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An Investigative Study on the Use of Information and Communication Technology Techniques for the Preservation of Indigenous Medicine Palm Leaf Manuscripts

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Abstract

Sri Lankan Indigenous Medicine (IM) is a science of its existence. It is not a transmission of theoretical knowledge, but a practical set of rules, norms, and a proper knowledge system that help to preserve and maintain the well-being of the body and the soul of people. Preservation of Indigenous Medical knowledge consists of Palm Leaf manuscripts through modern ICT while preserving it with the latest technological know-how is time important. Accordingly, the research will be an exploratory study of the uses of ICT for the preservation of indigenous medicine Palm Leaf manuscripts in Sri Lanka. The main purpose of this paper is to study the role of ICT in the preservation of indigenous medical knowledge of Palm Leaf manuscripts in Sri Lanka. In addition to that, the study focuses on identifying the attitude of IM doctors towards the use of information technology for the Preservation Palm Leaf manuscript of Sri Lankan indigenous medical knowledge, identifying information technology issues faced in the Preservation of Palm Leaf manuscript, exploring traditional medical generations and genealogies in Sri Lanka, studying the measures to be taken by the government for the Preservation of Sri Lankan indigenous medical Palm Leaf manuscript and examining its current strategies for Preservation. In this study, the selected key IM generations using the latest information technology initiatives will be surveyed, and focus will be given to the latest trends in Preservation for their Palm Leaf manuscript and Medicine Knowledge. This research was carried out through a survey methodology using a qualitative research methodology. Research-related data were collected using structured interview methods. Quality data analysis was performed in data analysis using narrative data analysis and content data analysis. Generations of doctors in Sri Lanka in the subject will be used as the sample. Snowball sampling was used in this research to select a reliable sample from which traditional Sinhala Indigenous Doctors were identified comprised of 08 each. Data collection is done through interviews and observation. Data are collected through interviews with the chief medical practitioners.

Keywords: *Palm Leaf manuscript, Information Technology, preservation, Indigenous Medicine*

Introduction

Sri Lankan Indigenous Medicine is a study of the existence of life. Sri Lankan Indigenous medicine is not a transmission of theoretical knowledge, but practical rules that help to preserve and maintain the harmony of body, soul, and spirit, while helping to preserve daily existence. “Indigenous Medicines are a method of treating the root of the disease and not the patient” (Ape Hela Urumaya, 2008). Sri Lankan Indigenous Medicine can be identified as a practical system that has existed for centuries. Although the knowledge of indigenous medicine in Sri Lanka is seen as a new trend today, it is seen that it is limited to certain limited ranges. Although there is no active contribution to the communication and conservation of indigenous medical knowledge through the existing institutions on indigenous medical knowledge, various programs are being conducted under the Ministry of Culture through projects to protect the Sri Lankan Hela Urumaya (SLHU).

Thus, this indigenous medical knowledge is one of the most important components of the major indigenous knowledge genres in Sri Lanka. This medical knowledge has been preserved from the past to the present with the use of palm leaves. However, at present, it is possible to identify these Indigenous medical methods and how that knowledge is being lost in society. This traditional medicine has been used in Sri Lanka as a natural remedy or indigenous medicine since the time of Victimize era. It was preserved through open documents for future generations. According to Professor Arjuna Aluvihare, the hospital system was gifted to the world by the ancient Indigenous (Vidusara Science Magazine, 1993). According to the Study, the ruins of Mihintale and Ritigala are the oldest known evidence of a hospital. Mihintale Hospital is the oldest hospital in the country (Historia Aspitalium, 1975). Thus, the ancient Sinhalese first introduced hospital culture to the world during the reign of Pandukabhaya, who established his kingdom in Anuradhapura in the 4th century BC. King Pandukabhaya built various rest houses and hospitals throughout the country (Ape Hela Urumaya, 2010). In evaluating the nature of this traditional Sri Lankan Indigenous Medicine, it is necessary to study the treatment methods

used there. According to traditional medicine, it is clear that the treatment is not for the patient but the root cause. Here the concept of trinity is used and used for therapeutic methods. It can be expressed as airway, bile, semen, etc. It has been shown that all diseases are created based on this. Traditional medicine treats these triads. In this treatment, surgery, pulse therapy, pulse therapy, and meditation techniques are all used for treatment.

At present, the knowledge of traditional medicine is being preserved for future generations by several generations, and services are being utilized to the best of their ability using that knowledge. Based on all these factors, many generations of doctors are still active in Sri Lanka, preserving the Sri Lankan identity. In addition to that, those generations of doctors who give special value to the local culture are working hard to preserve medicine by showing exceptional skills for various diseases. They conserve this knowledge in their traditional ways and do their utmost to protect the palm leaves manuscript.

Although no formal conservation work has been done on the Palm leaf manuscript of the present generation of Indigenous Medicine in Sri Lanka, at present it is possible to identify veteran traditional Doctors in various fields. There, the Pottuvila Vedic generation, Nendungamuwa Vedic generation, and Balalla Vedic generation. Welalapitiya Medical generation, Hingula Medical generation, Mawella Medical generation, Awariwatta Medical generation, Lagamuwa Medical generation, Mapitigama Medical generation, Kekirideniya Medical generation, Marapana Medical generation, Neelammahara Medical generation, Unawatuna Medical generation, Kirineliya Medical generation, Thalgamuwa Medical generation, Hapugaskanda Medical generation, Sapuvida Medical generation, Siyambalagoda Medical generation, Attidiya Medical generation, Heenkenda Medical generation, Kahathuduwa Medical generation, Wadduwa Medical generation, Madiha Medical generation, Attaragama Medical generation, Ibbagala Medical generation, Vedic lineage, Pasyala Medical generation, Wellawa Medical generation, Thalagala Medical generation, Pamankada Medical generation, Banagala Medical generation,

Walgama Medical generation, Pattiwila Medical generation, etc. can Identify present era. It is no secret that the palm-leaf manuscripts in the possession of this generation of Vedas do not contain the advanced medical methods traditionally found. Therefore, the knowledge contained in the palm-leaf manuscript of these generations should be properly preserved for future generations.

It is not a secret that without information communication today man cannot carry out the functions of daily life. To this end, from the beginning of mankind, there has been socialization that transcends civilizations using a variety of methods. Although man used various communication tactics in the exchange of information, the transformation of information communication through technological phenomena, which has now surpassed all of them, marked the emergence of the concept of information communication technology. Thus, it is evident that at present information technology is being used for all purposes.

In this way, information technology is a collection of different technologies used to capture, organize, store, process, and distribute computer applications and information” (American Library Association, 1983). In this way, information technology can be used to conserve knowledge as a whole. Furthermore, it can be seen from the existing evidence that information technology is being used extensively for propaganda purposes at present. The ancient nature of medicine and its scientific nature can be identified. Thus, the current technology should be used to preserve those medical knowledge books. As mentioned above, in carrying forward these studies on the preservation of palm leaf books with indigenous medicine, there are unseen ranges in this knowledge (Hela Wedakama) and it is necessary to preserve the knowledge available in those ranges in conjunction with modern technological knowledge for future generations. Through this research, the use of ICT techniques for the conservation of pomegranate bibliography of indigenous medicine in Sri Lanka is being investigated.

Significant of the Study

The Internet is one of the most advanced means of communication in the world today. Therefore, the Internet has become an essential factor in various fields today. Based on these facts, information technology, which is an integrated concept with the Internet, is seen today as a more important component as the main means of meeting the information needs of various sectors. Therefore, the use of information technology for the preservation of these indigenous medical palm leaf manuscripts plays a special role in this regard. Even in the face of new technology, the indigenous knowledge that existed in the past JHU is now as realistic as it is scientifically important. Therefore, this study identifies a wide range of factors for conducting research and dissemination of scientific information on palm leaf manuscripts containing Sri Lankan indigenous medical knowledge. Furthermore, with the development of technological tools, this study will focus on guiding researchers who are engaged in such conservation and Preservation of the Palm leaf Manuscript to create a variety of processes using communication technologies. This study is important for students studying medical technology to conduct research, preserve Sri Lankan Indigenous medical technology, and acquire information for the future advancement of the medical field through internet technology. Although there is currently no systematic approach to the preservation of the medical knowledge contained in these palm leaf manuscripts, the importance of this study can be highlighted in making the stakeholders aware of the importance of conserving that local knowledge. The importance of this study is to provide local physicians with an understanding of information technology and to encourage the use of ICT strategies to preserve that knowledge, and it is hoped that this research will enable them to preserve the knowledge of Sri Lankan Indigenous medicine in Sri Lanka and pass it on to future generations.

Methodology

The spread of Western medicine around the world can also be seen in the focus on the medical practices that are prevalent in the world today. The research that is being done to popularize these medical methods is being carried out in the form of formal knowledge conservation. As a developing country, Sri Lankans have inherited traditional medicine from the past in focusing on the indigenous medical traditions of Sri Lanka, which is dependent on the Western medical system. This traditional medicine is unique to Sri Lanka and there are several generations of doctors throughout the island who practice this medicine. These generations of physicians use a variety of techniques to preserve the knowledge they possess and traditional medical knowledge is preserved in palm leaf books. In maintaining such knowledge, there is a high probability that the knowledge contained in that knowledge will be eroded if it is not properly protected or used properly. Also, sometimes valuable rare medical books are provided to foreign traders at very high prices. Thus, due to the lack of proper preservation of palm leaf books, the knowledge contained in those books may be lost to mankind. To date, however, there is no formal record of the methods used to preserve the medical textbooks that contain this knowledge.

The study summary refers to the population we use to select the sample (Abeyapala 2004). It is difficult for a researcher to reach the real population. The sample is selected from a population that can be truly accessible (Abeyapala 2004). All Sri Lankan Indigenous medicine generations will be the subject of a research study on the use of ICT strategies for the preservation of palm leaf manuscripts of Indigenous medical generations. There are generations of doctors who nurture Sinhala medicine in all nine (09) provinces of Sri Lanka. The generations of Sinhala doctors in those provinces are summarized in this study. Since it is difficult to select the entire aggregate for the study, a sample is selected to represent the aggregate and the study is based on that.

In this research method, random sampling (snowball sampling) was used to collect data. The reason for using this snowball sample is that there are generations of Sri Lankan Indigenous medicine generation all over Sri Lanka. Dr. Herathham Wijesinghe, the 37th member of the Horiwila Medical Generation, a well-known name in traditional fracture medicine, was contacted by Senior Lecturer Chamara Kuruppuarachchi to identify generations of doctors under this snowball sampling very successful.

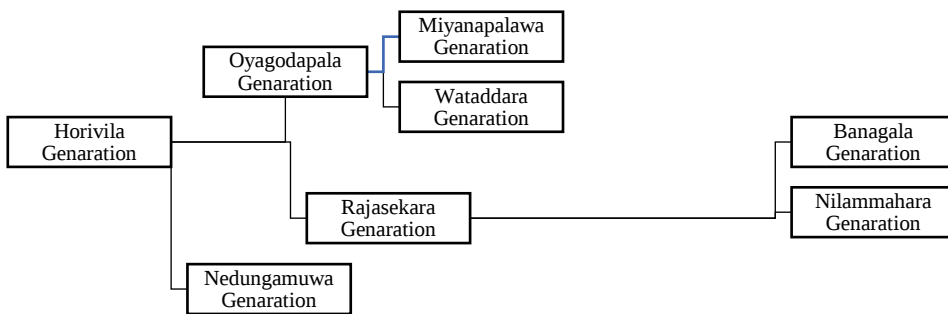


Figure 1. Chart of Snowballing Sample

Thus, the Chief Physician of the Horiwila Medical Generation was identified and the physicians of other generations of physicians were identified through him. Thus, 8 major generations in Sri Lanka were identified using this snowball sample.

Results and discussion

The following information is systematically analyzed by Mr. based on the data obtained from the structured interviews on the use of information technology for the conservation of palm leaves belonging to the Sri Lankan indigenous medical generations in this chapter.

Used of tools	Horiwila IM Generations	Oyagodapala IM Generations	Rajasekara IM Generations	Wataddara IM Generations	Miyanapalawa IM Generations
Laptop computer	✓	✗	✓	✓	✗
Desktop computer	✓	✗	✓	✗	✗
Internet	✓	✓	✓	✓	✗
Tab computer	✓	✗	✓	✓	✗
Smartphone	✓	✓	✓	✓	✗
Website	✓	✗	✗	✗	✗

Table 1: Generations of Indigenous Doctor's Use of Information and Communication Technology

Used of Tools	Horiwila IM Generations	Oyagodapala IM Generations	Rajasekara IM Generations	Wataddara IM Generations	Miyanapalawa IM Generations
Pharmaceutical leaflets	✓	✗	✗	✗	✗
CD/DVD	✗	✗	✗	✗	✗
Voice recording	✗	✗	✗	✗	✗
Video recording	✗	✗	✗	✗	✗
Computer Document	✓	✗	✗	✗	✗

Table 2: Generations of traditional IM Doctors used information and communication technology to preserve their palm-leaf manuscript

It had been evident from the above tables that although generations of IM doctors have used IT as a tool of information technology, generations of IM doctors have seen the use of pharmaceuticals and computer documents to preserve the knowledge of the Horiwila indigenous medical generation only in the use of ICT for the preservation of their palm leaf manuscript.



Table 3. Oyagodapala Generation palm leaf collection



Table 4. Wataddara Generation palm leaf collection

In an investigative study on the use of ICT techniques for the preservation of IM Palm-leaf manuscripts in indigenous medicine, a sample of several traditional IM doctors based on snowball sampling was used to inform IT professionals about the use of information technology tools for the preservation of IM Palm-leaf manuscripts. According to, the problems and barriers in the use of ICT strategies for this conservation, the attitude towards the use of information and communication, the following are the conclusions that can be drawn from this.

- It had concluded that traditional IM doctors have an understanding of information technology and their information literacy is at a normal level.
- It can be concluded that the knowledge available to traditional IM doctors is very broad and has the potential to adapt to any existing technology.
- Concluded that doctors do not use IT equipment for the preservation of palm-leaf manuscripts that have traditional medical knowledge and do not have an understanding and expertise in such equipment.
- Before the destruction of the palm-leaf manuscript belonging to IM physicians and the need to preserve it properly.
- It can be concluded that there is no government intervention to protect these palm-leaf manuscripts.

- It is essential to organize awareness programs on the use of ICT strategies for the preservation of palm leaf books to make them more effective among the IM Generation.
- According to the data obtained from the research, with the technological revolution in a developing country such as Sri Lanka, the research on these book conservation concepts has been minimal. As a result, more research should be done on the new concept and everyone should be made aware of it.
- Convincing the dependents of traditional conservation methods on the effectiveness of new methods using IT tools.
- Government intervention should directly contribute to the preservation of palm leaf manuscripts of indigenous medicine. Here is a need to create an active governing authority for the conservation of this traditional medical knowledge under the present Ministry of Culture.
- Formulate policies to directly address this through factors within the library field in Sri Lanka.
- Systematically maintaining the existing conservation councils.
- Develop of Conservation Center in Sri Lanka where traditional indigenous medical knowledge is available.
- Assisting researchers in this traditional medicine.

One of the objectives of this research as well as one of the solutions proposed by Indigenous Medicine Generation was to create a digital library for the conservation of palm leaves manuscript owned by IM Doctors. Also Identified to the system should be set up to enable them to scan the palm-leaf manuscript in their possession. The format created by it can be seen as follows. These techniques make it easier for researchers to unearth the information contained in the palm-leaf manuscript of the Indigenous medicine generations and to expose the need for that knowledge. Furthermore, by enforcing such proposals, this traditional knowledge that is being hidden from the present society can be re-preserved and socialized.



Table 5. Sample web



Table 6. Sample web



Table 7. Sample web

Conclusion

These are just some of the goal-setting shareware that you can use in Sri Lankan indigenous medicine. A study on ICT strategies for the preservation of palm-leaf manuscript in indigenous medicine identifies the attitudes of IM Doctors towards the use of information technology for the preservation of palm leaf manuscript, identifies problems in the use of information technology for the preservation, and identify the indigenous medicine knowledge of the Sri Lankan medical palm leaf manuscript. Identifies steps taken for conservation, etc. The conclusion reached at

the end of this research is that the level of use of IT tools is minimal. Identified the medical knowledge had been at a good level in terms of the amount and awareness used in publicity. Thus, it is clear that although traditional IM doctors are nominally aware of information technology tools, they have not been put to practical use. Furthermore, Indigenous Medicine is no longer obsolete knowledge but it is a vast body of knowledge that can be used to achieve the goals of sustainable development and improve the health of the individual through the use of paving the way for the progress of the entire human race. But in the face of the current global economy and certain technological trends, traditional medical knowledge is disappearing Palm-leaf manuscripts from our society. The basic requirement for the preservation of traditional medical knowledge consists of the palm-leaf manuscript to identify this valuable knowledge that exists in the society and to preserve and encourage the books of those indigenous medical generations and provide them with state sponsorships.

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