

Factors Affecting Deterioration of Sri Lankan Indigenous Medicine: A Prevalence Study

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Abstract

Deshiya Chikitsa or Sri Lankan Indigenous Medicine (SLIM) is a purely native kind of medicine that has been practicing from time unmemorable in Sri Lanka. The objective of this study was to investigate the factors affecting deterioration of Sri Lankan Indigenous Medicine. Ninety registered physicians were selected from the population using purposive sampling method. Qualitative data collection methods were used for collecting data and data were analyzed by Correlation Analysis under Chi Square test using SPSS statistical software. The study was conducted in the Moneragala district which has rich diversity of SLIM. Influence of colonial rule, attraction of allopathic medicine, declining social acceptance, lack of government patronage, not getting sufficient income, and negative public attitude have affected the deterioration of SLIM. In statistical analysis, alternative hypotheses of above factors were accepted in highly significant manner ($p < 0.001$). Based on the above results, the recommendations made in this study provide road map to researchers for planning their strategies in conservation, and sustainable use of Indigenous Medicine of Sri Lanka.

Keywords: Sri Lankan Indigenous Medicine; Deshiya Chikitsa; Deterioration; Conservation.

How to cite this article:

Samarakoon SMS, Rathnayake Abey, Herapathdeniya SKMK et al. Factors Affecting Deterioration of Sri Lankan Indigenous Medicine: A Prevalence Study. Indian J Ancien Med Yog. 2021;14(1): 15–22

Introduction

Sri Lanka has diverse forms of indigenous medicine for preserving well-being of the ancient society and a rich intangible cultural heritage associated with traditional knowledge coming from throughout the history which is known as Sri Lankan Indigenous Medicine (SLIM) or Deshiya Chikitsa. It is a unique heritage of Sri Lanka coming over centuries based on a series of ancient indigenous medical literature. In fact, Sri Lanka is proud to claim to be the first country in the world to have established systematic hospitals¹. Some ancient cities of Sri Lanka; Polonnaruwa, Medirigiriya, Anuradhapura and Mihinthale still have the ruins of what many believe to be the hospitals.

Historically, indigenous physicians enjoyed a noble position in the country's social hierarchy due to the royal patronage granted to them by ancient kings. From this legacy, it was stemmed a well-known Sri Lankan saying: "be a physician if you could not be the king." Indigenous medicine of Sri Lanka comprises various indigenous healing systems that have been developed within societies before the time of modern medicine was introduced to Sri Lanka. Even today, Sri Lanka has numerous branches of Indigenous medicine such as fracture healing, treatment of snake bites, traditional ophthalmology and psychiatry and treatment of abscesses, wounds and cancers etc which are said to be still effective and accepted by the community. In addition, there are many valuable medicine, treatment methods, beliefs and techniques in some

families coming from generations which are still un-documented.

Unfortunately, due to various reasons, the most of indigenous healing practices are not currently practiced. Suitable strategies for the conservation should be identified and implemented. The Moneragala district in the Uva province of Sri Lanka is selected for this study as its territory is rich of different indigenous medical traditions and also endemic medicinal plants.

Objectives of the Study

This research was designed to investigate the factors affecting for the deterioration of Sri Lankan Indigenous Medicine.

Research Methodology

This prevalence study was carried out from 2017 to 2019 in the Moneragala district of Sri Lanka. Ninety registered indigenous physicians were incorporated in the study. Purposive sampling methods were used because of the fact that it can be logically assumed that the sample represent the population. Qualitative data collecting techniques were used for collecting primary data. Key informant like provincial Ayurveda Commissioner of the Uva province, registrar of the Ayurveda Medical Council, and Chairperson of Ayurveda Conservation Councils were interviewed. The interviews and observations were initiated after receiving verbal approval from them and a time and place chosen by the interviewees which enables them to express their perspectives independently. The collected data were analyzed for themes from which conclusions were made. Data were analyzed by using SPSS software.

The Spearman Correlation was used to interpret the data analysis. A positive Spearman Correlation coefficient corresponds to an increasing monotonic trend between dependent and independent variable. A negative Spearman Correlation coefficient corresponds to a decreasing monotonic trend between dependent and independent variable². If the corresponding p-value is less than 0.05 alpha level, it has enough evidence to reject null-hypothesis (H_0).

Five-point Likert Scale was used for assessing perceptions of indigenous medical practitioners. In five-point Likert Scale, 20 questions were included assigning numerical weights for each response of the question. A respondent's score on the final

perception scale was the sum of the weight of the response that respondent had given (Table 1).

Table 1: Likert Scale of responses (3)

Response	Abbreviation	Scale assigned
Strongly disagree	SD	1
Disagree	D	2
Neither disagree nor agree	NDNA	3
Agree	A	4
Strongly agree	SA	5

Results and Discussion

The Moneragala district is the second largest of 25 districts of Sri Lanka with an area of 7133 km². Total population of the Moneragala District was 451,058 at the census conducted in 2012 which is 2.22 % of the total population of Sri Lanka. Population Density was 83/km². The total number of indigenous physicians belong to different branches living in the Moneragala District were 325. Out of them, 157 (48.30%) physicians were registered in Ayurveda Medical Council whereas the rest of the physicians (168) (51.70%) were unregistered. Among the total population of indigenous physicians, 80.55% were males and 14.78% were females.

The only 7.01% of physicians had direct relationship of family lineage of indigenous medicine (weda parampara) whereas 92.99% of physicians had no such inherent genealogy. Therefore, it is concluded that very few numbers of physicians had been studying indigenous medicine from their own successors and their own family lineage of indigenous medicine is being gradually faded.

The 94.56% of physicians were not doing treatment as their sole occupation whereas only 05.44% of physicians were engaged in full-time treatment as their occupation. The vast majority of physicians practiced part-time which may be multifactorial.

The actual occupations of the majority of physicians were agriculture (92.99%), followed by clerical work (0.38%), teaching (0.38%), trading (0.38%), postman (0.38%) and full-time medical practice (05.44%). Considering the mode of transmission of indigenous medical knowledge, it was found that 5.44% of physicians learnt from father, followed by uncle (0.77%), mother (0.38%), and grandfather (0.38%).

Deterioration of Indigenous Medicine

Table 2: Perception on Deterioration of Indigenous Medicine

Statement/perception	Percentage of responses to the Likert Scale statements				
	SD	D	NDNA	A	SA
Do you believe that influence of colonial rule affected the deterioration of indigenous medicine?	3.33	3.33	2.22	44.44	46.66
Do you believe that attraction towards allopathic medicine affected the deterioration of indigenous medicine?	0.00	13.33	07.77	37.33	41.11
Do you believe that declining of social acceptance towards indigenous medicine affected the deterioration of indigenous medicine?	03.33	17.77	05.00	50.00	23.33
Do you believe that lack of government patronage affected the deterioration of indigenous medicine?	04.44	03.33	02.22	46.66	43.33
Do you believe that not getting sufficient income by indigenous practice affected the deterioration of indigenous medicine?	0.00	15.55	06.66	42.22	35.55
Do you believe that negative public attitude to indigenous medicine affected the deterioration of indigenous medicine?	01.11	20.00	05.55	55.55	17.77

The 91.1% of indigenous physicians responded accepting the statement that colonial rule affected the deterioration of indigenous medicine. In the

interviews with them, they said that during the colonial rule many indigenous medical books written on Ola leaves were taken to their countries, some of which were destroyed. Large numbers of manuscripts are in libraries and museums in their countries. The public were prevented and discouraged from accessing indigenous medical treatments. Physicians were threatened not to treat sick people (Table-2).

The statistical analysis inferred that there is an impact of the influence of colonial rule and deterioration of indigenous medicine ($p < 0.001$). The sign of the coefficient is plus. Therefore, there is positive relationship between deterioration of indigenous medicine and influence of colonial rulers.

At the end of the Kotte period during the latter part of the 16th century, indigenous medical system was declined due to many reasons. In the 16th century, modern cosmopolitan medicine was introduced to Sri Lanka by the Portuguese. They established their rule in maritime areas such as Galle, Mannar and Negombo, where they built hospitals⁴. Later on, the Dutch also continued building hospitals, but the western medical system was really established during the British rule in 1870. While commenting on indigenous medicine, John Devy had written that indigenous physicians had no knowledge on anatomy and chemistry which are subjects that provide base for modern medicine. He had seen on indigenous medicine in the angle of allopathic doctor as he was the physician of the Governor Robert Brownrig⁵.

Similar phenomena had been reported during the early colonial period of Zimbabwe that the

government and Christian missionaries made every effort to degrade their indigenous medicine and the indigenous physicians⁶. The result obtained from this study can be justified by similar results reported in studies conducted by Chandani and Pushpa⁷, Silva⁸, Arsecularathne⁹, Feieman¹⁰, Konadu¹¹, Miller¹², Mapara¹³ and Paul¹⁴. Considering all the above facts, it is very obvious that colonization of European nations in Sri Lanka has affected on declining indigenous medicine.

The 78.88% of indigenous physicians accept that allopathic medicine affected on indigenous medicine for its declining. They said that majority of people are in the opinion that allopathic medicine is easy to take; they (medicine) act fast, and no hard-dietary restrictions after taking medicine (Table-2). According to them, in contrast to modern medicine, indigenous medical treatment and medicine is time taking and patients should have to follow strict dietary restrictions. The statistical analysis inferred that there is an impact of attraction towards allopathic medicine and deterioration of indigenous medicine. The p-value is less than 0.05 alpha level ($p < 0.001$). The sign of the coefficient is plus. H_0 is rejected. It means that there is positive relationship between deterioration of indigenous medicine and attraction of allopathic medicine.

Starting from the period of the Portuguese, both the Buddhism and medicine were in declining state as there were no educated and disciplined monks in the country. There was no organized system of indigenous medicine as well. Entire indigenous medical system was divided into small branches and those branches were named according to their type of treatment such as Kadumbindum

wedakama, Es-wedakam, Arshas wedakama and Peenas wedakama etc.

Physicians practiced medicine not merely as a livelihood but as an act of merit. Interrelationship between the physician and the patient was not commercialized. Physician was an essential figure in the society bearing a key role in social leadership. The concepts and beliefs which provided base for indigenous medicine were traumatized with the influence of modern science and spreading of western thoughts in the Sinhala community.

Accordingly, concern on indigenous medicine and also the status of indigenous physician was gradually declined. Indigenous physicians failed to sustain their previous social status and compete with allopathic doctors in their treatment methods. Hettige as well as Peiris in a study had reported similar result that widespread acceptability and accessibility of allopathic medicine is one of the reasons to degrade the indigenous medicine^{15 16}.

Palihapitiya has reported very important aspect of deteriorating indigenous medicine which is supported by the researcher too is that Ayurveda physicians practicing allopathic medicine. Observation of Hettige and Peiris is also quite obvious and supported by the researcher. By forgoing, it is evident that attraction towards allopathic medicine has considerable role on declining indigenous medicine in Sri Lanka.

About 73.33% of physicians responded that social recognition towards indigenous medicine as it was during colonial rule was being gradually declined which is one of the reasons to degrade indigenous medicine today. Many physicians responded when asked regarding the social recognition that "Now nobody cares of us, not the villagers, not the government." They were very much disappointed that they have lost their dignity and social recognition that their ancestors were said to be acquired. Based on the above results, it can be inferred that there is positive relationship between deterioration of indigenous medicine and degrading social acceptance ($p < 0.001$).

Since ancient time until colonial rule was established in Sri Lanka, status and the social role of indigenous physician was an important part of Sinhala society. It is important to review the different texts written by foreign travelers who visited Sri Lanka in the past which help to study what was the duty of indigenous physician in Sinhala society. It was seen that western doctor who was studied in English medium, who had up-to-date medical knowledge, and who belonged to

privileged society was given more social respect. Though some branches of indigenous medicine have been declining, Kadumbindum wedakama and Sarpavisha wedakama are still popular among people and are challenging to allopathic medical fraternity as far as their efficacy is concerned.

It can be seen that as the revival of nationalistic movement after second decade of the 20th century, the term "Waidyacharya" instead of Weda-rala came into existence in official documents¹⁷. There are some instances that indigenous physicians are called unrespectable way as "Weda" or "Gasweda" by the lay society. The people in remote villages were living simple and charm. Most of them were illiterate or just they only could read and write in Sinhala language, because of that the physician was offered top place at cultural and religious activities as he was educated and having sound knowledge in languages like Pali and Sanskrit.

The researcher witnessed that drug manufacturing units, storage methods and treating places were unpleasant. This overall unpleasant nature of indigenous medicine affects the attitudes of public towards deviation them from indigenous medicine. Therefore, it is clear that not only based on historical evidences, but also from other studies on the same context as well as from the statistical inference that downgraded social acceptance is one of the factors for deterioration of indigenous medicine in Sri Lanka.

The majority of physicians (90%) accepted that reduced government assistance to the indigenous medicine and physicians is a major factor for deteriorating indigenous medicine in Sri Lanka. They said that financial allocation for infrastructure development of indigenous medicine and providing rare raw material is very less. The registration of indigenous physicians with Ayurveda medical council is too rigid and slow which discourages physician (Table-2).

The statistical analysis revealed that there is positive relationship between deterioration of indigenous medicine and lack of government patronage. The p-value is less than 0.05 alpha level. The sign of the coefficient is plus. H_0 can be rejected. There is positive relationship between deterioration of indigenous medicine and lack of government patronage. When asked; "Do you think, that lack of support from relevant authorities as a factor for losing the social state of indigenous medicine?" many of physicians replied "yes".

In addition, they have identified some other factors which are responsible for losing status of

indigenous medicine are not taking steps to conserve knowledge related to their own tradition, shifting residence on different reasons; being difficult to find building facilities to start up a dispensary, selling their buildings to Muslim and Tamil people who were less sensitive for indigenous medicine, not using new techniques to provide quick relief for ailments, gradually decreasing income from practicing medicine itself, reducing government patronage and using allopathic drugs by some indigenous physicians.

While searching for Annual report of the health ministry, it was obvious that when allocating budget by the Ministry of Health and Indigenous medicine, it can be said that Indigenous medical sector gets step mother treatment. For example, in expenditure of the said ministry, entire indigenous ministry was allocated Rs. 1523 million in the year 2015 which included 414 capital expenses (1.31%) and 1109 recurrent expenses (0.74%) when compare with that of the allopathic sector¹⁸.

Both Vedavathy¹⁹ and Habtom²⁰ reported their findings that indigenous physicians should be given government assistance in scientific research on indigenous medicine. Therefore, it can be identified that the lack of government support in many ways has affected indigenous medicine towards its degrading. Based on findings reported by Vedavathy and Habtom and the information given by the respondents at the time of interviews, the researcher is well understood that indigenous physician gets no or negligible support from the government. The expected support is not only in terms of financial, but from easy availability of raw materials, finished drugs and also social acceptance.

About 77.77% of physicians accepted that they are not getting sufficient income by their medical practice which is due to many reasons. Not like earlier, many patients do not consult indigenous physicians and physicians themselves are not rich enough to maintain their families by the income generated from medical practice itself (Table-2). It was observed in the field visit that many indigenous physicians do their treatment which is not their permanent livelihood.

Although in spite of being registered as indigenous physicians, the majority of them doing other occupations such as farming, carpentry and iron work for living other than indigenous medical practice all of which are labour dominant. Apart from that although they are registered physicians, the majority of physicians never practice medicine.

According to the statistical analysis, it is clear that there is positive relationship with the deterioration of indigenous medicine and not getting a sufficient income. The p-value is less than 0.05 alpha level. The sign of the coefficient is plus. H₀ is rejected. There is positive relationship on deterioration of indigenous medicine and not getting a sufficient income. Although they are indigenous physicians, the majority of them do not appear to have an organized way of treatment that is expected from registered physician. They do just a kind of home remedies using few nearby medicinal plants.

Among the sample physicians, only one or few were examining or doing treatment when the researcher visited them. When asked; "Why do you not do treatment fulltime?" and "Why do you not do treatment?"; the answer of both the groups of physicians was that they do not get sufficient income to live as nobody consult them for medicine. Therefore, the majority of them do other occupations for living other than indigenous medical practice such as farming, carpentry and iron work etc.

Although the majority of physicians do not appear to have an organized way of treatment that is expected from registered physician, a handful of them have well established treatment centres (weda gedara) with necessary infrastructure that seem to be getting satisfactory income. For example, physicians of Galabedda weda paramparawa are appear to be busy with treatments for Kadumbindum who have their own "hospital" having both OPD and IPD sections.

Their hospital is well-equipped and manned with trained workers most of them being their own family members and close relations. Therefore, based on physicians' views and statistical analysis, it can be said that there is positive relationship on deterioration of indigenous medicine and not getting a sufficient income. But at the same time, it can also be said that the physicians who are well experienced and devoted for treatments who get faith, respect, recognition as well as sufficient income for living. These results can be justified by the result reported by Habtom²⁰ that 77% of physicians offer their service free of cost and also, they usually use outcome-contingent contact 'pay when cure'.

About 73.33% of respondents believed that negative attitudes towards indigenous medicines affected the deterioration of indigenous medicine (Table-2). According to the physicians, general

public is discouraged by allopathic doctors saying that indigenous medicine is harmful to the body. Some allopathic doctors blame indigenous physicians when patients self-referred to them following indigenous medical treatment. Indigenous physicians said that they have seen some notices that had been stuck in some hospitals discouraging herbal medicine.

When the physicians were asked about peoples' attitude on indigenous medicine, patients had replied them; "Do Sinhala beheth cause kidney and liver damage?" And also, they have been told by the patients that many allopathic doctors asked them not to take Ayurveda medicine for any instance .According to the statistical analysis, it can be said that there is clear relationship between deterioration of indigenous medicine and negative public attitudes on indigenous medicine. The p-value is less than 0.05 alpha level. The sign of the coefficient is plus.H0 is rejected. There is positive relationship between deterioration of indigenous medicine and negative public attitudes on indigenous medicine.

This result may be justified by referring the studies which have been done by other scholars. Kusumarathne has reported that, after political independence, most of the countries have become aware of the importance of their indigenous medical systems as a cultural heritage. Pakistan takes a prominent place in the field of indigenous medicine where Unani medicine has been recognized officially. Traditional medicine is not officially recognized in Egypt and Sudan, but indigenous medicine is practiced without official registration but with public identity.²¹

People of South East Asian region extensively use indigenous medicine for many reasons, among them

indigenous medicine is being a part of their cultural heritage, long history of indigenous medicine and their experiences regarding the effectiveness of indigenous medicine are the prominent. However, the general population of these countries accepts the value of indigenous medicine, but it is often rejected by modern medical practitioners and westernized social class as it happens in Sri Lanka too. It can be thought that social status of indigenous physician was in a high position because of the fact that Buddhist monks and even ancient kings themselves were the physicians. There was an attitude which spread in every level of the society that only physician could touch the body of the Buddha. Quoting Devey²², in his book had written that indigenous physicians while treating a patient first aggravate the symptoms and then pacify²². Instead of above treatment method, people wanted treatments which ensure fast relief.

Formal and informal mass media worked in favour of western medicine which inspires the people towards allopathic doctor. The field of health education where indigenous medicine is neglected was developed in accordance only with allopathic medicine. Because of allopathic doctors condemned indigenous medicine through mass media, there developed a trend to refuse indigenous medicine²³.

Even in other parts of the world, similar results have been reported. Practices of indigenous medicine vary from country to country because of the fact that they are influenced by various factors such as culture, history, personal attitudes and politics etc. Ohemu et al²⁴, Gebremichael³, Amal²⁵ and Venn et al.²⁶ supported the WHO (2000) report that majority of people still prefer traditional medicine, but most of the time it is neglected by

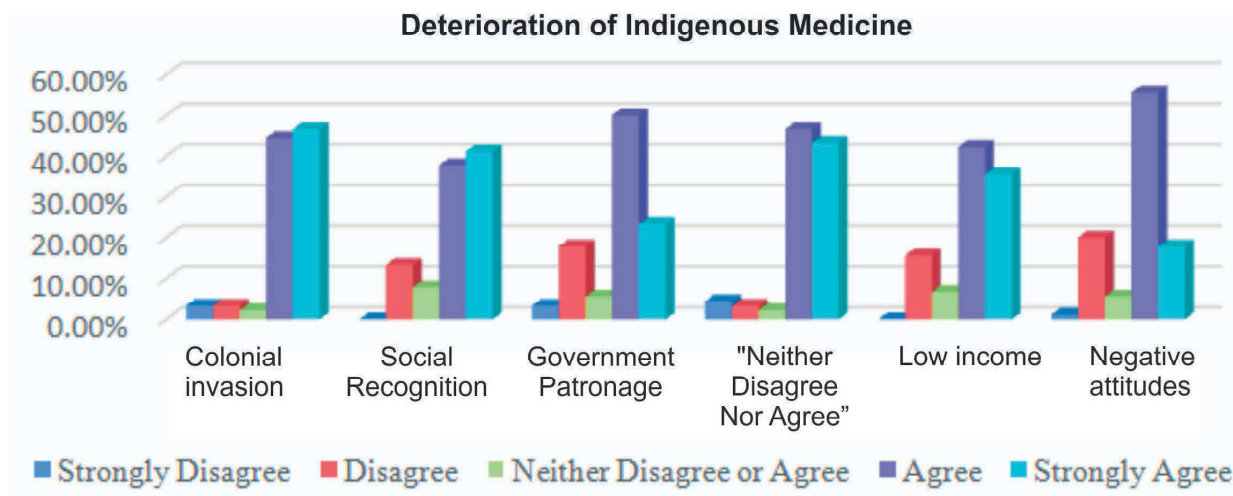


Fig.1: Summary responses of the domain of deterioration of indigenous medicine.

the governments of various countries and people as well.

According to the above figure, it can be concluded that all six statements of Deterioration of Indigenous Medicine were marked either “strongly agree” or “agree” by the majority of respondents meaning those statements have positive effect on the deterioration of indigenous medicine in Sri Lanka (Figure-1).

Conclusion

This prevalence study concludes that influence of colonial rule, attraction of allopathic medicine, declining social acceptance, lack of government patronage, not getting sufficient income, and negative public attitude have affected the deterioration of SLIM. Based on the above results, the recommendations made in this study provide road map to researchers for planning their strategies in conservation, and sustainable use of Indigenous Medicine of Sri Lanka.

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