# PHYSICIANS, PUBLISHING FIRMS AND INDIGENOUS MEDICINES IN MADRAS PRESIDENCY

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#### INTRODUCTION:

Indigenous medical associations, indigenous hospitals and dispensaries, medical manufacturing units, printing presses, book publishing societies, and the publication of numerous medical books and journals all increased in Madras Presidency during the late 19th and early 20th centuries. A larger quantity of native medical publications, periodicals, advertisements, pamphlets, and tracts were produced and disseminated during this time (Kanagarathinam, 2016). In addition to this, practitioners of indigenous medicines established their own book publishing societies and printing presses, despite the high cost of the technology at the time. As part of their profession, indigenous physicians established hospitals, dispensaries, and medicinal production units, which made sense. However, since the subject was irrelevant to them, the establishment of their own printing presses and book publishing societies begs the intriguing issue of what motivated them to do so. Further, the present study puts forward and answers the following questions: What roles did these printing materials play in the medical sphere? What impact did these medical texts and journals have in their vitalization of indigenous medicines in Madras presidency?

The colonial state was a semi-hegemonic and semi-authoritarian entity. It used a variety of instruments, with print being a key one, in an effort to hegemonies the Indian mass. When the colonial state worked to establish its culture as the dominant one, subordinated meanings and practices were ignored, disregarded, or denigrated. However, because of its vulnerability, this cultural hegemony allows for the emergence of opposition or counter-hegemony. By using print technology to spread a negative discourse about indigenous medicinal traditions, Western medical practitioners aimed to colonize not only the Indian bodies but also their minds. Discussion of practitioners of Western medicine on indigenous medicines in the print media played a significant role in the processes of colonization and cultural hegemony. As a rebuttal, indigenous physicians also adopted print media as a counter-hegemonic tool and strongly reacted in the public sphere.

#### **REVIEW OF LITERATURE**

PoonamBala (1991), Deepak Kumar (1997), Charles Leslie (1998), Gita Krishnankutty

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(2001), David Arnold (2002), RaghavaVarier (2002), K.N. Panikkar (2009), Kanagarathinam (2018) and others studied the various aspects of medicine, such as the evolution of indigenous medicines from ancient times, medical encounters, the conflict between indigenous and Western medicines, and the colonial state and Western medicine etc. In addition to examining the resistance of indigenous medicines, these studies examined the rise of Western medicine in colonial India and its hegemonic and beneficial functions. They explained how indigenous medicines have resisted the dominance of Western medicine in a number of ways, including by inventing traditions, standardizing textual corpora, and commercialization of indigenous drugs etc. The imperial administration established its hegemonic influence by utilizing the colonial medical institutions and professional network, including clinics, hospitals, educational institutions, and bureaucrats, as noted by PoonamBala and Amy Kaler (2009). Nevertheless, these researchers have overlooked print media, another essential tool utilized by Western medical professionals and the government for the aforementioned objective and also by indigenous physicians to counter them. The current study demonstrates that, in addition to the professionalization, institutionalization, and standardization of medicine, printing and publishing played a crucial role in the revitalization movement.

#### MEDIAL ENCOUNTER: WESTERN AND INDIGENOUS MEDICINES

Indigenous medicines evolved from magico-religious practices to herbal-alchemical medicines by adopting, adapting and accommodating various practices emerged within Indian subcontinent and came from outside (Kanagarathinam, 2018b). When Europeans arrived in the subcontinent during the medieval period, Western medicine made its way into Indian subcontinent. Initially, Western medicine was used to safeguard Europeans' health, not that of Indians, with the exception of plantation workers, Indian servants, prostitutes and soldiers who were seen to pose a threat to European health. Additionally, the colonial authority was unable to interfere with the health of the colonized due to the political and financial strain of the colonial government (Kanagarathinam, 2020). The colonial authority first became concerned with Indian health in the nineteenth century due to pressure from international community and the financial losses brought by diseases (Kanagarathinam, 2018a). While Western medicine was used to fight epidemics and other terrible ailments, scholars have explained how it was actually utilized as an imperial "tool" to colonize the bodies of the Indian people (Arnold, 1993; Bala, 1991). During the colonial period, the relationship and dialogue between indigenous and Western medicines had shifted from mutual respect and acceptance to scientific skepticism. With the help of the colonial government, Western medical professionals and intellectuals with Western education established Western medicine as the dominant medical practice, marginalizing indigenous

medicines in the process. The colonial state and practitioners of Western medicine used various tools to marginalize indigenous medicines in the public sphere. As a response, indigenous physicians also adopted various techniques in the revitalisation process of which the role of print media is going to be analyzed in the following pages.

## PHYSICIANS, PUBLISHING FIRMS AND CONTEST FOR HEGEMONY

Indigenous physicians recognized the value of print media in challenging Western medicine and filling the knowledge gap in indigenous medicines during the revitalization movement. Western medical professionals used print media as a means of colonizing educated intellectuals in order to promote their own medicine when they attempted to marginalize indigenous medicines in a competitive scenario. There was constant public criticism and condemnation on indigenous treatments in the medical texts and journals published by the colonial state and the practitioners of Western medicine. Consistently disparaging traditional treatments, the discourse distinguished between scientific and non-scientific remedies. The practitioners of Western medicine printed medical textbooks and journals which made an effort to prove its superiority (Kanagarathinam, 2016). In this situation, practitioners of indigenous medicines used printing technology to project the positive aspects of indigenous medicines in the competition and respond to criticism from practitioners of Western medicine.

Indigenous physicians instituted printing presses and formed book publishing societies as a counter hegemonic tool in the struggle. They attempted to disseminate the medical knowledge and counter the criticism of practitioners of Western medicine. Physician owned printing presses and book publishing societies of Madras Presidency of them some were Elakkana Kalanjiyam Achchukudam of Ayulveda Baskara Kandasamy Mudaliyar (Madras), Ayurveda Muthurakshasa Salai (Ayurvedic Printing Works) of Pandit D. Gopalacharlu (Madras), Vaidya Kalanidhi Kariyalayam (Book Publishing Society) of Pandit Duraiswami Aiyangar (Madras), Lodhra Printing Press of K.N. Kesari (Madras), Dhanvantari Printing Press of A. Lakshmipathi (Vijayawada), Tamil Vaidya Kalanjiya Karyalayam (Book Publishing Society) of Kadhar Muhayadeen Rawuthar (Tirunelveli), Muslim Abimani Press of Hakim Muhammad Abdullah Sahib (Madras), Maruthuvan Kariyalayam (Book Publishing Society) of Pandit S.S. Anandam (Madras), Siddha Book Publishing Society and Siddhar Achchukkudam (Printing Press) of Shunmugananda Swamigal (Madras), Ramachandra Vilasha Press of E.R.M. Gurusamy Konar (Madurai) and The Arya Vaidya Sala Publishing Centre of P.S. Varier (Kottakkal). They printed medical texts and journals in these printing presses that played a very prominent role in cultural struggle which facilitated to (i) disseminate hitherto inaccessible medical knowledge to the community of physicians (ii) promote the superior nature of indigenous medicines and (iii) countering the hegemony of Western Medicine.

#### (i) Dissemination of indigenous medical knowledge

The primary reason for the decline of Ayurveda was thought to be the practitioners' ignorance and loss of indigenous medicines. Because texts were not readily available and were not used in real-world situations, knowledge loss had worsened. For instance, physicians and Siddhas wrote several medical works in Tamil, but physicians were unable to obtain all of the manuscripts. In particular, even individuals who were actively practicing medicine were unable to obtain further medical manuscripts, and they treated patients according to the manuscripts they had. This context was brought out by K.N. Panikkar in the following passage:

From the time of the early texts of Caraka, Sushruta, and Vagabhata, a considerable body of literature had come into existence either as original composition or as commentaries. Of them only a few, such as those of Madhavacharya (Madhavanidhanam) and Moreshwar Bhatt (Vaidyanritam), were in actual use. The existence of a large number of other texts, particularly those composed in the regional languages, was unknown even to those active in the profession (Panikkar, 2009).

Innovations are essential to the advancement of medicine in this field. Physicians in indigenous medical systems discovered advances based on their own experience and documented them in manuscripts, but others were not able to access them. Almost all texts which were written in later periods contributed to develop the existing pharmacopeia as evident from the works of Moreshwar Bhatt, Madanapala, Shodalan and several others (Panikkar, 2009). The development of indigenous remedies was hampered by a lack of information sharing. The revitalization movement saw the systematic compilation and publication of medical literature and comments as a fervent endeavor to spread knowledge. When ancient medical writings were not readily available or were not being used, practitioners of indigenous medicines began publishing them.

Two pioneering physicians from Chennai such as Kandasamy Mudaliyar and Hakim Muhammad Abdullah Sahib who brought out large number of Tamil medical manuscripts into print for disseminating hitherto inaccessible medical knowledge into public domain. Kandasamy Mudaliyar was a Tamil Scholar as well as an ayurvedic physician and toiled throughout his life for collecting medical manuscripts from different sources like Saiva mutts and individuals. He compiled more than forty-five Tamil medical manuscripts and printed them in T. Parasurama Mudaliyar's Parabrahma Muthurakshara Salai before establishing his own printing press, named, Elakkana Kalanjium Achchukkudam exclusively for this purpose. Hakim Muhammad Abdullah Sahib who was a great Unani physician in Chennai city, emerged from well reputed family of Unani practitioners of Tanjore palace. He

had his own printing press, christened, Muslim Abimani Press. He published more than forty medical texts which ranged from medical manuscripts to his own drugs and also broke the boundaries of Ayurveda, Siddha and Unani medicines. When these two physicians toiled their life for the development of indigenous medicines from Chennai centre, another two important protagonists from Madurai such as E.R.M. Gurusamy Konar and T. Kuppusamy Naidu worked for same cause. E.R.M.Gurusamy Konar instituted his own printing press, named, Ramachandra Vilasha Press in 1914 and published more than one hundred medical manuscripts within five years. A scholar-editor, T. Kuppusamy Naidu collected manuscripts from different sources, compiled and published them. He alone edited ninety-eight medical texts and one hundred and forty-one books in collaboration with E.R.M. Gurusamy Konar. He published ninety-one books separately and forty-nine books jointly with E.R.M. Gurusamy Konar. He worked intensively in the early part of his career so that in the year of 1914, 1916 and 1917, he compiled forty-eight, thirty-three and twenty-three books respectively. E.R.M. Gurusamy Konar was a scholar, editor, publisher, book seller and proprietor of Sri Ramachandra Vilasha Press. He compiled and published twelve Tamil medical books in his own press. He compiled Tamil Siddha Vaidya Agarati (Tamil Siddha Medical Dictionary) for which he received gold medal from Madras Siddha Vaidya Association (Konar, 1928).

Progenitors of the movement realized that the knowledge of canonical texts were important aspects to systematize indigenous medicines. Further, the medical treatises written in the form of poem were very difficult to understand which made the physicians to write the commentaries to the classical texts in regional languages. Physicians, simultaneously, vernacularized Sanskrit medical texts into regional languages and published them together with commentaries. For example, Pandit Duraiswami Aiyangar who established his own publishing firm - Vaidya Kalanidhi Kariyalayam at Vepery (Madras) in 1913 through which he published vernacularized medical texts and Tamil medical journal -Vaidya Kalanidhi. He vernacularized Sanskrit ayurvedic texts into Tamil along with commentaries and meanings. He first translated Sanskrit ayurvedic medical text. Sarangadara Samhita into Tamil which was followed by Madhava Nidanam. After these texts, he translated and published Ashtanga Hridayam in two volumes in which he added explanatory notes wherever necessary. Every Sanskrit shloka was carefully revised; paragraphs were rearranged and headlines were given in many places to help readers to understand easily. Moreover, he added glossaries, indexes, commentaries, examples and dictionaries in these translated works. Likewise, Pandit D. Gopalacharlu established Madras Ayurvedic Laboratory, Ayurveda Ashramam and Ayurvedic Printing Works at George Town in Madras in 1898. He also attempted to translate Sanskrit medical texts into Telugu which helped physicians who did not have knowledge of Sanskrit language to get medical knowledge of Sanskrit texts. He translated canonical Sanskrit ayurvedic texts into Telugu with commentaries. Each and every text was explained in a very detailed manner with some texts with illustrations. Those books are Madhava Nidanamu, Caraka Samhita, Sushruta Samhita and Rasa Pradeepika. Standardization of indigenous drugs was an important agenda of the revitalization movement. The practitioners of indigenous medicines published the texts which provided the details of drugs, ingredients, measurements and dosages based on sex, age and prakriti. For instance, P.S. Varier who instituted Arya Vaidya Sala Publishing Centre in 1902 and published his medical catalogues like Oushada Paththrika (1903), Chikitsasamgraham (1907) and Oushadha Nirmana Kramam(1910).

Apart from the books, prominent indigenous physicians circulated the medical knowledge in the medical journals. Diseases and their treatments, drugs and preparation methods, diagnostic techniques and unique medical practices were elaborated in the medical journals. Further, the journals had elucidated about surgery, anatomy, physiology, midwifery and sanitations rules. This knowledge base helped Vaids who did not have enough knowledge on respective fields of Ayurveda. To generate public opinion in favor of indigenous medicines, journals addressed important issues raised by medical associations, particularly intransitive actions of the government. The step-motherly attitude of the colonial government was severely criticized in the medical journals. For instance, articles published in Vaidya Kalanidhi, entitled, "The Madras Medical Council", "The Government and the Indigenous Systems of Medicine", "The Claims and Ideal of Hindu Medicine" and "Ayurvedic Medicine and Government Attitude" condemned and exposed the negative attitude of the government to the public. The journals published annual conferences, proceedings, competitions and accounts of the local, regional and national level associations. Thus, indigenous medical journals provided a platform for advancement of Ayurveda by these activities. The practitioners of indigenous medicines strived to bridge the knowledge gap of physicians and advance the theory, concepts, drugs and treatments through publishing medical texts and journals.

## (ii) Promotion and propagation of indigenous medicines

When indigenous medicines were marginalized and degraded as dangerous and unscientific by practitioners of Western medicine, there was a need to promote indigenous medicines and propagate their past achievements in the public sphere. In this context, practitioners of indigenous medicines had written innumerable articles in the journals and texts to counter the negative propagation of the practitioners of Western medicine and promulgated the positive aspects of indigenous medicines. In such writings, the antiquity of indigenous medicines, their therapies and drugs, and miraculous effects were published. Duraiswami Aiyangar wrote about the greatness of Ayurveda and its past achievements in his journal. He explained the divine origin of Ayurveda, its founders and their practices. The

article, entitled, 'The Greatness of Ayurveda', pointed out that indigenous medical knowledge was brought into effect after the serious discussion and debates. He tried to prove that the medical knowledge of Ayurveda was scientific and rigorously tested. He portrayed the various ancient conferences where medical knowledge was textualized. Further, he elaborated on ancient physicians and their medical practices along with ayurvedic techniques like vamanam and virochanam. In particular, the article projected that Ayurveda, the mother of all other systems, reached Europe via Arabs. Finally, he concluded that the modern medicine owed to Ayurveda. Apart from the history and methods of Ayurveda, hygienic principles and preventive methods of Ayurveda were promoted in the journal. For instance, Rangachariar, Kaya Suddhi physician, wrote in his article, entitled, Ayurvedathin Menmai (Superior Nature of Ayurveda) that ancient ayurvedic physicians knew about climatic conditions and germs, and their impact on human health. To escape from their effects, the rishis provided snana karma and nithya karma which talked about hygiene and healthcare rules. Ancient rishis knew about panchabhutas and their activities and advised a number of measures like kaya suddhi to mitigate harmful impacts on the human body. But these aspects and their minute details were not known to other systemic physicians. Through such articles, the journal sought to establish the superior nature of indigenous drugs, medical therapies and their effects and ayurvedic medical texts. A series of articles were written by Duraiswami Aiyangar on Indian drugs. They talked about the various indigenous drugs such as herbal and mineral and projected the veerya and vipaka of these drugs and their usages. Further, he elaborated on ancient pharmacies and their activities.

Practitioners of indigenous medicines published medical texts into regional languages to popularize their respective systems. Particularly, they translated lectures and opinions of prominent personalities and physicians on indigenous medicines which would give positive picture through which physicians strived to obtain legitimacy and authenticity for their medicines. For instance, Pandit D. Gopalacharlu translated the presidential address of Kaviraj GananathSen (1916) on Ayurveda, entitled, Hindu Vishva Vidyalayamu - Ayurveda Prasasti and the special lecture of Lieut. Col. K.R. Kirtikar F.L.S., I.M.S on the occasion of foundation of Hindu University at Banaras, entitled, The Progress of Medicine during the Last Hundred Years (1916) in Telugu. Particularly, the Hindu Vishva Vidyalayamu - Ayurveda Prasasti tried to project Ayurveda as a scientific medicine. Tridosa tattva of Ayurveda (vata, pitta, kapha) was equated with wind, bile and phlegm in this text. Along with these texts, Gopalacharlu published various medical treatises such as Agastya Vaidyamu and Dhaksina Bharathamu Ayurveda Pracharamu to project superior medical aspects of South India. The texts Adhyakshaka Bhasanamu, Yabhi Bhasanamu and Pradharshakabi Bhasanamu were his presidential addresses of AkhilBharathia Ayurveda Vaidya Maha Sammelan held in

different places and different times in which he constructed a monolithic tradition of Ayurveda and its developments.

Apart from writings of physicians, the journals of indigenous medicines republished the positive comments of practitioners of Western medicine and English medical journals on indigenous medicines to popularize. These sorts of positive comments advocated by same qualified Western physicians were needed to withstand negative criticism and prove the worthiness of the indigenous medicines. In this case, Vaidya Kalanidhi published positive comments of Western physicians on indigenous drugs like Dr. Clark of Philadelphia, Dr. Royal, Dr. C. Paul, Dr. Kisalmon and others. For instance, Dr. Clark's statement was published in the article, entitled, "The Practice of Pharmacy in India":

As I go over each fasciculus, I always arrive at one conclusion and that is this: If the physicians of the present day would drop from the pharmacopeia, all the modern drugs and chemicals, and treat the patients according to the methods of Charaka, there would be less work for the undertakers and fewer chronic invalids in the world.

The comment of Col. W.G. King was that 'the institutes (Indian Medical) fit in excellently with the bacteriology and applied hygiene of the West. The hygiene of food and water, public conservancy, disease suppression and prevention are all carefully dealt with'. By these sorts of publications, practitioners of indigenous medicines endeavoured to construct a positive picture of indigenous medicines in the public sphere.

## (iii) Countering the hegemony of western medicine

In the process of revitalization, indigenous physicians posed a number of questions against the superiority claims of Western medicine. For example, Narayana Iyengar examined the characteristics of indigenous and Western medicines as

Allopathy is a therapeutic approach that uses medicines to combat the underlying morbidity. Without knowing the nature of the sickness, the procedure is commonly used and aims to create a situation in the body that is opposite to that of the ailment. However, native medical systems recognize the nature of humoral disorders and prescribe medications to correct them, ultimately leading to the full recovery of illnesses. Moreover, they enhance the body's immunity rather of producing adverse consequences like Western medicine does.

Likewise, P.S. Varier also said that Ayurveda Vaids can diagnose and treat even if new diseases arise in future but this may not be the case of practitioners of Western medicine. He pointed out in an article:

In the event that new diseases emerge in the nation, Western doctors are unable to treat them since they need to research the new conditions and find cures, while ayurvedic doctors identify disease symptoms and determine dosha vitiation, from which they choose

the appropriate medications. Our sastras are capable of this. Furthermore, while ayurveda beliefs have been there since ancient times and will likely remain mostly unchanged in the future, Western medical theories and conceptions are constantly evolving. Western medicine will eventually arrive to Ayurveda's destination after a protracted journey.

Like ayurvedic journals, Tamil Siddha medical journal, Maruthuvan, posed challenges to Western medicine. Maruthuvan published comparative articles between indigenous and Western medicines, entitled, Oriental Medical System and occidental Medical System. Pandit S.S. Anandam had given importance to project the best aspects of indigenous medicines by comparing Western medicine. The journal carried articles on yoga, gnana and karpa medicines which were projected as special aspects of Siddha medicine and simultaneously depicted the absence of these greater things in the Western medicine. Siddha medicine was portrayed in the articles as the product of super-humans and represented Western medicine as the outcome of ordinary men thereby Siddha physicians claimed legitimacy. Each and every aspect of Western medicine was compared with indigenous medicines by which he established the superior nature of indigenous medicines. For instance, he compared the diagnostic techniques of Western and indigenous medicines and strived to establish superiority of latter in the public sphere.

#### CONCLUSION

Western medical professionals and the colonial government worked to establish Western medicine's dominance over indigenous medicines. With the aid of print media, the latter publicly denounced and criticized indigenous medicines, while the former neglected them in its policy. They had to delegitimize indigenous writings and customs in order to justify their dominance. The colonial authorities were eager to guarantee the ideological hegemony of Indian culture during this process. In addition to this, it dislocated, marginalized, and appropriated indigenous culture. Medical professionals who practiced indigenous medicine publicly opposed the stigmatization and denunciation of these practices. There were countless means to show opposition to colonial hegemony, including intellectual dissent and cultural assertions. Indigenous physicians utilized print media as a counterhegemonic tool in the cultural struggle, while Western medical practitioners and colonial governments used it as a marginalizing tool. Practitioners of indigenous medicine entered the printing and publishing industry, despite the fact that it was costly at the time and unrelated to their line of work. They realized the power of print and its impact on the public sphere. Practitioners of indigenous medicines considered that the circulation of negative rhetoric on indigenous medicines by practitioners of Western medicine and the government played a major role in conditioning the minds of the people and that should be curtailed. To retaliate the criticism and condemnation, they also stormed into the printing and publishing

industry. A number of physicians participated in the struggle against Western medicine and acted in the intellectual sphere as authors, printers and publishers. Medical texts, journals, pamphlets and advertisements were produced and circulated for carving out a domain and countering the hegemony of Western medicine in the cultural struggle.

#### **REFERENCES**

#### **Primary Sources**

- 1. Gopalacharlu, D. (1914). Agastyavaidyamu. The Ayurvedic Printing Works.
- (1916). The progress of medicine during the last hundred years an address delivered at the Hindu university foundation ceremony at Benares by Lieut. Col. K.R. Kirtikar. The Ayurvedic Printing Works.
- 3. (1917). Dhaksinabharathamuaurvedapracharamu. The Ayurvedic Printing Works.
- 4. Konar, G. (1928). Siddhavaidyaagarathi. Sri Ramachandra Vilasa Press.
- 5. Tamil Development Research Forum. (1961-1976), Tamil noolvivaraattavanai (The Madras State Tamil Bibliography). 7 Vols, Government of Madras.

#### **Medical Journals**

#### A) Tamil

- 1. Vaidya Kalanidhi (1913-1921)
- 2. Vaidya Chandrika (1925-1927)
- 3. Maruthuvan (1928-1930)

## B) Malayalam

1. Dhanwantri (1903-1920)

## **Secondary Sources**

- 1. Arnold, D. (1993).Colonizing the body: state medicine and epidemic disease in nineteenth century India. University of California Press.
- 2. (2002). Science, technology and medicine in colonial India. Cambridge University Press.https://doi.org/10.1017/CHOL9780521563192.
- 3. Bala, P. (1991).Imperialism and medicine in Bengal: A social historical perspective. Sage Publication.
- 4. Bala, P and Kaler, A. (2009). Contested "ventures": explaining biomedicine in colonial contexts. In Poonam Bala (ed.), Biomedicine as a contested site: some revelations in imperial contexts (pp. 1-8). Lexington Books.
- Kanagarathinam, DV. (2016). Physicians, print production and medicine in colonial south India (1867-1933). Ph.D. Dissertation: Pondicherry University.
- 6. (2018a). Indigenous and western medicines in colonial south India: nature of discourses and impact. Indian Journal of History of Science, 53(2), 182-204. DOI: 10.16943/ijhs/2018/v53i2/49424.

- 7. (2018b). Hybrid medical tradition and plural medical practices in colonial Tamil region. New Man International Journal of Multidisciplinary Studies, 5(2), 22-27.
- 8. (2018c). Revitalisation of ayurveda: institutionalisation and standardisation of medicine in colonial south India. Journal of Indian History and Culture, 24, 241-267.
- 9. (2020). Revitalisation of ayurveda in colonial Tamil region and contributions of pandit Narayana lyengar A historical perspective. Journal of Ayurveda and Integrative Medicine, 11(4), 547-553. https://doi.org/10.1016/j.jaim.2018.07.001.
- 10. Krishnankutty, G. (2001). A life of healing. Penguin Books.
- 11. Kumar, D. (1997). Medical encounters in British India, 1820-1920. Economic and Political Weekly, January 25, 166-170. https://www.jstor.org/stable/4405022.
- 12. Leslie, C. (1998). Asian medical Systems: A comparative study. Motilal Banarsidass Publishers.
- 13. Panikkar, KN. (2009). Colonialism, culture and resistance. Oxford University Press.
- 14. Varier, R. (2002). The Rediscovery of ayurveda: the story of Aryavaidyasala, Kottakkal. Penguin Books.