colleges were referred as the 'Graduate of the ...'. For instance, the Madras Veterinary College, started in Madras in 1903, for several years issued the diploma 'Graduate of the Maras Veterinary College' (G.M.V.C.) after a three-year(?) training.


REPORT OF PROCEEDINGS

AT THE

Madras Medical College

FOR THE PURPOSE OF

GRANTING DIPLOMAS TO NATIVE CANDIDATES

FOR GRADUATION

27TH APRIL, 1852.

Madras:

PRINTED FOR THE MEDICAL COLLEGE.

AMERICAN MISSION PRESS.

1852.

Figure 1 Cover page of the report on the graduation ceremony of the Madras Medical College, 27 April 1852.

1835 — the year of inception — to 1863 — when the new diploma *Medicinae Baccalaureus et Chirurgiae Magister* (M.B.C.M.) was launched — would be pertinent and useful.

2 The School (1835–1850) and the College (1850)

The 'Madras Medical School' (M.M.S.) was established on 13 February 1835, a few days after the 'Bengal Medical School' in Calcutta. The objective of the M.M.S. was (Publication Committee 1957, p. 223):

> 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 arrangement then existing.

Before M.M.S. commenced in 1835, people seeking training as a doctor, irrespective of whether they were Europeans or Anglo-Indians or Indians, attended army hospitals as voluntary trainees. After two years of training they were recognized as 'medical assistants', who were recruited by the Madras-Army Establishment to assist British doctors (Raman and Raman 2016). These medical assistants are indicated as 'medical subordinates' in the Publication-Committee's report (University of Madras) quoted above (1957, p. 223). Between 1835 and 1850, a three-year long formal academic training in medicine, surgery, and midwifery was offered to personnel, who were recognized as 'Apothecaries' and 'Dressers'.[2] This was possible with the construction of a new building for M.M.S. in the Madras General Hospital campus in July 1836. The new building included a theatre, a lecture room, a museum, and a library. Between 1835 and 1838, the M.M.S. enrolled candidates deputed from the Madras army only. Admission of civil candidates ('private students') started in 1838. This formal training of Apothecaries and Dressers continued until 1850. The M.M.S. was renamed as 'Madras Medical College' (M.M.C.) on 1 October 1850.

A 5-year long 'graduate-diploma' programme was started in M.M.S. highly likely in 1847, three years before the name changed to a 'college'. In 1850, the graduate-diploma programme should have been named as G.M.M.C., coinciding with the renaming of the School as the College. Otherwise, students completing the required training for five years, could not have graduated with the G.M.M.C. diplomas in 1852 (Anonymous 1852).

Satthianadhan[3] (1894, p. xxxvii) provides a note on

[2] Although the training offered to both Apothecaries and Dressers was same in quality and in length of training period, nomenclature differed mainly due to an awkward social reason: qualified Europeans and persons of European descent (the 'Anglo-Indians', 'Eurasians') were to use the title 'apothecary'; Indians — mostly deputed by the Madras Army — were to use the title 'dresser'.

[3] Samuel Satthianadhan (1860–1906) was born in Madras as the son of the Reverend William and Mrs Anna Satthianadhan of Madurai. In the later decades of the 1870s, Satthianadhan went to Cambridge to study law. Satthianadhan was the headmaster at the Breeks Memorial School, Ootacamund. He became the Assistant to the Director of Public Instruction in 1886. Subsequently was appointed as the professor of Logic and Moral Philosophy at Presidency College, Madras. Satthianadhan has left an indeli-

medical education in India in a précis made from the *Despatch from the Court of Directors of the East India Company to the Governor General of India in Council* (# 49, 19 July 1854) by Charles Wood, the President of the Board of Control[4]:

> **Education Dispatches:** *Medical Colleges.* The medical colleges in different parts of India have proved that, in despite of difficulties which appeared at first sight to be insurmountable, the highest attainments in medicine and surgery are within the reach of educated natives of India: we shall be ready to aid in the establishment and support of such places of instruction as the medical colleges of Calcutta and Bombay, in other parts of India. We have already alluded to the manner in which students should be supplied to these colleges, as well as to those for the training of civil engineers.

The document referring to the education policy for India led by Charles Wood in the U.K. — popularly referred as either the '1854 Education Dispatch' or the Charles-Wood's Dispatch — was made public in 1854. However, what is curious is that Indians were admitted for medical education in M.M.C. from 1846, *i.e.*, eight years before the 1854 Education Dispatch (Anonymous 1852).

ble mark in the history of Madras by his volumes on diverse themes (see `http://www.open.ac.uk/researchprojects/makingbritain/content/samuel-satthianadhan`). Krupabai (1862–1894), his wife, studied medicine at M.M.C. Her efforts to go to England for higher degrees in 1877 did not materialize because of the tuberculosis she was grappling with. She wrote Saguna, a partly autobiographical novel in English, which blazed new trails in India, since that was the first English novel written by a woman in India. When Krupabai died, Satthianadhan married Kamala (1880–1950), who is also remembered as a distinguished author in India and as the editor and publisher of the pioneering women's journal: *Indian Ladies Magazine*.

[4]The President of the Board of Control was a British-government official at the cabinet rank, who oversaw the English-East India Company in the late 18th and early 19th century. This person was the chief officer stationed in London responsible for India matters. This position was abolished in 1858 coinciding with the abolition of the East India Company. The Secretary of State for India was the successor for the abolished President of the Board of Control.

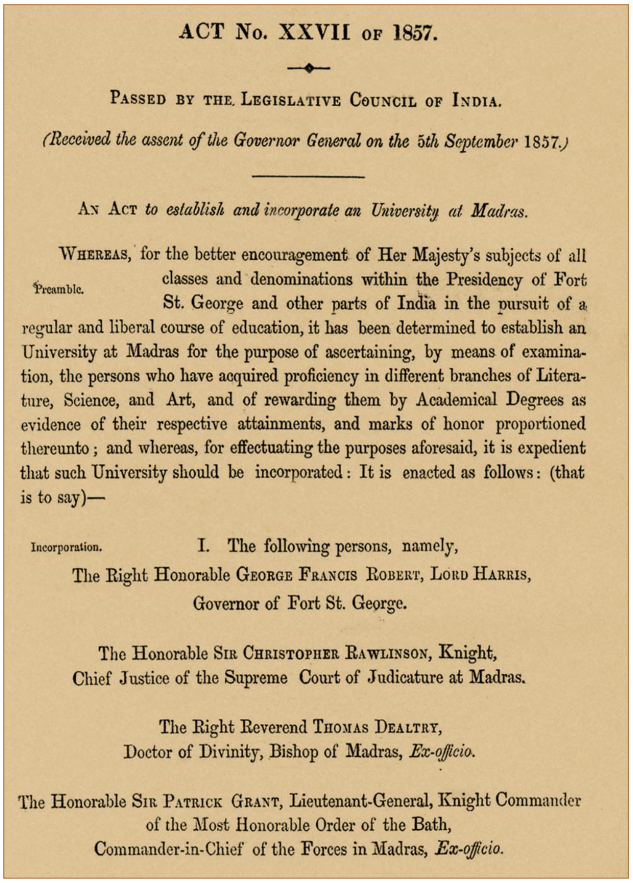
2.1 Quality control

Until 30 June 1855, education at M.M.C. was supervised by the Physician-General of the Madras Presidency Medical Establishment. From 1 July 1855, M.M.C. was transferred under the Director of Public Instruction (Alexander John Arbuthnot, Indian Civil Servant) by the Government at Fort St. George (Publication Committee 1957). That the education programme offered at M.M.C., *viz.*, G.M.M.C. in 1855–1856 was recognized by the Royal College of Surgeons in London (Mudaliar 1939) is noteworthy.

The University of Madras (U.M.) was established in 1857, during the governorship of George Harris, driven by the initiative and efforts of George Norton (Advocate General, Fort St. George) and the immediate-previous Governor of Madras John Elphinstone (1837–1842) (Thomas 1939, Frykenberg 1986) (Figures 2, 3). The 1854 Education Dispatch articulated that the universities of India will be regulatory and quality-control bodies for all formally established educational institutions in their respective jurisdiction areas. Based on this development, M.M.C. was affiliated to the U.M. in 1858.

2.2 Faculty of Medicine at the University of Madras and the launch of M.B.C.M. diploma

The Faculty of Medicine was established in U.M. in 1863 (Hunter 1883). Complying with the norms for the newly created universities in Madras, Bombay, and Calcutta (Richley 1922), the Faculty of Medicine at U.M. asserted its right to conduct written and verbal examinations for candidates enrolled in M.M.C. and grant diplomas to the successful. Consequently the G.M.M.C. diploma was withdrawn and a new diploma, *Medicinae Baccalaureus et Chirurgiae Magister* (M.B.C.M.) came into existence in 1863 (Prasada Rao 1957). The practice of granting M.B.C.M. prevailed until 1923. Well-known M.M.C.-alumnae, Sarukkai Rangachari, Tirunelveli Subbaier Tirumurti, and Muthulakshmi Reddy received M.B.C.M. titles from U.M. and training at M.M.C. in 1904, 1909, and 1912, respectively. The award of 'Apothecary' and 'Dresser' titles continued a little beyond the 1870s, but remained restricted to army personnel only. When Edward Balfour (1813–1889) was the Surgeon-General of the Madras Medical Establishment (1871–1876), admission of women into M.M.C. as medical students started



ACT No. XXVII OF 1857.

PASSED BY THE LEGISLATIVE COUNCIL OF INDIA.

(Received the assent of the Governor General on the 5th September 1857.)

AN ACT *to establish and incorporate an University at Madras.*

Preamble. WHEREAS, for the better encouragement of Her Majesty's subjects of all classes and denominations within the Presidency of Fort St. George and other parts of India in the pursuit of a regular and liberal course of education, it has been determined to establish an University at Madras for the purpose of ascertaining, by means of examination, the persons who have acquired proficiency in different branches of Literature, Science, and Art, and of rewarding them by Academical Degrees as evidence of their respective attainments, and marks of honor proportioned thereunto; and whereas, for effectuating the purposes aforesaid, it is expedient that such University should be incorporated: It is enacted as follows: (that is to say)—

Incorporation. I. The following persons, namely,

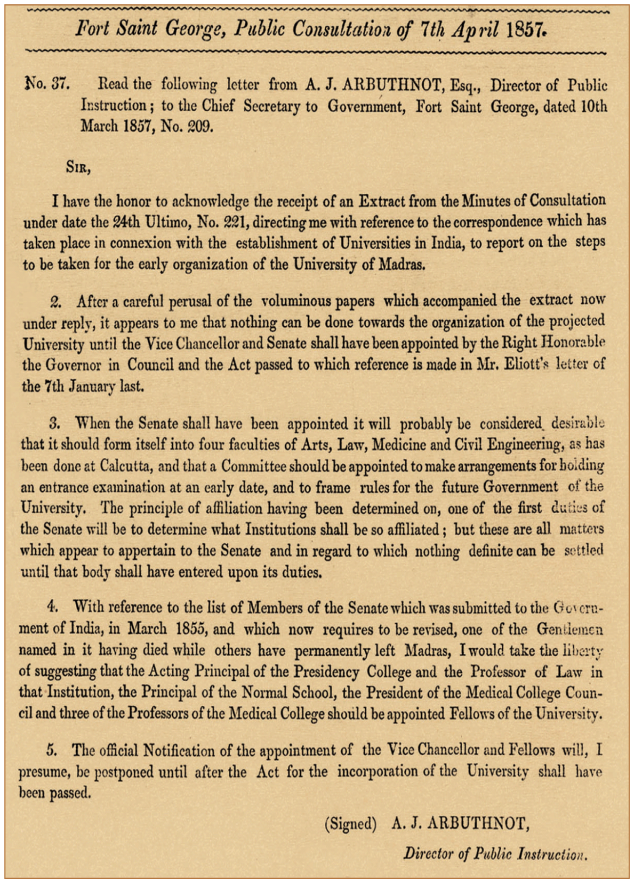
The Right Honorable GEORGE FRANCIS ROBERT, LORD HARRIS, Governor of Fort St. George.

The Honorable SIR CHRISTOPHER RAWLINSON, Knight, Chief Justice of the Supreme Court of Judicature at Madras.

The Right Reverend THOMAS DEALTRY, Doctor of Divinity, Bishop of Madras, *Ex-officio*.

The Honorable SIR PATRICK GRANT, Lieutenant-General, Knight Commander of the Most Honorable Order of the Bath, Commander-in-Chief of the Forces in Madras, *Ex-officio*.

Figure 2 Act XXVII of 1857 of Government of India establishing and incorporating the University of Madras, 5 September 1857. Source: `http://nationalarchives.nic.in/sites/default/files/SECTION-2.pdf`.



Fort Saint George, Public Consultation of 7th April 1857.

No. 37. Read the following letter from A. J. ARBUTHNOT, Esq., Director of Public Instruction; to the Chief Secretary to Government, Fort Saint George, dated 10th March 1857, No. 209.

SIR,

I have the honor to acknowledge the receipt of an Extract from the Minutes of Consultation under date the 24th Ultimo, No. 221, directing me with reference to the correspondence which has taken place in connexion with the establishment of Universities in India, to report on the steps to be taken for the early organization of the University of Madras.

2. After a careful perusal of the voluminous papers which accompanied the extract now under reply, it appears to me that nothing can be done towards the organization of the projected University until the Vice Chancellor and Senate shall have been appointed by the Right Honorable the Governor in Council and the Act passed to which reference is made in Mr. Eliott's letter of the 7th January last.

3. When the Senate shall have been appointed it will probably be considered desirable that it should form itself into four faculties of Arts, Law, Medicine and Civil Engineering, as has been done at Calcutta, and that a Committee should be appointed to make arrangements for holding an entrance examination at an early date, and to frame rules for the future Government of the University. The principle of affiliation having been determined on, one of the first duties of the Senate will be to determine what Institutions shall be so affiliated; but these are all matters which appear to appertain to the Senate and in regard to which nothing definite can be settled until that body shall have entered upon its duties.

4. With reference to the list of Members of the Senate which was submitted to the Government of India, in March 1855, and which now requires to be revised, one of the Gentlemen named in it having died while others have permanently left Madras, I would take the liberty of suggesting that the Acting Principal of the Presidency College and the Professor of Law in that Institution, the Principal of the Normal School, the President of the Medical College Council and three of the Professors of the Medical College should be appointed Fellows of the University.

5. The official Notification of the appointment of the Vice Chancellor and Fellows will, I presume, be postponed until after the Act for the incorporation of the University shall have been passed.

(Signed) A. J. ARBUTHNOT,
Director of Public Instruction.

Figure 3 Letter from the Director of Public Instruction, Madras (Alexander John Arbuthnot) to the Chief Secretary, Government at Fort St. George on the establishment of the University of Madras, 10 March 1857. Source: `http://nationalarchives.nic.in/sites/default/files/SECTION-2.pdf`.

in 1875 (Raman 2014). However, the prejudiced medical-education administration in Madras permitted women to enrol only in a newly started three-year long Licentiate in Medicine and Surgery (L.M.S.) programme (Furnell 1875), which included a training in midwifery at the Egmore Maternity Hospital (the Egmore Women & Children's Hospital, today) (see Raman and Raman 2019).

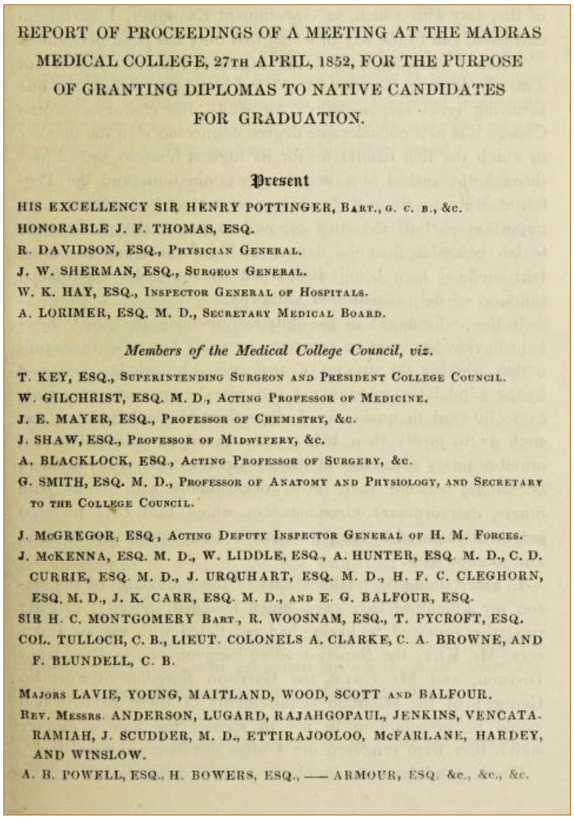
3 Attendees recorded in the 1852 report

A partial list of attendees of this meeting with names occurs in page 3 of the 1852 Report (Figure 4), which adds validity to the 1852 Report. This list starts with the senior executive of the Madras Medical Board: the Physician General, Surgeon General, Inspector General of Hospitals, Secretary of the Madras Medical Board, Governor of Madras — Henry Pottinger, and the Chief Secretary at Fort St. George (J. F. Thomas). This section is followed by the names of members of the M.M.C. Council, who are the academics teaching at M.M.C. The section of the list starting with John McGregor (Acting Deputy Inspector-General of H.M. Forces) includes several names popular in Madras's medical circles, such as, John McKenna, Hugh Cleghorn, Alexander Hunter, and Edward Balfour, who were officiating on other duties elsewhere in either the city or the districts. For example, Edward Balfour was an assistant surgeon attached to the Madras army stationed at Fort St. George. 'Major Balfour' shown at

the end of the list was George Balfour[5], the older brother of Edward Balfour. A few other names occur towards the end of the list, some of who are not determinable. Minimal details of those identifiable are supplied here: J(ohn) Scudder (Senior), American Missionary and the founder of the Arcot Mission in Kātpadi.[6] Scudder had qualified M.D. from the New York College of Physicians and Surgeons (presently the Columbia University Vagelos College of Physicians and Surgeons). He served the people of India both as a Christian Theologian and a medical doctor for many years. Miron Winslow was a Christian theologian belonging to the American Ceylon Mission, who later moved from Colombo to Madras and set up the American Mission Press in Chintādaripéttāh (Chintādaripét today, 13° 4′ N, 80° 16′ E) along with John Scudder. P. Rajahgopaul (Rajagopal), A. Vencataramiah (Venkataramiah), and S. Ettirajooloo (Ethirajulu) were presbyters attached to the Free Church of Scotland Mission in Madras (Anonymous 1849, p. 251). This list includes names of a few other residents of Madras and well-wishers of M.M.C. and concludes with the symbol '&c' (= et cetera, so forth).

4 Was James Shaw, the first Principal of M.M.C.?

When M.M.S. was renamed M.M.C. James Shaw, an obstetrician, holding the designation 'Professor of Midwifery' at M.M.C., is widely cited as its 'first' principal. Shaw was the superintendent of the Madras Eye Infirmary and conjoint professor of ophthalmology at M.M.C. (1851–1862, with an interruption in 1857–1859) (Fayrer 1901). No detailed biography of James Shaw is available, except for a remark in passing by Hilda Lazarus (1959) and a B&W portrait in Mudaliar (1939). Based on the brass plate on the portrait frame, Mudaliar (1939) indicates 1858–1863 as Shaw's term as the Principal of M.M.C. At the same time, Mudaliar reinforces that Shaw was the first principal of M.M.C. Details do not synchronize here. If he were the first Principal, then Shaw's term as the principal of M.M.C. should have commenced in 1850, because M.M.S. turned into M.M.C. in 1850. Moreover, the list of names of the M.M.C. Council members included in the 1852 Report does not identify Shaw as the Principal. An 'Annual Report of M.M.C. for 1849–1850' is available in the library of the Surgeon General of the US Army (The United States Army 1887, p. 500). This was not accessible to me. Perhaps this document would clarify this mess. Nonetheless, Shaw appears to have had a stellar career in medicine, particularly in ophthalmology and midwifery in Madras (Raman and Raman 2019).



REPORT OF PROCEEDINGS OF A MEETING AT THE MADRAS MEDICAL COLLEGE, 27TH APRIL, 1852, FOR THE PURPOSE OF GRANTING DIPLOMAS TO NATIVE CANDIDATES FOR GRADUATION.

Present

HIS EXCELLENCY SIR HENRY POTTINGER, BART., G. C. B., &C.
HONORABLE J. F. THOMAS, ESQ.
R. DAVIDSON, ESQ., PHYSICIAN GENERAL.
J. W. SHERMAN, ESQ., SURGEON GENERAL.
W. K. HAY, ESQ., INSPECTOR GENERAL OF HOSPITALS.
A. LORIMER, ESQ. M. D., SECRETARY MEDICAL BOARD.

Members of the Medical College Council, viz.

T. KEY, ESQ., SUPERINTENDING SURGEON AND PRESIDENT COLLEGE COUNCIL.
W. GILCHRIST, ESQ. M. D., ACTING PROFESSOR OF MEDICINE.
J. E. MAYER, ESQ., PROFESSOR OF CHEMISTRY, &C.
J. SHAW, ESQ., PROFESSOR OF MIDWIFERY, &C.
A. BLACKLOCK, ESQ., ACTING PROFESSOR OF SURGERY, &C.
G. SMITH, ESQ. M. D., PROFESSOR OF ANATOMY AND PHYSIOLOGY, AND SECRETARY TO THE COLLEGE COUNCIL.

J. MCGREGOR, ESQ., ACTING DEPUTY INSPECTOR GENERAL OF H. M. FORCES.
J. MCKENNA, ESQ. M. D., W. LIDDLE, ESQ., A. HUNTER, ESQ. M. D., C. D. CURRIE, ESQ. M. D., J. URQUHART, ESQ. M. D., H. F. C. CLEGHORN, ESQ. M. D., J. K. CARR, ESQ. M. D., AND E. G. BALFOUR, ESQ.
SIR H. C. MONTGOMERY BART., R. WOOSNAM, ESQ., T. PYCROFT, ESQ.
COL. TULLOCH, C. B., LIEUT. COLONELS A. CLARKE, C. A. BROWNE, AND F. BLUNDELL, C. B.

MAJORS LAVIE, YOUNG, MAITLAND, WOOD, SCOTT AND BALFOUR.
REV. MESSRS. ANDERSON, LUGARD, RAJAHGOPAUL, JENKINS, VENCATARAMIAH, J. SCUDDER, M. D., ETTIRAJOOLOO, MCFARLANE, HARDEY, AND WINSLOW.
A. B. POWELL, ESQ., H. BOWERS, ESQ., —— ARMOUR, ESQ. &c., &c., &c.

Figure 4 Page 3 from the *Report of Proceedings at the Madras Medical College for the Purpose of Granting Diplomas to Native Candidates for Graduation*.

5 Intent and Structure of the 1852 Report

This 34-page document identified as the 'proceedings' refers to a meeting held at M.M.C. on 27 April 1852. Although indicated as a meeting, it was a graduation cere-

[5]George Balfour (1809–1894) was serving with the Madras Army from 1840.

[6]Ida Sophia Scudder (1870–1960), a medical doctor and the founder of Christian Medical College & Hospital in Vellore, was the granddaughter of John Scudder (Senior) and the daughter of John Scudder (Junior).

mony for the award of G.M.M.C. diplomas to Indian men — P. Moonesawmy ('P. Munusamy'), C. Bauloo (C. Balu), and S. Jesudasen (S. Jesudasan) — who had successfully completed the prescribed study and examinations. Best-performed students were decorated on the same day: Assistant Apothecaries' Medal to Edmund Avery and Second Dressers' medal to F. Appavoo. The G.M.M.C. testamurs were handed over to the graduands by Governor Henry Pottinger. On this occasion, the Physician General of Madras, Robert Davidson, presents the annual report of M.M.C. for the academic year 1851–1852. Ambrose Blacklock[7], professor of Surgery at M.M.C. delivers the graduation address, followed by the occasional address by the Governor. A few other activities that occurred prior to — but pertinent — this event, such as the conduct of examinations are documented as well (see Box 1). The 1852 Report does not identify an editor, but identifies where it was printed: the American Mission Press.[8]

Graduation address by Blacklock (pp. 11–22) offers an insightful reading, worthy of the context in which it was presented. An interesting component of the 1852 Report is Appendix 1 (pp. 24–32). This refers to the questions posed to the three examined candidates. From the tone of the questions, it is highly likely that they were a part of the verbal examination, but that explanation could be incorrect. Questions asked to every student are documented separately referring to each of the examinee and by the names of subjects, such as Anatomy, Physiology, Chemistry, Pharmacy, and Materia Medica, and so forth. From the long set of questions printed in the 1852 Report (pp. 24–32), what becomes clear is that no question was repeated, and multiple questions were posed to each candidate. The sample page of questions in Physiology is reproduced in this article (Figure 6).

6 G.M.M.C. programme: subjects of study and examinations

The medium of instruction at M.M.C. for students of G.M.M.C. diploma was English. Robert Davidson in his address (pp. 4–5) reiterates this point comparing with medical schools in other presidencies, which offered medical education in vernacular languages. Davidson lists the advantages of instructing medicine in English medium.

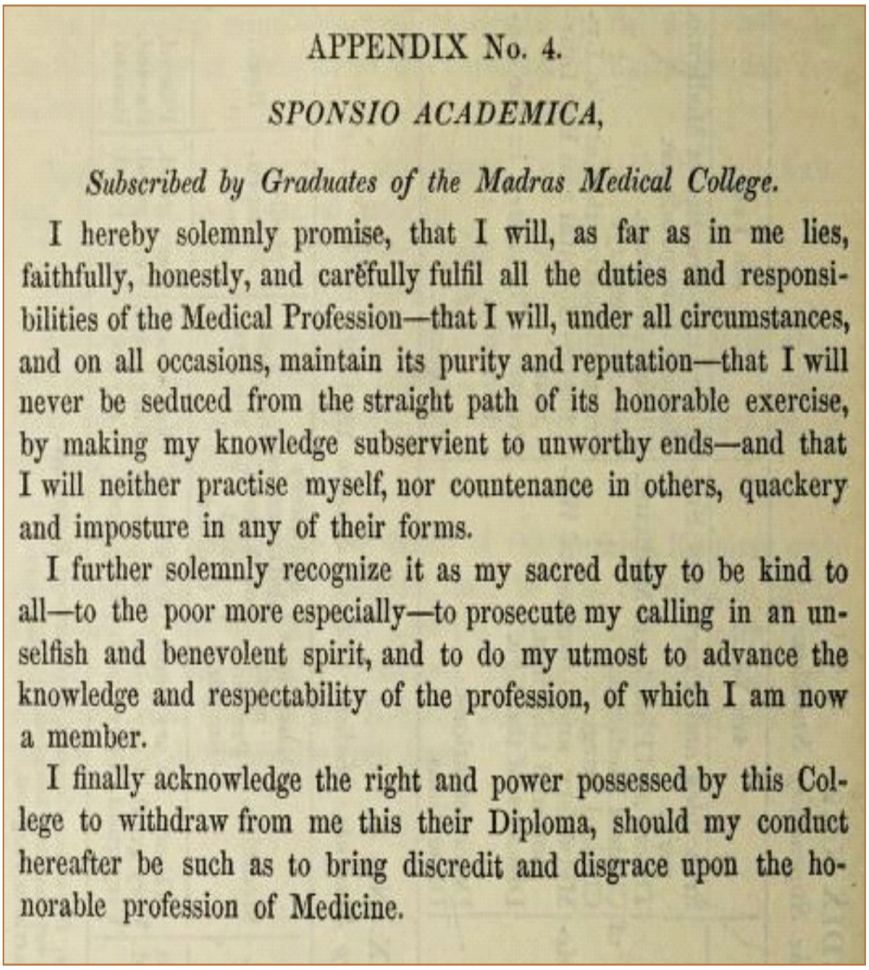
Box 1. Contents of the Report

6.1 Subjects of study

The theory subjects and practical work were to be completed in five years uninterruptedly, during when students were instructed in every branch of medical science (Table 1). Further, the instruction included four offerings of practical anatomy involving dissections and demonstrations. In four out of five years, students acquired knowledge of routine practices in hospitals by completing rotation duties in (1) compounding and dispensing medicines at several hospitals in Madras Presidency and (2) clinical instruction under a physician and surgeon attached to the Madras General Hospital. In the final year of study, they

[7]The 'Blacklock Medal' established in M.M.C. in 1875 celebrates Ambrose Blacklock to date.

[8]The American Mission Press (AMP) was started by Miron Winslow and John Scudder (Senior) in Chintādaripéttāh (Chintādripét) suburb, Madras, in 1836. It was created to print Christian theological materials in Tamizh language for free distribution.



APPENDIX No. 4.

SPONSIO ACADEMICA,

Subscribed by Graduates of the Madras Medical College.

I hereby solemnly promise, that I will, as far as in me lies, faithfully, honestly, and carefully fulfil all the duties and responsibilities of the Medical Profession—that I will, under all circumstances, and on all occasions, maintain its purity and reputation—that I will never be seduced from the straight path of its honorable exercise, by making my knowledge subservient to unworthy ends—and that I will neither practise myself, nor countenance in others, quackery and imposture in any of their forms.

I further solemnly recognize it as my sacred duty to be kind to all—to the poor more especially—to prosecute my calling in an unselfish and benevolent spirit, and to do my utmost to advance the knowledge and respectability of the profession, of which I am now a member.

I finally acknowledge the right and power possessed by this College to withdraw from me this their Diploma, should my conduct hereafter be such as to bring discredit and disgrace upon the honorable profession of Medicine.

Figure 5 Text of *Sponsio Academica* administered to the graduands at the Madras Medical College by Ambrose Blacklock on 27 April 1852.

performed duties of a clinical clerk.[10]

6.2 Examinations

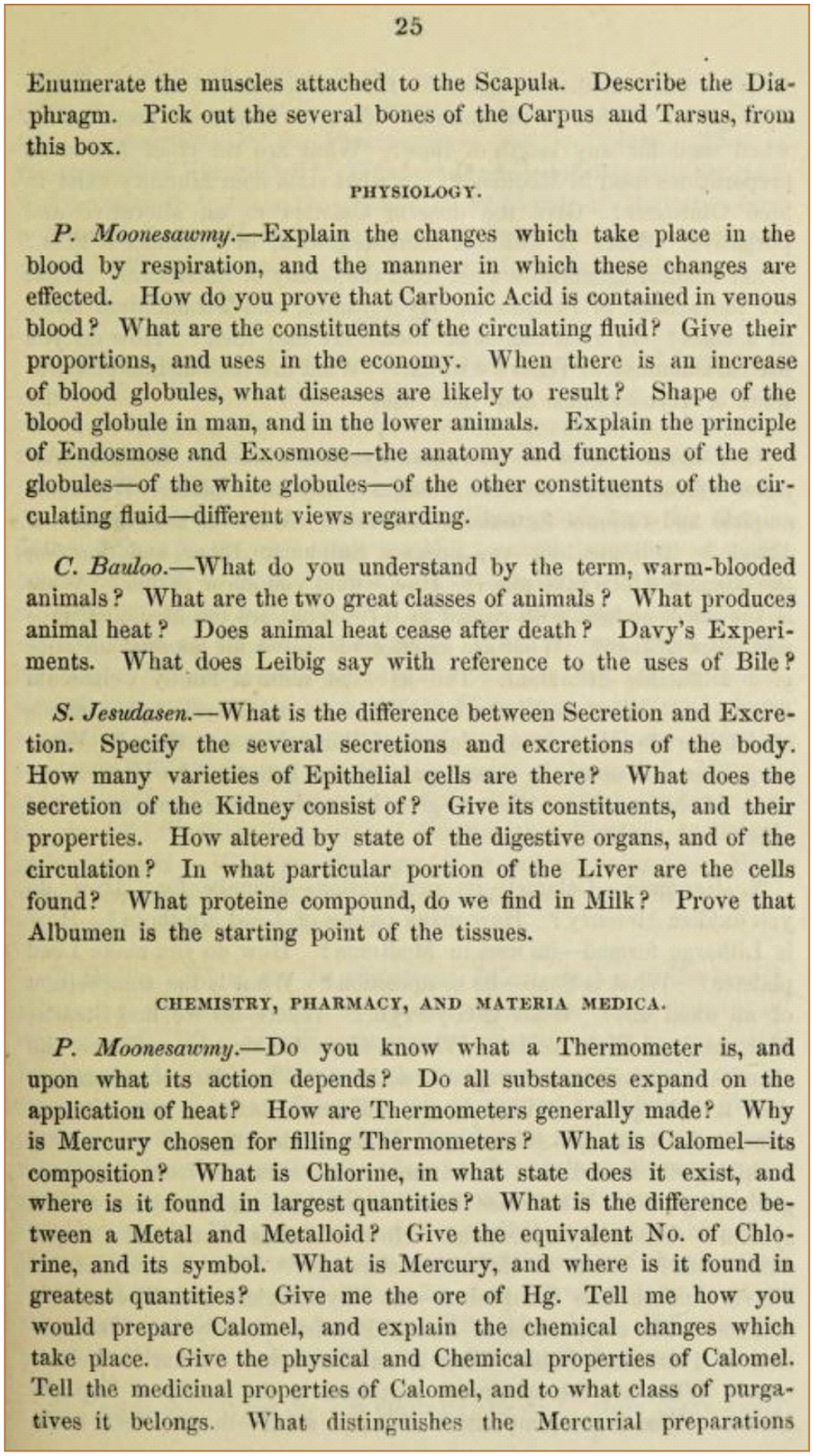
Examinations were held annually in late March–early April. Details of whether any mid-term examinations were conducted are not available. A panel of three examiners, identified by the Government, *viz.*, the Physician-General's office, administered the end-of-the-year examinations made of both written and verbal components. For instance, to test the levels of attainments and capabilities of the three examined candidates (P. Moonesawmy, C. Bauloo, and S. Jesudasen), the examination committee consisted of Robert Davidson (Physician General at Fort St. George) the Chief Examiner, and Thomas Key (Superintending Surgeon, M.M.C.) and Robert Cole[11] (Surgeon, Madras Medical Establishment) being the Co-Examiners.

While presenting the Annual Report of M.C.C. for the academic year 1851–1852, Robert Davidson indicates that adequate specimens for surgical demonstrations during the examination process were not available. He speaks of this discreetly (p. 6):

> The cause of those difficulties is easily traced

[10] Medical clerk was a trainee position that existed in 19th century Britain. Fresh graduates and training students were posted in large hospitals to work under the direct supervision of senior physicians and surgeons (Anonymous 1849b).

[11] Robert Cole started as an assistant surgeon with Madras Medical Establishment in the 1830s and rose in ranks as the Principal Inspector-General, Medical Department, Fort St. George in the 1860s. He edited the *Madras Journal of Literature & Science* during its initial years.



25

Enumerate the muscles attached to the Scapula. Describe the Diaphragm. Pick out the several bones of the Carpus and Tarsus, from this box.

PHYSIOLOGY.

P. Moonesawmy.—Explain the changes which take place in the blood by respiration, and the manner in which these changes are effected. How do you prove that Carbonic Acid is contained in venous blood? What are the constituents of the circulating fluid? Give their proportions, and uses in the economy. When there is an increase of blood globules, what diseases are likely to result? Shape of the blood globule in man, and in the lower animals. Explain the principle of Endosmose and Exosmose—the anatomy and functions of the red globules—of the white globules—of the other constituents of the circulating fluid—different views regarding.

C. Bauloo.—What do you understand by the term, warm-blooded animals? What are the two great classes of animals? What produces animal heat? Does animal heat cease after death? Davy's Experiments. What does Leibig say with reference to the uses of Bile?

S. Jesudasen.—What is the difference between Secretion and Excretion. Specify the several secretions and excretions of the body. How many varieties of Epithelial cells are there? What does the secretion of the Kidney consist of? Give its constituents, and their properties. How altered by state of the digestive organs, and of the circulation? In what particular portion of the Liver are the cells found? What proteine compound, do we find in Milk? Prove that Albumen is the starting point of the tissues.

CHEMISTRY, PHARMACY, AND MATERIA MEDICA.

P. Moonesawmy.—Do you know what a Thermometer is, and upon what its action depends? Do all substances expand on the application of heat? How are Thermometers generally made? Why is Mercury chosen for filling Thermometers? What is Calomel—its composition? What is Chlorine, in what state does it exist, and where is it found in largest quantities? What is the difference between a Metal and Metalloid? Give the equivalent No. of Chlorine, and its symbol. What is Mercury, and where is it found in greatest quantities? Give me the ore of Hg. Tell me how you would prepare Calomel, and explain the chemical changes which take place. Give the physical and Chemical properties of Calomel. Tell the medicinal properties of Calomel, and to what class of purgatives it belongs. What distinguishes the Mercurial preparations

Figure 6 Page 25 from the 1852 Report, Appendix 1: 'Questions put to the candidates for the Diploma, during their examination, from the 1st to 8th of April 1852.'.

Table 1 Subjects taught for G.M.M.C. qualification in 1852.

First Year	**Fourth Year**
Chemistry and Pharmacy	Principles and Practice of Surgery
Descriptive Anatomy	Theory and Practice of Medicine
Second Year	Clinical Medicine
Anatomy	Clinical Surgery
Chemistry and Pharmacy	Midwifery and Diseases of Women and Children
Physiology	Diseases of the Eye
Materia Medica	Demonstrations
Demonstrations	Dissections
Dissections	**Fifth Year**
Third Year	Theory and Practice of Medicine
Anatomy	Medical Jurisprudence
Physiology	Clinical Medicine
Materia Medica	Clinical Surgery
Principles and Practice of Surgery	Practical Instruction at the Lying-in-Hospital and Eye Infirmary
Theory and Practice of Medicine	Practical Chemistry in the Laboratory
Demonstrations	Dissections
Dissections	

> to its source. "If the researches of science cannot be prosecuted without injury to the feelings of the public, then let science perish". Such is said to have been the remark of a high legal functionary when passing a severe sentence on a poor ignorant native who had been convicted of assisting in the supply of subjects for anatomical purposes of this College.

The best I could make out here is that the specimen supplier referred by Richardson was charged and convicted by a court of law for supplying human-body parts to the medical college. The words, 'high legal functionary' used by Davidson apparently refer to a Judge. In this instance, the Judge probably was unsure whether the body-part supplier in Madras obtained the body parts from cadavers or by killing humans. Although this story remains mysterious and unresolved presently, similar instances occurred in Britain in 1828 and 1832.[12] In the early decades of the 19th century in Britain, fake anatomists, popularly 'body snatchers', dissected human bodies and 'sold' body parts in public for various reasons. The first incident known was the William Burke and William Hare court case involving the murder of 16 humans in Edinburgh to supply body parts for the anatomy classes of Robert Knox[13] in 1827–1828 (Bailey 2011). The second was John Bishop and Thomas Williams killing an Italian boy for similar reasons in 1831 (Wise 2004). These infamous incidents led to the proclamation of the Anatomy Act of 1832 by the British Parliament. This Act licensed only licensed doctors, teachers of anatomy, and genuine students of medicine to dissect — specifically — the 'donated' cadavers (Hutton 2006).

In the science of medicine, growth of newer and more skilful surgical procedures and their relevance in treating human-health problems necessitated clarity of human anatomy. This, in turn, enhanced the validity of anatomy as a vital cog in medicine teaching. Surgeon John Bell's Engravings of the Bones, Muscles, and Joints of the Anatomy of the Human Body (1810) and those published in the later years of the 18th century, e.g., d'Azyr (1786) (Figure 7) reinforced this necessity. In such a context, Richardson's lamentation (Anonymous 1852) does not evoke any element of surprise.

7 Testimony for the Graduands

One of the three examiners, Thomas Key, while presenting the graduands to the Governor, says (p. 11) the following, which sounds reassuring in terms of the quality of training imparted to students in five years. However, some of the words used by Key are disproportionate and inflated.

> With regard to the manner in which they (Moonesawmy, Bauloo, and Jesudasen) have prosecuted their studies, I might content myself by pointing to this part of to-day's proceedings and to the position they now occupy, as

[12] Highly similar to the currently flourishing embarrassing practice of kidney-transplant racket in India (Nair and Sen 2005, pp. 499–500).

[13] Robert Knox is infamously known for medical scandals. The evil character 'Mr. K' in the story 'Body Snatcher' (1884) by Robert Louis Stevenson is a supposed portrayal of Knox.

Figure 7 An illustration from Félix Vicq d'Azyr's *Traité d'Anatomie et de Physiologie*, ... (1786).

furnishing abundant proof of the zeal and energy with which they have devoted themselves to the acquisition of knowledge. But I feel that I should be doing injustice to my young friends (Moonesawmy, Bauloo, and Jesudasen) were I to refrain from making known the untiring assiduity, the steadfastness of purpose, the devotion to the one object in view, which characterized their whole course of study. ... ... I feel this result is due mainly to their painstaking, persevering industry. And in presenting these young men to your Excellency (Governor Henry Pottinger), the College Council feel assured, that you confer upon that honourable distinction whereby they become members of a Scientific Profession, are raised in the scale of society, and placed in a position to prosecute the noblest of all human efforts — the relief of their fellow-creatures, the Government will, in return receive into the ranks of its Medical department, three zealous and efficient public servants, who by their future professional career, will we doubt not, more than justify the favourable expectations now entertained of them.

8 Conclusion

The 1852 Report has remained unknown until this point of time. The present article brings this landmark Report to light, clarifying many a gap in the chronicles of medical education in Madras. These details should create vibrant ripples in the chronicles of medical education in India. The present article has also raised the question whether James Shaw, professor of ophthalmology and midwifery at M.M.C. years was the first Principal. What is apparent now is that Shaw was not the first Principal of M.M.C. given that the renaming of M.M.S. as M.M.C. occurred in 1850. Had Shaw been the Principal of M.M.C. then the list of members of the College Council (p. 3) in the 1852 Report would have identified Shaw so. Moreover, in the meeting of 27 April 1852, the College's Annual Report was read by the Physician General of Madras, Robert Davidson, and not by the Principal, which adds to the confusion.

The 1852 Report supplies fascinating details on the diploma G.M.M.C. offered at M.M.C. after imparting training in the theory and practice in medicine for an uninterrupted period of five years. Although this Report specifically refers to three Indian graduands, in general it supplies comprehensive details on the nature of the different subjects taught and more importantly on the examination process involved in G.M.M.C. programme in the 1850s.

I searched for details of the future professional life of Moonesawmy, Bauloo, and Jesudasen, the three graduates referred in the 1852 Report. Unfortunately nothing could be tracked. However some disjointed details of a G.M.M.C. graduate of the late 1850s, Mohideen Sheriff (a. k. a. Moodeen Sheriff), who worked in a minor hospital in Madras city for several years, could be traced (Sheriff 1865). Sheriff worked first as the Native Surgeon and later as an Assistant Surgeon at the Triplicane Dispensary. He was active as a physician and surgeon in 1860–1885. He impresses as an enthusiastic publisher of his case details. For instance, the Madras Quarterly Journal of Medical Science (volume 8, 1865) includes at least four articles by Sheriff, including two on the surgical-procedures he performed at the Triplicane dispensary. He wrote the Materia Medica of Madras (Sheriff 1891).

Growth of M.M.C. in terms of academic programmes can be summed up as follows (Table 2):

Table 2 Growth of M.M.C. in terms of academic programmes

M.M.S.	1835–1850	Apothecary, Dresser	Autonomous	3 years
M.M.C.	1850–1867	G.M.M.C.	Autonomous	5 years
	1867–1923	M.B.C.M.	Affiliated*	5 years
	1923–present	M.B.B.S.	Affiliated**	5½ years

*to the University of Madras.

**to the University of Madras until 1986; from 1987 to the present, affiliated to the Tamil Nadu Dr M.G.R. Medical University.

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