

## Indigenous Knowledge and Ethno-medicine as an Effective Source of Treatment: A Study on the Karbis of Karbi Anglong, Assam

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**ABSTRACT** The healthcare system of the tribal people is immensely associated with their religious beliefs, along with the interference of soul, spirit and deity. Their daily livelihood is dependent upon a number of natural resources. In this regard, the traditional healthcare practice of the concerned people deserves special attention. The present study has been done on the *Karbi* tribal group of *Karbi Anglong*, Assam. The *Karbi* people had a strong belief on different supernatural powers and its impact on their health. Meanwhile, particularly in the cases of reproductive mother-child health, a number of faunal resources are also used by them. Thus a number of locally available plant and animal resources bear a special resemblance in the context of their traditional medical practices. It has the prime objective to reveal the relationship between traditional cultural practices, environmental resources and indigenous knowledge of the healthcare system among the *Karbi* people.

### INTRODUCTION

Every culture, irrespective of its simplicity and complexity, has its own beliefs and practices concerning diseases. Health and treatment are very much connected with the environment, particularly the forest ecology (Bhattacharjee 2015: 132). The healthcare system and traditional treatment are based on their deep observation and understanding of nature and environment (Chaudhuri 2003: 17-24).

Health has been defined in a number of ways. Dubos (1968) defined health as, “a *modus vivendi* enabling imperfect men to achieve a rewarding and too painful existence, while they cope with an imperfect world” (Bhattacharjee 2015: 23; Bhattacharjee et al. 2018: 22). The World Health Organisation (1948) defined health as, “a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity” (Park 2000: 12).

The concept of health, disease and treatment vary according to the culture of different communities and ethnic groups (Bhattacharjee 2015: 23; Bhattacharjee et al. 2018: 23). A traditional way of

treatment is inevitable among the simple societies, although modern treatment is applied in different circumstances. Traditional medicine can be stated as the sum total of all knowledge and practices, whether explicable or not used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experiences and observation (Bhattacharjee 2015: 133). Their traditional medicine is of various kinds like folk medicine, ethno medicine, Ayurveda, Sunani, Sidhha and nature care, which differ from each other in terms of tools, techniques, ideas and beliefs (Banerjee and Jalota 1988: 18-19). In medical anthropology, the examination of health issues extends to include knowledge, meaning, social behaviour and biology generally related to well being, suffering misfortune, life cycle and survival (Millard 1992: 3). Fabrega (1971), in a definition of medical anthropology has expressed that a medical anthropology enquiry will be defined as one, “that elucidates the factors, mechanisms and processes that play a role on or influence the way in which they respond to illness and disease. It also examines these problems with

an emphasis on patterns of behaviour” (Bhattacharjee 2015: 23; Bhattacharjee et al. 2018: 25).

Traditional medicine is not only limited to the arena of treating disease, but includes aspects of religion, socio-cultural and economic domains (Banerjee and Jalota 1988: 19). In this context, particularly in India along with the ethnic and cultural diversity, the folk medicine and indigenous knowledge of the healthcare system are quite variable from one another (Bhattacharjee 2015: 134). In this context local ecological and minor forest resources play a crucial role. Bagal and Nanda (2022: 180-185) had analysed in detail about the traditional usage of Non Timber Forest Products (NTFP), related to the livelihood securities of different ethnic groups in the Shivalik hill region of Jammu. Singh and Rai (2022: 135-144) studied in detail about the use of different wild edible fruits by the Bhotias of Niti valley in Uttarakhand. Rahman et al. (2021: 280) discussed in detail how NTFPs had shaped up the livelihood of the forest dependent communities of Bangladesh. Such resources were immensely important as a source of food, shelter, medicinal value, fuel, animal fodder and so on. Balasubramanian and Sangha (2021: 1) had analysed in detail how ecosystem services and indigenous knowledge systems have functioned in integration to preserve the biodiversity hotspot of the western ghat hills in India. Waslam and Quli (2017: 2184-2195) analysed the role of NTFPs in shaping up the tribal economy of Jharkhand. Kumar (2015: 387-404) had focused on the impact of NTFPs on food and livelihood security among the tribal groups of Dangs district in Gujarat.

The present study has been conducted to know about the traditional healthcare system of the Karbis of Karbi Anglong in Assam.

### Objectives of the Study

The present study is primarily focused on three important objectives:

1. To know about the concept of health and disease among the Karbis.
2. To know about different locally available floral, faunal resources and their importance in the traditional healthcare practices of the concerned people.
3. To find out the importance of traditional healers among them and how far the tradi-

tional system of medicine has become effective as well as successful among the studied Karbi people.

### METHODOLOGY

The present study was primarily based on intensive empirical field work. The villages taken for study were selected from all the eleven blocks of the district. Two villages were taken from every developmental block. As a result, twenty-two villages were taken for the study. It can further be divided into the villages, which are nearest to the district headquarter, the district, which are far from the district headquarters and the districts, which are farthest from the district headquarter. Three types of the villages were selected for the study. Type 1 are villages near the urban areas with better access to Western medical facilities, that is, the villages under the district headquarter Diphu sub-division. Type 2 are villages far from the district headquarter Diphu, that is, the villages under Howraghat sub-division. Type 3 are villages located at the farthest distance from the district headquarter Diphu, that was the villages located in Hamren sub-division. It can be represented through Table 1.

Among the total 22 selected villages, there were 541 Karbi Families. The total sampling method has been applied and all those families were selected from the study. Among the total studied families the total populations was 3,052 and among them 1,528 were male and 1,524 were female, the sex ratio was 997.

There were four divisions of the total field work. It was done in different phases as per the requirement (Bhattacharjee 2015: 25).

**Division 1:** Foremost, the general observation of the village was done along with the completion of the Preliminary Census Schedule (PCS) to know the demographic composition of the studied people (Bhattacharjee et al. 2018: 23).

**Division 2:** Case studies were taken on the concerned families. It was focused on the issues of their historical background, traditional occupational pursuit, present economic pursuit, indigenous knowledge of traditional healthcare practices, and magico-religious healing practices (Bhattacharjee et al. 2018: 23).

**Division 3:** Detailed open structured interviews were taken from the key informant, eldest person of the settlement, leader of the traditional political organisation of the concerned society, and

**Table 1: Selected villages for the study**

<i>Sub -division</i>	<i>Blocks</i>	<i>Name of the selected villages</i>	<i>Distance from the district headquarter</i>	<i>Total villages</i>
Diphu	1 Lumbajong	Kania Ronghang Arong	12 km	2
		Rukasen	5 km	
	2 Howraghat	Cheru Ronghang Arong	70.5 km	2
		Rabising Rongpi Arong	79 km	
3 Samelangso	Jem Engti Arong	108 km	2	
	Etpo Taro Arong	92.7 km		
4 Langsomepi	Wai Bini Engti Arong	71 km	2	
	Lokbok Rongpi Arong	69 km		
	Kuligaon Tokbi Arong	58.8 km		
Bokajan	1 Bokajan	Humsing Tisso Arong	62 km	2
		Mohon Engti Arong	115.8 km	
	2 Nilip	Bura Hanse Arong	120 km	2
3 Rongmongve	Mukur Bey Arong	139 km	2	
	Mukrang Terang Arong	132 km		
Hamren	1 Rongkhang	Tengkeralangso Kramsa Arong	110 km	2
		Mensing Kro Arong	88 km	
	2 Amri	Samsing Taro Arong	214 km	2
		Senot Rongphar Arong	220 km	
3 Chinthong	Harlongjove Ronghang Arong	140 km	2	
	Uzandonka Teron Arong	135 km		
4 Socheng	Mansing Tisso arong	170 km	2	
	Mukindong Keap Arong	176 km		
Total Blocks	11	Total villages studied		22

*Source:* Field Study

administrative authority related with the studied settlement. It focused on the relevance of locally available floral and faunal resources in their traditional healing practices, concept about different benevolent and malevolent spirits related to their health aspects (Bhattacharjee et al. 2018: 23).

**Division 4:** The data was collected to find out the interaction between cultural and environmental dimensions of healthcare practices among the *Karbi* people (Bhattacharjee et al. 2018: 23).

## FINDINGS AND DISCUSSION

Multifarious significance of forest and natural resources, particularly related to reproductive mother-child health was discussed by Bhattacharjee (2021). The studies of Bagal and Nanda (2022), Singh and Rai (2022) had also focused on the role of natural resources and the livelihood of concerned people.

### Traditional Karbi Notion of Illness

The studied *Karbi* people believed in multiple deities and regarded all objects on earth as hav-

ing divinity or possession of supernatural power and therefore worship hills, mountains and rivers primarily. They further believed that diseases are caused by different malevolent spirits and by appeasing the benevolent spirits it can be redressed. They regarded both binary spiritual concepts as possessing divinity, which can harm as well as bring peace and prosperity to the people such as good health, wealth and favourable weather particularly. They worshipped household deities called *Hem Angtar* and these deities are propitiated annually (Bhattacharjee 2015: 135-136). There are deities, which are propitiated as and when required are called *Habit ase* (non-household Gods). The disease condition or the notion of illness was being referred to by the *Karbis* as *se kelong*. When a person falls ill, for example, after coming from forest, the household members attributed the cause due to encounter of evil spirits and initiates propitiation of the spirits (Bhattacharjee 2015: 137). In case the patient did not respond to normal traditional treatments, the household members seek the help of a wise man to ascertain the cause of the illness. The wise man through divination used to identify the deity/spirit

responsible for the illness and suggested certain rituals for the recovery of the patient. This act of divination was called *Sang Kelang* (Bhattacharjee 2016: 417). The practice was more prevalent in remote areas where modern medical facilities are a far cry. Sickness, if long continued or severe, was frequently attributed to witchcraft (*maja*) and the patient was said to be *maja kelong*, that is, witchcraft has got hold of him (Bhattacharjee 2016: 417).

Traditional healthcare practices of the Karbis included both local and oral applications, and rituals to cure host of diseases like anaemia, muscular inflammation and pain (analgesia) particularly. *Keso* or illness was also called *se-kelong*, a generic term for contacting illnesses and its treatment was called *se-kelang*. *Se-kelang* therefore, involved numerous sacred healing incantations, chants, prayers and rituals and in some cases administration of plant and animal products (Bhattacharjee 2015: 137). The rituals were widely divided into *kapherem* and *karkli*. In *kapherem*, cure for certain *keso* (pain or illness) is sought by performing healing chants involving external application of saliva of the mouth (*kehi/kangthok*) and mild blowing of air (*kebut*) on the afflicted portion of the body. *Kapherem* is specifically performed for the cure of numerous pain or *keso* such as *Ingki Angmi* (toxins of caterpillars), *Bap Ase*, *Ingthum* (boils/furuncle), *Methan Kekor* (dog bite), *Pok Avur* (epidemic of stomach disease), *But Pharo* (acute stomach ache), *Chor Kedong* (thorn inflicted injury), *Me Kapherem* (burn), *Inghai* (lymphadenitis), *Han Kangri* (vegetable poisoning), *Sor Kapherem* (acute pain), *Mek Avur* (epidemic of eye disease), *Chainong a-But* (acute stomach pain), *Thengkur* (poisoning) and *Phurui Kangthok* (snake bite), to cite a few (Bhattacharjee 2015: 138). In *kapherem*, blood-sacrifice was generally not involved. In extreme cases when the *keso* did not respond to *kapherem*, blood-sacrifice or *karkli* was performed to restore the good health (Bhattacharjee 2015: 138). Philosophically, therefore, in traditional Karbi healing system, blood-sacrifice is not the first option (Bhattacharjee 2015: 27; Bhattacharjee et al. 2018: 27).

In *karkli*, a priest resorted to reading the intestine and liver of sacrificed chickens, goats or pigs. In the studied areas, the Karbi people used a number of locally available plant resources to redress their different ailments. The collection of

such resources, its purification and further the method related with the preparation of medicine from them, were the integral part of their cultural tradition, customs and taboo (Bhattacharjee 2015: 139). Meanwhile, fish was symbolically used in almost all Karbi rituals and it played a very crucial role in the traditional healthcare practices of the Karbi people (Bhattacharjee 2015: 28; Bhattacharjee et al. 2018: 27).

### Cause of Different Diseases and Ill Health Conditions

The Karbi people, among whom the study was conducted, used to believe that the cause of any disease might be natural as well as supernatural (Bhattacharjee 2015: 23). The natural cause of disease was pathologically diagnosed. Supernatural diseases, on the other hand, were something that cannot be diagnosed pathologically, and it required some rituals or divination. The studied people considered both natural and supernatural causes responsible for different diseases, ill health conditions and allied misfortunes as mentioned in Table 2.

The natural causes responsible for different diseases are mentioned in Table 3.

Further, it can be noted that the studied Karbi people possessed a strong belief that different supernatural agencies were responsible for a number of diseases, ill health conditions and allied misfortunes (Bhattacharjee 2021: 16). Such issues are mentioned below in brief:

1. *Lamki lamdon*: It is believed that whenever a family member suffers from several diseases and misfortune, the necessity to appease their house deity is required. Again, divination is done at the earliest on the suspicion of such misfortunes. It is through the result of divination, the *Kurusar* for performance of the rituals is discussed and done at the earliest.
2. *Ke lang un e*: It usually meant that someone casted an evil spell on an individual or the family as a whole. Different ailments like nightmare, startle, hallucination, fever, feeling low, and also misfortunes occur in the family. *Kelang un eh* can also be represented by various diseases. Thus the diagnosis sometimes takes long, as some of the family treats the patient to medicines thus failing

**Table 2: Cause of diseases, ill health conditions and allied misfortunes**

Sub-division	Natural		Supernatural		Total	
	Numbers	Percentage	Numbers	Percentage	Numbers	Percentage
Diphu	775	68.11	364	31.89	1139	100.00
Bokajan	513	59.41	484	40.59	997	100.00
Hamren	329	35.83	587	64.17	916	100.00
Total	1617	52.98	1435	47.01	3052	100.00

Source: Field study

**Table 3: Types of diseases due to natural cause**

Sub-division	Different diseases							Total
	Malaria	Nausea	Cough, cold and fever and dysentery	Diarrhoea and	Body ache	Jaundice	Skin infection	
Diphu	121 (15.61%)	98 (12.64%)	179 (23.09%)	165 (21.29%)	72 (9.29%)	81 (10.45%)	59 (7.61%)	775 100
Bokajan	84 (16.37%)	32 (6.32%)	101 (19.68%)	79 (15.39%)	83 (16.17%)	71 (13.84%)	63 (12.28%)	100 100
Hamren	34 (10.33%)	14 (4.25%)	71 (21.58%)	105 (31.91%)	19 (5.77%)	57 (17.32%)	29 (8.81%)	329 100
Total	239 (14.78%)	144 (8.90%)	351 (21.70%)	349 (21.58%)	174 (10.76%)	209 (12.92%)	151 (9.33%)	1617 100

Source: Field study

to perform divination on time. It is usually treated by the Magico religious healers.

3. *Karjong keso*: The Karbis were of the notion that when someone in the family falls ill after their journey from another place or from the forest, mountains or after bathing in an unfamiliar river or lake particularly, it is believed that an evil spirit might have captured the soul or maybe an evil spirit has entered their body. It was cured by performing *Se karkli* like *Karjong ase*, *vur kamatha*, *volok ase*.
4. *Bap kecholong*: One of the most dreaded and feared sicknesses was *Baap kecholong*. It was believed that a poison was given to a person. The poison was called *Baap*. *Baap* was of two types, one was *akereng* and one was *akethi*, which meant living and nonliving, respectively. It caused cough, stomach upset, nausea, weakness, throat pain, even blood vomit. It was cured by *Se karkli and kapherem*.

### Method of Treatment

The Karbis had a strong faith in the evil eye, evil wind and charming arrow. To redress the

malevolent effect of such evil forces a number of magico-religious healing practices were performed by the magico-religious practitioners of the studied area. Even the elderly members of the concerned community had knowledge about different magico-religious healing practices (Bhattacharjee 2015: 26; Bhattacharjee et al. 2018: 29). The method of treatment was categorised into both traditional healing and Western medicine, which are represented in Table 4.

For various ailments and misfortunes the Karbis consulted their traditional method of healing both for the diseases occurring naturally and supernaturally. The types of traditional healing are categorised in Table 5.

From Table 5, it can be analysed that the studied people had chosen traditional methods of treatment rather than Western medicine. The traditional method of healing was categorised into traditional medicine man, magico-religious healing and indigenous knowledge by own. Out of the total 3,052 population, 2,367 people (77.55%) consulted the traditional method of treatment. All the supernatural causes of disease were consulted under the magico religious healing. The natural

**Table 4: Method of treatment**

Sub-division	Traditional healing	Western medicine	Total
Diphu	674 (59.17%)	465 (40.82%)	1139 (100%)
Bokajan	843 (84.55%)	154 (15.44%)	997 (100%)
Hamren	850 (92.79%)	66 (7.20%)	916 (100%)
Total	2367 (77.55%)	685 (22.44%)	3052 (100%)

Source: Field study

**Table 5: Types of traditional healing**

Sub-division	Traditional medicine man	Magico religious healing	Indigenous knowledge by own	Total
Diphu	198 (29.37%)	364 (54.00%)	112 (16.61%)	674 (100%)
Bokajan	188 (22.30%)	484 (57.41%)	171 (20.28%)	843 (100%)
Hamren	144 (16.94%)	587 (69.05%)	119 (14.00%)	850 (100%)
Total	530 (22.39%)	1,435 (60.62%)	402 (16.98%)	2367 (100%)

Source: Field study

causes of disease such as cough, jaundice, malaria and nausea specifically were treated by the traditional medicine man and indigenous knowledge by self. Out of the 2,367 people, 22.39 percent consulted the traditional medicine man, 60.62 percent consulted the magico religious healers and 16.98 percent treated using indigenous knowledge on their own.

#### Different Floral and Faunal Resources Related to Ethno-medicines

The *Karbi* people used various kinds of leaves and herbs from their natural surroundings and forest to cure themselves from different diseases and ill health conditions (Table 6).

The locally available animal resources were widely used by the *Karbis* as ethno medicine, which are described in Table 7.

#### Use of Fish as a Source of Ethno-medicine

In the traditional livelihood of the *Karbis*, almost every ritual was associated with the social and cultural activities. The rituals were also associated with different types of treatment and healing practices. Some rituals were associated with the precautionary measures. The rituals were performed in the courtyard, at the place of agriculture, in the neighbouring forest mainly. Fish was also used during several rituals, and it was an integral part. During most of the ritualistic perfor-

mances, *Beng* (the tail of a fish, or the entire fish) was used in propitiating the deity.

Fish were caught from the pond or rivers on the day ahead of the ritual and were taken home (Bhattacharjee 2015: 26; Bhattacharjee et al. 2018: 25). The fish was then boiled without any ingredients (Bhattacharjee 2015: 26; Bhattacharjee et al. 2018: 25). The boiled fish was wrapped in a plantain leaf and tied with strands of banana midrib (Bhattacharjee 2015: 27; Bhattacharjee et al. 2018: 25). The process of preparation for the ritual was called as *beng*. *Beng* was offered at the *Dovan*, which was the altar where all the offerings were made to the deities. *Beng* was offered in rituals like *Peng*, *Chojun* and *Rongker* in particular (Bhattacharjee 2015: 27; Bhattacharjee et al. 2018: 25). At the onset of the ritual the *Kurusar* honours their ancestors by offering *Hor lank* and *Beng* (Bhattacharjee 2015: 27; Bhattacharjee et al. 2018: 25). The ritual was said to be done to inform their *Kuru* that the ritual which was being performed was acquired from them and seek for their blessing and for the peaceful conduction of the ritual.

#### *Nihu kachiri* (Psychological Disorder)

The *Karbi* society was organised with a network of kinship relations. The maternal uncle holds a high prestigious status in the society. According to the tradition it was a custom for the swaster's (after marriage) to pay reverence to their brothers.

**Table 6: Floral resources to prepare different ethno medicines**

<i>S. No.</i>	<i>Local name</i>	<i>Common name</i>	<i>Parts used</i>	<i>Uses</i>
1	<i>Hanso-so</i>	Ginger	Rhizomes	It was commonly suited for cough and cold, fever, headache, sprained joints, dysentery, constipation and indigestions.
2	<i>Hanjor</i>	Mejenga	Barks, fruits and seeds	Its oil helped as a remedy for toothaches. Its oil was used as an antiseptic, disinfectant and deodorant.
3	<i>Tengnang arong</i>	Indian Iry Rue	Fruits, barks seeds and roots	Fruits were used as seasoning in curries in order to add a special flavour. The bark and leaves were used for illnesses such as diarrhoea, urinary problems and dyspepsia.
4	<i>Vorek hanso</i>	Wild ginger	Leaves and bulbs	It was stomachic, as it improves the functions of the stomach and helped in increasing appetite. It was also carminative and stimulant. It was helpful for people suffering from diarrhoea and in healing fresh cuts.
5	<i>Ajor Hanso</i>	Ginger	Rhizomes	It was helpful for illnesses like piles and gonorrhoea. It was purely antiseptic, digestive as well as inflammatory
6	<i>Phri langdung</i>	Wild ginger	Flowers and roots	It was useful for diarrhoea and colic. The flowers and roots were used as vegetables. Its flowers were best suited for ailments such as stomach ache, toothache, cough and asthma.
7	<i>Thung thung</i>	Ahoi	Leaves bark and woods	The paste of the leaves and wood was used to fight against illnesses like malarial fever. The decoction of the bark is helpful for chest pain.
8	<i>Hanso ke-ik</i>	Black ginger	Rhizomes, oil	It was mostly useful for cosmetics. Its paste was applied on bruises, rheumatic pains and mainly used as an antifungal.
9	<i>Parok hanthor</i>	Bur weed	Leaves	It was a good diuretic, powerful diaphoretic and sedative mostly beneficial for ulcer oriented diseases. It was also useful for blood pressure and respiratory problems.
10	<i>Bengvoi ke er</i>	Hairy Spurge	Leaves, flowers, barks and seeds	It was helpful in throwing out worms from the body. It helped in curing dysentery, diarrhoea, fever, piles, leprosy, headache, skin disease, boils, ulcers, wounds, increase the secretion of mother's milk and bronchitis.
11	<i>Bengvoi ke lok</i>	Hairy spurge	Leaves, flowers, barks and seeds	It was used to expel worms from the body, dysentery, diarrhoea, fever, piles, leprosy, headache, skin disease, boils, ulcers, wounds, increase the secretion of mother's milk and bronchitis.
12	<i>Repi chinghum</i>	Edible stemmed wine	Whole plant	It filters and purifies the blood and is useful in cuts and fractures.
13	<i>Thengmerok</i>	Karakholi	Leaves	Leaves were used in the treatment of coughs.
14	<i>Hipi etso</i>	Winter cherry	Leaves, fruits, seeds and roots	It was helpful in restoring loss of memories and used in the cases of nervous exhaustion. It was used as sedative, astringent, tonic and stimulant.
15	<i>Mehek</i>	Verbinum	Leaves	The leaves were used to purify blood and cure indigestion.
16	<i>Vorek abap</i>	Indian wild pepper	Leaves, flowers, fruits, barks and roots	It was useful in treating illnesses such as headache, fever, swelling, pain, sprains, rheumatism, enlargement of spleen, toothaches and often used as a painkiller.
17	<i>Birhu</i>	Raghumola	Leaves	It was useful for curing fever, blood pressure and spleen.

**Table 6: Contd...**

<i>S. No.</i>	<i>Local name</i>	<i>Common name</i>	<i>Parts used</i>	<i>Uses</i>
18	<i>Thepak</i>	Purple vetch	Whole plant	It is used to decrease and get rid of fever, and also gives tone to the stomach, acts as an antiseptic and helps in abdominal bleeding during menstruation.
19	<i>Mirkungri</i>	Indian valeriana	Flowers	It was useful in neurosis and epilepsy. It was also useful in hypnotic and spastic disorders like cholera.
20	<i>Hanmowaso</i>	Kachi doi	Entire plants	It was used as painkillers.
21	<i>Mirdan</i>	Orchid	Stems	It was used as a remedy for secondary syphilis, scorpion sting and rheumatism. It was also useful to cure the disease of the nervous system.
22	<i>The nem ui</i>	Voavanga	Fruits	The drug from the fruit was extracted and used as a remedy for scorpion sting and consumed with hepatic congestion.
23	<i>Han bijuli</i>	Purple fleabane	Whole plant	Root decoction was useful for relieving and reducing colic pain. The flowers were favourable for conjunctivitis.
24	<i>Nonthe athe</i>	Agora	Leaves, flowers and roots	It was helpful in inveterate cases of gonorrhoea.
25	<i>Nong nong arikang</i>	Thunberg	Leaves and roots	Its roots were helpful in reducing toothaches. The decoction of leaves was used for stomach constipation.
26	<i>Thengkur patilong</i>	Thunberg	Roots	It was helpful in treating ailments such as dysentery, stomach pain and fever.
27	<i>Mirthere ake-et</i>	Yellow coriander	Roots and root bark	Roots were used in haemorrhage, ulcers and also in leprosy.
28	<i>Kuru</i>	Beleric	Fruits	The dry and fully grown fruit was useful for curing diarrhoea, dysentery and rheumatic swellings.
29	<i>Arjun</i>	Arjun	Fresh leaves and barks	It was used in the treatment of pneumonia, dysentery, wounds, leprosy, swollen mouth, tongue and gums.
30	<i>Tanteli</i>	Tamarind	Leaves, fruits and seeds	The leaves were helpful in treating fever, ulcers, and jaundice. Its seeds were used to treat dysentery, burning sensation, dizziness, diabetes, chronic ulcers and diabetes.
31	<i>Mir kadomphui</i>	French marigold	Flower	The juice of the flower acts as a remedy to cure bleeding piles. It was also used as a blood purifier.
32	<i>Long</i>	Long	Clove	It acts as a remedy for vomiting, digestive problems, coughs and it also helps in reducing toothaches.
33	<i>Chiri theso</i>	Saura	Branches and roots	The roots were useful to cure unhealthy ulcers. It was also used for toothaches, leprosy, tuberculosis, piles and elephantiasis.
34	<i>Arlong athe</i>	Velvet leaf	Roots and bulbs	It was often used as a medicine for bone fracture.
35	<i>Siming</i>	Amora	Leaves, flowers, fruits, gums and barks.	It was used in treating certain ailments such as stomach ache, rheumatism, fever, revive taste, treat dysentery, cholera, ringworm and diarrhoea.
36	<i>Hipi kumbong</i>	Nightshade	Entire plant	The plant was used as a remedy for treating pain in the chest, bronchitis, sore throat, cough, asthma, fever and muscular pains.
37	<i>Theso kumbong</i>	Indian nightshade	Entire plant	It was used as medicine for treating liver and spleen enlargement, colic flatulence, asthma, dry cough and chronic febrile.
38	<i>Pharchingki</i>	Black nightshade	Entire plant	It was useful for curing dysentery, stomach problems, ulcers, fever and skin diseases.



**Table 6: Contd...**

<i>S. No.</i>	<i>Local name</i>	<i>Common name</i>	<i>Parts used</i>	<i>Uses</i>
39	<i>Theso keho</i>	Powason berry	Fruits and roots	It was mainly used as medicine for asthma, dry cough, bronchitis, parturition, chronic febrile infections, dropsy and constipation.
40	<i>Nempo</i>	Sesame oil plant	Seeds and oil	It was commonly used in treating piles, dysentery, scorpion stings, constipation, cough, aphrodisiac, dysmenorrhea and amenorrhea.
41	<i>Bi-jangnai</i>	Country mallow	Leaves and roots	Roots were given in a mixture in healing nervous and urinary disease. It also helps in treating disorders of the blood and bile.
42	<i>Hepi keho</i>	Tita bengena	Leaves, roots and fruits	The leaves were used as an application for piles and its roots aphrodisiac.
43	<i>Ruikangtang</i>	Chop chini	Roots	It was used in treating diseases like syphilis, leprosy, kidney and bladder diseases, paralysis, headache and convulsion.
44	<i>Mir Phurui</i>	Bowstring Hemp	Roots	It promotes removal of mucous secretion from the bronchial tubes. It gives tone and vitality to the body.
45	<i>Ingki-an</i>	Castor oil plant	Leaves, seeds, oil and roots	Castor oil was used in the treatment of joint pains. It was also used in making contraceptive jellies.
46	<i>Pharho theso</i>	Devil's pepper	Stems and roots	It was helpful in the treatment of dysentery and stomach pain.
47	<i>Sopreem ke-ik</i>	Guava	Leaves and fruits	It was mainly useful for teeth, stomach pain, dysentery and cough.
48	<i>Mir Nimso</i>	Rajani gandha	Essential oil, bulbs and flowers	It was mainly used for the treatment of pimples and gonorrhoea.
49	<i>Delap</i>	Madhu sheleng	Whole plant	It was useful to treat bruises, piles and inflammation. It was also helpful for female weakness.
50	<i>Bikron Okso</i>	Jangali Pan	Leaves	It was used for the treatment of fever, cough and vomiting.
51	<i>Jok-an</i>	Tita-phul	Leaves, flowers and fruits	It helps in curing chronic bronchitis, asthma and dysentery, haemoptysis, painful swellings and neuralgia, scabies and malaria fever.
52	<i>Ai-pokang</i>	Pipoli	Fruits and roots	It was useful in treating abdominal pain, asthma, bronchitis, fevers, leucoderma, urinary discharges, tumour, piles, inflammations, leprosy, insomnia and jaundice.
53	<i>Vothung mekbop</i>	Indain sorrel	Whole plant	It was considered to be useful for cooling, refrigerant and antiscorbutic, appetising and fever.
54	<i>Nopak ban</i>	Trumpet flower	Leaves, barks, flowers, fruits, seeds and roots	It was used in the treatment of smallpox, fever, epilepsy, miscarriage, pimple, chest pain, cholera and headache.
55	<i>Mirido Chumprak</i>	Prickly pear	Whole plant	The juice of the plant was applied to indolent ulcers and in urinal diseases.
56	<i>Tulahi</i>	Shrubby basil	Leaves and seeds	It was useful in treatment of rheumatism and gonorrhoea.
57	<i>Dettok arong</i>	Nutmeg	Gum	The gum was used for sore mouths.
58	<i>Thengsakso</i>	Curry leaf tree	Leaves, barks and roots	It was used in the treatment of diarrhoea, dysentery, hyperpiesia, leprosy, leucoderma, leprosy and foul ulcer.
59	<i>Mir charne</i>	Iron wood	Flowers, woods, buds, fruits, seeds, roots, barks	It was mainly used as medicine for gastric, bronchitis, scabies, bleeding piles and dysentery.
60	<i>Ruiloru</i>	West Indian arrowroot	Bulbs	It was useful for the treatment of urinary diseases and for increasing mother's breast milk.
61	<i>Lopong birik</i>	Sweet basil	Leaves	It was helpful for the treatment of eye diseases, headache and gastric.
62	<i>Tipli</i>	Barmuda grass	Whole plant	It was useful in curing bleeding piles and leucorrhoea.

**Table 6: contd...**

<i>S. No.</i>	<i>Local name</i>	<i>Common name</i>	<i>Parts used</i>	<i>Uses</i>
63	<i>Bab Jangthu</i>	Citronella Grass	Oil	It was used for throwing out gases, lowering the body heat and treating insomnia.
64	<i>Okhi-siming</i>	Indian Olive tree	Dried seeds, fruits and woods	It was useful in curing asthma, colic, rheumatism, dysentery and diarrhoea.
65	<i>Bap bong-nai</i>	Germany bon	Leaves	Helps in healing stomach diseases and stop bleeding in fresh cuts.
66	<i>Ingthum</i>	Indian ivy	Leaves, fruits, barks, roots	Helpful in curing leprosy and bladder infection.
67	<i>Pran-pri</i>	Thekera	Fruits	It was useful for dysentery.
68	<i>Han-thu</i>	Bhoja guti	Leaves, roots	It acts as medicine to purify and filter blood.
69	<i>Hanserong</i>	Bimlipatam jute	Leaves, flowers, fruits, pods	It was useful for the treatment of fever, diarrhoea, urinal diseases, leprosy, and bronchitis.
70	<i>Hanserong ke-er</i>	Rozelle hemp	Leaves, fruits and seeds	It was useful to control and stop fever, dyspepsia and debility.
71	<i>Chuselok</i>	Indian licorice	Leaves, seeds, roots	It was helpful for the treatment of colds, cough and leucoderma.
72	<i>Thepli</i>	Bael tree	Leaves, fruits, barks, seeds, roots	It was used in the treatment of bronchial asthma, melancholia, palpitation of heart and stomach pain, indigestion, dysentery and chronic diarrhoea.
73	<i>Tara</i>	Tora	Rhizomes	Used in the treatment of headache, lumbago, rheumatic pains, sore throat, chest pain, diabetes, kidney diseases.
74	<i>Dido</i>	White Amaranth	Whole plant	It was useful in healing snake bite and scorpion stings.
75	<i>Dido sudo</i>	Prickly Amarnath	Whole plant	It was used in the treatment of burning sensation, hallucinations, leprosy, bronchitis, leucorrhoea, haemorrhoids, boils, burns, nausea, appetiser, piles, urinal diseases and insomnia.
76	<i>Ingat arong</i>	Monkey jack	Barks and seeds	Helpful in treating boils, rheumatism and hernia.
77	<i>Hipi rongman</i>	Deadly nightshade	Leaves, roots and branches	It was used as an external application to relieve pain, and internally for checking excessive perspiration, for the relief of cough.
78	<i>Sibu</i>	Romhom	Leaves	Used in snake bites, insect bites and cat bites.
79	<i>Pharkong</i>	Semal	Flowers and gum	It is an aphrodisiac and often used in the treatment of digestive disorders, pimples, anaemia, asthma, chicken pox, cholera, gonorrhoea and leprosy.
80	<i>The-kek</i>	Lentil	Pods with the seeds	It was helpful to emit worms from the body and helped cure the early stages of leprosy, ulcers, piles, cough, gas in the stomach and intestine.
81	<i>Henru ke-er</i>	Taru Yam	Roots and tubers	It was mainly used as ear drops, and helps in healing painful parts in gout and rheumatism, piles, dropsy and constipation.
82	<i>Birikso</i>	African chilli	Fruits and leaves	It was useful to prevent cancer in lungs and in the treatment of tonsillitis.
83	<i>Loring</i>	White Guava	Leaves, flowers, fruits and barks.	It was used in the treatment of face swelling, fistula, eye diseases, cold and cough.
84	<i>Kai Krup</i>	Kavai fruit	Leaves, barks, fruits and roots	It was useful for the treatment of diabetes, chronic diarrhoea, asthma, skin diseases and gonorrhoea.
85	<i>Pherklum</i>	Nefafu	Leaves	Used for the treatment of high blood pressure, dysentery, abdominal pain and heart disease.
86	<i>Hampur</i>	Satkora	Fruits	It was used in digesting food and treating stomach pains.
87	<i>Tharmit kelok</i>	Wild Turmeric	Rhizomes	It was useful in treating sprains and bruises.
88	<i>Henru ke-ik</i>	Cocoyam	Whole plant	It was used to control blood pressure. It was also helpful to increase the appetite and enlarged spleen.
89	<i>Plimplam</i>	Elephant fruit	Fruits, barks and leaves	It was used to cure fever, cough, dyspepsia and bronchitis.

Source: Field study and Bhattacharjee 2021: 13-29

**Table 7: Faunal resources to prepare different ethno medicines**

S. No.	Local name	Common/ Scientific name	Disease/ Ailments	Parts used	Method of application
1	<i>Kungchirui</i>	<i>Eel</i>	Anaemia	Blood and meat	It was boiled, while sometimes raw blood was consumed
			Weakness	Meat	Cooked and consumed
2	<i>Nakur</i>	<i>Catfish</i>	Weakness	Whole fish	Boiled and eaten with rice
3	<i>Ok Nujung</i>	<i>Anguilla bengalensis</i>	Rheumatism	Fats of the fish	The fats were used as ointment and applied on the affected area.
4	<i>Ok Nutun</i>	<i>Labeo pangusia</i>	Weakness/dizziness	Whole fish	Boiled fish was consumed
5	<i>Seketa</i>	<i>Wallago atu</i>	Liver	Whole fish	Boiled fish was consumed
6	<i>Tengkera</i>	<i>Mystus sp.</i>	Pox	Whole fish	Cooked and consumed
7	<i>Puti</i>	<i>Puntius sp.</i>	Night blindness	Head	Cooked head was consumed
8	<i>Chehe</i>	<i>Crabs</i>	Eyes	Whole part	It was cooked and consumed
9	<i>Chupi</i>	<i>Water sails</i>	Eyes	Flesh	It was cooked and consumed

Source: Field study and Bhattacharjee 2021: 13-29

*Nihu kachiri* was a kind of psychological disorder. Among Karbis it was believed that whenever a child does things, which were unusual in nature, they were believed to be suffering from *Nihu kachiri*. The symptoms varies widely, example, a child after learning to walk refuses to walk again, a teenager found of eating their own mucus, a person keeps plucking their own hair, a person always biting their own finger nail, a person biting their own knees and elbows, a child losing its appetite, hallucination mainly. If any symptoms among the above mentioned were found, the family immediately performs a divination called *Sang kelang*. Then, if it was found to be the case of *Nihu kachiri*, they were supposed to perform a ritual called Ong *Nihu kadam* commonly known as *Nihu kadam*.

There were three stages of *Nihu kadam*. *Nihu* literally means maternal uncle. In this ritual the family along with the patient goes to the maternal uncle's house. They carry Banta, Bongkrok, Hormai, Tuman (which is a dried fish) and food items like different meat and vegetables. On the other hand, the maternal uncle buys clothes for the patient. If it was a male they normally buy a white shirt and if it was a female a white Pekok (traditional female dress of the Karbis) and along with that a cloth of their desire was also purchased.

After reaching the maternal uncle's house, they sit down facing each other for *chihut-chiput*. It takes place between the father of the patient and the maternal uncle. After the *chihut-chiput* a rice ball was fed to the patient by the maternal uncle along with the Tuman for five times in case

of female and six times in case of male. After feeding, a brass ring was attached with hon-kevai and was tied as a necklace on the patient, and the clothes, which were bought by the maternal uncle were given to the patient. It was followed by a feast thereafter.

During the ritual of *Nihu kachiri*, there used to be conversation between the father of the patient and the maternal uncle. The conversation was done in idioms and phrases called as *Lamlir*. The conversation was a part of the ritual, it goes as follows.

"*Ahut wasi ahut Ako, bamonpo asomar korte jirkle bang bangpli*"

1. *Kave Chicheso,*
2. *Kwereng Chicheso,*
3. *Kache Chicheso lapen*
4. *Binong Jangreso (Binongvopo)*

There were three stages of the ritual. In the first stage they put the bottle of liquor and *Bongkrok* in front of the maternal uncle. The maternal uncle then asks them why they placed the bottle in front of them, and the father of the patient then replies that your nephew/niece had been unwell and was not able to eat properly (the disease or disorder related to the patient). Thus they came to the maternal uncle with respect and thus gave him a bottle of liquor and *Bongkrok*.

In the second stage the maternal uncle then asks if they had performed *Sang Kelang* and if it was done, did they confirm it again as it might be another reason for the disease or disorder. The father of the patient replies that the rituals of *Sang kelang* have already been done and also the *Sang kelang* to confirm it has also been done.

In the third stage, the father of the patient exchanges words with the maternal uncle of his child and tells him they have come to seek their blessing as their son/daughter was suffering from some supernatural activities and was not normal, so they seek to come before the maternal uncle and blessed him and also feed the patient balls of rice. The sun, moon and ancestors have been witness to them being families since long. So they seek their blessings and then they exchange chants called as *Kepatam* and followed by the ritualistic ceremony.

### Role of the Traditional Medicine Man

The traditional medicine man was the one who had the knowledge to make medicines from different plants, herbs or even from the parts of different animals and fishes. Among the Karbis also the concept of "Traditional Medicine Man" was found. Among the Karbis the traditional medicine man did not only gather plants and herbs to make medicine, but also most importantly the chanting of holy words called *Porom*, were uttered while preparing in most cases. Sometimes apart from plants, herbs and animal products the traditional medicine man also uses oils, minerals, mud, etc. The applications and dosage differs according to age and gender.

The traditional medicine man had a very significant role in treatment of various diseases as well as redressing different types of ailments of the studied people. The traditional priest called *Kurusar* also makes medicines from different locally available herbs, shrubs, spices and also from animal products. The process of making medicine was called *Keseng* and the ingredients were called *Aseng*. All the *Kurusar* were not the traditional medicine men and all the traditional medicine men were not *Kurusar*. It was also found that some women were experts in making medicines for different types of ailments. Among the Karbis it was found that some of the medicines were cooked as vegetables and were consumed with rice during lunch and dinner. The traditional medicine man learned the art of making medicines from their parents or *Kurusar* or an expert in the field called as *Keseng thek a Kuru*. Some of the ingredients for the medicine were foretold in the dreams. The special chants or incantations, which were uttered during the making of some medi-

cines were learned from the *Kurusar*. The traditional medicine man across the studied villages had no uniform price for their medicines. The price of the locally made medicine ranges from INR 5 to INR 100. Sometimes the traditional medicine man did not charge any fees and sometimes they exchanged the medicines for vegetables, meat or any other kinds or even a bottle of locally brewed liquor.

The Karbi people among the studied villages had high belief in their traditional medicine man, and they respected them and consulted with them for different ailments. During the study it was found that the people were dependent on the traditional medicine man as they found the medicine from the Western medicine very expensive and moreover they had to travel very far to reach the nearest health centres. The doctors appointed in the sub-centres and hospitals were mostly from outside the community, thus language was another obstacle in communication as the *Karbi* people living the villages very far from the District headquarters were not acquainted with languages other than their mother tongue, which was Karbi. The medical professionals and doctors from the health centres were also not versed with the local language thus it became very difficult to discuss their ailments. For these reasons the Karbi people among the studied villages had a strong dependence on the traditional medicine man.

### Payment Method

The payment to the traditional medicine man was not uniform as found among the studied population. Their payment varies from the different types of religious performance to different *Kurusar*. The material required for different rituals like *Vur Kamatha*, *Se Karkli*, *Rongker*, *Chojun*, in particular were collected from the surrounding and nearby forest. The animals used for sacrificing during rituals like goats, pigs, fowls specifically, were reared at home. While some of them purchased from the market or from their relatives and neighbours too. There was no fixed monetary payment, and it also varied from one place to another. The payment to the *Kurusar* (religious performer) was paid according to their own desire. The traditional medicine man on the other hand, had different rates for different types of

medicines. The price of the medicine depends on the effort made by the traditional medicine man as well as the availability of raw materials used in making the medicines. The price varies from a bottle of *hor* to vegetables and chicken. The payment made in money varies from INR 5 to INR 100. *Banta* was one of the most important methods of payment, in rituals while performing divination like *Sangkalang* and *Lodep*, *Banta* was the most essential. A *Banta* consists of five betel nuts and five betel leaves, which were placed on a banana leaf and sometimes wrapped in a banana leaf.

The country liquor called as *Hor* has a great significance in the day to day life of the Karbis, and it was used in all the occasions. Without *Hor*, the rituals and ceremonies could not be performed. Its significance was so much that it has its own story of origin like every important thing in Karbi society. There were different varieties of *Hor*, such as *Hor arak*, *Hor acho*, *Hor alang* mainly. It was also used as medicine for curing sore throat and stomach upset in particular. It was also used in performing traditional rituals like *Se karkli* and *Vur kamatha*, specifically. It was also widely used in social events like marriages, naming ceremonies of a child, as to be said precisely.

In this regard the following case studies can be mentioned.

#### Case Study 1

Mr. Ranjit Ronghang, aged 67 years old was a resident of Rabising Rongpi Arong (village), in Howraghat. It was approximately 79 kilometres away from the district headquarter, and he was also the headman of the village. He was also a *Kurusar*, and performed all the religious ceremonies like *Se-karkli*, *vur-kamatha* particularly by himself. He knew how to perform *Kapherem* and was also an expert in making many herbal medicines for dysentery, jaundice, stomach upset, dog bite, constipation, tooth ache primarily. He used to do the *kapherem* for about 5 to 10 patients in a month from within the village and neighbouring villages too. He charged only INR 10 for a patient. A *banta* and *horlang/hor arak* was also accepted by him. He narrated that had done more than five hundred *Kapherem* and more than ninety percent of his patients had recovered.

#### Case Study 2

Mrs. Harvi Engtipi was a 67-year-old lady of Mohon Engti Arong. The village was approximately 115 kilometres away from the district headquarters. She used to prepare medicines for stomach ache, toothache, tooth decay, sore throat, jaundice, cuts and inflammation, etc. She treats around 3-5 patients in a day. She collected the herbs from the backyard of her house and also from the nearby forest. She had learnt the art of making medicine from her father. She charged a reasonable amount for her medicines (ranging from INR 10 to INR 50). She was assisted by her daughter-in-law.

#### Case Study 3

Mr. Gojen Teron was a 54-year-old and a resident of Tengkeralangso Kramsa Arong. The village was under Rongkhang block. It was around 110 kilometres from the headquarters of the district. He was a teacher by profession. He was also a traditional medicine man who prepared medicines for jaundice, toothache mainly. He was mainly known for providing medicines and treating sprained and broken bones. He used to cover the fractured part of the bodies like hands and legs with a cloth where he puts in the medicines. In extreme cases bamboo splits were tied as a support to the bones. He narrated that the people from the villages and localities prefer to come to him for broken and fractured bones.

#### Case Study 4

Mwass Kajek Kropi aged 16 years was a resident of Samsing Taro Arong, which was approximately 214 kilometres from Diphu, which was the district headquarter. She was born from the leg first, so according to the *Karbi* belief, she possesses the ability to heal sprained and fractured body parts. She said that she had done *Kapherem* for around twenty people. All of them had been cured of their ailments. She did not charge any amount for her treatment.

#### Case Study 5

Mr. Kamsing Ronghang was a resident of Lokbok Rongpi Arong. He was 72 years old. He was very active and healthy. He said that he never let any member of his family take any medicine or ointment from outside, as all the necessary

medicines and vitamins were found in the locally found plants. When anyone was suffering in the family, he used to make a fresh dosage of medicines from the locally available plants. Not only had that he also instructed what vegetables and fruits were to be consumed during ailments. He also made and gave medicines to his neighbours.

The Karbis used various medicines, which were applied or consumed while reciting certain chants and incantations as represented in Table 8.

### Result of Treatment

Related to the traditional health care system, the local Karbi healers had a number of characteristics, which played a crucial role. They shared a common dialect and cultural background. The patients were very much psychologically depen-

dent on the traditional healers, to whom they could explain their ailments in detail and without any hesitation (Bhattacharjee 2021: 19). Moreover the payment to traditional healers was very minimal. The traditional healers live in close vicinity to the patients, which makes frequent consultation possible. It was found that the success rate that was the cure of patients among traditional methods of treatment was high as compared to the cases, which were not cured, as represented in Table 9.

From Table 9, it can be found that there was a significant trend in the result of treatment. Out of the 674 persons in Diphu sub-division, 31.89 percent who availed traditional methods of treatment were cured, while 44.06 percent recovered. In Bokajan sub-division out of the total 843 persons who took traditional methods of treatment 65.00 percent were cured and 23.84 percent had recov-

**Table 8: Dosage and applications of medicine used in ailments**

S. No.	Illness/Ailments	Material used in treatment	Dosage and application
1	<i>Oso Ahop</i>	Brass ring was dipped in a bowl of water	The recitation of charm was done on a brass ring and it was dipped into a bowl of water. The water was then applied on the belly and also the water was made to drink.
2	<i>TurBirsi</i>	Crushed mustard seeds	The crushed seeds were applied on the lips.
3	<i>Pok-vai</i>	Soaked rice	It was made to eat.
4	<i>Haek- mesek</i>	Rice mixed with water	Eat and drink
5	<i>Chule pen Chukhang</i>	Crushed rice	Applied on the breast of lactating mother
6	<i>Ingthum</i>	Lime water	It was applied on the boil.
7	<i>Bangaram</i>	Mustard oil	It was applied to the affected area.
8	<i>Barsopang Thuk</i>	Sanctified water	The sanctified water was made to drink six times.
9	<i>Sor</i>	Ginger	It was crushed and applied on the affected area.
10	<i>A mek-keso</i>	Blow	Mild blow on the eye
11	<i>A mek- a duk Jangthot</i>	Blow	Mild blow on the eye
12	<i>Ingki angmi</i>	Mud	The mud balls were rolled on the infected area.
13	<i>Cherot- aak</i>	Saliva and blow	The saliva was applied on the cuts
14	<i>Ri- Keng Chinglok</i>	Seeds (mustard oil) and stem of bamboo	The affected area was massaged with mustard oil.
15	<i>Tehang- keso</i>	Powder (ash)	The powdered ash was applied on the forehead.
16	<i>Pok-keso</i>	Root (turmeric)	The roots were pounded and eaten.
17	<i>Okangsu</i>	Saliva and blow	It was applied to the throat.

Source: Field study, Bhattacharjee 2021: 17; Bhattacharjee 2016: 421.

**Table 9: Result of treatment: Traditional method**

Sub-Division	Cured	Recovered	Not cured	Total/Percentage
Diphu	215 (31.89%)	297 (44.06%)	162 (24.03%)	674 (100.00%)
Bokajan	548 (65.00%)	201 (23.84%)	94 (11.15%)	843 (100.00%)
Hamren	710 (83.53%)	115 (13.53%)	25 (2.94%)	850 (100.00%)
<b>Total</b>	<b>1473 (62.23%)</b>	<b>613 (25.90%)</b>	<b>281 (11.87%)</b>	<b>2367 (100.00%)</b>

Source: Field study

ered. In Hamren subdivision a total of 850 persons opted for traditional methods of treatment, out of which 83.53 percent got cured and 13.53 percent were recovered. Among the studied population, in all the three subdivisions, total 2,367 persons had opted for traditional treatment, out of which 62.23 percent had been cured, while 25.90 percent recovered. It reflects the success rate of ethno-medicine and traditional healing in 88.13 percent cases, which is very significant.

Further, one can analyse that the effectiveness of traditional medicine was very high in the Hamren sub-division, as almost all the studied population had opted for the traditional method of treatment, which was farthest from Diphu, the headquarter of the district. Bokajan subdivision also shows the significant trend of success among the people who preferred traditional healing methods. In Diphu sub-division, the district headquarters had the accessibility to many Western medical facilities like medical college, hospitals and diagnostic centres. Diphu being the prime town of the District also had the influence of traditional methods of treatment that was still found, and also the success rate was more than the rate of failure. It can be mentioned here that the villages, which were under Hamren sub-division were very far from the district headquarter had the least access to Western healthcare facility, and this might also be the reason for their high rate of dependency on traditional method of treatment but again the villages under Diphu sub-division being the nearest to the district headquarter had also a good number of people who preferred traditional method of treatment, as it was closely associated with their social and cultural livelihood.

In this regard the following case studies can be referred to.

**Case Study 1:** Mrs. Kasang Rongpharpi, a 35 year-old-lady who was residing at Mukindon Keap Arong under Socheng developmental block of Hamren sub-division the village was around 180 kilometres away from the district headquarter. She was suffering from stomach ache during the last two years. She was not sure about the specific reason behind the problem. But she had a thought that she probably got some evil wind attack from the forest at the time of collecting firewood. As the pain was occasional she did not take the matter seriously. At first she visited the traditional medicine man residing in Thengkur Killing Arong,

which was an adjacent village. Some specific rituals were performed along with the medicine. She spent around INR 200 for the purpose. Food restriction was imposed and she was advised not to eat oily and spicy food. She also had to collect medicine from him every morning for six days. After avoiding oil and spices in her diet along with the medicine, she recovered.

**Case Study 2:** Mrs Rojoni Derapi aged 49 years was dwelling in Humsing Tisso Arong of Bokajan Developmental block. It was around 65 kilometres from Diphu headquarters. She narrated that whenever she had any diseases or sickness like dysentery, fever, stomach upset, to be said in particular. She always consulted the traditional medicine man, residing in the neighbouring village. She narrated that she would never go to hospital as she had a very bad experience in her childhood when her mother was admitted for diarrhoea but due to ignorance from the hospital authority her mother passed away and moreover she did not like the medicine, which was provided by the hospital, as she do not trust what she did not see or from people with whom she was not familiar. She narrated that during the third month pregnancy of her first child she was suffering from nausea, severe stomach ache and diarrhoea. Her husband called the doctor and after medication her diarrhoea was cured but the stomach ache and nausea was still troubling her. So, her mother-in-law brought medicine from the traditional medicine man and she got cured in five days. She stated that she had been cured from most of her seasonal illness and diseases by consuming medicines from the local traditional medicine man only.

**Case Study 3:** Mwass Chintu Rongpharpi aged 14 years was a resident of Senot Rongphar Arong under Amri developmental block, which was around 220 kilometres from the district headquarter. She stated that she has a phobia for injections and has thought that if she was taken to the hospital or health centre then she would be given an injection. Thus she always insisted her parents not to take her to a hospital. Again her parents had stated that the local sub-centre was also very far from their village and the transportation was another factor, which makes it very hard to visit the nearest sub-centre. Keeping in view of the expenditure relating to travelling, medicines and hardships they preferred to take medicine

from the traditional medicine man of the village, as they pay around INR 20 to 30 and sometimes compensated for the medicine with kinds like vegetables and meat.

It has been found that the Karbis have their own perception of health, disease and treatment. They have divided the causes of diseases into natural and supernatural, as well as prefer the method of treatment as per the disease causation. Meanwhile, the factors of availability, accessibility, affordability and acceptability of western medicine is also directly related to their individual perception only. It has been found that, they are more familiar with the surrounding natural resources as a direct source of their ethno-medicines. On the other hand they are very much psychologically depended on their own traditional healers, rather the placebo effect of the concerned people on their traditional healers can be well notice. Certainly this is directly related to the cultural affinity and homogeneity between the patients and healers. Perhaps they are more convenient related to the traditional health care system. Even it can be frequently noticed that, the families, who are immunizing their children in the morning, are taking their babies to the traditional healers, if post vaccination fever or unwell feeling of the babies could be noticed. Traditional healing is not merely a method of treatment, in fact, it is a system as a whole, where the cultural practices of the people, their psychological aspects, as well as individual and community perceptions are directly related to it. As per the findings of the study, as the success rate of traditional healing is well noticeable, thus the dependence of the concerned people on this method is increasing steadily.

### CONCLUSION

The fundamental universal concept of health care practices is to cure and prevent diseases and illness. Ever since the attainment of culture building capacity by man, there have been attempts to cure multifarious diseases. Man since his emergence remained engaged in attempting to combat different fatal diseases. Folk medicine has served this purpose over the last 3,000 years or so in India. In the historic past at all levels of socio-cultural development there could hardly be any group of population that has not had its own concept of health, disease and treatment. The peo-

ple of a habitation region in general become knowledgeable about the curative or preventive medicinal plant species abounding in the region. The concerned people opt to learn the utility of some herbs available near at hand. The people living in the sub-mountainous region of *Karbi Anglong*, as sedentary inhabitants, came into intimate contact with various geo-physical features and environment. Simultaneously, they gain a distinctive knowledge of the total biodiversity in that particular habitat. The Karbi people used a large number of locally available medicinal plants and animal resources for their treatment. Besides the use of different herbs by common people, the traditional healers had the knowledge to use herbal medicine and to diagnose bodily disorders. Such traditional healing practices were acclaimed to have classic effective value on account of their being nontoxic, financially or economically affordable and easy availability, accessible within their own locality or in adjacent villages.

It is to be mentioned here that economic scarcity was a major hindrance, in case of most of the studied people to avail the Western medical treatment. In their traditional healthcare system both the indigenous knowledge and locally available ethno-medicinal resources used to play a very vital role. It has become an integral part of their culture. In the studied population it was found that the ethno-medicine and traditional health care practices were very much effective and purposeful. It may be considered as an alternative source of treatment among the Karbi people.

### RECOMMENDATIONS

There were some pertinent recommendations for the community's well-being, which were as follows.

The best way to sustain any indigenous culture was to conserve the culture and promote it. As a part of their indigenous culture, the studied people had their own idea of health, disease and treatment as part of their indigenous culture which should be preserved and encouraged. The studied people had a huge understanding of the traditional health care system. Not only should the traditional healthcare system be preserved, it should also be practised.

Most of the traditional medicine men among the Karbis belong to poor economic conditions.



In this respect assistance should be extended from the government so that they could devote their lives only in cultivating and practising traditional medicine. The government should also arrange an infrastructure, in order for them to practice their own traditional medicine. In most cases, the new generation and the children of the traditional medicine man showed very little interest in practising the knowledge of their ancestral traditional medicine. As a result, numerous indigenous healing methods vanished from their society after the death of their traditional healer. The government should also take necessary measures to record the indigenous knowledge in the Karbi culture and society.

The governments in different levels should set up a place where many plants having medicinal values could be cultivated for its preservation, for making medicine and for educating the coming generation about its values. The government should make necessary arrangements to spread awareness among the community to safeguard their own environment. The concerned people should be directly engaged for the purpose of protection and preservation of their forests and surroundings, which will at the same time help in maintaining the ecology.

The traditional health care system based upon local resources and indigenous knowledge, has been found as a very successful method to cure the different ailments of the studied people in various age groups and in all the sexes. This knowledge and practice was needed to be very carefully protected and promoted, for the sustainability of their livelihood and culture, as a whole.

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