

Tribal Health Care Management of the Kutia Kandhas of Kandhamal District of Odisha in India: A Psychosocial Analysis

Mr. Sunil Mallick¹, & Dr. Ratnakar Mohapatra²

NFST Ph.D. Research Scholar of History, School of Tribal Culture, Philosophy and Eco-Spiritualism KISS,
Deemed to be University Bhubaneswar Odisha, India

Associate Professor in History, School of Tribal Culture, Philosophy and Eco-Spiritualism.= KISS, Deemed to be
University, Bhubaneswar, Odisha, India

Corresponding Author: **Dr. Ratnakar Mohapatra**

Abstract

The purpose of present study is to focus on the tribal health care practices of the people of Kutia Kandhas in the Tumudibandh Block of the Kandhamal District of Odisha in India. The full scientific names, family names, local names, plant parts used, and traditional medical information have all been documented. The people of Kutia Kandha tribe rely on their traditional medicine system for their healthcare needs, and their medicine man is their primary referral for treatment. Their traditional medical process involves the study of signs and symptoms, modes of administering treatment and medicine, and a great deal of indigenous knowledge that has been passed down from one generation to another generation. The traditional medicine system of the Kutia Kandha tribe is known for its remarkable variety of therapeutic abilities, ranging from the treatment of serious injuries like deadly bites and safe childbirth to the mending of many chronic illnesses. They employ several treatments to help those with various illnesses and impairments that are supported by religious beliefs. Overall, the study highlights the importance of preserving traditional medicine systems and indigenous knowledge. It provides valuable information about the medicinal plants used by the Kutia Kandha people and their traditional medical practices, which could be useful for further research and the development of modern medicine. Kutia Kandha is considered as Particularly Vulnerable Tribal Groups of Odisha in India. The Kutia Kandha people traditionally inhabit in the hilly regions of Kandhamal and Boudh districts of Odisha. They have a close association with the forest and practice shifting agriculture, relying on the resources provided by the forest for their sustenance. Both the primary and secondary sources are used by the scholars in the writing of this article.

Key words: Management, tribal, health care, Kutia Kandha, Kandhamal, Odisha

I. Introduction

The Kutia Kandha society is an indigenous tribe found mostly in the Kandhamal district of the state of Odisha in India, with a population of 731, 952 according to the 2011 census. They are known for their deep connection with the natural world and rely on ethno-medicine for their basic medical needs, with a strong emphasis on plant-based remedies. The Kutia Kandhas are linguistic members of the Dravidian Kui and Kuvi groupings and practice shifting agriculture. The Belghar study area is a part of the Tumudibandha block of the Baliguda sub-division in the Kandhamal district of Odisha. The Kutia Kandha population, households, and level of education have increased since the creation of the five-year developmental plans for (PVTGs) for the eleventh five-year plan, with a population of 1325,5524 (2658 Males and 2866 Females) and 25.25 percent education level in the 68 villages in the Belghar region (Senapati and Kuanr, 1983, p. 10). The sex ratio in the Kutia Kandha society has consistently shown that there are 1078 more females than males. The Kutia Kandha society has traditional knowledge system. The Kutia Kandha is one of the identified PVTGs in Odisha. They have a distinct cultural and linguistic heritage, and their traditional way of life is closely connected to the surrounding forests and natural resources. The Kutia

Kandha community faces various challenges such as poverty, lack of access to education and healthcare, and marginalization. Efforts have been made by the government and non-governmental organizations to address these challenges and improve the socio-economic conditions of the Kutia Kandha PVTG. The government of India has implemented various welfare programs and initiatives specifically aimed at the upliftment and development of PVTGs, including the Kutia Kandha community. Kandhamal district is one of the Southern located districts in the state of Odisha. It lies between 83° 30' to 84° 35' longitude and between 19° 34' to 20° 34' latitude (Census of India 2011. District Census Handbook, Kandhamal, Village and Town Directory, Odisha. Series 22, part XIIA, Directorate of Census Operations, Odisha). It is bounded by the Boudh district in north, Gajapati district in south, Nayagarh district in the east and Kalahandi district in the west. It is known for its rich biodiversity, scenic beauty, and tribal communities. The Kutia Kandha people are one of the indigenous tribal groups residing in this region. The present article attempts to highlight the management of traditional health care system of the Kutia Kandha people of the Kandhamal District of Odisha in India.

II. Methodology

- Review of literature this involves reading and analysing existing research, books, and journals related to the Kutia Kandha community. This can provide valuable background information and help identify gaps in knowledge that the present study can address.
- Field visit and openly group discussion this involves physically visiting the Kutia Kandha community and engaging in discussions with community members in a group setting. This can help the scholars to gain a deeper understanding of the community's culture, beliefs, practices, and challenges.
- The study involved interviewing with Kutia Kandha people aged between 45 and 60 years and double-checking the data with local medical professionals. The study attempted to collect plants in their bare, flowering, and fruiting conditions to identify their medicinal properties. However, the description does not provide any information about the specific plants that were identified or their medicinal properties.

Objectives: The followings are the primary objectives of the study

- To know the different types of medicinal plants used by the Kutia Kandhas of Kandhamala for their health care.
- To find out the traditional methods of health management practices of the Kutia Kandha tribe of Kandhamala.
- To reveal the health and nutritional status of the Kutia Kandhas.
- To gather the knowledge of traditional healers of the Kutia Kandha tribe.

Design of study

- Village selection: The study's design is an essential component of any scientific investigation. The adoption of relevant procedures is preferred from the village selection process to analyse the completion. The villages that make up this study are located in the Tumudibandha Block in the Kandhamal district of Odisha. The three designated villages' 280 homes total are chosen for the villages based on their size and accessibility.
- Data Collection: The study's objectives included gathering information on many aspects of household life, health issues, nutritional condition, and health care administration of the Kutia Kandhas. In order to determine the responsiveness and dependability prior to the actual study, a thorough schedule was designed and pre-tested. As a result, information about households, health, and other socio-cultural factors is gathered according to pre-ried timetables.
- Anthropometry measurements are taken from adult men and women between the ages of 50 and 65, and the heads of families are questioned regarding household information (280 males and equal numbers of females). The majority of data collection techniques use interviews. Focus Groups Discussion is used to gather qualitative data in addition to quantitative information about health

issues and service access. In discussion (FGD), both men and women provide nutritional anthropometry data. A stature metre is used to measure height, and a weighting machine is used to assess weight, in accordance with accepted practises. Only those men and women who voluntarily volunteer, their measures are used to acquire the anthropometric data (height and weight).

III. Discussion and Result Analysis

3.1. Management of Tribal Health Care System of the Kutia Kandha People of Kandhamal

The passage highlights the importance of traditional medicine and the need to preserve and integrate it with modern medical practices. It emphasizes the value-based nature of traditional medicine and the use of magic and mysticism in its treatment. The passage also stresses the importance of preserving the flora and fauna used in traditional medicine and the need for comparative investigations to create a synthesis between modern and traditional medical practices. The socio-ecological zone is seen as more significant than the geographical zone in the context of traditional medicine. Traditional remedies are essentially comparable in terms of manufacture and administration, but certain differences exist in different regions. For instance, ethnic groups reliant on hard trees like Kutia Kandha for medicine live in regions devoid of succulent undergrowth, while animals' bone, skin, flesh, blood, teeth, nails, and even milk are used to make traditional medicines in semi-arid regions. Thus, traditional medicine is an important aspect of many societies, and its preservation and integration with modern medicine could have significant benefits. The use of natural resources in traditional medicine also highlights the importance of preserving biodiversity and ecological sustainability (Panda, Panigrahi & Padhy, 2005, pp. 173-178). The scholars completely agree that preserving and conserving flora is crucial for the survival of many important species. In addition, protecting traditional knowledge related to the use of these plants for medicinal purposes is equally important for the sustainability of these cultures. Integrity and innovation are indeed essential for a culture to survive and thrive. It's essential to balance modern and traditional practices to preserve cultural identity while embracing new and innovative ways to adapt to changing times. Comparative investigations of folk medical systems can help identify commonalities and differences between various traditional medicinal practices. This information can be used to develop new treatments that merge modern and traditional medical practices. By integrating traditional medical practices with modern medicine, we can create a more holistic approach to healthcare that addresses the physical, emotional, and spiritual needs of patients. This can lead to better health outcomes, as well as increased patient satisfaction and engagement in their own healthcare system. Moreover, the preservation of traditional medical practices and knowledge is essential in ensuring the cultural heritage and identity of many communities worldwide. By respecting and integrating traditional practices, we can promote cultural diversity and inclusivity in healthcare. Overall, the synthesis between modern and traditional medical practices can benefit patients, healthcare providers, and society as a whole. It is essential to create a collaborative and respectful approach to healthcare that recognizes the value of both modern and traditional medical practices (Balick and Cox, 1997, p. 5). It is true that traditional remedies used by different tribal communities may vary based on their geographic location and the availability of local resources. However, the socio-ecological zone, which includes factors such as climate, topography, and ecology, has a more significant impact on traditional medicine practices. For example, ethnic groups living in regions with sparse vegetation, such as the Kutia Kandha people, may rely heavily on the medicinal properties of hard trees that are abundant in their area. In contrast, tribal communities living in areas with lush vegetation may have access to a wider variety of plants with medicinal properties. Additionally, traditional medicine practices in semi-arid regions may rely on animal parts such as bones, skin, flesh, blood, teeth, nails, and milk. This is because plants may not be as readily available in these regions, and animal products may offer a viable alternative source of medicine. Overall, the traditional medicine practices of different tribal communities are shaped by a range of factors, including geography, ecology, and cultural heritage. Understanding these factors can provide valuable insights into the diverse ways in which traditional medicine is used and valued around the world (Sahu, Nayak and Dhal, 2013, pp.10-11). In the diagnosis and treatment of illnesses, the Jani is responsible for diagnosing illnesses and determining the root cause. They do this by examining the patient's physical symptoms, as well as using divination techniques such as reading the

patient's pulse, examining rice and seeds, or communicating with spirits. Once the Jani has determined the cause of the illness, they will prescribe the appropriate treatment, which may include a combination of physical medicine, rituals, and psychotherapy. The *Kuttaka*, on the other hand, is responsible for preparing and administering the medicines prescribed by the Jani. They have extensive knowledge of the medicinal plants found in the Kutia Kandha's environment and are skilled in preparing medicines from them. The *Kuttakas* also perform rituals and ceremonies to communicate with spirits and ensure that the medicines are effective. Overall, the traditional medicine practices of the Kutia Kandha community are deeply rooted in their cultural beliefs and worldview. They view illnesses as a result of supernatural power and believe that the environment and diseases can affect both the body and soul. Through a combination of physical medicine, rituals, and psychotherapy, the Kutia Kandhas aim to restore balance and harmony to the individual and their community. The Kutia Kandha is a resident of the eastern ghat light, a member of the largest Kandha community unit and one of Odisha's 13 most illustrious tribal clans in the region between Kandhamal, Kalahandi, and Rayagharh. Kui is the language used by the Kutia Kandha tribe. The Kutia Kandhas lived in the southernmost portion of Odisha in the districts of Kandhamal and Kalahandi. Their settlement is typically situated on a valley hillside, adjacent to a river or stream. The Kutia Kandhas are still engaged in sifting agriculture, which they use to cultivate oil and seeds for the small village of Ragi on the hillside. Aside from land farming, Kutia Kandhas received access to the dancing forest of Kandhamal and the hill rages with the bounding of the mushroom root tuber and fruits and collected together with honey and need. Moreover, the woodland provides medicinal plant and mineral value. The Kutia Kandhas asserted that they practise this particular form of traditional Ethiopian medicine because it best reflects their view of how the environment and diseases may affect both the body and the soul. The influence of supernatural power causes the Kutia Kandhas sickness, which disturbs a person's life. According to Kishore Kumar Basa, in the tribal society in general and the Kutia Kandha in particular, it not just biological manifestation but also because of all involvement different of supernatural power forces, any treatment of such diseases by Kutia Kandhas text in account both the physical dimension as well as the supernatural agency so culturally ambush society like that of the Kutia Kandha who live in Kandhamal district. The medicine men rely on rituals rather than plants and plants that are remembered for the apices of supernatural power forces that use medicinal plants for spirituality and naturally evolving. Although it can induce both basic and complex diseases, Kutia Kandhas therapeutic practises have been adopted by the community of Melania. Deeply defending the Kutia Kandha forest echo system is the ethno medical practise. As part of the Kutia Kandha community system, the traditional healers known as *Jani* and *Kuttaka* have separate roles to play. (Sharma, Gairola, Gaur and Painuli, 2012, p. 291).

The Janis, to a certain extent, have a good understanding of what to prescribe and how to prescribe because they are sensitive to cultural differences. The Jani may dictate that a small sacrifice be made. A higher level of specialisation is present in the *Kuttaka*. He is revered as a celestial physician. He is thought to be an astrologer. He has the ability to offer sacrifices and perform worship. In addition, they have the ability to prescribe medication and provide community forecasts, such those about agriculture. *Kuttaka* is hence more specialised in that regard. He is seen as a person who has been chosen by God to assist humanity. The Jani and *Kuttaka* who treat the obligation mentioning communal health each healer settles in the heavenly inspiration for accepting responsibility. (Hemadri and Rao, 1989, pp.11-13). God gives us supernatural dreams and tells us where the medication is located, claims Ramachandra Jani, a 43-year-old healer from Burlubaru in the Belghar region of Kandhamal. This mountain range, the Dimbur Mountains, the Barmi Hills Chharargurhi, or other mountains close to Dhurshibila at Bilamal Big forest may contain the medication. By this miraculous dream, we shall learn where the medication is. The medication can then be located by its scent. The Kutia Kandha healers openly worshipped and cultivated a variety of plants while also gathering additional ingredients from the forest according to the type of medicine they preferred to use in the Kutia Kandha system of healing, which treats two different types of diseases by utilising both nature and super nature. (Rao, Busi and Venkaiah,



2005, pp. 217-219). The natural sickness is thought to be caused by human contact, inadequate sanitation, overwork, and climate change in the form of anxiety. The natural diseases are easy to treat the supernatural diseases. The respondent could have done something else because he is a healer, but if he quits providing medical care to the public, issues will arise. If he makes a sacrifice at *Thakurani puja*, the village will have a place. Jani has to make this sacrifice otherwise Dharani Penu will not be pacified. The village as a whole will thereafter have issues. Everybody will become unwell, the kind of thing that is beyond their ability to generalise. They speak about an invisible force. For example, let's say epilepsy Disease, is classified as a supernatural sickness where the understanding belongs to an invisible power. The Kutia Kandhas believe it to be a supernatural disease, yet there may be other causes that doctors can explain better (Banerjee and Pal, 1973, p.91). The only medical procedures of the Kutia Kandhas are intercity accepted by the social, cultural, and community systems, and the only practise Dharani, the earth goddess, is worshipped by the Kutia Kandha community in blood offerings made to make harmony in this tradition. The deity promised to heal the mortality or save illness. The goddess took care of serious chicken pox and other such maladies. Agnese from the convocation with the Kutia Kandha spirit deity are present during the healing practitioner's hiring process. At Belghar, Kandhamal district, Lankeshwar Majhi, 56 years old is a healer. These individuals arrived in scholar's search. Tuber colossi is what the elderly woman had TB (Alves and Rosa, 2007, p.20). Interrupting into trashing the Kuttuka rice over play in the spine looking to the God and spirit in doing so his ability to identify of the malaria and bad spirit since responsible of pertain in suffering then prescribe the ritual effected quire to prefer the herbal remedy. The Kutia Kandha ceremony is opened by making sacrifices to the god in the name of the Kutia Kandha for each member of the family who suffers, as well as for the village as a whole. After the puja, sacrifices are only offered if the patient has received a full recovery. The only people who are interested in fasting are those who make the initial sacrifice(Sahoo, 2012, p. 05). Not every healer treats any type of disease, and many healers only cure painting on specific women. The treatment prescribed very differing of severity on healer men and how the painting responded to the care in the medicine recommitment to him and her. The Kutia Kandha's continued belief in the traditional way of life and the community's faith in the traditional healer practise for several regions are the result of tribal healer's position as an important pensionary in the village communities (Paddle and Das, 2010, p.8). In this connection, Makhan Majhi, age 50, Headman of Deogada, Belghar, Kandhamal was interacted by the scholar.

***Terminalia belerica*(Gaertn.) Roxb (*Combretaceae*) Bastard Myrobalan (*Bahad*) trees skin**

We take the medication that the Kuttaka healer recommends when we are ill. In cases of feverish sickness, we ask the healer to come and that we abide by his instructions. We visit government hospitals as well. For instance, a medical facility is far away in the case of a snake bite, thus we prefer to employ conventional treatment. We occasionally fail to compensate the healer for his services. We usually give him rice during certain occasions but very infrequently give him cash. Particularly the young people of Kutia Kandha tribe used to participate in the communities' ethno medical practises as said by Surendra Majhi, age 25, patient, Rajam, Belghar, Kandhamal.

Menstrual problems- whenever there is an excessive discharge or the flow lasts longer than usual, '*Dinjnipuyou*'Serpens) parapodia' (B-Rauwolfia serpentina)Devil's trumpet (Kola dudura) and '*Topo*' root juice was extracted, and the fist scholar administered it orally to treat the condition.



In an interaction with Shyam Majhi of Belghar told that I had jaundice, and even after going to the doctor, I did not feel better. I then went to a nearby healer, who looked for the medicine for me and brought it. Crushed and ground medication was used. I took my medication after that. After my jaundice was treated, I have been doing well as said by Shyam Majhi. The fact that healers' knowledge of the forest's herbal and medicinal plants continues to exist and be relevant is a significant effect of this. When a person is being controlled by ghosts or spirits, this medication helps. If kids wear the medication as a talisman on their arms, it works. For dental issues like cavities, certain medication is taken. It is put in the cavity. This medicine is also effective a case of skin diseases like ringworm. It is ground and mixed with water and when applied on the affected

area. It kills all the germs as it is poisonous. This medicine is called as *Kalasi taparu*. Many medicines are also used in treatment of various skin care and disease like leprosy. It is ground with water and when applied overnight, it cures both these diseases. The *ludri* trees skin called in Kui language it is *Ragamara*. The *Rogamara* once can only find this medicine at sacred groves in the mountains. The *Gangipenu* is not easily available everywhere. We dig this medicine only after sacrificing a pig or cock and after worshipping and properly following all the prescribed rituals. This medication is crushed with water and put to the forehead of a youngster who has a high fever. Because it is dangerous and may internally harm the stomach, this medication is not meant to be used orally. Also, we go out at night to hunt. These expeditions took place. We observe that the mentioned medication is offered at the mentioned location. The same drug, known as Hadsikil, was discovered further away. They develop on rocks. Hadsiki will grow back if you clip it after two weeks. The healer makes every effort to help those who are ill, but occasionally the cure is too late and the illness is no longer a battle (Ota, Mohanty, 2015, p.3).

It seems you're providing information about a scholar who had an interaction with Sinda Majhi, a 60-year-old healer from Deogada, Belghar, Kandhamal. However, you haven't specified the purpose or context of this interaction. Could you please provide more details or ask a specific question? That way, I can assist you more effectively. It's not possible to cure a patient suffering from leprosy. The bacteria spread in the body and slowly eats up the patient. Such a patient can never be cured completely. Some Kutia Kandha healers cannot cure a patient; we recommend them they go to the doctor. Indeed, the continuation of traditional community practices provides valuable opportunities to study ethno medicine and explore the associated spiritual belief systems. Traditional practices and knowledge passed down through generations hold profound insights into local healing methods, medicinal plants, and holistic approaches to well-being. By engaging with these practices, researchers and scholars can gain a deeper understanding of traditional medicine systems and their cultural significance. Ethno botanical studies, for instance, examine the traditional uses of plants for medicinal purposes, shedding light on the effectiveness and potential therapeutic applications of various plant species. Moreover, the study of spiritual belief systems intertwined with traditional practices allows for a comprehensive exploration of the cultural, social, and psychological aspects of healing and well-being. These belief systems often encompass a holistic understanding of health, incorporating elements such as rituals, ceremonies, and the interconnectedness of mind, body, and spirit. Studying ethno medicine and spiritual belief systems not only contributes to the preservation of traditional knowledge but also provides opportunities for collaboration between traditional healers and modern healthcare practitioners. This collaboration can lead to the development of integrative healthcare approaches that combine the strengths of traditional and modern medicine systems. Overall, the continuation and study of community traditional practices offer rich insights into ethno medicine and spiritual belief systems, fostering appreciation for diverse cultural perspectives on health and wellness. The Kutia Kandha healers' knowledge of medicinal plants had considerable potential for improvement, because they knew how to treat various diseases using their knowledge of ethnology and the vast variety of plants, they developed to benefit people. Recognizing the interaction between communities such as the Kutia Kandha sire, and the environment, the traditional knowledge of nature by skilful traditional healer, one can only hope that ethnos medicine, which is of the community, will continue to be relevant in the future. The traditional healer is certain that the traditional knowledge also provided scientific peace to counter explicate bio piracy bite and clams they by the save cord the medicine practise and natural remedy used by the Kutia Kandhas. Kutia Kandha healers owe us thanks for imparting their wisdom to us (ADIVASI Journal, 2011, p.34).

Traditional Healers or *Disari* of the Kutia Kandha Community

The Kutia Kandhas are traditional tribal healers or experts in magic or religion are crucial in matters relating to healers. A specialist group in ethnic medicine, they are also known by the nickname *Disari*. They carry out their duties as a religious authority who perform certain rites and forecasts the lucky days and times to celebrate special occasions. The job of the traditional healer is not one that all chronicles take up. The tribal people are familiar with the signs and methods of therapy for every illness. Herbal products are among the therapy options, and they follow particular protocols. The information shows that the Kutia Kandha people also treat difficult illnesses including white leprosy, measles, malaria, snakebite, dog bite, etc. Nonetheless, laboratory testing is

required before using herbal remedies to treat certain illnesses. According to the study, ethnos practitioners continue to play crucial roles in tribal communities' illness management strategies. It is justified for tribal communities to contribute when skills are transferred on this shady basis. These agents' assistance in preserving the village's high level of health is justified by the hereditary transfer of knowledge (*ADIVASI*, Vol. xxvi, No-4, 1986, pp.1-4).

Major Suggestions

With the purpose of improvement of the access of the people of Kutia Kandha tribe and their standard of living, it may be necessary to place greater emphasis on the infrastructure problems in the interior areas of the district's Kandhamal, which is controlled by tribes. Several of the local tribal communities' health problems may be covered in a health-related training module with regard to their cultural and religious beliefs and practises. Health professionals will benefit from having a comprehensive awareness of the tribal people and their issue as a result. The status of health programmes may also be discussed at monthly review sessions at the general practitioner level. These GP-level sessions should be attended by the multipurpose healthcare professional. The traditional political leaders as well as ward members in a village may be active in tracking the progress of several health programmes. When provided in villages and by GPs, a successful collaborative management of primary healthcare can be created while taking into account the roles of health extension workers, NGOs, and PRI local /village traditional leaders.

Treatment of Kutia Kandhas of Kandhamal by Magical Herbs

The Kutia Kandha medicine men and women give in to some of the natural remedy having magical properties for sickness. The evil ghost or malicious deity follows the medicine men while they sleep at night shown through the dreams at what time brought at a specific time of the day following correct oblations to the lent whether it was collected at a specific time or not. For instance, a man might be instructed on a Saturday to gather some of the leaves of a parasite growing on a Sahad tree. He could build up his strength if he consumed those leaves. One obtains seven leaves from each of the Tulasi plant and the banyan tree, which are both adored (Hand,1988, p.12).Each group of seven trees is needed to achieve these trees. You then add seven ground black peppercorns to this. When a lady uses magic and transforms into an aberrant, she can return to normal by ingesting this powder. The seven-leaf Gopikana plant is brought by the shaman on a Saturday night after offering it milk and rice as a sacrifice for a lactating parturient. To facilitate lactation, these leaves are found kept under the mother's bed and the body (Jose, 1998, p.17). Focus prostrate (L) (*Moraceae*) Common Fig seeds (*Paji toga /Dimiri*) for Fever. The scholar had interacted with Kumbara Purti Majhi, Age 55, Tamangia (Shahi Dasanga panga), Kandhamal with regard to the above plants medicine.



Patient name Siyan Patamajhi Mandipanka and Medad Mallick for hand fracture the medicine man has given to *Diyaadru* root and *Rathka*. The most important distinction in the healthcare and treatment system and practices of the Kutia Kandhas is that they are ethnically rooted with incidence of archetypal belief systems. The scholar had inteacted with Pabitra Kapatapatra, c/o Kanenga Kapatapatra, Age 67, Healer, Mandipanka, Kandhamal with regard to Medicines and disisaes of Kutia Kandhas.



Names of Patients

Nandini Padi, Bhubaneswar, Khurdha, Kedny Problem, Biliya Mutamajhi, Jirimiya Mallick, (Village Gadama),Ribika Kandha, (Kadamba)Utam Chandra Behera, (Godapur),Karpur Bindani, Premananda Ranasigh,Ganeswar Pradhan, Kilabadi for Stomach problem, Nandini Mallick, Kasapanka,

Madhusmita Nayak, Kirama village for Maturation problem, Sanali Digal, village Suluma for Stomach Problem, Jagarnnath Pradhan for body problem. All the above patients belong to the Kandhamal district of Odisha.

Fever (*Jara*)

Numberi is the name for fever among the Kutia Kandhas, who also believe in two different sorts of fevers called *Dadi* or *Pali*. Only the medicine man is authorised to gather the medicinal plants and make medicine from them. They don't keep the medicine because they think freshly picked plants are potent than dried ones. The roots of *Bhuinimbo* plant and "*Pitakeranda*" are mashed together to extract juice, which the medicine men give to sick patients. This juice has been cooked till it is lukewarm. Up to half cup of juice is taken orally each day in the morning on an empty stomach until the fever is gone. It is said by Pabitra K. Patra is a traditional healer of the Kutia Kandhas of Kandhamala.

Cold (*Thanda*)

Cold is referred to as "*losam*" in Kutia Kandha community. It can be identified by the symptoms of thick, watery cough-like discharge from the nose, restlessness, and a chilly sensation. The *Kutaka* (medical man) administers to the patient. Two to three spoons of this diluted water are provided orally twice day until the condition is resolved using a paste produced from the skin of *tarilu* seeds and the root of the *Ketkaya* plant. The medicine man summoned the drumstick tree, which was grated and watered down. After inhaling the steam from this boiling water for a while, the water is cooled and filtered before being given orally. "Cold" is a term that can have different meanings depending on the context. Here are some possible explanations:

1. Temperature: When we refer to something as "cold," we usually mean that it has a lower temperature than what is considered normal or comfortable for our body. For example, a cold drink is one that is served at a lower temperature than room temperature, usually chilled in a refrigerator or with ice. Similarly, when we talk about the weather being cold, we mean that the ambient temperature is lower than what we are used to or prefer.
2. Illness: "Cold" can also refer to a common viral infection that affects the respiratory system, such as the common cold. Symptoms of a cold can include a runny nose, cough, sore throat, and fatigue.
3. Emotion: Sometimes "cold" is used to describe a person's emotional state or behaviour, particularly if they seem distant, unfeeling, or unresponsive. For example, someone who is described as having a "cold heart" might be seen as lacking empathy or warmth. In some cultures, "cold" is associated with specific meanings or symbolism, such as purity, clarity, or detachment. However, the meaning of "cold" can vary widely depending on the context and cultural background.

Cough (*Kasa*)

Coughing, a cold, and throat irritation are symptoms of the Kutia Kandhas, which can be identified. They employ several herbal medications for acute conditions. Mania bark and ginger are mashed together, and the resulting juice is poured into a small plate. This juice is taken orally once day for three to four days, about 2 to 3 spoonful at a time. The patient receives oral administration of *ranisilaha* (*pipoli creeper*) for 4 to 5 days. The combined juice of holy basil leaves, ginger, and honey also functions as a cough suppressant. The hard (*B-Terminalia chebulia*) fruit is boiled and made lukewarm before being given orally to the cough sufferer in the amount of roughly half a cup. Cough, also known as *kasa* in some languages, is a reflex action of the respiratory system that helps to clear the airways of irritants, mucus, and other foreign substances. When something irritates the lining of the respiratory system, such as dust, smoke, or an infection, the body responds by triggering a cough reflex. Coughing is a normal and important bodily function that helps to protect the lungs from harmful substances. However, persistent or chronic coughing can be a sign of an underlying health condition, such as asthma, allergies, or a respiratory infection. In some cases, coughing can also be a symptom of a more serious condition, such as lung cancer. There are different types of coughs, including dry coughs, wet or productive coughs, and whooping coughs. The treatment for coughing depends on the underlying cause and may involve medication, lifestyle changes, or home remedies. If you have a persistent or severe cough, it is essential to see a healthcare professional for diagnosis and treatment.

Headache

Headache is known by the Kutia Kandha word (*Tlaunba*). When they get severe headaches on a regular basis, they use some herbal remedy. The "*Chapi*" creeper root is pounded and applied on the forehead.

1. Use cold or heat therapy: Applying a cold or warm compress to your forehead or neck can help ease headache pain.
2. Consider over-the-counter pain relief medication: If your headache is mild to moderate, taking an over-the-counter pain reliever such as acetaminophen or ibuprofen may help.

If your headache persists or is severe, it is significant to seek medical attention. Your healthcare contributor can help the underlying cause of your headache and provide appropriate healing.

Dysentery (*Jhada*)

For Inupiat (Dysentery) and Baheniturkey, the Kutia Kandhas use just one drug (frequent loose and watery motion). Burned, peeled raw curry plantains are served to the patient. "*Netripota*" is the name for blood dysentery. Two separate types of plantain roots, *Tadihiru Kumnditdihiu*, are pounded and their juice is squeezed out before being combined. The patient must consume half a cup of the juice every day on an empty stomach until they are cured.

Vomiting

According to the Kutia Kandhas, experiencing vomiting is a symptom of an evil spirit possession, indigestion, stomach issues, poison consumption, excessive drinking, and morning sickness. Patients who experience indigestion-related vomiting are given salt water to drink. When available, lemon juice is used with it. Also needs to vomit right away is the obnoxious intoxicated person. It is necessary to mix old tamarind (*B-Tamrindus indica*) with water and administer the liquid orally.

Stomach pain

The Kutia Kandhas call it "*Tutunaba*". *Ptagarda (Cogenariavulgeris)*, *Giripoyou*, and *Kumundihiru* roots are mashed, juice is strained, and the mixture is cooked too lukewarm. This mixture is given orally every day on an empty stomach until the patient is healed, amounting to about half a cup.

Ear pain and infection

Salap (B. curyotaurens) root juice is extracted, warmed to lukewarm temperature, and then inserted into the ear. Alternately, heated *Arakha* leaves (*B-Culotraisprocera*) are mashed, and the liquid is pressed into the patient's infected ear.

Eye pain and infection

Lemon juice is added, the warm turmeric water is chilled, and then it is applied to the eye. The Kutia Kandhas use only lemon juice to treat eye infections of any kind.

Snake-Bite

Roots of turmeric (*B. Curcuma longa*) and *patalgaruda (M-cognris)* were ground into a paste and applied to the bite site. Also given orally is the juice that was derived from the same. Snake bite can be effectively replaced with *gada* root. A piece of the root is also breathed by the person while also receiving the root's liquid via oral administration.

Delivery

Fast delivery is facilitated by oral ingestion of *mutha (Cyperus rolundus)* root juice. To extract juice, three year old "castor" bark, bitter gourd (*Kalara*), and *Bajramumuli* roots are mashed. By taking this mixture orally, the placenta falls out more quickly. Long-preserved "*padma*" (*Nympha lotus*), crimson when combined with wheat also functions as an alternative medication.

Menstrual problems

Patient Names Rita Mallick, Madhusmita Nayak of village Katama, Nandini Mallick of village Kasabasa, Anima Majhi of village Tiloni, Kandhamal. The Kutia Kandhas women and girls do not reach puberty until they turn 18 years old. Typically, their menstrual flow lasts between four and seven days. This cycle's irregularities aren't thought of as illnesses. They see a medicine man who administers certain herbal remedies to check it whenever there is an excessive discharge or the flow lasts longer than usual.

corpion and insect bite

For various bug bites, the affected area is administered a heat fomentation after being smeared with a paste made of salt and turmeric (*B-curuma longa*).

Pilehi (Pleha):

A parasitic plant growing on a *Dimbiri* (*ficus glomerata*) tree produces juice that can treat *pilhis*.

Bone fracture:

The tender parts of the "*Hadasikuta*" creeper marasureli" shrub are ground into a paste and placed to each shattered piece. "*Marinating*," which is made of bamboo twigs and rope, is then plastered on top of it.

Jaundice:

The Kutia Kandhas hold that when seven mantra salt is eaten, the sick would be healed. In addition, they use the juice from the bark of Mundemera. Another remedy for this illness is the juice extracted from the roots of kaircha (*B-abrusprecatorius*).

Leprosy:

The Kutia Kandhas are not very familiar with this illness. Many cases of this ailment have just recently come to our attention. Only the medicine man who employs the roots of the "*Bhramaramari*" tree for therapeutic purposes can identify and locate this rare tree. This tree can be found in a thick forest on a rocky area.

Health status:

A prerequisite for human growth and a crucial element in ensuring the welfare of all people is good health. Social, economic, and political variables all have an impact on the health issues in any given society. The community's tendency to seek health care is influenced by the prevalent ideas, traditions, and behaviours surrounding health and sickness. Because of their relative isolation, remoteness, and lack of significant impact from the development processes taking place in tribal areas, it is generally agreed that the health status of the tribal population is poor and particularly very poor among the PVTGs. (Dash and Pradhan, 2002, p.21). The Kutia Kandha tribe, which is classified as particularly vulnerable tribal groups (PVTG), have extremely high rates of malnutrition due to widespread poverty, illiteracy, and malnutrition as well as the lack of clean, safe drinking water and adequate sanitation conditions. The majority of them lack energy consistently and are main our shed. Many studies have revealed that due to a lack of medical expertise and basic hygienic practises, the infant mortality rate and mother mortality rates in some tribes are frighteningly high. The tribal population is prone to a number of illnesses, including malaria, upper respiratory infections, gastrointestinal disorders, intestinal parasitism, a lack of certain micronutrients, skin conditions, etc. (Kaushal, 2004, p. 7). Several infectious illnesses, such as tuberculosis, leprosy, yaws, and venereal diseases have been identified as the major health issues among various substantial tribal populations across the nation. In many indigenous societies, inherited haemophilia's like sickle cell anaemia have also been very common. In such a situation, the tribal people make use of their medical system to deliver preventive, curative, and ameliorative healthcare. (Murmur, 2004, p.14). These traditional healing practises are not only ingrained in the tribal culture but are also supported by the communities. Despite the remarkable global advancements in the field of diagnostic, therapeutic, and preventative health care, tribal people continue to live in

isolation in undeveloped natural environments far from civilization with their traditional values, customs, beliefs, and myths intact. The Kutia Kandha tribe's medicine men are acknowledged as excellent professionals by their fellow members of society because of their significant contribution to satisfying healthcare demands (Palekr, 1995, p.14). They are thought to possess a staggering array of medical abilities, from handling urgent situations like treating deadly stings and ensuring safe delivery to treating various chronic illnesses. People with various illnesses and impairments are treated using some techniques that are supported by religious beliefs. The majority of the time, these beating customs is passed down orally from one generation to another generation. Native American medicine men are the knowledge carriers who directly use medicinal plants and occasionally combine them with extra minerals and animal parts for healing and therapy. In Kutia Kandha community, medical expertise is not restricted to licensed professionals. Several preventative medications are well known, or at least the elderly is familiar with them. The local population does not necessarily require prescriptions from the official medicine man in order to administer preventive medications. In tribal societies, women in particular are knowledgeable in a wide range of healing techniques that are necessary for treating common illnesses and conditions that affect women and children. The indigenous medicine man is preferred when things get out of hand for the treatment of illnesses. The tribal people frequently hold the belief that ailments are brought on by both supernatural wrath and the herbal provision of cures by some ritualistic sacrificing to specific other worldly entities. It has been noted that traditional healers from different tribal groups undertake different tasks and do not all belong to the same social group or position. They each specialise in different areas. Even the methods used range greatly from one another. They have their own unique diagnostic techniques and medicines. (Singh, 2004, p. 23).

Health Grow

In the hamlet, the most common causes of illness are malaria, fever, diarrhoea, and gastro-intestinal disorders. According to the community, health risk is one of the main problems of economic vulnerability. The chance of a fever and associated illness exists occasionally. The village's unhygienic conditions are primarily to blame for this. There is water logging in areas where there are cattle pens, goat pens, and bird coops that are located closer to homes and serve as mosquito breeding grounds. In addition to that, the amount and quality of their diets have an impact on their health, and the fact that people return to work right after getting well without giving their bodies enough time to recover has an impact on how vulnerable the community's members' health is (Tribhuvan, 2004, p. 16).

Crop Depredation

Even though the woodlands have been severely damaged, a sizable population of wild boars and bears still pose a persistent threat to the crops during harvest. There is a lack of manpower at the household level to maintain a proper watch and ward.

Animal disease

Animal diseases occur frequently that claim many lives every year. Since viral diseases in cattle are contagious and spread in epidemics, many lives are lost at once. Due to frequent diseases, the livestock cattle's wealth has decreased by half over the past several years as the cattle diseases have become epidemic. The little ruminant likes easy money. Smaller livestock and domestic birds are sold to cover costs in an emergency. But the families who raised them are destroyed by their collective death. Traditional medicines have been used by the people of Kutia Kandha tribe.

Taboos and restrictions

The tribes have few taboos since they are uncomplicated and unstructured. The food limitations that the tribal medicine men frequently advised to reflect the tight adherence of elders and the community to these taboos, which are dual in nature-dietary and behavioural, are reflected in them. Certain food products are recommended for ingestion and others are forbidden by the medicine men, provided to individuals with stomach aches are typically fibrous and heated. Similarly, consumption of sago palm juice, rancid pork, dried fish, and similar foods is

not just limited to elderly individuals with compromised digestive systems and patients with intestinal diseases. For illnesses like cholera, jaundice, small pox, etc., the medical professionals practise faith healing. It's an intriguing quirk of the Kutia Kandha medical men that they don't believe it's acceptable to give medicine prior to spiritual subjugation.

Fear of using Contemporary Medical Services

The traditional customs of indigenous communities are strongly held beliefs. The results of the study show that indigenous women from Kutia Kandhas prefer to give birth at home rather than in a hospital. The mother-in-law and TBA are trusted with the safe delivery of the home, according to the tribes. In the FGD, the Kutia Kandha women express their dread of using modern medical treatments. According to the women of Kutia Kandha, we are afraid to visit the hospital and believe that receiving an injection will kill us. Nonetheless, because relatives are present to provide support, the conventional methods of birth at home are safe issues with health and a lack of forest resources. Most of the resources used by the native groups for their food as well as medicine come from the forests. The displaced tribes now rely on commercial goods and contemporary medicine as a result of their recent exile. The tribes that formerly resided in the cool woodland surroundings have been relocated to hot, humid locations in countryside areas devoid of any forest material goods. The Kutia Kandha tribe has had a wide range of health issues. As a result of the summer's intense heat and physical labour, many women, especially those who are pregnant, complain. It's extremely hot here, and working in the heat makes us weak, so we don't enjoy this new site. Old communities were surrounded by forests and healing herbs, yet our kids suffer from malaria and jaundice. Since they still favour traditional methods, many Kutia Kandha women discover that it is difficult to accept modern medical techniques and methods for relief. It is not easy to harvest the therapeutic plants because of the scarcity of forest resources. The indigenous people feel even more out of place when the host village lacks basic amenities like streams, grazing pastures, and places of worship. Be adamant about preserving the indigenous peoples' traditional treatments. In its 2030 agenda, the international forum also prioritized protecting and enhancing indigenous knowledge, acknowledging that the contemporary world may not be able to fully appreciate the worth of the ecosystem for health along with medicine. Indigenous /tribal people must be able to put their knowledge into practice, advance it, and play a role in the development of just, healthy, and sustainable global consumption patterns. Tribal people have accumulated profound knowledge with regard to their usual environment through decades of experience, as well as sustainable management techniques that have preserved the ecosystem and the biodiversity of the planet. In reality, for many years the only kind of healthcare accessible is for illness prevention and treatment in various tribal societies including Kutia Kandhas was traditional medicine.

3.2. Causes of Diseases

Kutia Kandhas continue to practice magic and use its paction and agents to treat bodily ailments. In accordance with their worldview, evil deities, evil spirits, ghosts, and the witches' vengeance are the principal causes of illness and early death. There are two high gods in the pantheon that belongs to the Kutia Kandha, a kind of demi-Gods who preside over meals and are benevolent in nature. The forest will deteriorate and house many spirits that inhabit the skies and trees. Not only that, though. Evil spirits and ghosts, both known and unknown, continue to populate their invisible world (Tribhuvan and Sherry, 2004, p.45).

Analysis

Scientific name, family, common name, local Odia name, life form, plant components used, and ailment category/illness treated are the order in which the information has been arranged. These plants were utilised by the Kutia Kandha tribe's traditional healers to treat ailments such as safe delivery, indigestion, stomach disorders, fracture, nail problems, migraine, asthma, ring worms, hair loss, vomiting, fever, scabies, nose bleeding, stomach pain, labour pain, and toothaches (on Table chat). According to a review of ethno botanical data, the people of Kutia Kandha tribe uses the plants in their immediate area for a range of purposes, with the creation of medicines being one of the most important uses of plants. Both the whole plant and its components are employed in this process. The Kutia Kandhas have demonstrated sustainable use of plants parts in medical applications being

conservative in their use of plants, not overusing significant medicinal herbs, and assessing ethno botanical data. (Mutatkar,1979,p.360). Sustainable harvesting practises are very important in consideration of preservation and conservation of the plant species in the immediate environment because roots are the most frequently used plant part for medicine compared to other plant parts like leaves, barks, tubers, fruits stem, latex, and the whole plant. Like with other tribes who live in the state, the Kutia Kandhas do not employ any particular plants to treat illnesses. (Deodhar, 1969, pp. 1-2).

According to Kalpan Patra et al. (2018), Kandhamal district residents treat illnesses differently from Kandhamal residents by using different herbs. The people of Kutia Kandha tribe in the research obtain their medications from traditional healers with a strong spiritual conviction, and it is impossible to ignore the mystical and magical aspects of this practise. In 1970 (Gelfand), one of the most obvious outcomes of ecological disruption has been thought to be the decrease in biodiversity. (Hasan 1969, p.34). The preservation and use of biological resources depend on the documentation of indigenous knowledge through ethno botanical studies. The Kutia Kandha tribe's ethnos medical knowledge is being gathered and analysed because the information gleaned from this work could aid in the actions needed to extract potentially useful bioactive components from plants, which could lead to medicine development from them. Many attempts have been



made to define traditional medicine using practises that have been collected, examined, and evaluated by a variety of scientific disciplines, but there hasn't been much success in coming up with a satisfactory or thorough definition that can encompass all of the facets of traditional medicine in its true logical spirit. Folk medicine's philosophy and methods are founded on humeral ideas, cosmological conjectures, and magic found in traditional oral medicine and religion. In truth, it is a well-liked kind of medicine among rural Indians, and its practitioners come from illiterate village communities to affluent metropolitan neighbourhoods. They treat a number of common illnesses. Folk medicine, on the other hand, views medicine more as a way to maintain health as opposed to treating sickness, and with good cause (Roy, 1989, p. 85).

The Kutia Kandhas believe in indigenous medicines. Hinupat (Dysentery) and Baheniturkey, the Kutia Kandhas use just one drug (frequent loose and watery motion). Two separate types of plantain roots, *Tadihiru Kumnditdihiu* are pounded and their juice is squeezed out before being combined.

IV. Conclusion

In conclusion, the practices of traditional medicine of Kutia Kandhas of Kandhamal represent a rich and profound heritage that has been passed down through generations. The Kutia Kandha community has developed an intricate system of healing practices rooted in their deep understanding of the natural world and the human body. Throughout this exploration of traditional medicine, we have delved into the various aspects of Kutia Kandha healing, including the use of medicinal plants, rituals, and spiritual beliefs. These practices are not only focusing on physical ailments but also on maintaining overall well-being and balance in individuals and tribal communities. The traditional healers and elders of Kutia Kandha tribe have played a vital role in preserving and transmitting this valuable knowledge. Their dedication and expertise have ensured the continuity of this ancient healing tradition, despite the challenges posed by modernization and globalization. It is important to recognize and respect the significance of traditional medicine in Kutia Kandha culture of Odisha. This indigenous knowledge offers alternative perspectives on health and healing, providing valuable insights and potential solutions for the sustainable development of healthcare systems. However, it is crucial to approach the integration of traditional medicine with modern healthcare systems with careful consideration. Collaborative efforts between traditional healers, scientific researchers, healthcare professionals, and policy makers can foster a comprehensive approach that combines the strengths of both traditional and modern medicine. Preserving and promoting the traditional

medicine of Kutia Kandha requires ongoing efforts to raise awareness, document practices, and support the community in safeguarding their cultural heritage. By recognizing the value and uniqueness of traditional healing systems, we can not only contribute to the well-being of the Kutia Kandha community but also foster cultural diversity and enrich the global understanding of healthcare. As we conclude this exploration, it is our hope that the knowledge shared in this document will serve as a foundation for further research, appreciation, and collaboration in the aspect of traditional medicine, ultimately contributing to the well-being and prosperity of Kutia Kandhas and their invaluable cultural heritage. On the whole, the use of traditional medicines and practices of the Kutia Kandhas of Kandhamal District are very interesting aspects to know the management of Health care systems/practices of one of the Particularly Vulnerable Tribal Groups of Odisha in India.

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References

1. A.B. Ota & S.C Mohanty. (2015). "Particularly Vulnerable Tribal groups (PVTGs) of Odisha", in *Anthropology of Health & Medicine, Volume III, Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.*
2. ADIVASI(2011). (*Journal of SCSTRTI*), Volume 51, Number 1 &2, June& December, Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.
3. Alves, R.R., & Rosa, I.M. (2007). "Biodiversity, traditional Medicine and public health: where do they meet", in *Journal of Ethnobiology and EthnoMedicine. New Delhi, 3 (1): 14.*
4. *Annual Activity Report (2018) Development Professional Associated with Tribal Medicine Compendium Project at SCSTRTI, Bhubaneswar, June.*
5. Balick, M., Cox, P. (1997). *Plants, people, and Culture: The science of Ethnobotany, New York: Scientific American Library.*
6. Basu, S.K., Jindal, a and Kshatriya, G.K. (1994). *Perception of Health and pattern of Health seeking Behaviour among the selected Tribal population Groups of Madhya Pradesh, New Delhi Manak Publication Lt.d.*
7. Bennett, Sara and V.R. Muraleedharan (1998). *Reforming the Role of Government in Tamil Nadu Health sector, paper No. 28, Development Administration Group, University of Birmingham, New Delhi.*
8. Bhatia, M and Anne Mills (1997). "Contracting out of Dietary Services by Public Hospital in Bombay", in *Private Health providers in Developing countries, Edited by Sara Bennett, Barbara Mepake and Annie Mills zed Books, Bombay.*
9. *Census of India 2011. District Census Hanbook, Kandhamal, Village and Town Directory, Odisha. Series 22, part XIII, Directorate of Census Operations, Odisha.*
10. Chand S.K., (1988). *The Traditional Herbal system of Chotangpur (Mimeographed). Ranchi Xavier Institute of social sciences, Ranchi India.*
11. Dash.J. and S.C. Pradhan, (2002). "The Concept and Treatment of Diseases Among the DongriaKondha of Orissa", in R.N.pati and J. Dash(eds.). *Tribal and indigenous people of India, New Delhi A.P. H publishing corporation.*
12. Deodhar, N.S. (1969). "The Concept of Health and Diseases" in (ed), *You and Your Health: National Book Trust, New Delhi.*

13. Hasan, K. A (1967). *The Cultural Frontiers of Health in village, case study of north Indian Village, Manaktalas, the University of California, Publisher, Manaktalas.*
14. Hemadri, K, and S.S. Rao (1989). "Folklore Claims of Koraput and Phulbani Districts of Orissa state", New Delhi in *Indian Medicine.*
15. Jagannath Dash, Prasanna K. Patra and Kanhu Charan Satapathy (2014). "Ethnomedical Practices in Tribal Areas", in Laxman Kumar Sahoo(ed.), *Tribal Health a Regional Perspective, Serials Publications PVT. New Delhi.*
16. Jain, S.K., Banerjee, D.K. and Pal, D.C. (1973) "Medicinal plants among certain Adivasis in India". in *Bull. Bot. Surv, Ind. Jose Boban, K., (1998). Tribal Ethnomedicine: continuity and change, New Delhi A.P.H Publishing Corporation.*
17. Kantikar, T and Srivivasan, P. C (1979). "Development of Maternal and Child Health Service in India", in *Child in India, New Delhi, Himalaya Publishing House.*
18. Kapoor, A.K (1996). "Tribe, Anthropology and Future", in R.S Manm (ed.), *Tribes of India: Ongoing Challenges, M.D. Publication; Delhi.*
19. Kaushal, S., (2004). "Healing Practices Among the Gaddi Tribe of Himachal Pradesh". in *Tribal Health and Medicine, in A.K. Kalla and P.C Joshi(eds.). New Delhi: Concept Publishing.*
20. Kshastriya, G.K. (2000). "Ecology and Health with Special Reference to Indian Tribes", in M.K. Bhasin and V. Bhasin (eds.) *Man Environment, Vol. VI., The Indian Society for Prehistoric and Quaternary Studies (ISPQS), Pune.*
21. Murmur, D. F., (2004). *Plant use Among the Tribal of Jharkhand. Tribal Health and Medicines. A.K. Kalla and P.C Joshi(ed), New Delhi: Concept Publishing.*
22. Paddle, F. and Das, S. (2010) *Cultural Genocide and the Rhetoric of Sustainable Mining in East India, Contemporary south Asia. p. 8.*
23. Palekr, R.P., (1995). "Ethno Medical Traditions of Thakur Tribals of Karjat, Maharashtra". in *Tribal Health in India. Edited book. New Delhi: Inter-India Publications.*
24. Panda, T., Panigrahi S.K and Padhy R.N. (2005). "A Sustainable use Phylodiversity by the Kandha tribe of Odisha", in *Indian Journal of Traditional Knowledge, Vol. 4 (2),*
25. Roy, Kanehan, (1989). *Education and Health Problems in Tribal Development, concept publishing company, New Delhi.*
26. Sahoo, M. (2012). "Anthropology of displacement case of conservation induced displacement and its impact on indigenous people in Simlipal Tiger Reserve Odisha" in *Afro Asian Journal of Anthropology, Odisha.*
27. Sahu, C.R., Nayak, R.K and Dhal, N K. (2013). "Ethnomedicine and Magico-Religious Beliefs of the Kandha Tribe in Boudh district of Odisha, India", in *Life Science Leaflets, Boudh district of Odisha, India.*
28. Senapati, Nilamani and Kuanr, Durga Charana (1983), *Orissa District Gazetteer (Boudh-Kandhamal), Gazetter unit Department of Revenue, Government of Orissa, Cuttack.*
29. Sharma, J. and Gairola, S., Gaur, R.D and Painuli, R.M (2012). "The treatment of Jaundice with Medicinal plants in indigenous communities of the sub-Himalyan region of Uttarakhand", in *Indian Journal of Ethnopharmacology, Uttarakhand.*
30. Singh, A.P. (2004). "Healing Practices Among the Tribes of Uttaranchal" in *Tribal Health of primitive Tribes. New Delhi: Discovery Publication, New Delhi.*
31. *The Journal "Adivasi", (June & December-2018). Volume 58, Number 1& 2, Published by Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.*
32. Tribhuvan, R.D and K. sherry, (2004). *Health, Medicine and Nutrition of the Tribes. New Delhi: Discovery Publishing House, Tribhuvan, R.D., (2004). Health of Primitive Tribes. New Delhi: Discovery Publication, New Delhi.*
33. V L N Rao, B R Busi, B Dharma Rao, Ch Sehagiri Rao, K Bharathi & M Venkaiah (2005) "Ethno medicinal practices among Khonds of Visakhapatnam District", in *Andhra Pradesh Indian Journal of Traditional Knowledge, Vol, 5 (2), Andhra Pradesh.*