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Indigenous medical knowledge and practices of Reang tribe in Tripura, India

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Abstract

India has the diverse and largest tribal populations in the world. As per the census – 2011, the total tribal population in India is 104 million or 8.6% of the total Indian population. This article specifies about the Indigenous Medical Knowledge and Practices in particular Reang Tribe in Tripura, India. The tribal communities of Tripura are inhabited on hills/mountains and they use a wide variety of medicinal plants in their herbal medicinal practices traditionally. Among them, Reang tribes of Southern and North parts of Tripura have more indigenous medical knowledge and its practices. Most of the plant parts are used in their practices for various ailments and diseases. The community of Reang extensively utilizes herbal medicines for the treatment of sixteen different physical ailments. Most often they diagnosed these species to recover and retrieve from different common ailments like cough, fever, diarrhea, jaundice, blood sugar, tumor, and specifically rheumatism for treating the joint – pain related issues. In Reang community, most of herbal (medical) applications are used or extracted from leaf stem and bark root whole plant herb / aromatic plant, tree, shrub, creeper, climber, and parasitic plants. The paper expresses the Indigenous Medical Knowledge and Practices of Reang Tribe in Tripura, India.

Keywords: Traditional medicine, Reang, community, Tripura

Introduction

Years ago there were no drugs and we used herbs. In our way of life we depended on traditional medicine, and we helped ourselves... Today, modern medicine and doctors have taken over.

- Stoney Creek Nation Elder, British Columbia

India is honored with rich and different legacy of social customs. The worth of therapeutic plants to human vocation is fundamental and endless. Clearly they make central commitments to human medical care needs. These practices are related with the utilization of wild plants as medication. Throughout the long term, folklore medication has end up being an important fortune in present day screening of medications. The conventional astuteness of folklore medicines has been acquired wealthy in home-grown plants for normal sicknesses. Conventional medication includes security and reclamation of wellbeing over centuries (Sanjib Shil *et al.* 2014) ^[15]. The World Health Organization (WHO) has advanced a development for "Saving Plants for Saving Lives"; this is a direct result of the developing comprehension of the vital job of restorative plants in giving natural cures. As per WHO, natural prescriptions serve the wellbeing needs of about 80% of the total population, especially for millions of people in the rural areas of developing countries (WHO, 2001) ^[20].

Tripura and its contextual

Tripura is one of the eight sisters of North East India which is also a small state in comparison to others states of North East. Temperature of the state ranges from 7 C to 37 C and the annual rainfall is about 247.9 cm. The state of Tripura can be of awesome possibilities in such manner on account of its remarkable ethnic culture and assorted vegetation. It is situated between 220 – 56 / to 240 – 32 / North scope and between 900 – 09 / to 920 – 20 / East longitude. The state is bounded on the North West, South and South East by Bangladesh, whereas in the East it has a common boundary with Assam and Mizoram. The total space of Tripura is 10,491.69 Sq. Km and its total population is 36, 73,917 as per the Census population- 2011 and the estimated population (2019-20) is 40, 12,000 in which 33% (11, 66,813) belongs to 19 Schedule Tribal communities.

Tripura and its Inhabitant

The state of Tripura is inhabited by 19 tribes, namely Jamatia, Chakma, Halam, Kuki, Chaimal, Uchoi, Magh, Garo, Lushai, Bhutia, Lepcha, Bhil, Munda, Oraon, Mog, Santhal, Murasing, Reang and Tripuri. Most of the above mentioned tribal communities live in and around the dense forests and a few of the tribal communities consider trees and bamboos as their symbols of Gods and Goddesses in their culture. 'Tripuri' is the largest tribal community among 19 tribal communities in Tripura. They mainly use different plant parts in religious ceremonies to drive away the evil spirits or defeat any malicious forces that might affect the well-being of the family.

Tripura and its indigenous medicinal practices

Indigenous medicinal practices are an important component of indigenous knowledge system, which is widely, practiced by tribal communities all across the India, more preciously in the state of Tripura, North East India. The article describes the significant and relevance of indigenous medicinal practices for the healthcare practices and prevalent different ailments among the tribes as well as others. At the same time, we need to accept the lack of documents and poor recording of the indigenous of the medicinal practices of the tribal which eventually diminishes in the present generation. Of course, still there are a few traditional aged tribal people profoundly practicing the indigenous medicines in Southern and Northern parts of Tripura. They too observed a few herbal plants observed and distributed to treat different ailments like fever, pain, malaria, gastrointestinal disorders, liver complaints, spleen complaints, diabetes, phthisis, strangulation of intestine, alopecia, skin diseases, infection of sense organs, hypertension, respiratory tract infection, pneumonia, snake bite, jaundice, rheumatic fever, anemia, asthma, graying of hair, hernia, respiratory tract disorders, piles, cancer, kidney stone, tetanus, chest pain, epilepsy, scurvy, and menstrual issues.

Tripuris collect various plants from nearby forest for food, fodder, fuel, furniture and handicraft and for the treatment of different ailments traditionally, and depend on local medical practitioners, popularly known as *Ochoi* (Majumdar and Datta, 2007). With the passage of time, tribal communities have been developed a great deal of knowledge on the use of plants and plant products in curing various diseases, ailments. The *Ochoi* composites of a very rich knowledge about the diagnosis and treatment of serious to minor diseases and the specialists utilized the indigenous medicine through the traditional folk and art in their community. The tribal deeply believe in their native folklore medicines which are the remedies for the ailments. The tribes in Tripura, traditionally used lot of plants for anti-fertility purpose and their economies have been engaged in subsistence agriculture, Jhum, piggery, fishery and hunting. Recently some research scholars have engaged in investigation of the possibilities of fertility and anti-fertility through the herbal practices and ethnical medical practices (Ethno - botanical). Hence, the states of Tripura, the indigenous people have been practicing the ethno-botanical medicines and yet each tribe in the states has their own unique indigenous medicines for various ailments and proceeding with treatments.

The ethno-botanical of pteridophyte is used to by Tripuri particularly among Reang tribe in Tripura. The indigenous

medical practitioners use some common pteridophytes in their routine health care system to treat diseases like bones fracture, cough and cold, carbuncle, cardiac problem, pyorrhoea, headache, blood clotting, throat pain, cut or wound etc. The plants having such properties may have role in rapid discharge of the fertilized ova from the fallopian tube, inhibition of implantation due to an interruption in oestrogen- progesterone balance, foetal abortion due to lack supply of nutrients to the uterus and the embryo, and also on the male by affecting sperm count, motility, and viability. In subsistence, much of the traditional medical knowledge has been kept very secret from outsider's world and over the years the indigenous medical knowledge and practices are vanishing more importantly due to lack of documentations and record-keepings vividly lack of interest on indigenous medical practices among the present generation. They prefer to have allopathic medicines for the instant curing rather than indigenous medication which is surely curable in a process. The indigenous medical knowledge and practice use various plants such as Hulowuka, Duoreng, Shibjonta and Sikitang and plant-production in curing various ailments for examples Cough, Cold, joint-broken, swellings.

Statement of the problem

The traditional aged indigenous is rigid and reluctant in sharing the medical knowledge and practices to the outsiders at times. It has been difficult to identify the real and professional indigenous medical practitioners in the remote areas of the state. There is a lack of articulating their own indigenous medicines properly and disappearance of the medical words even in their own language. There is generation gap between the Primitive Group of indigenous medical practitioners and the present generation. There are missing and preservation of the records and documents on the indigenous medical practise systematically and a greater thirst for the allopathic treatments. Lack of awareness of the indigenous medicines and the practise among the tribal medical professionals and failed to include the indigenous medical practices in professional academics and in extra curriculum for the indigenous medicine. Not much support for the indigenous medical practitioners by government. We have to overcome these problems and try to include the indigenous medical practices and knowledge in a better way.

Need and Importance

The Indian traditional medicines based on different systems such as Ayurveda, Siddha and Unani is in use by these tribal communities. Various studies focus on the medicinal properties of plants, especially angiosperms, has been taken place, unfortunately limited amount of studies have been done to explore the medicinal potentialities of the pteridophytes. The medicinal qualities of ferns, real or imaginary, are mentioned as early as 300 B.C. by the Greek philosopher Theophrastus and by his Indian contemporaries Sushrut and Charak. In their study they assessed the medicinal uses of 33 pteridophyte species belonging to 27 families on the basis of field surveys and taxonomic identification of plants. Aquatic Botany is publishing fundamental and applied studies of molecular, biochemical and physiological aspects of macroscopic aquatic plants. The management of aquatic plants have a plant production and decomposition, commercial harvest, plant control and the conservation of aquatic plant communities (breeding,

transplantation and restoration). The modern scientific world has brought in changes in the field of medicine. Even today, many tribal communities and rural population is dependent heavily upon the natural resources obtained from the surrounding forest regions for treatment of various diseases. This article elucidates the indigenous medical practices and the knowledge that the people of Tripura has in the field of medicine. These practices and knowledge is being vanished day-by-day, so it is our duty to protect these knowledge and practices to get healed through indigenous practices with less or without any side-effects.

Background / Review of Literature

The background shares the detailed discussion of the previous literature review related to this article. The North East India is considered as one of the richest bio-diversity centres of the Indian sub-continent which is the habitat of different types of tribes who depend on the nature resources to meet their daily livings that has been reflected in their traditions, beliefs, socio-culture, folklore etc. Few ethno-botanists discovered indigenous medical knowledge of different ethnic groups is vast which are still existed in North East. Obviously, a very little work has been carried out in connection with herbarium scientific studies and that could be numbered as a hundred thousand specimens in states of North East India who committed themselves in the field of herbarium more particularly the tribes from Assam.

A herbarium is a store house of plants, pressed and mounted on a particular size of sheets and so it serves as the function of data bank of plants (Jain, 1995) ^[21]. Herbaria and Musea play tangible role in ethno-botanical scientific study for the development of the indigenous medicines (Jain, 1981) ^[22]. From ancient period onwards, a vast knowledge on ethno-botany exists in India and more than 1,200 herbal plants are mentioned in different Indian ancient texts like the Rigveda and Ayurveda of the Hindus scriptures. Interestingly, we can note the chemistry of natural products isolated both from flora and fauna during Ayurvedic period was well understood, at least for practical purposes (Bhattacharya & Patra, 2004).

Limitation

This article is a conceptual paper where it explicates the need, importance and benefits of the indigenous medical practices yet a study has to be carried out with all the indigenous medical practice of Tripura, documented, safeguarded, utilized and recommended by the government.

Future Researches

- A Study on the indigenous medical knowledge and practices of the Reang Tribal of Tripura.
- Indigenous Medical practices – Need of an Hour and to promote and safeguard.

Methodology

Objectives

The article is to focus on indigenous medical knowledge and practices of Reang tribe in Tripura, North East India. This study is an attempt to find out the important and implication of the indigenous of medical practices.

Purpose

It tries to elicit the traditional remedies used for the treatment of various ailments considered to be very

important in the primary health care of Reang people living in Tripura and Mizoram for safeguard the indigenous medical knowledge and practices of Reang tribe fading from their lives and community.

Universe

Reang tribe is the second most populous tribe of Tripura, out of the 19 scheduled tribes. The total population of Reang in the state is 1, 43,478. Reang are still a nomadic tribe and they speak the Reang dialect of Kokborok language which is of Tibeto - Burmese origin and is locally referred to as Kau - Bru. Their languages have similarity with Austro-Asiatic groups under Tibeto-Burman family. Reang folk life and culture have explicitly outstanding cultural components and the folk dance namely hojagiri is well known among the tribes till today. Considering their origin, economics, socio-cultural conditions and choice of habitat the communities were selected.

Reangs mostly residing in the far-flung villages and dense forest areas were recognized in the seventies by Government of India as the only Primitive Tribal Group (PTG) in Tripura. Traditionally Reang are agriculturist clan and they consistently used to prepare the Huk or Jhum development (Shil and Dutta Choudhury 2009). The accessibility of forest a resource enhances their livelihood and ensures them to live in deep jungles and forest areas. Reang are mostly involved in planting indigenous medicinal plants and playing a vital role in gathering the primary health care needs of the same community of Tripura. Acceptance of indigenous medicine as an integral part of their culture and rather a very limited access to modern health care facilities and the exuberant wealth of natural resources could be considered as the main factors for the continuation of the practice.

Major Observations

The majority of the tribal economies have been occupied with means agriculture, fishery and hunting. With the progression of time, tribal communities in particular Reang tribe have been fostered a lot of information on the utilization of plants and plant items in restoring different sicknesses, afflictions. The ethnic individuals of Tripuri and Reang networks of Tripura are associated with utilizing therapeutic plants. Customary convictions, ideas, information and practices among from the preventing, reducing or curing illness are in practice till the day. Up to now, still they rely on such conventional medical services and the requirement for guaranteed documentation of such information and preservation of these significant plants are stressed to get it for our future generation.

An informal study was carried out in the month of Jan – 2021, with the Reang inhabit of the state to gather data on indigenous medicinal herbs used by them for the treatment of various ailments. The purpose was on traditional remedies used for the treatment of various ailments considered to be very important in the primary health care of Reang people living in Tripura state of North East India. The data was collected from a few aged traditional herbalists of Primitive Group (GP) (Reang) by verbal questionnaires and through observation of the medical practices are done while the diagnosing and treating the patients with ailments. This paper also emphasized on the investigation and documentation of indigenous medicinal plants used by the ethnic (Reang) community of Tripura and

its importance of medicinal plant diversity, benefit, the call for conservation and the need to motivate many medicinal plant users. The repeated queries were made to ensure the authenticity of the indigenous medical knowledge along with the practise of PG. Some of the respondents of the aged traditional hillers of Reang said “plants were collected in the flowering, fruiting and seed stage from their natural habitat (forests) for processing different plants for various ailments / diseases.

Few indigenous medical knowledge and practices of Reang tribe in Tripura

The vernacular medical plants of Reang by its name and application procedures of indigenous medicines along with the scientific names and its sporulation and occurrence are provided below. The information of specimen is collected from the aged traditional indigenous Reang and from the secondary sources book, articles and journals. They are orderly as per the alphabetic serial.

Table 1: The vernacular medical plants of Reang by its name and application procedures of indigenous medicines along with the scientific names and its sporulation and occurrence are provided below

| S. No | Scientific Names | Vernacular names | Occurrence | Application of Indigenous medicines |
|-------|-----------------------------------|---------------------------|---|---|
| 01 | <i>Angiopteris evecta</i> | Skemamuidui | Frequent on dense natural forest, especially near watercourses and slopes | The rhizome paste <i>Angiopteris evecta</i> is applied externally in case of bone fracture along with some other plants. The poultice is applied externally on the broken or fractured part of bone to get cured. This treatment is given to the patients every 3 days of regular interval for a period of 30 days. |
| 02 | <i>Blechnum orientale</i> | Sikiomamoidu | Common along moist and shady base of hillocks and roadside cuttings. | Hot decoction of pinnae is applied externally over abscess to liberate pus and also for its antiseptic action. Fresh decoction is applied once a day till abscess dries up |
| 03 | <i>Cheilanthes tenuifolia</i> | Dalamkhundruj | Common on shady road side cuttings | Fronde cut into pieces, made to a paste and applied on abscess in the form of poultice to liberate pus and also used as antiseptic. The poultice is given once a day till the abscess is cured |
| 04 | <i>Cyathea contaminans</i> | Bongreng | Rare and found mostly on shady places | Apical soft portion of the caudex cut into pieces and crushed in a mortar and added water to make a paste. The paste is then applied locally on major cuts or wounds for immediate clotting of blood. |
| 05 | <i>Cyathea henryi</i> | Bongreng | Rare on moist on shady hill slopes. | Apical portion of the trunk cut into pieces and crushed. The paste so obtained is applied on major cut or wound for immediate arrest of bleeding. |
| 06 | <i>Dicranopteris lineris</i> | Muikandochla | Gregarious in large patches | Freshly extracted fronds juice is slightly heated and the decoction is taken for the internal throat pain. |
| 07 | <i>Diplazium esculentum</i> | Sikiomamoidu or Maikhando | Common on marshy and flat areas of foot hills | Circinately coiled young and fresh frond is boiled with salt and taken internally for maintaining all round health |
| 08 | <i>Drymoglossum heterophyllum</i> | Sikitang | Common on tree trunk of exposed areas and on humus deposit of rocks | Paste obtained by crushing pinnae applied externally in the form of poultice on fractured bones after setting up the bones. Bamboo splints are usually tied around so as to prevent dislocation of fractured bones |
| 09 | <i>Drynaria quercifolia</i> | Bandartala | Common on branches of trees | The rhizome paste mixing with molasses taken internally during cardiac problem. Paste obtained by crushing rhizome applied externally in the form of poultice on fractured bones after setting up the bones. Rhizome paste is applied externally in blood coagulation |
| 10 | <i>Lycopodium cernuum</i> | Shibjonta | Very common in hill cuttings | The whole plant is pounded and the paste prepared so applied externally over the cut portion to reduce swelling and itching |
| 11 | <i>Lygodium flexuosum</i> | Duoreng | Common on shady and moist road side cuttings | Rachis of the plant tied over forehead to reduce headache. The same when tied on hand, to be secured from evil spirit. |
| 12 | <i>Microsorium superficiale</i> | Hulowukto | Common on tree trunks of exposed areas | About 20 gm paste obtained by crushing fresh rhizome along with seeds of <i>Piper nigrum</i> is taken orally to cure cough and cold. It should be taken thrice a day till the disease is cured. |
| 13 | <i>Pronephrium nudatum</i> | Uabamthu | Common on moist and shady forest floor, often grows along road side cutting | Cold decoction of pinnae is used as mouthwash during acute pyorrhoea. 2-3 wash is given a day till it is cured |
| 14 | <i>Pteris ensiformis</i> | Jobamfang | Common on moist and shady forest floor, on road sides and forest cleanings | Fronde pounded to paste with water, applied locally twice a day during swelling of joints till it is cured |
| 15 | <i>Pteris semipinnata</i> | Skaiumamoidu | Frequent along moist and shady base of hillocks and on moist road side cuttings | Fronde pounded to paste with water applied locally around carbuncle for getting it burst and also to reduce pain |
| 16 | <i>Pyrrosia adnascens</i> | Bormondi | Common on tree trunks of exposed areas | Cold decoction of rhizome mixed with a little powdered seeds of <i>Piper nigrum</i> is taken orally during cough and cold twice a day for 7 days |

Indian Journal of Advance in Plant Research, 2014 Vol.I (5):49-54, Debnath*, B., Debnath, (www.ijapronline.com).

Discussion

The study of the article focuses on the implications, future research, limitations which helps for the many for future references. A study showed that Reang communities have their own herbal health care system. Presently they

emphasized on medicinal utility of ever neglected pteridophytes from the Reang tribes of Tripura state, specifically 16 pteridophytic (mentioned Table 1.1) plants species belonging to 14 genera. The Reang medicinal practisers used some common pteridophytes in their routine

health care system to treat diseases like bones fracture, cough and cold, carbuncle, cardiac problem, pyorrhoea, headache, blood clotting, throat pain, cut or wound etc. A large numbers of lower group plant species including pteridophytes are endangered mainly due to indiscriminate collection as well as the deforestation in the state. Hence, there is an urgent need for the conservation of pteridophytes which are important for their academic, medicinal and ornamental values. The results of the study also revealed evidences that medicinal plants play a key role in the healthcare system of Reang communities of Tripura more predominately in North and South district of the state. Very frequently, Reang communities used 16 plants (Table 1.1) most often for the ailments well-being of their life and general ailments as first aid.

Role of Social Worker

The Social Workers may play an active role in bridging the gap between the indigenous medical practices and the state government to promote the knowledge of indigenous medicines among the tribes of the state, in particular Reang tribe. They can also create a networking and linkage with various medical practitioners and nurture the indigenous medical practices by proving space and scientific studies of the same. Obviously, the linkages and scientific studies will enhance the present generation to commit themselves for the promotion of the indigenous medical practices and knowledge in community medicines. Hence, the role of social workers can enhance the field of indigenous medical practices for the advocacy, lobbying, networking, linkages, etc. The methods of Social Work will be able to establish a new perspective for the indigenous practice in a holistic manner.

Implications

Most of the medicinal plants species that were presented by various families are used for treating several ailments. Most of us know that the major plant parts are used as leafs and 80% of the remedies are advised to consume orally. Of course, the parts of plants are used for curing various ailments were found locally. The consensus analysis revealed that the fever and gastro-intestinal diseases have the first informant consensus of factors and the second is used for the dermatological problems. It is equal for both general health problems and inflammation and pain while urinal-genital problems showed relatively low levels of consensus. Likewise Cyathea, a rare tree fern used for major cuts or wounds for immediate blood coagulation.

The traditional pharmacopoeia of the Reang ethnic group incorporates a myriad of diverse flora available locally. Traditional knowledge of the remedies is passed down through oral traditions without any written documents. The traditional knowledge is however threatened mainly due to over acculturation and constant deforestation. Therefore, documenting medicinal plants and associated indigenous knowledge can be used as a basis for developing management plans for conservation and sustainable use of medicinal plants of the study area. In addition, findings of this article can be used as an ethno pharmacological basis for selecting plants for future phyto-chemical and pharmaceutical researches.

Conclusion

“To truly regenerate, to find what we are seeking, we must

change from within.”

- Heidi DuPree,

Mostly of the tribes the tribal living in the forest or in closeness of the b backwards are subject to natural practices because of the absence of correspondence and carelessness from the two sides, cost of allopathy and have profound confidence upon their old traditional and custom. Many of the plants' parts like root, leaf, blossom, fruit and seeds are utilized by tribal as a medication and their insight into training has descended through ages. Presently a-days this progression of native information from senior to more younger generation is hindered as the younger generation is hesitant to find out about indigenous medicinal practices. Ayyanar, M., Ignacimuthu, S., (2004) ^[1] put forth that, there is a serious of threat to local/ indigenous clinical practices due to the generation gap, lack of interest of the upcoming generation, the increasing influence of modernization, deforestation for cash crops (Rubber in Tripua) due to anthropogenic activities and migration of the younger generations for the higher studies and modernization and leaving a gap in the cultural beliefs and practices of indigenous society signaling the need for serious efforts to create public awareness so that the appropriate measuring steps are taken to conserve the suitable environments required to protect the medicinal plants in the natural ecosystems. Younger generation frequently tries to relocate from their villages due to the significant economic changes. The main concept of this study is that native practices and information with respect to the manageable harvest and use of plant assets as medication ought to be archived and saved before they vanish from the earth.

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