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Missionaries, the Princely State and Medicine in Travancore, 1858–1949

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1. Introduction

Growing attention has recently been paid to the history of medicine and public health in India, and many scholars have already made substantial contributions. Some of their main concerns are: British policy regarding medicine and public health in colonial India, indigenous responses to this Western science and practices, the impact of epidemic diseases on Indian society, the relationship between Western and indigenous medicine in the colonial period, and, as David Arnold has recently researched, the process in which Western medicine became part of a cultural hegemony in India as well as the creation of discourses on India and colonialism by Western medicine.[1)]

Perhaps one of the problems of these studies is that they are almost totally confined to British India, in which the British directly ruled and played a principal role in introducing Western medicine. The princely states, which occupied two-fifths of India before 1947, have been almost completely ignored by the historians of medicine and public health. What policies with regard to

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Western as well as indigenous medicine were adopted in the territories ruled by the Indian princes? What difference did indirect rule make in the area of medicine? One of the aims of this essay is to answer these questions by investigating the medical policies of Travancore, one of the major princely states in India.

The second aim of this paper is to examine the medical activities of Christian missionaries. They worked actively in Travancore and obtained a large number of converts largely from the low castes. Along with education, medicine was the area in which the missionaries, with the main purpose of converting Hindus to Christianity, made great efforts.

However, Travancore was well-known for Hindu orthodoxy. The state was openly dedicated to a Hindu god, Sri Padmanabha, and this dedication continued to be one of the principal factors which legitimized the Maharaja's rule.[2] But despite this fundamental difference in religious stances between Hinduism and Christianity, Travancore State generously supported the Christian medical missions. Thus, to investigate how this self-declared Hindu state and the missionaries established their relationship in the area of medicine is another aim of this study.

Travancore was situated at the south-western extremity of India. The East India Company extracted a treaty of subsidiary alliance from Travancore in 1795, and after that this state was under the indirect rule of the British. In 1858 Sir T. Madava Row, a renowned Indian administrator, became the Dewan of Travancore; and vigorous efforts for "modernization" began. Travancore existed until 1949 when it was merged into a state of Travancore-Cochin under the independent Indian government. This study deals with the period from 1858 to 1949.

2. Travancore State and Western Medicine

Government institutions dominated medical activities in Travancore from the beginning. In the year 1870–71, for example, government institutions treated more than five times as many pa-

Table 1. Number of Patients Treated in the Government and LMS Institutions

year*	government institutions	LMS institutions
1870–71	66,757	12,046
1880–81	92,419	n/a
1890–91	120,883	n/a
1900–91	438,433	66,996
1910–11	543,345	113,203
1920–21	940,170	118,144
1930–31	1,975,328	145,532

Source: Travancore Administration Report for 1870–71, 1880–81, 1890–91, 1900–01, 1910–11, 1920–21 and 1930–31; South Travancore Medical Mission Annual Report for 1937 in Travancore Report, CWMA. *The year shown here is a Malayalam year which begins in August every year. The figures for the LMS institutions are for 1871, 1881, 1891, 1901, 1911, 1921 and 1931 respectively.

tients as the institutions of the London Missionary Society (LMS). In addition, the number of patients treated in the government institutions increased far more rapidly than that in the LMS institutions, as Table 1 indicates.

It is true that there were several institutions run by Christian bodies apart from the LMS institutions. The Church Missionary Society (CMS) started a Leper Asylum in 1871; Roman Catholics had a hospital and dispensary at a place called Manjummel; the Church of England Zenana Mission had a dispensary at Trivandrum; and the Salvation Army started medical activities from the late nineteenth century.[3] But the number of the patients treated at these Christian institutions was very small compared with the number at the government institutions. The number of patients treated in the aided Christian institutions in 1896–97 was 22,055, while the government institutions treated 333,199 patients in the same year. In addition, the CMS, the most influential missionary body in central and north Travancore, did not have substantial medical missions, as will be seen later.[4] Thus, there can be no doubt that the missionaries' influence in the area of medicine was much less than that in the area of education. As to their influence in the area of education, in 1885–86, for example, 18,802

pupils studied in the aided mission schools, compared to 13,501 in the government schools.[5]

The European system of medical aid was first introduced in Travancore in 1811. Although it was at first confined to the members of the ruling family and government officials, it was subsequently extended to the prisoners and then the general public. A European medical officer called the Darbar [government] physician was appointed, and the government institutions developed under his supervision.[6] Thus, in 1863–64, there were nine government medical institutions in Travancore, including the Charity Hospital at Trivandrum and the hospitals at Nagercoil, Shencottah, Quilon and Alleppy.[7]

A Darbar physician was, as noted, in charge of the Medical Department. Under him, there were many Indian medical officers, such as Surgeons, Assistant Surgeons, Apothecaries, Assistant Apothecaries and Hospital Assistants.[8] A substantial majority of these government medical officers were Christians. In 1908, out of 87 officers of all grades in the Medical Department, "53 were Christians, 23 were Sudras, 8 were Brahmins, 2 were Mahomedans and one was Ezhava".[9] The Travancore government, at least in part, contributed to the making of this situation. A Christian called Mathew John studied in the Madras Medical College for seven years at the expense of the Travancore government. He was posted at a government medical institution in Quilon in 1872 after finishing his training.[10]

The General Hospital was opened in Trivandrum in 1865; a medical school was started in 1869; and an asylum for insane people was first opened in 1878. In 1887, at a relatively early stage in the development of the women's medical movements in India, the Victoria Medical School and Hospital for Women was created for the purpose of training midwives and nurses.[11] As a result of these state-directed efforts, medical relief in Travancore progressed more rapidly than in the Madras Presidency. Nagam Aiya stated that Travancore had 56 medical institutions including 12

aided ones in 1904, which means one for every 125 square miles and every 52,715 of the population, while there was one medical institution for every 224 square miles and every 60,510 inhabitants in the Madras Presidency.[12] Also, by 1897, Travancore had 34 beds per 100,000 of the population, while neighbouring Malabar District had only 14 beds.[13]

The Travancore government also made a considerable effort to diffuse vaccination against smallpox. It issued a proclamation on 14 August 1878 which ordered every public servant and student in the government and aided schools to be vaccinated. In addition, the state tried to promote vaccination by setting the example of the ruling family before its people. In 1888–89, animal lymph was manufactured in the state for the first time, and in 1890–91 the Vaccine Depot was opened in Trivandrum.[14] The state also paid attention to the vaccination of the lowest castes from an early stage. In 1866–67, about 2,000 Pulayas were vaccinated.[15] A female vaccinator was employed by 1891–92 to meet the wishes of those who objected to male vaccinators visiting their houses.[16]

The Travancore government thus made great efforts to introduce Western medicine into its territory. That was largely because the state considered that providing "charity" for its people was an important function of a Hindu state. In 1865, Maharaja Ayilliam Tirunal himself opened the General Hospital and stated through the Dewan that:

> For time out of mind, charity has been regarded by Travancore as one of the cardinal duties of the state. Its reputation as Dhurma Raj is familiar to all India. What can be more real, more substantial charity, than the provision of means for the relief or mitigation of sickness and disease . . . One of the main objects of my ambition is to see that good medical aid is placed within the reach of all classes of my subjects.[17]

Also, the Maharaja himself translated a paper entitled "Sick-nursing" into Malayalam, which certainly helped to diffuse the image

of a "Charitable Raja".[18]

This attitude of the Maharaja seems to have been very different from that of the British colonial authorities. In British India, medical priority was given, apart from jails, to the Army, which was one of the principal devices to maintain the British Empire.[19] In other words, the primary concern for the medical administration of British India was generally to secure the health of "the colonizers, not the colonized".[20] By contrast, Travancore, which depended on the British for its defence, did not have a substantial military force except the Nayar Brigade with a strength of about 1,500. This was a "semi-peasant force entirely recruited locally". The men spent four days on duty and four days working in their fields, and their work was "entirely guard and ceremonial duty".[21] Thus, unlike the British in colonial India, Travancore State had almost no necessity to provide health care for its military force to defend its own regime. Consequently, the attention of the Maharaja and the government was largely paid to the medical care of its own people.

Meanwhile, in conformity with the statement of the Maharaja, free medical relief was given to its people until about 1940 when the Travancore government passed certain rules to collect charges for treatment.[22] In addition, the government's institutions treated the lower castes as well. In this respect, its medical policy was very different from its educational one, which almost completely excluded the lower castes from the government schools at least until the late nineteenth century.[23] As Table 2 indicates, the General Hospital in Trivandrum treated a large number of Izhavas and other lower castes as early as 1879–80.

In addition to the desire of the state to express its Hindu charitable role, a strong public demand for medical aid was also one of the causes which promoted the development of medicine in Travancore. In the year 1886–87, for example, the *Administration Report* stated that "numerous petitions have been received for opening new hospitals and dispensaries in different parts of the

Table 2. Castes and Communities Treated in the General Hospital in 1879–80

Caste and community	In-patient	Out-patient
Brahmins	105	1,714
Castes between Brahmins and Nayars	90	576
Nayars	308	2,680
Artisan Class	51	601
Izhavas	213	1,570
Lower Classes of Hindus	55	857
Mahomedans	35	653
Europeans	6	271
East Indians	44	956
Native Christians	245	2,527
Total	1,152	12,405

Source: Travancore Administration Report for 1879–80, p. 57.

country".[24] Also at the Sri Mulam Popular Assembly, demands for the opening of medical dispensaries were frequently expressed.[25] The state thus had to respond to those demands. As a result, the number of patients treated in the government institutions increased sharply, as we have seen in Table 1. The necessity to respond to these growing public demands for medical aid was undoubtedly one of the principal reasons why the state supported the medical missions rather generously, as will be seen next.

3. Medical Activities of the London Missionary Society

The London Missionary Society had a substantial medical mission in Travancore although the number of patients it treated was, as we have seen, much smaller than the government institutions treated. Travancore State recognized the usefulness of this mission and gave it considerable support.

The first medical missionary sent to Travancore was A. Ramsay. In 1838, he began medical work at Neyyur, one of the mission stations in south Travancore. But he left the mission in 1842 to take up another job in India, and the medical mission work

was discontinued. Then, another medical missionary, Dr. Charles Leitch, was sent to Travancore in 1852. He restarted the work at Neyyur, but it was discontinued again after Leitch drowned while bathing at the sea near Neyyur. In 1861, Dr. John Lowe was sent there, and a substantial development of the medical mission began after his arrival.[26)]

An American missionary pointed out at a missionary conference held in 1879 that the following factors were necessary for "thorough Medical Mission work": (1) a medical missionary, (2) a central dispensary and hospital, (3) a medical school or class, and (4) funds.[27)] The medical mission of the LMS in south Travancore had most of these. A medical training class, which was undoubtedly one of the most important activities for the expansion of the medical mission, was started by Lowe in 1864. The first course was finished in 1867, and the students who had received medical education were posted to the newly-established dispensaries at Attur, Santhapuram and Agasteespuram in 1868, and at Nagercoil in 1871 and at Tittuvilei in 1874. In this training class, a Hindu student called Govindan received a medical education. He was supported by the First Prince of Travancore and was employed by the Travancore government after finishing the course.

Thus, the medical mission continued to expand. In 1902, it had 17 out-stations. The Neyyur Hospital was one of the largest hospitals in Travancore. In addition, it afforded a high standard treatment with "up-to-date" equipment. The first X-ray machine was, for example, installed in 1923, which was the only one of its kind in south India other than Madras. Also, it introduced radium for cancer treatment in 1930.[29)] As a result, the hospital often accepted cases which the government hospitals were unable to treat.[30)] E. A. Harlow, a medical missionary, wrote in 1931 that "the death rate of our surgical cases is substantially less than it is in the large hospitals in London and in the Presidency towns in India".[31)]

Meanwhile, the medical mission in Travancore was by far the largest mission of its kind set up by the LMS. In 1930, for ex-

ample, the LMS had 23 medical mission stations which treated 372,410 patients world-wide, while the medical mission in Travancore alone treated 163,121 patients. That is, it treated 43.8 percent of the patients treated by all the medical missions of the LMS.[32] There can be no doubt that the Directors of the LMS were very determined to develop this work in Travancore. Well-qualified medical missionaries were almost continuously sent to Travancore. Table 3 shows the names and qualifications of the medical missionaries along with the years in which they worked in Travancore.

In addition to the efforts of the LMS itself, another and perhaps more important reason for the development was that the medical mission received considerable help from the Maharajas and their government. They gave large sums in subscrip-

Table 3. LMS Medical Missionaries in Travancore, 1838–1937

M. A. Ramsey	1838 to 1840 (or 1842)
C. Leitch, MRCS Edin.	1852 to 1854
John Lowe, FRCS Edin.	1861 to 1868
T. S. Thomson, LRCP&S, Edin.	1873 to 1885
E. Sargood Fry, MB, CM, Edin.	1885 to 1892
A. Fells, MB, CM, Edin.	1892 to 1905
S. H. Davies, LRCP&S, Edin.	1901 to 1902
W. C. Bentall, LRCP&S, Edin.	1905 to 1913
H. C. Orrin, FRCS, Edin.	1909 to 1910
H. Bulloch, MB, CHB, Edin.	1911 to 1913
S. H. Pugh, MB, CHB, Edin.	1912 to 1926
G. A. P. Thomas,MB, CHB, Edin.	1913 to 1916
T. Howard Somervell, MA, MB, BCH, FRCS, Eng.	1923 to
Dudley P. Marks, BA, MB, BCH, FRCS, Eng.	1926 to 1928
Ian M. Orr, MD, CHB, FRCS, Edin.	1927 to 1936
D. Joan Thompson, MA, MB, BCH.	1936
J. R. Davidson, MD.	1937

Source: South Travancore Medical Mission, 1937, Box 12, TR, CWMA. MB stands for Bachelor of Medicine; CHB, Bachelor of Surgery; MRCS, Member of the Royal College of Surgeons; LRCP, Licentiate of the Royal College of Physicians; Eng., England; and Edin., Edinburgh.

Table 4. Income for 1875 of the LMS Medical Mission, Travancore

Source of income	Rs.	A	
Subscriptions from India	2,797	1	6
Subscriptions from Scotland and England	698	4	0
Interest on surplus Famine Fund	137	8	0
Balance from last year	51	8	11
Sale of Medicine and Books	116	2	0
Amount in collecting boxes	31	12	10
Total	3,832	5	3

Source: Medical Mission, 1875, Box 2, TR, CWMA.

tions and grants to the mission.

As Table 4 indicates, the medical mission greatly depended on the "subscriptions from India" at the early stage of its development. Among the subscribers, the Maharaja and other member of the ruling family were some of the most important to the missionaries. The Maharaja afforded the largest amount of annual subscriptions. In 1875, for example, Rs. 200 was given to the mission by the Maharaja. But what was more important than the amount was the influence of the Maharaja. In 1882, T. S. Thomson, a medical missionary, wrote that "His Highness the Maharaja, his minister and those under them who have followed their good example in helping on this charitable work, have our best thanks".[33] In fact, in 1875, Dewan Seshiah Sastri subscribed Rs. 40, Nanoo Pillay (Dewan, 1877–80) Rs. 30, and S. Shungurasubbier (Dewan, 1892–98) Rs. 90.[34] Other high-caste Hindus such as tahsildars also subscribed a considerable amount as well.[35] There is no doubt that their subscriptions would have become much less without the Maharaja's favourable attitude towards the medical mission.

In the meantime, as the medical mission developed, it came to depend more and more on sales of medicines and fees or "offerings" collected from the patients for its income. In 1897, the medical mission adopted a plan for selling medicines to all who could

Table 5. Income for 1914 of the LMS Medical Mission, Travancore

Source of income	Rs.	A.	P.
Sales of medicines	15,077	11	3
Fees	1,310	15	3
Offerings of patients	2,273	12	7
Subscriptions from Great Britain and Australia	4,280	0	8
Subscriptions from India	217	0	0
Grants from the Travancore Government	1,918	0	11
Grants from the LMS	1,112	0	0
Medical Class Fund	623	4	1
Balance from 1913	100	3	5
Total	28,676	15	5

Source: Medical Mission, 1914, Box 9, TR, CWMA.

afford to pay for them. In 1914, as is calculated from Table 5, the income collected from sales of medicines, fees and "offerings" was about Rs. 18,660 in total, which means more than 65 per cent of the income was collected from patients.

In 1928, this percentage rose to more than 70 percent.[36] The medical mission thus became increasingly independent of the Travancore government financially, though it still received considerable sums of the form of grants from the Travancore government.

Meanwhile, apart from these annual subscriptions, the Maharajas helped the missionaries in establishing hospitals and dispensaries. In about 1874, the Travancore government handed an old rest house at Tittuvilei in south Travancore to the missionaries and gave the entire cost of Rs. 877 to convert it into a dispensary.[37] Again in 1878, the government gave an old salt store to the mission at a village called Kulasengaram, which was located "in the middle of the most malarious district" in the state. The Maharaja also granted Rs. 200 for the new building for the Neyyur Hospital.[38] In addition, retired Dewans such as Nanoo Pillay and Rama Row generously supported the medical mission.[39]

It is true that, especially after the late nineteenth century, Travancore State seems to have become less generous in supporting the medical mission of the LMS. In 1897, the Travancore government instituted a grant-in-aid system for medical institutions and then declined to give grants to the LMS institutions except the Neyyur Hospital and one other dispensary, on the ground that the men in charge had no government qualifications.[40] However, it is doubtful that the government had any intention of impeding the development of the medical mission, or that the missionaries understood that to be so. Even after the commencement of the grant-in-aid system, A. Fells, an LMS medical missionary, wrote in his report for 1900 that the Maharaja was "always a true friend".[41] Even, in the 1930s, when the Travancore government adopted clearly anti-missionary policies, their relationship does not seem to have deteriorated.[42] In 1935, I. M. Orr, a medical missionary, reported on the co-operation between the medical mission and the Travancore government during the malaria epidemic and the cholera outbreak.[43] This was largely because these and other epidemics were still very serious problems in Travancore. In fact, even in the 1930s, they killed a great number of people. In July 1936, the AGG (Agent to the Governor-General) reported that 908 people had died from cholera and 333 from smallpox in Travancore since the beginning of 1936.[44] Therefore, the state certainly needed the help of the missionaries.

In addition, the ruling family privately maintained an intimate relationship with the medical missionaries of the LMS. In 1933, the Maharaja visited the Neyyur Hospital to attend the opening ceremony of a new building and then stated that "He [Dr. Pugh, an LMS medical missionary] was a trusted advisor of my family and myself . . . I am happy that the friendly relations between my family and the Doctors in charge of institution have been maintained right through". After that, the Maharaja announced that he would donate Rs. 1,000 to the hospital.[45] Moreover, the state keenly supported the medical activities of the Salvation Army,

which rapidly developed from the late nineteenth century, as will be seen next.

4. Medical Activities of the Salvation Army

The Salvation Army had a substantial hospital in Nagercoil and dispensaries in other places. There is no doubt that its medical institutions contributed considerably to the development of medicine in Travancore, and the Maharaja and the government supported them fairly generously, as in the case of the LMS medical mission.

The Salvation Army first established its headquarters at Nagercoil in November 1892. By 1899, it had extended its activities to Tiruvalla and Mavelikara in central Travancore.[46] Although the commencement of their activities in Travancore was thus much later than those of the LMS or the CMS, the number of its adherents increased rapidly. In 1931, it had 58,991 Christians, while the CMS had 85,261.[47]

The medical activity of the Salvation Army in Travancore was started by a man called Harry Andrew. After he was sent to Nagercoil at the age of seventeen, he began to use the "healing virtues" which he possessed in a bathroom in 1893. This attracted a number of people and suggested the idea of a medical mission to the leaders of the Salvation Army. He was then ordered to take a dresser's course at a hospital in London. A year later, in 1895, he returned to Nagercoil and set up the Catherine Booth Dispensary. This dispensary soon developed into the Catherine Booth Hospital largely at the hands of Dr. Percy Turner, and it became one of the main hospitals in Travancore.[48]

Unlike Harry Andrew, Percy Turner was a highly-qualified doctor when he first came to India. He was born in 1870 and was brought up in the Church of England. Then he met the Salvation Army in his student days and joined the movement. He qualified as M. R. C. S. Eng. (Member of the Royal College of Surgeons of England), L. R. C. P. Lond. (Licentiate of the Royal College of

Physicians of London), in 1893 and was awarded the Brackenbury Scholarship in Medicine in 1894. He then completed M. B. B. S. examinations in 1898 and took the D. P. H. (Doctor of Public Health) Oxford in 1899.[49]

He sailed for India in November 1900 and took charge of the dispensary in 1901. Soon after his arrival, he sought to transform the Catherine Booth Dispensary into a general hospital. Thus, on 27 April 1901, the stone-laying ceremony of the Catherine Booth Hospital took place. Under Turner's supervision, the hospital continued to develop.[50] In 1919, it had seven acres of land, on which were built seventeen buildings including wards accommodating sixty patients, an operating theatre and a laboratory. In addition, by 1919 it had four branch hospitals, twenty-three medical officers, thirty compounders and a number of nurses.[51]

Like the London Missionary Society, the Salvation Army paid great attention to the training of Indian assistants. Accordingly, a four-year medical course was started with financial aid from the Maharaja of Travancore. Three men were trained in the first medical class and were put in charge of the branch hospitals after completing the course.[52] Then, another medical class was organized, which was much larger than the former. In addition to the Salvationists, fourteen private students were allowed to join the class. The majority of them were Syrian Christians.[53] During his time, Turner trained six Salvationists and sent them to branch hospitals. Some hospitals were built in the places known for malaria.[54] At that time, malaria was one of the most serious diseases in Travancore, and this disease affected many people living over very large area. In particular, the foot of the hills from Bhuthappandy, about ten miles north to Nagercoil, to Thodupula, about thirty miles north-east to Kottayam, formed "a hyper-endemic belt of malaria".[55] There could be no doubt that people there greatly needed medical relief. And this might have been one of the reasons why, as will be seen, the state supported the medical activities of the Salvation Army.

As to the patients, from January to September 1905 for example, the Catherine Booth Hospital dealt with 3,047 out-patients. Among them, 1,380 were caste Hindus.[56] Thus, a great number of high castes were treated. That was partly because the hospital itself paid considerable attention to the caste feelings of Hindus. A private ward and a separate kitchen were provided for the in-patient who desired to maintain, according to the Salvation Army's report, "the dignity and purity of his twice-born condition".[57] This measure, needless to say, helped the higher castes to avoid caste pollution at least to some extent. The hospital thus attracted a large number of high-caste patients and their friends. This was extremely favourable for their religious activities, which will be examined later.

Meanwhile, the Maharaja and his government showed considerable interest in the medical work of the Salvation Army. In addition to giving grants to the Hospital and the branches, the Maharaja from time to time gave large donations for the construction of new wards and for other purposes. In 1912, for example, Maharaja Sri Mulam donated Rs. 3,350 in the name of his consort for the erection of a new men's ward, and, in 1922, the thatched walls of the first ward were replaced by a solid masonry block and half of the cost was borne by the Maharaja and his consort.[58] The Maharaja also donated "a tri-wheeled motor", which was the first of its type in Travancore. This gesture along with other donations undoubtedly succeeded in spreading the idea of the charitable Maharaja. When Turner travelled by this vehicle, "everybody knew Highness's friend Dr. Turner was going to attend patients".[59] The donations from the Maharaja still continued in the 1930s. In 1934, a new "Administrative and Outpatients Block" was opened by C. P. Ramaswamy Aiyar, who was then the Legal and Constitutional Advisor to the Maharaja and who was also known for his anti-Christian policy. Towards the construction of this block, Maharaja Sri Chitra donated Rs. 10,000.[60]

Thus, there is no doubt that the state needed the medical activi-

ties of the Salvation Army as well as those of the LMS. It certainly appreciated the services of highly-qualified doctors like Turner, having a modern and well-equipped hospital and dispensaries, and the training abilities of the hospital which produced a number of doctors and nurses. In addition, the state seems to have expected the Salvation Army to provide medical relief especially to the poor people, whom the government institutions were not always willing to deal with, although a large number of high castes were treated there as well. In his letter to Turner, the Maharaja wrote in 1912 that "I realize that your labours on behalf of the poorer portion of my subjects are prompted by love and charity".[61] On the other hand, by patronizing medical institutions, the Maharaja was able to gain a reputation as a charitable ruler within the convention of Hindu society and dharma. In this sense, the donation of the "tri-wheeled motor", which greatly advertised Maharaja's charity, was aptly symbolic.

5. The Church Missionary Society and Medical Activities

Unlike the LMS and the Salvation Army, the Church Missionary Society did not send medical missionaries to Travancore, and consequently, it did not have any substantial medical institutions. Nevertheless, it had some functions to provide medical relief for people though they were on a considerably small scale and far from permanent.

In 1870, the CMS missionaries had dispensaries at least at Kannankulam, Mavelikara and Tiruwalla. At Mavelikara, a "medical evangelist" called G. J. Kuruwella was in charge of the dispensary. 1,134 patients were treated there in 1870.[62] Thus, there were some CMS dispensaries, but it is not clear how long they continued. In 1873, when the CMS missionaries expressed their view on the "medical agency", they were very doubtful of its success without direct supervision of a European doctor.[63]

Apart from the dispensaries, however, the CMS missionaries conducted some medical activities. In 1884, A. F. Painter, a CMS

missionary who was in charge of the work among a tribal people called the "Arrians", reported his medical activities. He received medicines from the Travancore government and other bodies including an institution called the Medical Missionary Association. He then used them to treat people. He wrote that "the death rate among our people has been far below the average, due, under God, to my being thus able to doctor them. I . . . only wish that my medical knowledge increased with my practice".[64] This kind of practice was widely prevalent among the CMS missionaries in Travancore. In 1933, the Diocesan Council of the CMS stated that "non-professional individual missionaries have often successfully tried to minister to the simple needs of the sick around them".[65] However, recognizing the necessity for providing more professional medical relief, the CMS missionaries had at least two "Floating Dispensaries" in the 1930s. These were boats which travelled through the backwaters with medical facilities. Besides, they had a dispensary and a maternity centre in the 1930s.[66]

The CMS sent some medical missionaries to other parts of India, especially to the North-West Frontier, and in the 1880s, the CMS founded mission hospitals in that area. That was largely because other methods of diffusing Christianity were considered as "inefficient or impossible" due to the "fierce fanaticism" of the Muslims living there.[67] Although it is not clear why the CMS did not send any medical missionaries to Travancore, it was at least one of the reasons that priority was given to more difficult areas like the NWP.

6. Religious Activities of the Medical Missions

The medical mission had two main roles for the missionaries in terms of religious activities. One was to convert people, especially the higher castes, and the other was to prevent converted Christians from re-conversion, especially when they fell ill. J. Knowles, an LMS missionary, stated in 1898 that:

> Medical work will enable the Mission to touch the hearts of classes who otherwise are likely to remain shut up in their Heathenism . . . It is also a great help with Christian adherents in the struggle against demonism and superstition.[68]

Prevention of re-conversion was undoubtedly an important purpose. As is well-known, it was widely believed that diseases were caused by supernatural things such as demons and goddesses. A number of Christians resorted to "Heathen practices" when they became ill. Especially at the time of smallpox, they tended to join their "old heathen associates" to make offerings to the goddess *Mariamman*, who was supposed to cause the disease.[69] Therefore, it was an important function of the medical mission to cure its Christians with Western medicine so as to prevent them from reverting to their former practices. But, perhaps a much more important purpose was to establish contact with the higher castes. As we have seen, a large number of high-caste Hindus was treated in the mission hospitals. Undoubtedly, many of these high-caste patients came in contact with the missionaries for the first time. They were taught Christianity when they visited hospitals and dispensaries.

The LMS and the Salvation Army conducted religious activities in their medical institutions from the beginning. In 1862, John Lowe, a medical missionary of the LMS, reported that:

> Seldom fewer than seventy or eighty, including patients and their friends, are at present at the religious service conducted when the Dispensary opens in the morning . . . Tracts or portions of Scripture are given to all who can read, and the Catechist spends some time in personal conversation with the patients in the waiting room.[70]

The practice had not substantially changed even sixty years after that. In 1922, at the Neyyur Hospital, there was a meeting at the entrance hall at 8:30, where the Gospel was read and explained. In addition, there were meetings twice a week in the wards for those

who could not come to the hall. Moreover, the "hospital evangelist" used the opportunity which the hospital offered "at all hours all the day long".[71] The Salvation Army also had a meeting between nine and ten o'clock in the morning so as to give the "spiritual help" to those who came to the hospital.[72]

However, it is doubtful that the missionaries succeeded in their efforts to convert high castes through medical relief and associated religious activities. It is true that the missionaries reported from time to time how influential their medical mission was. But they do not seem to have given enough evidence for their statements, that is to say, the cases of actual conversion. One medical missionary wrote in 1929 that "Although there has been no conversion to Christianity, yet the living seed which is being sown is gradually taking root in the hearts of the people".[73] But, in any case, it is still true that the missionaries fully utilized the opportunity to contact with these people in their medical institutions, even if the results, in terms of actual conversions, were disappointing.

In a sense, these activities meant that the missionaries took advantage of "the sick and the helpless who are least able to resist", although undoubtedly most of the missionaries did not think so. Most of them no doubt considered the medical activities as bringing "true comfort and peace to their souls" as well as "relieving their bodily pains".[75] However, the medical activities of the missionaries, as in the case of their educational activities, gradually became a target for criticisms from the higher castes. At the Sri Mulam Popular Assembly, one member, called T. Marthanan Tampi, stated in 1907 that the missionaries used medical relief as well as education and attendance in courts for the purpose of conversion.[76] In 1935, a CMS missionary in Travancore reported M. K. Gandhi's statement in Young India that:

> If instead of confining themselves purely to humanitarian work such as education, medical service to the poor and the like, they would use these activities of theirs for proselytizing, I would certainly like them to withdraw.[77]

These criticisms had an influence on the missionaries themselves. In 1933, a sub-committee of the CMS in Travancore and Cochin stated that:

> the ministry of healing . . . should never be misused so as to take the slightest advantage of the people's need of help for suffering to enforce upon them any religious teaching with which they would otherwise not have cared to come into contact.[78]

However, it is not appropriate to over-emphasize the opposition from the high-caste Hindus. The criticisms made against medical missions seem to have been fewer than those against the educational activities of the missionaries. When people criticized medical missions, they almost always criticized the mission schools as well, and not vice versa. This tendency seems not to have been confined to Travancore. Norman Goodall has pointed out in his book on the LMS that "No missionary activity has provoked less controversy or raised fewer objections from the uninstructed than has the work of medical missions".[79]

7. Indigenous Medicine and the State

As we have seen, the Travancore state made great efforts to provide medical relief for its people and also considerably helped the medical institutions run by the LMS and the Salvation Army. Although these efforts were confined to Western medicine at first, the state began to take more and more interest in indigenous medicine from the late nineteenth century onwards. As a result of this policy, indigenous medicine developed greatly in Travancore.

In Travancore, every village had a native practitioner called *vaidyan*. Each *vaidyan* knew the medicinal plants and herbs and collected them to make drugs himself. As to the castes of these *vaidyans*, at least Nambudiri Brahmins, Ambaravasis, Nayars and Izhavas engaged in the occupation. Some of the Nambudiri practitioners traced their medical knowledge to the instruction of

Parasurama, a legendary conqueror of Kerala. The Izhavas also claimed that they had been "from time immemorial" noted for their proficiency in the native medical art. Also, among the *vaidyans* listed in the Travancore Almanac for 1918, about 45 percent were clearly Nayars.[80]

These *vaidyans* treated patients who belonged to different castes. Nagam Aiya described the treatment conducted by a famous Nambudiri *vaidyan* called Vayakkara Masu as follows:

> the Masu and his visitors would all sit on the floor of an open front verandah of the *Illam*, while those who would not sit with him would stand in the yard or if they were of an inferior caste, outside the enclosure, but all were before him and in view and he would talk to all who had come.[81]

Various communities including "inferior" castes thus received some medical treatment from the *vaidyans*. It is, however, doubtful that the lowest castes, such as Pulayas and Parayas, were treated by these native practitioners. Ward and Conner stated after their survey from 1816 to 1820 that "they [the Pulayas] experience little sympathy in sickness".[82] Also, A. Fells, an LMS medical missionary, wrote that the Pulayas and the Kuravas, both of which were among the lowest castes, called only for the help of a "devil dancer" when they were ill.[83]

Meanwhile, the Travancore government, which was preoccupied with the efforts for Westernization, almost completely neglected indigenous medicine for many decades in the nineteenth century. It is true that it employed a *vaidyan* at the Civil Hospital for the purpose of supplying various drugs used in indigenous medicine for experiment.[84] It also employed other *vaidyans* for special duties to treat patients during epidemics.[85] But, otherwise, it paid almost no attention to *vaidyans*, and, partly due to this neglect, the standard of their medicine was not always high.

Under these circumstances, indigenous medicine was sometimes severely criticized. Francis Day, a medical officer to

the Cochin government, stated in 1863 that "The Hindu and Mahomedan treatises upon medicine, are voluminous, and their ideas of many diseases, very absurd", although he recognized that "they have a few good simples in use".[86] The missionaries more or less shared this view. As an example of "the disastrous methods" of the *vaidyans*, A. Fells, an LMS medical missionary, reported a case of a woman treated by native physicians as follows:

> A woman dislocated the lower jaw when yawning . . . To begin with, they took a handful of grain, held it over a fire till it was scorching hot and then filled the woman's mouth with it. This was repeated 3 or 4 times till the mouth was so burnt that the patient was unable to swallow even fluids. Next they steamed her head with medicated decoctions, till she was nearly suffocated. Then native bone setters were called in, but their efforts were in vain, and as soon as the patient regained the power of swallowing, native physicians administered a variety of internal medicines — all of no avail. After 9 days of fruitless suffering and frequent offerings to demons the poor woman was taken to the dispensary [of the mission] where the momentary manipulation of the jaw by hands guided by a knowledge of the anatomy of the injured parts was all that was required to reduce the dislocation, a result equally astonishing to the patient and her friends.[87]

As is shown above, using offerings to the demons together with medical treatment was certainly the common feature of indigenous medicine.[88] The *Census Report* of Cochin stated in 1901 that "the astrologer, the exorcist and the physician" were "all in attendance" at the sick-bed of a person: the astrologer divined the causes and prescribed propitiatory remedies; then the exorcist perform a ceremony to drive out the demons and spirits; and finally the physician or *vaidyan* treated the patient. According to the report, that was in accordance with the common belief that "so long as the patient is possessed, medicine can have no effect".[89] However, the astrology had a dangerous effect as well at least in the view of the

missionaries. Dr. Fells pointed out that:

> Astrology is another superstition that does much mischief in many cases by declaring that a certain patient will die upon a fixed day. The astrologer often makes his assertion early in the sickness and is so implicitly believed by many that all hope is abandoned and no further effort made for the patient's recovery . . .[90]

Another medical missionary reported a similar case. When Dr. T. S. Thomson visited "a Sudra patient", he was told that "the native physicians have prognosis that today he will die", and "The materials were kept ready for burning the body".[91]

Confronted with a number of "inappropriate" treatments conducted by *vaidyans*, T. S. Thomson, a medical missionary, suggested in 1874 that the government should order the *vaidyans* to be "at least trained in the elements of Surgery and Medicine". He also offered some inducement in order to get these *vaidyans* put under instruction at the Neyyur Hospital. Although this attempt was not successful, due to "their bigoted belief and their reliance in their shastrums",[92] the Travancore government recognized the problem well. One government official wrote to T. S. Thomson that "the quack Vythians are a curse to native society . . . I know one or two native physicians, who practise successfully, but they are rare".[93] Nagam Aiya also wrote that many *vaidyans* were "mere quacks", and then pointed out that the decline of indigenous medicine was "partly on account of the general indifference to our ancient sciences and partly also on account of the want of sufficient inducement and encouragement to the native practitioners at the hands of the influential and enlightened public who have begun to largely patronise European medicine".[94] As K. N. Panikkar has recently pointed out, this neglect was largely due to a belief in the superiority of Western culture, especially of scientific knowledge, which prevailed among not only government officials but also intellectuals in India.[95]

However, this situation greatly changed towards the end of the nineteenth century. The development of nationalism was accompanied by a cultural awakening, and a movement which aimed at political authorities' recognition and patronage of indigenous medicine occurred.[96] The All-India Ayurvedic Congress established in 1907 was one of the results of this movement.[97] In Kerala, particularly in British Malabar, this movement was led by P. S. Variar, who was himself in practice at Kottakkal near Calicut. In 1902, he organized the Arya Vaidya Samajam for the revitalization of indigenous medicine.[98]

This movement, and Hindu revivalism more generally, was certainly one of the principal factors which influenced state policy towards indigenous medicine in Travancore. In 1889, the government opened an Ayurveda Patasala (School) in Trivandrum, and then it sanctioned a system of medical grants to *vaidyans* in 1895–96. The grants were generally given to those who passed out of the Ayurveda Patasala.[99] In 1917–18, an Ayurveda Department was constituted. One of the main functions of this department was the revision of the curricula of the Ayurveda Patasala "on up-to-date scientific basis to suit modern requirements". The department also appointed a lecturer in anatomy and physiology; established a botanical garden and Ayurveda hospitals; and opened an Ayurveda pharmacy.[100] Three years later, this Patasala was raised to the Ayurveda College, at which "all the eight divisions" of indigenous medicine were taught in the course of five years. Thus, the Travancore state began to take more and more interest in indigenous medicine from the late nineteenth century. The government expenditure on indigenous medicine showed a sharp increase as Table 6 indicates.

As a result, the number of patients treated by the aided *vaidyans* greatly increased. In 1930–31, 431,482 patients were treated in the grant-in-aid *vaidyasalas*, even though 1,975,328 were still treated in the government institutions which adopted Western medicine.[101]

Table 6. Government Expenditure on Medical Institutions (Rs.)

year	Government institutions (Western)	Grant-in-aid institutions (Western)	Vaidyasalas (indigenous)
1910–11	349,441	12,701	15,421
1915–16	473,133	11,346	15,800
1920–21	583,428	18,241	42,628
1924–25	674,241	17,244	45,431

Source: Travancore Administration Report for 1910–11, 1915–16, 1920–21 and 1924–25.

Meanwhile, compared with the Travancore state, the Madras government was slow to recognize the usefulness of indigenous medicine. In 1921, the Madras government appointed a committee and ordered it to report on "the question of the recognition and encouragement of the indigenous systems of medicine" in vogue in the Madras Presidency. This committee submitted its report in 1923, stating that the Indian systems were logical and scientific though they were not self-sufficient, especially in the surgical line. The committee then suggested that "the followers of Indian medicine should study the scientific methods of the West" and urged the need of the recognition and encouragement by the government. Regarding this respect, the committee pointed out the successful cases of Travancore and Cochin and asked that "Is this not valuable *prima facie* evidence . . . ?"[102] After accepting this report, the Madras government established a school of Indian Medicine in Madras in 1925.[103] But, this was thirty-six years after the Travancore government had established the Ayurveda School in Trivandrum.

Perhaps the most important reason why the Travancore state adopted the policy of encouraging indigenous medicine so early was that it was an "orthodox Hindu state". To the state, this policy had two obvious advantages. Firstly, the state could show its charitable feature through this medicine, which was rather economical in financial terms and could be given even to the "conservative

masses" especially in the rural areas.[104] Secondly, encouraging the medicine was, at the same time, encouraging the Hindu culture, on which the Hindu state was established. In other words, helping the revival movements of Hinduism was undoubtedly one of the most appropriate functions of the Hindu ruler and the government. Indeed, indigenous medicine was "felt to be a central part of the cultural heritage of India",[105] and therefore it is not surprising that the state responded very quickly and very substantially to the revitalization movement in indigenous medicine.

8. Conclusion

There is no doubt that the Travancore government made great efforts to introduce Western medicine into its own territory. For the Maharaja and his government, encouraging Western medicine had obvious advantages. On the one hand, they were able to show their "modernizing stance" to the British. Introducing Western administration into India was one of the principal concerns of the British rulers, especially in the nineteenth century. On the other hand, Western medicine was a useful tool to diffuse an idea of a "charitable ruler", which undoubtedly contributed to the legitimization of the Maharaja's rule.

To the state, the medical activities of the missionaries were very useful. Both the LMS and the Salvation Army sent well-qualified doctors; started medical classes; and established well-equipped and highly-reputed hospitals and dispensaries, sometimes at the areas which needed special medical relief such as that for malaria. Moreover, to the state which had to respond to the growing public demand for medical aid, the mission institutions were indispensable. It is true that one of the principal purposes of the medical activities of the missionaries was the proselytization of Hindus, especially of the high castes, and that criticisms were raised by high-caste Hindus from time to time. Nevertheless, the missionaries and the Hindu state maintained a favourable relationship in the area of medicine. The medical missions were encouraged and, in a

sense, were approved by Travancore State.

Thus, Western medicine was introduced and encouraged by the indigenous rulers of Travancore, who also had considerable religious influence over the people. In addition, medical considerations were primarily given to the general public in Travancore, while the priority was generally given to the Army and a white minority in British India. Western medicine was thus less alien in Travancore than in the areas directly ruled by the British. In any case, Travancore had generally better medical facilities than many other parts of India, and the growing number of population resorted to it.

Meanwhile, this more "Indian" nature of medical policy was clearly shown in the case of indigenous medicine as well. The Maharaja and his government quickly responded to the revitalization movement of indigenous medicine, while the British almost totally ignored it. After that the state keenly contributed to the development of the indigenous medicine. This was done mainly because of its eagerness to show its charitable feature to the people and also its readiness to adopt "traditional" Hindu culture as the work of a Hindu state.

Notes

1) Ramasubban 1988; Harrison 1994; Catanach 1893; Bala 1991; Arnold 1993.
2) Kawashima 1994: ch. 1.
3) Nagam Aiya 1906: 545.
4) *Travancore Administration Report* (hereafter *TAR*) 1896–97, p. 161. Apart from the Christian institutions, planters had several hospitals and dispensaries.
5) *TAR*, 1885–86.
6) *TAR*, 1930–31, p. 170.
7) *TAR*, 1863–64, p. 24.
8) *Travancore Almanac*, 1904, pp. 73–87.
9) *Sri Mulam Popular Assembly Proceedings*, 6th Session, 5 Jan. 1910, p. 33.
10) Dewan to Resident, 25 Oct. 1872, in G. O. No. 408, 15 Nov. 1872, Oriental and India Office Collections (hereafter OIOC).
11) Nagam Aiya 1906: 538–9. It was in 1885 that the British colonial authorities began to provide medical instruction for women as doctors, hospital assistants, nurses, and midwives in India [Arnold, 1993: pp. 262–3].

12) Nagam Aiya 1906: 536.
13) Kabir and Krishnan 1992: 20.
14) Velu Pillai 1940: vol. III, p. 782; Rajagopalachari 1914: 51.
15) *TAR*, 1866–67, p. 97.
16) *TAR*, 1891–92, p. 231.
17) *TAR*, 1865–66, pp. 61–62; Nagam Aiya 1906: 537.
18) Medical Mission, 1880, Travancore Report (hereafter TR), Box 2, Council for World Mission Archives (hereafter CWMA).
19) Ramasubban 1988: 41.
20) Arnold 1987: 58.
21) G. O. No. 399, 400, 26 June 1899, Political and Secret Proceedings, L/P&S/7/263, OIOC.
22) Velu Pillai 1940: vol. IV, p. 226.
23) Perhaps this was because providing medical relief for the low castes was considered less harmful to the existing social order than providing education for them. Education was undoubtedly one of the important measures for the uplift of the low castes.
24) *TAR*, 1886–87, p. 139.
25) For example, *Sri Mulam Popular Assembly Proceedings*, 1904, p. 28; 1912, p. 70; and 1919, p. 63.
26) Medical Mission, 1937, Box 12, TR, CWMA.
27) *The Missionary Conference: South India and Ceylon, 1879, vol. 1, Papers, Discussions, and General Review* (Madras: Addison, 1880), p. 258.
28) *Ibid.*; Medical Mission, 1867, Box 1, TR, CWMA.
29) "Kanyakumari Medical Mission: Important Events at a Glance", Neyyur Hospital Library.
30) Medical Mission, 1902, Box 7, TR, CWMA.
31) Medical Mission, 1931, Box 11, TR, CWMA.
32) *LMS Annual Report for 1930*, p. 159.
33) Medical Mission, 1882, TR, Box 2, CWMA.
34) Medical Mission, 1875, TR, Box 2, CWMA.
35) Medical Mission, 1877, TR, Box 2, CWMA.
36) Medical Mission, 1928, Box 10, TR, CWMA.
37) *LMS Trivandrum District Committee Annual Report*, 1880, p. 4.
38) Medical Mission, 1937, Box 12, TR, CWMA; Hacker 1887: 58.
39) Medical Mission, 1883, TR, Box 3, CWMA; LMS Chronicle, 1901, pp. 165–5.
40) Medical Mission, 1900, TR, Box 7, CWMA.
41) *Ibid.*
42) Faced with continuous conversion of the low castes and especially with the movement of the Izhavas for mass conversion, the Travancore government passed an order that the building of aided schools could not be used as places of worship in 1932; limited free preaching in public in 1936; and financially supported anti-Christian bodies, especially the Kerala Hindu Mission. This Hindu association worked enthusiastically to prevent the conversion of the low castes to Christianity

[Kawashima 1994: 292–4].

43) Medical Mission, 1935, TR, Box 12, CWMA.

44) Fortnightly Report, second half of July 1936, Crown Representative Record (hereafter CRR) R/1/1/2791, OIOC.

45) Ramaswami Aiyar 1938: 37–8.

46) Joseph Chako 1979: 24,39.

47) *Census of India, 1931*, Vol. XXVIII, *Travancore,* Part I, *Report* (Trivandrum: Government Press, 1932), p. 338.

48) *Ibid.*, pp. 83–4; Solveig Smith 1981: 77–9. Harry Andrew was transferred to Gujarat in 1903, and there he established a hospital called the Emery Hospital. Then he was sent to America to take a degree in medicine and surgery. In 1912, he returned to India and opened a hospital in Moradabad in the United Provinces. The Salvation Army had three central hospitals in India in 1919, all of which were originally established by Harry Andrew.

49) Copy of Obituary Notices sent by Mr. A. E. Stevens, File No. Turner 1, Salvation Army International Heritage Centre, London (hereafter SAIHC).

50) *All the World*, Jan. 1901, p. 34; ibid., Sept. 1914, p. 538; Smith 1981: 78–9.

51) *All the World*, 1919, p. 31.

52) Smith 1981: 78; "Light, Healing and Life", Medical India, p. 12, folder 2, SAIHC.

53) *Ibid.*, p. 11.

54) "Memorials of Colonel Turner", File Turner 1, SAIHC.

55) Velu Pillai 1940: vol. III, p. 777.

56) "Notes of Inspection", Private Papers, File Turner 1, SAIHC.

57) "Light, Healing and Life", p. 14. Similar arrangements were made in the government institutions. "The higher and lower castes" were accommodated in separate wards, and "cooks of caste" were provided to prepare their diet in the Civil Hospital. The LMS also had "separate wards for the use of the well-to-do patients", which were undoubtedly used by many high castes. *TAR* 1865–66, p.68; Medical Mission Ten-Years Review, 1900, TR, Box 7, CWMA.

58) "Catherine Booth Hospital", 1922, p. 24, Medical India A, folder 2, SAIHC; "Light, Healing and Life", p. 8; "Worthy Notes of Mention", p. 2, Turner 1, SAIHC.

59) *Ibid.*

60) "Another Medical Advance", *War Cry*, Sep. 1934, vol. 40, No. 9, p. 3.

61) "Light, Healing and Life", pp. 7–8.

62) *Madras Church Missionary Record*, Mar. 1871, p. 73; *Ibid.*, Nov. 1871, pp. 326–7.

63) Minutes of Travancore Conference, 10 Dec. 1873, Mission Book M30, Church Missionary Society Archives, Birmingham.

64) "Travancore and Cochin", *Church Missionary Intelligencer*, April 1885, p. 319.

65) *Travancore and Cochin Diocesan Magazine*, Nov. 1933, p. 149.

66) *Ibid.*, July 1935, pp. 90–1; *Ibid.*, Mar. 1937, pp. 37–8.

67) Gibbs 1972: 330–31; *Report of the Centenary Conference on the Protestant Missions of the World* (London: James Nisbet, 1889), p. 390.

68) Quilon, 1898, TR, Box 7, CWMA.
69) Attingal, 1931, TR, Box 11, CWMA; Medical Mission, 1902, TR, Box 7, CWMA; *Travancore and Cochin Diocesan Record*, Aug. 1908, vol. 18, No. 4.
70) *LMS Trivandrum District Committee Annual Report*, 1861, p. 22.
71) The Hospital Neyyoor, 1922, TR, Box 10, CWMA.
72) "Duties of the Assistant Medical Officers", 1916, Turner 2, SAIHC.
73) Medical Mission, 1929, TR, Box 10, CWMA.
74) *Travancore and Cochin Diocesan Magazine*, Nov. 1933, p. 150.
75) Medical Mission, 1901, TR, Box 7, CWMA.
76) *Sri Mulam Popular Assembly Proceedings*, 1907, p. 111.
77) *Travancore and Cochin Diocesan Magazine*, July 1935, p. 88.
78) *Ibid.*, Nov. 1933, p. 151.
79) Goodall 1954: 508.
80) Nagam Aiya 1906: 551–4; *TAR* 1930–31, p. 176; *Sri Mulam Popular Assembly Proceedings*, 1907, p. 110; *Travancore Almanac*, 1918, pp. 651–4.
81) Nagam Aiya 1906: 555. *Illam* is the name for the house mainly of Nambudiri Brahmins.
82) Ward and Conner 1863: 140.
83) Medical Mission, 1899, TR, Box 7, CWMA.
84) *TAR*, 1868–69, p. 72.
85) *TAR*, 1892–93, p. 131.
86) Day 1863: 422.
87) Medical Mission, 1898, Box 7, TR, CWMA.
88) Velu Pillai stated regarding the Ayurvedic medicine in 1940 that "the work deals with subjects like Law, Ethics, Astrology, Prognostication, Sorcery, Phrenology, Toxicology and others and shows the relation each of these bears to the science of medicine" [Velu Pillai 1940: vol. IV, p. 228].
89) *Census of India, 1901*, Vol. XX, *Cochin*, Part I, *Report* (Ernakulam: Government Press), p. 24.
90) Medical Mission, 1898, Box 7, TR, CWMA.
91) Medical Mission, 1883, TR, Box 3, CWMA.
92) Medical Mission, 1874, TR, Box 2, CWMA.
93) *The Missionary Conference*, 1879, p.263.
94) Nagam Aiya 1906: 553–4.
95) Panikkar 1992: 285.
96) In the 1890s, the nationalists began to claim the effectiveness and the superiority of Indian systems of medicine [Arnold 1985: 178].
97) Bala 1991: 89.
98) Panikkar 1992: 295–397.
99) *TAR*, 1896–97, p. 161.
100) *TAR*, 1930–31, p. 176; *TAR*, 1917–18, p. 66.
101) *TAR*, 1930–31.
102) *The Report of the Committee on the Indigenous Systems of Medicine*, 1923, Part 1,

pp. 1,6,14.

103) *Madras District Gazetteers, Coimbatore*, 1966, p. 430.

104) *TAR*, 1930–31, p. 176; *TAR*, 1888–89, p. 187.

105) Leslie 1971: 71.

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