International Journal on Science and Technology (IJSAT)
E-ISSN: 2229-7677 ● Website: www.ijsat.org ● Email: editor@ijsat.org

A Descriptive Study on Ethnomedicinal Practices in Kandhamal District

Dr.Tapaswini Gouda[1], Miss Akankshya Rath[2], Miss Priyadarsini Gouda[3]

[1,2]Lecturer in Anthroplogy, [3]Faculty in Anthroplogy
[1,2,3]SM Govt. Women's College,Phlubani, Kandhamal

Abstract

This paper reports and describes the ethnomedicine of Kondh ethnic group in Kandhamal district of Odisha, India. The data were provided by employing epistemology of cross-sectional ethnographic research; semi-structured interviews, direct observation, in village of Ambapada, Bisipada Phlubani, Kandhamal district to study different medicinal plants and method of prepartion to cure several diseases. The study listed 33 native species of plants that have been used to treat myriads of illnesses, including common ones like headache, fever and diarrhoea, and chronic and complicated diseases like diabetes, arthritis, and skin diseases. The preparations of remedies were ancient- juices, decoctions, pastes, and infusions and usually used together with adjuncts such as honey or milk. The findings illustrate the whole-person, culturally integrated, and sustainable concept of ethnomedicine that radiates the rich concept of botanical knowledge as well as flexible healthcare approach. Although the paper has some problems on the merging of traditional system and biomedical systems, with safety, regulation, and intellectual property issues, it is clear that indigenous medical knowledge needs to be preserved and validated. The major weakness is that the study is limited to two villages and it might not reflect the entire aspects of practises among the Kondh and other tribals.

Key words: ethno-medicine, disease, treatment.

1. Introduction

Ethno-medicine can be defined as the traditional medical system, which is strongly anchored on the cultural understanding of health, illness, and actual business of healing among particular communities. Such systems contain not only the application of therapeutic plants but also ceremonial and spiritual traditions, ideas, and data that are taken over through eras in communities (Inhorn & Wentzell, 2020; Panigrahy et al., 2016). Dependency on herbal extracts is quite significant across the world, as it was estimated that the medicinal plant trade reached more than $400 million back in 1980, and it keeps on rising in both developing and developed nations following the popularity of alternative and complementary medicine (Mills et al., 2021; World Health Organization, 2019).

Ethnomedicine is a part and parcel of the healthcare provisions in India, more so in the rural and indigenous communities there. It is reckoned that plant-based treatments have become the primary health requirement of the Indian population of over 80 percent (Shrivastava, 2018; Bodeker & Ong, 2019). India has a long cultural and botanical diversity with more than 2, 500 species of plants that have been reported as used ethnomedicinally (Panigrahy et al., 2016; Mukherjee et al., 2006). However, in spite of a large

number of economic and geographic issues, numerous tribal groups do not give up on traditional medical knowledge that remains an essential part of their identity and survival (Adams et al., 2020; Broom et al., 2019).

It is frequently found that the continued practice of these habits is interrelated with the idiosyncratic socio-religious beliefs, in which nature is believed as divine, and a healing process is considered as visceral and spiritual. Traditional healers contribute significantly to health preservation, disease prevention and social unity through the use of local plants in the physiological treatment plans (Helman, 2007; Kumar et al., 2022). As a result, ethnomedicine may be understood as a cross-disciplinary concept, which combines botanical expertise, religious claims, and practices within a community to treat an extensive range of health issues (Inhorn & Wentzell, 2020; Mills et al., 2021).

This paper will describe and discuss various plant-based medicines used by the Kondh people of Kandhamal district, Odisha, and also to give the cultural, ecological, and therapeutic implications of such traditional procedures in the modern healthcare sector in rural settlements.

2. Methodology

The study was cross-sectional ethnographic research with two village of Ambapada of Kandhamal district in the state of Odisha, India, as the setting. Qualitative and quantitative methods were used together in order to thoroughly record existing local ethnomedicinal activity.

The information collected as primary data was gathered via semi-structured interviews, direct observation, and photography. Community elders, local healers (dishari and baidya) and people who were knowledgeable living at the same household were identified by purposive and snowball sampling methods that targeted inclusion of those with rich knowledge of traditional medicine. The interviews with dishari, baidya at both the villages involved in depth which gave an insight of the native techniques of diagnosis, the guidelines of treatment and also the cultural orientation of the healing process.

Data of field observations were conducted through home visits and community meetings, which enable the researchers to document the medicinal use of the plants in-situ, preparing methods and dosage form. Plant photos, methods of preparation as well as treatment were photographed with the consent of the participants to aid in the accuracy of documentation and to identify the plant.

All the reported medicinals plants were harvested, taxonomically identified with the assistance of the local botanists, and cross-identified with standard floras and reference books. Ethnomedicinal uses of each plant were listed, as well as names used, parts used and conditions treated.

3. Results

Kondh community in Kandhamal district had 33 indigenous plant species recorded as a part of ethnomedicine. The plants are applied in treating a wide variety of diseases and common conditions treated with them include, headache, fever, cough, stomach pains and diarrhea, chronic or more complicated diseases such as arthritis, diabetes, menstrual disorders, and even snake bites.

Individual cures are normally made by use of particular plant parts, roots, leaves, bark, seeds, fruit juice or pulp which are prepared using traditional methods such as extraction as well as decoction or topically. As an example, Allium sativum (garlic) root in headache, Eclipta prostrata leaves in fever, and the Aegle

marmelos fruit pulp in dysentery. Some plants that are multi-purposely used include Curcuma longa (turmeric) and Ficus religiosa (peepal tree) in that, they have been used in a variety of conditions.

The diversity of features presented in the plants and the particularity of usage points to how well-versed the botany and cultural adjustment on the part of the traditional health practice is on part of the community. Details of each plant, vernacular and botanical names, local disease name as well as the location of the plant part to be used in treatment of the disease are described in the table (Table 1).

Table: 1 List of Indigenous herbs and plants used as ethno-medicine for various diseases.

Sl. No.	Disease	Local name of diseases.	Vernacular name of plant	Botanical name of plant.	Plant parts use in the process.
1	Headache.	Sepal Torga	Rasun	*Alliumsativum (garlic)*	Root
2	Fever.	Sidinamerigeri	Kesudura	*Eclipta Prostrata*	Leaves
3	Cough.	Depoka	Ada	*Zingiber officinace*	Root
4	Fracture of Bones.	Pernuvringa	Arjuna	*Terminalia Arjuna*	Bark
5	Stomach pain	Tutunova	Black pepper	*Piper nigrum*	Seed
6	Piles	Pindarirug	Kala Jeera	*Bunium persicum*	Seed
7	Urinary problem.	Bahumut	Jammu	*Syzygium cumini*	Leaves & Fruit
8	Snake Bite	Srasukaspa	Patal Garuda or Sarpagandha	*Rauvolfia serpentine*	Leaves, root
9	External cut	Katagha	Peppal Tree	*Ficus Religiosa*	Bark
10	Dysentery	Jidapinga/ Sirupukri	Bela	*Aegle marmelas*	Fruit pulp
11	Gastric	Brohiava	Juani	*Trachyspermum ammi (Ajwain)*	Seeds
12	Asthama	Kadinga	Methi & Ada	*Trigonella Focnumgraecum Ferugruk & ginger.*	Fruit, seed
13	External injure.	Katagha	Peppal tree	*Ficus religiosa*	Bark
14	Skin infection	Kasa	Haldi & ghasapatra	*Curcuma longa*	Fruit & leaves.

15	Diarrhoea	Gadhipurki	Bela	*Aegle Marnelos*	Pulp
16	Mensuration problem.	Madupuda	Bisalyakarani	*Tridam procumber*	Leaves
17	Indigestion.	Srahapa	Bahada	*Terminalia bellirica*	Fruit
18	Malaria	Pilinomeri	Neem	*Azadirachta Indica*	Leaves.
19	Arthritis	Mendaganinova	Pasarani	*Paederia Foetida*	Leaves.
20	Migraine	Torga	Peppel	*Ficus religiosa*	Leaves.
21	Constipation	Mundabati	Harada	*Terminalia chebula*	Fruit
22	Earache	Luturhaso	Kesudura	*Eclipta prostrate*	Leaves.
23	Obesity	Motapana	Hibiscus	*Hibiscus rosasinensis.*	Leaves.
24	Hair fall	Burijelba	Amla (Anala)	*Phyllanthusemblica*	Fruit
25	Tooth-ache	Padabikali	Golomarica	*Piper nigrum*	Fruit
26	Cataract & Glaucoma	Kanga apha	Kalara	*Momordica charantia Miza (Bitter ground)*	Fruit juice
27	Diabetes	Bahumut	Bela	*Aegle Marmelos*	Leaves, Fruit
28	Acidity	Srahapa	Desi ghikuari	*Alocbarbadensis miller*	Pulp
29	Mouth Uncer	Soju	Haladi	*Curcumalonga (Turmeric)*	Fruit
30	Chicken Pox	Bineni	Haladi	*Curcuma long*	Fruit
31	Cholera	Raju	Kakudi	*Cucumis sativus*	Leaves.
32	Nasal bleeding	Kanudiba	Kesudura	*Eclipta prostrate*	Leaves
33	Thermal burns	Poda	Desighikuari	*Aloe barbadensis miller (Aloevera)*	Pulp

The Kondh people use various methodologies to prepare ethnomedicine products and these methods also vary depending on the species of plants used as well as the health diseases that one is trying to treat. Medicines are usually prepared in the form of leaves, roots, barks, fruits and seeds dried or in a fresh state of plants. Depending upon the preparation methods, living organisms or their products may be turned into juices, pastes, powders, decoctions or infusions, frequently with the addition of adjuncts such as honey, milk, rock salt or clarified butter as additions to increase efficacy or palatability.

As an example, Phyllanthus emblica (amla) is used raw, in form of juice, or combined with honey to clear eyesight, alleviate headaches, and against urinary issues. Sharaca asoca (ashoka) bark powder mixed with lemon juice and rock salt is applied to give relief of acidity whereas the root of the plant is applied in cases of menstrual irregularities. The bark of ficus religiosa (peepal tree) is cut, dried and powdered and used to heal wounds, leaf paste is applied to forehead to treat insomnia and a paste of the leaves is used with honey to treat mouth ulcers.

It includes using more complex approaches, like stuffing herb powders in a betel leaf in the case of asthma or boiling the bark of a plant in milk with a heart condition. Plants such as Azadirachta indica (neem), Curcuma longa (turmeric) and Trigonella foenum-graecum (fenugreek) as synergistic combinations are commonly synthesized especially when it comes to chronic illness such as diabetes or skin disorder.

External afflictions and diseases of the skin are usually treated by topical prescriptions, the leaves or barks being pressed into the form of paste or plaster and applied to the spot. Internal conditions like digestive disorders, respiratory disorders and system disorders are preferred to be treated by oral preparations like decoctions or powders.

On the whole, these preparation techniques signify the combination of easiness, accessibility, and cultural tradition, which has been transmitted through generations and adjusted to sources available and respective health conditions. The key preparation and application methods of plants and diseases are reflected on Table 2.

Table 2: Method of Preparation ethno-medicines for various diseases

Sl no.	Plants used	Diseases	Method of prepartion
1	Amla	For better eye sight	It is rich in vitamin “C”, it helps to improve and preserve the eyesight thus it helps to attain better vision.
		For Headache	Amla fruit is a great stress reliever which helps to induce sleep and reline headaches.
		For Burning of Urine	Mixture of juice of Amla (40 gm) + Honey (25 gm) intake two time in a day to cure this.
2	Ashoka	Irregular menstruation	It can be taken in the roots from of churna/ powder or capsule twice a day after means
		For Acidity	Mixture of bark of Ashoka tree with lemon juice helf teaspoon and a little amount of Rock Salt (Sendha Namak) can be taken to get relieve.

		Asthma (Swasa)	A powder of seeds of Ashoka Tree is wrapped in betel leaves (Pan Patra) & consume a number of times to cure Asthma diseases.
3	*Aswatha* or Peepal tree	For wound healing	Make a powder of bark of the tree and apply of in the wound, it helps to reduce inflammation.
		For insomnia	make a paste of peepal leaves & apply it on your forehead for improving sleep.
		For mouth ulcer	A powder of the bark of peepal tree mix with honey apply in the ulcer to get instant relieve.
		For healthy Body	At first dry the fruit of the tree in slight & make a powder of it. One teaspoon of the powder regularly taken with honey to cure this.
4	Arjuna tree	For hand fracture	Make a paste of bark of Arjuna tree and wrap it with the help of a cloth around the fracture.
		For heart diseases	4 gm. Of bark of Arjuna tree boil with 80 gm of milk, when it boil to 20gm milk, strain it and regularly taken once in a day in each morning for 2 month to cure heart diseases.
5	Ashwagandha or Asgandha	For healthy immune system	Make a powder of roots of Asgandh and mix with milk and drink it for 15 days to get relieve from any types of body pain and also help in purification of blood. For Arthritis:- Powder of Asgandh's root mix with honey and clarified butter (ghee) can be taken for 2 months to get relieve.
		For Arthritis	Powder of Asgandh's root mix with honey and clarified butter (ghee) can be taken for 2 months to get relieve
6	Bitter Grourd	diabetes	It is a medicine for those who are suffering from type - 2 diabetes. .
		skin infections	The extract of Bitter ground when applied on wounds, skin infections provide instant relief from itching, redness & soothes the skins further
7	Indian beech (karanja)	For Malaria	Mixture of 1 Karanja seed with 3 Black pepple can be consumed along with water in empty stomach to get relieve.

		For Frequent Urination	The juice of Karanja Bark helps to decrease frequent urination.
		For remove Lie from hair	The bark of Karanja tree along with neem leaves mixture can be applied on hair.
8	Burflower tree(kadamba)	For Constipation	For Constipation Drink the juice of Burflower leaves to get relieve from constipation. .
		for Toottache	Brush your tooth with Kadamba stick to relieve from tooth related problems.
		For Headache	apply the paste of Kadamba leaves & massage it on forehead to get relieve from headache
9	Swamp weed(koilekha)	For intestinal work	For intestinal work:- The juice of Koilekha leaves can be consumed with lime water to decrease intestinal work of children. .
		For High B.P	The juice of Koilekha leaves can be consumed in empty stomach for a month, it help to keep the B.P. normal.
		For Insomnia	The root of the Koilekha plant should be taken as a juice to get relieve from insomnia
10	False deisy plant(Bhingraj Kesudura)	For high B.P	The juice of the leaves (2 gm) with ghee (3 gm)& honey (6 gm) can be consumed for 6-7 days, it helps to keep the B.P. normal
		For Fever	Take 1 tsp the juice of the leaves & can be consumed with 1 tsp honey 3 times a day to get relieve.
		For earache:	Apply1-2 drop the juice of Kesudura leaves on ear to get relieve from earache.
11	Giloy tree(Gulancha)	For Diabetes	The juice of Guluchi along with same amount of honey can be consumed for diabetes.
		For Heart disease	The juice of Guluchi roots along with jiggery can be consumed 2 times in a day to get relieve
		For Leprosy	The Guluchi powder along with sugar can be consumed to treat leprosy

12	Night flowering jasmine(Gangasuili, Parijat leaves)	For earache	Take 250gm mustard oil and boil it with 100 ml juice of Parijat leaves, after cooled apply 2-3 drop in to your ear to get relieve.
		For Gastric	The juice of the leaves can be consumed with sugar to get relieve from this
13	Black pepper(golamaricha)	For Cough	The powder of Black pepper can be consumed with honey to cure this.
		For Toothache	Grind black pepper and make a 50/50 mix of pepper and salt and apply it to painful or sensitive tooth and let it sit.
14	Black berry(jamu)	For diabetes	The powder of a dry jamu fruit can be consumed with water, regularly for 2 months.
		For excess bleeding during period	Take the bark of Jamu & boil it with water then strain it. Can be consume 2 times at the time of periods
		For Vomiting	The leaves of Jamu plants can be consumed to reduce it.
15	Neem(nemba)	For skin infection	Make a paste of Neem leaves & Bark of Neem and can be consumed with normal water to get relieve.
		For Tuberculosis	Apply neem oil on the chest of TB patient and also consume 10- 15 drops neem oil to get relieve.
		For Diabetes	Regularly the paste of Haldi & Neem can be taken in empty stomach to treat this.
		For Insipidus	Regularly 7 neem leaves can be consumed to get relieve
16	Betle plant(pana)	For common cold & Cough	Take the juice of betle leave along with ginger juice it can be consumed regularly 2-3 time a day. .

		For Indigetion	Make a juice of betle leaves with black pepper and cunsume this to get relieve..
		For Indigetion	Mixture of 7 Betle leaves can be consumed along with salt & work water to treat this
		For Indigetion	Juice of betle leaves mix with mustard oil and apply it on chest to get relieve.
17	Prasarini leaf	For Blood in Stool	The juice of Prasarini leave can be consumed with honey to treat this.
		For Arthritis	8- 10 leaves of Prasarini can be taken with 8-10 Black pepper it helps to treat Arthritis
		For Intestinal Worm	Take the juice of Prasarini leaves along with Black pepper powder it can be consumed in empty stomach regularly
18	Indian snakeroot plant (Patala Garuda, Sarpagandha)	For high B. P	Take 2-3 gm roof of the Patal Garuda plant & can be consumed with honey regularly day 7 night with worm water to decrease B. P
19	Beleric plant(bahada)	For Immune Health	taking Bahada powder along with honey helps to relieve cough as it improves immune health.
		For digestion	Bahada churna is an effective home remedies to improve digestion, it can be prepared by adding Bahada churna to work water & consume regularly.
		For Face	Apply Bahada powder with rose water on the face prevent growth of bacteria.
20	Wood apple(bela)	For Jundice	The paste of wood apple leaves can be consumed along with 5-7 Black Pepper to treat this.
		For Diarrhea & Dysentery	unripe Bela fruit pulp along with sugar or honey is found to be very effective in managing diarrhea, dysentery and any gastro-intestinal disorder.

		For Diabetes	Bela might lower blood sugar level. Bela stimulates pancreas & helps them to produce insulin that control sugar levels on the blood.
21	Indian pennywort (Bramhi. Thalakudi)	For Memory power	2-3 tsp powder of Brahmi soak in water for 2-4 night and regularly consumed it with milk. cure this kind of diseases.
		For Indigestion	Make juice of 25 Brahmi leaves & can be consumed with rock salt & hot water to treat this.
		For Jundice: -	Juice of Brahmi leaves along with milk can be taken to cure this kind of diseases
22	Garlic	For worms in Children	a mixture of juice of garlic & hot water can be consumed to cure this kind of diseases.
		For Indigestion: -	Take 1 garlic clove, a small piece of ginger, 2 black paper & 5 mint leaves, make it a paste, it can be consumed 2-3 times per day in lemon juice
		For Severe Fever	Apply the paste of 6-7 garlic on your umbilicus (Navi) to get relieve from fever
		For Asthma	Regularly you can consumed 2-4 raw garlic to get relieve.
23	Indian gallnut(harida)	For give health benefits	Eat 1 or 2 raw Harada & after that some honey to keep the body healthy.
		For Constipation	Drink Harada power with boiled water to get relieve from constipation
24	Turmeric	For Snake bite	make a paste of Haladi & eat it with butter (ghee) to get relieve from poisonous snake bite.
		For skin infection	Make a paste of Haladi with Neem and apply in the body to decreases the burning & itching.
		For Diabetics	Make a paste of Haladi and the bark of neem & drink it with empty stomach regularly to treat this.

4. Discussion

The current research indicates that the ethnomedicinal traditions are very much persistent and also adaptive with values among Kondh community living in the Kandhamal district. In spite of processes of industrialization, urbanization and increase in modern biomedical systems, traditional ways of healing are critical in meeting acute and chronic health requirements within the population. This strength highlights the importance of ethnomedicine as the available, culturally appealing, and eco-friendly healthcare medium (Panigrahy et al., 2016; Mills et al., 2021).

One of the greatest strengths of ethnomedicine is the fact that it is holistic in nature and that there are no definite divisions of physical, spiritual and social health. The traditional healer (dishari and baidya) does not only provide herbs, but also conducts rituals, participates in praying, and heads the community. The treatment strategies implemented by these healers are known to be merged with supernatural explanations of how and why a person develops a disease that are also usually considered spiritual leaders and guardians of plant knowledge. Such practices, according to Helman (2007), offer not only culturally adequate explanations, but psychological certainty that can facilitate the healing process in a better way than the remedies pharmacological action.

The range of the plants adopted and the diversity of the preparation techniques that ranged between simple juices to highly complex multi-plant combinations indicate not only the richness of the indigenous botanical knowledge but also its flexibility in adoption of the local indigenous healthcare practices. The preparation of seasonal parts of easily available plants and their use in form of paste, decoction or infusion is an approach consisting of a non-wasting tendency (Mukherjee et al., 2006). The tendency to use household solutions to cure minor conditions is another example of this philosophy, as the invasive help of professionals is applied only in severe cases or chronic conditions, which is also characteristic of the tiered community-based system of healthcare (Inhorn & Wentzell, 2020).

Nonetheless, a lot of difficulties and disputes also face the current use of the ethnomedicine. The combination of traditional and biomedical healthcare system is complex under the circumstances of medical professionals' hesitation to incorporate it combined with failures in regulation and safety and effectiveness of traditional remedies (Adams et al., 2020). The ethical concerns including the exploitation of indigenous knowledge, bio-piracy and safeguard of intellectual property rights are burning issues in the environment of globalization and commercialization (Bodeker & Ong, 2019).

Despite these challenges, there is an increasingly acknowledged fact that the implementation of an inclusive and culturally conscious policy on healthcare can be used to promote better health outcomes particularly in the underserved and marginalized communities. The inclusion of approaches to ethnomedicine in the field of conventional healthcare can make it more accessible, build relationships with trust, and patient-centered care (Broom et al., 2019; Mills et al., 2021). Community-based programs that allowed the inclusion of traditional healers into community health programs have demonstrated their potential in closing cross-cultural gaps and enhancing services to the population (Broom et al., 2019).

In this work, 33 medicines of vegetable origin used to treat various diseases (piles, diabetes and skin diseases, to rheumatism, and infectious diseases) were described. Such results do not only indicate that

the community possesses a substantial ecological expertise but are also in line with the larger global trends in medical pluralism, which shows that people are often able to use different medical systems depending on the situation and perceived necessity (Janzen, 1978; Inhorn & Wentzell, 2020).

5. Conclusion

In this research article, it is revealed how ethno medically knowledge persists and its flexibility amongst Kondh in Kandhamal district. Although the modern healthcare industry is gaining more airplay, the traditional way of health management by using plants is the first and the most definite channel of health maintenance, curable to both acute and chronic conditions. Ethnomedicine is an essential, culturally centered, and sustainable medium of rural health care through holistic approach and depth of botany as well as various modes of preparation by Kondh people of the place.

The results also lead us to the conclusion that the incorporation of the aspects of ethnomedicine into the mainstream health care can be a solution to improving accessibility, trust, and patient-oriented outcomes, especially in underrepresented and rural areas. Hence, it can be said that not only must the preservation, scientific verification, and ethical incorporation of indigenous medical practices be predominant when it comes to protecting the situation of tribal health, but it can also be said that such verification may be vital in expanding and diversifying the healthcare system on a global level.

The major weakness of this research is that it only involved two villages in Kandhamal district and hence it might have lacked the variability of ethnomedicinal practice of the Kondh people as a whole and other tribal populations. Also, the research was based on the self-reported data and qualitative observations, which can be recalled incorrectly or inaccurately documented as the use and effectiveness of plants.

References

1. Adams, J., Tovey, P., & Vickers, A. (2020). Integrating complementary and alternative medicine into conventional health care: An examination of the evidence base. Journal of Alternative and Complementary Medicine, 26(4), 345–353.
2. Bodeker, G., & Ong, C. K. (2019). WHO Global Atlas of Traditional, Complementary and Alternative Medicine. Geneva: World Health Organization.
3. Broom, A., Wijewardena, K., Sibbritt, D., & Adams, J. (2019). Integration of traditional and complementary medicine with mainstream healthcare systems: The perspectives of traditional healers in Asia. Social Science & Medicine, 235, 112400.
4. Helman, C. G. (2007). Culture, Health and Illness (5th ed.). London: Hodder Arnold.
5. Inhorn, M. C., & Wentzell, E. (2020). Medical anthropology at the intersections: Histories, activisms, and futures. Durham: Duke University Press.
6. Janzen, J. M. (1978). The quest for therapy in Lower Zaire. Berkeley: University of California Press.
7. Mills, E., Cooper, C., Seely, D., & Kanfer, I. (2021). Traditional herbal medicines: Global markets, modernization, and policy perspectives. HerbalGram, 129, 52–61.
8. Mukherjee, P. K., Wahile, A., & Saha, K. (2006). Synergistic effects of herbal extracts in Ayurveda: An overview. Journal of Ethnopharmacology, 103(1), 1–12.
9. Panigrahy, J., Behera, S. K., Venugopal, A., & Leelaveni, A. (2016). Traditional healthcare practices among the tribal communities of Odisha. Indian Journal of Traditional Knowledge, 15(3), 425–434.

10. Adams, J., Tovey, P., & Vickers, A. (2020). Integrating complementary and alternative medicine into conventional health care: An examination of the evidence base. Journal of Alternative and Complementary Medicine, 26(4), 345–353.
11. Bodeker, G., & Ong, C. K. (2019). WHO Global Atlas of Traditional, Complementary and Alternative Medicine. Geneva: World Health Organization.
12. Broom, A., Wijewardena, K., Sibbritt, D., & Adams, J. (2019). Integration of traditional and complementary medicine with mainstream healthcare systems: The perspectives of traditional healers in Asia. Social Science & Medicine, 235, 112400.
13. Helman, C. G. (2007). Culture, Health and Illness (5th ed.). London: Hodder Arnold.
14. Inhorn, M. C., & Wentzell, E. (2020). Medical anthropology at the intersections: Histories, activisms, and futures. Durham: Duke University Press.
15. Kumar, S., Sahoo, S., & Tripathy, S. (2022). Ethnomedicinal plants used by tribal communities in Eastern India: A review. Journal of Ethnopharmacology, 288, 114948.
16. Mills, E., Cooper, C., Seely, D., & Kanfer, I. (2021). Traditional herbal medicines: Global markets, modernization, and policy perspectives. HerbalGram, 129, 52–61.
17. Mukherjee, P. K., Wahile, A., & Saha, K. (2006). Synergistic effects of herbal extracts in Ayurveda: An overview. Journal of Ethnopharmacology, 103(1), 1–12.
18. Panigrahy, J., Behera, S. K., Venugopal, A., & Leelaveni, A. (2016). Traditional healthcare practices among the tribal communities of Odisha. Indian Journal of Traditional Knowledge, 15(3), 425–434.
19. Shrivastava, R. (2018). Ethnomedicine and health traditions of India. Indian Journal of History of Science, 53(1), 51–57.
20. World Health Organization. (2019). WHO global report on traditional and complementary medicine 2019. Geneva: WHO.