

# Herbal Wisdom in the Forest: Ethno-Medicinal Traditions of the Lodha Tribe of Jangalmahal Region of West Bengal

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## ABSTRACT

**Aim and Subject::** This study examines the ethno-medicinal practices of the Lodha tribe in Jangalmahal, West Bengal, focusing on their transition from hunter-gatherers to agriculture, their health challenges, and the interaction between traditional and modern healthcare systems.

**Methods::** A descriptive research design incorporating qualitative and quantitative approaches was used. Fieldwork included semi-structured interviews and observations with 25 Lodha community members, 14 traditional healers, and 12 local health workers. Quantitative data was gathered from district health statistics, government hospital records, Census data, and governmental reports.

**Results::** The Lodha tribe primarily relies on herbal remedies for ailments like snakebites, fractures, fevers, and respiratory issues. However, limited access to modern healthcare, along with poverty, malnutrition, and belief in witchcraft, worsens health challenges. While some traditional practices are effective, integration with modern healthcare is necessary for better outcomes.

**Conclusion::** Documenting and preserving the Lodha tribe's ethnobotanical knowledge is crucial for sustainable healthcare and cultural heritage. A collaborative approach combining traditional healing with modern medical training could improve healthcare while respecting their cultural identity. Integrating indigenous knowledge into broader health systems can provide mutual benefits.

**Keywords:** Lodha Tribe, Ethno-Medicinal Practices, Jangalmahal Region, Herbal Medicine, Forest.

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## INTRODUCTION

India's tribal population, comprising 8.61% of the total population (2011 Census), faces significant health challenges due to socio-economic marginalization. In West Bengal, where 5.8% of the population belongs to Scheduled Tribes, communities like the Lodhas struggle with inadequate healthcare access, poverty, and malnutrition. The Jangalmahal region, home to various tribal groups, is marked by difficult terrain and limited medical facilities, forcing many to rely on traditional healing practices.

The Lodhas, traditionally hunter-gatherers, possess deep knowledge of forest resources, using medicinal plants and herbal remedies for ailments like snakebites, fractures, and respiratory issues. However, colonial policies disrupted their way of life, branding them a "criminal tribe" and deepening their social exclusion. Though de-notified in 1952, they continue to face stigma, poor living conditions, and inadequate healthcare access. Their reliance on traditional medicine persists, yet the absence of proper integration with modern healthcare leaves them vulnerable to preventable diseases.

Herbal medicine and traditional healing systems have been key areas of inquiry for researchers for several decades. The indigenous knowledge of medicinal plants and healing practices among tribal communities has been widely studied, emphasizing their significance in both local and global health discourses. The Lodhas, a semi-nomadic tribal group, have a long-standing tradition of using ethnomedicine, which is deeply rooted in their cultural and spiritual beliefs. The study of their health practices provides insights into their understanding of diseases, reliance on folk healers, and their gradual shift towards modern healthcare systems. Despite modernization, traditional healing practices remain integral to their healthcare system due to limited access to modern medical facilities. This paper explores the health practices of the Lodha community, with a particular focus on their reliance on herbal medicine and traditional healing systems, and the challenges they face in accessing modern healthcare services.

### **Traditional Healing and Herbal Medicine among the Lodhas**

In one of the pioneering works, the Lodhas were described as a semi-nomadic people who used to move from one place to another in search of livelihood (Bhowmick, 1957). According to Bhowmick, Lodha people believe that diseases occur due to malevolent spirits. He also classified different types of folk healers in their society. Rao (1972) reported that they depend on the collection of minor forest produce, fishing, and hunting in Andhra Pradesh. Although Singh (1998) stated that the Savar is a snake-charmer community of West Bengal, literature suggests that they mainly work as daily wage laborers, collect medicinal plants, and other forest produce. Jain (2019) discussed the evolution of ethnobotany in India and its importance at national and global levels. Dutta et al. (2014) showed that the tribal people of Koch Behar district use several ethnomedicinal plants for treating different diseases. Sarat Chandra Roy, in *Oraon Religion and Customs*, examined the way of life of Indian tribes, particularly the religious and magical beliefs of the Oraon people of the Chhotanagpur region. Similarly, Tarak Chandra Das, in his work on the Purums and Old Kuki Tribe of Manipur, discussed the Purums in northeastern India and found that the priests were primarily associated with village deities and possessed extensive knowledge of medicinal plants. Alope Kumar Kalla and P. C. Joshi, in their edited book *Tribal Health and Medicines*, attempted to bring together the clinical and bio-genetic aspects of tribal health on one hand and traditional medical systems on the other. Shirish Chandra Agarwal and R. N. Pati edited *Folk Medicine, Folk Healers and Medical Plants of Chhattisgarh*, which includes contributions by eminent scholars relating to folk medicine, folk healers, and medicinal plants in Chhattisgarh. Khan's study (1986) of the Santals, particularly in the district of Birbhum, highlighted the role of traditional healers in Santal communities.

The State Government, as well as Sri Niketan (a pioneer in rural development), has undertaken several development programs, including health initiatives, in rural areas of this region. Shyamal Kumar Jana has conducted extensive fieldwork among various tribal communities of Midnapore district, focusing on different aspects of tribal health. In one of his papers (1998), he states that the Lodhas of Shibrampur village under Kharagpur – I Block of Midnapore district are willing to accept modern healthcare facilities, particularly in family planning. However, due to the non-availability of services, they continue to adhere to their traditional healing practices.

The Lodha community's healthcare practices are deeply influenced by their traditional beliefs, dependence on forest resources, and limited access to modern medical services. While they possess extensive knowledge of herbal medicine, their reliance on traditional healers persists due to the scarcity of healthcare facilities. Government and non-governmental organizations must work towards improving healthcare accessibility while respecting their indigenous knowledge systems. A holistic approach, integrating traditional and modern healthcare practices, is crucial for enhancing the health outcomes of the Lodha community.

### **Objectives of the Study:**

1. To explore the present health status of the Lodha tribe.
2. To investigate their traditional healing practices.
3. To identify contradictions between traditional healing and modern healthcare.

#### 4. To contribute to the preservation of ethnobotanical knowledge.

This study aims to highlight the importance of indigenous healthcare practices while advocating for their integration with modern medical systems to ensure improved healthcare outcomes for the Lodha community.

## METHODOLOGY

### Study Area

The study has primarily focused on the Lodha villages of Jhargram district, with additional data collected from Bankura and Purulia districts in the Jangalmahal region of West Bengal. These areas are home to significant Lodha populations, and fieldwork will be concentrated in villages with active traditional health practices.

### Research Design

This study has adopted a descriptive research design that combines both qualitative and quantitative methods. The approach will involve in-depth field research and data collection from primary sources (interviews, field observations) as well as secondary data (census data, reports, literature reviews).

### Data Collection Methods:

The study employed a descriptive research design integrating both qualitative and quantitative approaches to comprehensively analyze the traditional healing practices and healthcare challenges of the Lodha tribe in the Jangalmahal area. Primary data was gathered through extensive fieldwork in Lodha villages, involving direct observations of daily life, health practices, and interactions with medicinal plants. The researcher actively participated in community activities, traditional healing rituals, and medicinal plant collection to gain firsthand insights into their healing systems. Semi-structured interviews were conducted with key stakeholders, including 25 Lodha community members, 14 traditional healers, and 12 local health workers, to explore indigenous medicinal knowledge, healing methods, plant-based treatments, and the interaction between modern healthcare services and traditional practices. These qualitative interactions provided valuable insights into cultural beliefs and healthcare challenges faced by the community.

For quantitative analysis, published district-wise health statistics and government hospital records from the Jangalmahal region were examined to assess disease prevalence, healthcare access, and treatment outcomes. Additionally, secondary data from the 2011 Census of India was analyzed to evaluate demographic trends, health indicators, and the socioeconomic status of the Lodha community. Governmental reports and project data on health schemes and tribal welfare initiatives further contextualized the state of healthcare services available to the Lodhas. Furthermore, books, journal articles, and PhD theses related to the Lodha tribe, Jangalmahal, ethnobotany, and traditional medicine were reviewed to support field findings. Newspaper articles covering current events, government health initiatives, and the sociopolitical context of the Lodha tribe were also examined to enhance the study's understanding of contemporary challenges faced by the community.

### Data Analysis

The study employed a multifaceted analytical approach to examine the healthcare practices of the Lodha tribe. Qualitative data from interviews and field observations were analyzed using thematic analysis to identify recurring patterns related to traditional healing practices, health perceptions, and the integration of modern healthcare. Quantitative data, including Census records and government reports, were assessed to evaluate trends in health outcomes, access to healthcare, and the socio-economic conditions of the Lodha community, with descriptive statistics summarizing the findings. Additionally, a comparative analysis was conducted to examine the intersections between the Lodha tribe's traditional healing methods and the modern healthcare system, highlighting contradictions, complementarities, and areas of tension in healthcare accessibility and utilization.

### Health Status of the Lodha Tribe: Challenges and Determinants

The Lodha tribe, an indigenous community residing primarily in the forests of West Bengal, faces significant

health challenges shaped by socio-economic conditions, cultural beliefs, and limited access to healthcare facilities. Their health status is intricately linked to their traditional lifestyle, livelihood practices, and perceptions of disease and medicine. Engaged in agriculture, daily wage labor, fishing, and forest product collection, their dependence on traditional occupations exposes them to harsh environmental conditions, malnutrition, and occupational hazards. They reside in remote areas with poor sanitation, unsafe drinking water, and inadequate nutrition, leading to widespread health issues. Common ailments include infectious diseases like fever, jaundice, diarrhea, dysentery, malaria, tetanus, tuberculosis, typhoid, pox, and respiratory infections, along with chronic conditions such as arthritis, skin diseases, glaucoma, diabetes, high blood pressure, stroke, and liver cirrhosis. Environmental hazards such as elephant attacks and snake bites also pose significant risks. Mental health disorders, including depression, bipolar disorder, schizophrenia, and epilepsy, remain prevalent but often go untreated due to stigma and lack of awareness. Their healthcare challenges stem from poverty, malnutrition, lack of healthcare infrastructure, inadequate sanitation, and cultural resistance to modern medicine. Deeply rooted in spiritual beliefs, the Lodhas attribute diseases to supernatural forces, seeking remedies through rituals and traditional healers rather than modern healthcare providers. Deities like Baram, Chandi, and Sitala are worshipped for protection against illnesses, and spirits are believed to influence health outcomes. While government health schemes exist, lack of awareness and accessibility hinder their effectiveness. The poor health status of the Lodha tribe underscores the need for improved healthcare access, sanitation, nutrition, and culturally sensitive awareness programs to bridge the gap between traditional healing and modern medicine, ensuring better health outcomes for the community.

### Investigating the Traditional Healing Practices of the Lodhas

The Lodhas of Jangalmahal possess a distinct and deeply rooted traditional healing system that has evolved over generations. Their concept of health and medicine is intrinsically linked to their spiritual beliefs, cultural practices, and environmental surroundings. Unlike modern biomedical systems, Lodha healing practices integrate supernatural elements with herbal and empirical knowledge. According to Bhowmick , Lodhas believe that diseases and misfortunes often stem from the displeasure of mystical forces, breaches of taboos, or disturbances in natural harmony. Spirits, deities, and supernatural beings play an essential role in their medical worldview, and rituals are performed to appease these entities to restore health.

Their healing system encompasses a variety of practitioners, including herbal folk healers (Kabiraj), shamans (Ojha), astrologers, priests, midwives, physiotherapists, and snakebite curers. Herbal medicine forms the cornerstone of their treatment, and the knowledge of medicinal plants is passed down through generations. As Kutumbiah (1962) points out, the separation of rational herbal medicine from magico-religious healing marks an evolution in indigenous medical traditions, something evident in the Lodhas' healing methods. The Lodha herbalists, known as Kabiraj, possess extensive knowledge of forest flora, enabling them to treat ailments ranging from fevers and digestive issues to fractures and skin diseases (Field Interviews, 2024).

A unique aspect of Lodha healing practices is the integration of locally available plants, herbs, and organic materials in their medical treatments. Many of their remedies are prepared from plant roots, bark, leaves, flowers, and even latex, with careful attention to the time and manner of harvesting. According to Bodding (1925), tribal healers often observe specific rituals while collecting medicinal plants, believing that factors such as the direction they face and the time of day influence the plant's potency. Some remedies involve boiling or grinding plants, while others require mixing herbal pastes with honey, milk, or oils to enhance effectiveness.

### Common Diseases and Their Treatment by Lodha Herbal Healers

The following table highlights some common diseases treated by the Lodhas using medicinal plants and herbal remedies:

Sl.	Disease	Medicine and Treatment
1	<b>Snake-bite</b>	Root of Apang ( <i>Achyranthes aspera</i> ) ground and filtered, taken with three black peppers. Paste of Bach ( <i>Acorus calamus</i> ) rhizomes with warm water. Sochmukiba ( <i>Sansevieria roxburghiana</i> ) paste with lime water for venomous snakes. Akand



		(Calotropis gigantea) latex is applied to the bitten area. Other treatments include Dhutra (Datura metel) root with garlic, Manasa (Euphorbia neriifolia) latex, and others.
2	<b>Bone fracture</b>	Kukurchita (Litsea glutinosa) stem bark paste applied as a plaster. Rairui (Ventilago denticulate) bark paste with ginger. Raktha Kanchan (Bauhinia purpurea) stem bark paste. Harjora (Cissus quadrangularis) paste as a plaster. Other herbs used include Swarnalat (Cuscuta reflexa) and Mansasij (Euphorbia nerifolia).
3	<b>Fever</b>	Arked (Abrus precatorius) root paste. Borangadaru (Acacia farnesiana) bark. Garajimut (Cyperus compressus) leaf tea. Dhadki (Woodfordia fruticose) flower paste with honey. Sheuli (Nyctanthes arbor) leaf juice. Also, Kalmegh (Andrographis paniculata) leaves paste.
4	<b>Dysentery/Diarrhea</b>	Radhachura (Peltophorum pterocarpum) stem juice. Otapalandu (Artemisia nilagirica) milk juice. White Kanchan (Bauhinia acuminata) flower dust. Other remedies: Ashok (Saraca asoca) bark powder, Bakul (Mimusops elengi) fruit pulp, and Nagkesar (Mesua ferrea) seed oil.
5	<b>Jaundice</b>	Bhui amla (Phyllanthus fraternus) juice, Punarnava (Boerhavia diffusa) extract, Atasi (Gotalaria retusa) leaf paste with hot milk, Tumur (Cajanus cajan) crushed leaves.
6	<b>Injuries/Cuts/Wounds</b>	White Akanda (Calotropis gigantea) latex. Lal Notey (Amaranthus spinosus) juice. Taledari (Borassus flabellifer) root juice. Other herbs include Nasabhaga (Peristrophe bicalyculata) leaf paste and Pan Alu (Dioscorea belophylla) tuber paste.
7	<b>Malaria</b>	Borangadaru (Acacia farnesiana) bark decoction. Mango (Mangifera indica) leaf with Papaya leaf juice. Kurchi (Holarrhena antidysenterica) root powder. Aloe vera gel. Also used: Akon bindi (Cissampelos pareira) root decoction.
8	<b>Nervous Disorders</b>	Adhejenu (Argemone mexicana) and Ulatkanta (Martynia annua) as common treatments for nervous conditions.
9	<b>Asthma</b>	Dhutura (Datura metel) leaf paste. Musakani (Evolvulus alsinoides) leaf decoction. Dudhilata (Ichnocarpus frutescens) fruit and Begna (Rumex hymenosepalus) root juice.
10	<b>Leucorrhoea</b>	Dhatki (Woodfordia fruticose) root powder. Gulancha (Tinospora sinensis) soaked stem. Ram datum (Smilax zeylanica) root powder. Patal garur (Rauvolfia tetraphylla) root powder.
11	<b>Diabetes</b>	Sash (Dalbergia sisso) bark juice with long pepper powder. Aswatha (Ficus religiosa) dried fruit powder. Nayantara (Catharanthus roseus) leaf extract. Also used: Bhuikumro (Pueraria tuberosa) tuber powder.
12	<b>Skin Diseases</b>	Hingche (Enhydra fluctuans) stem paste. Segun (Tectona grandis) seed oil. Murga (Pterocarpus marsupium) leaf juice. Amaltus (Cassia fistula) leaf paste. Kanta begun (Solanum virginianum) thorn paste.
13	<b>Cancer</b>	Custard apple (Annona reticulata) leaf paste. Golmorich (Piper nigrum) powder. For Blood Pressure: Neem (Azadirachta indica) leaf powder and Nayantara (Catharanthus roseus) root paste in tablet form. Heart diseases are treated with Arjun (Terminalia arjuna) bark juice.

The Lodha healing system is an intricate blend of herbal, spiritual, and traditional knowledge, deeply intertwined with their cultural identity. Despite the growing influence of modern medicine, the Lodhas continue to rely on their indigenous healing methods due to accessibility, trust, and cultural relevance. The detailed knowledge of medicinal plants and their application demonstrates a sophisticated understanding of ethnobotany, which deserves further study and preservation. Future research and documentation efforts are crucial to ensuring that this rich indigenous knowledge is not lost but rather integrated with modern healthcare to benefit both the Lodha community and wider society.

### Contradictions between Traditional Healing and Modern Healthcare:

A significant contradiction between Lodha healing practices and modern healthcare lies in the conceptualization of disease causation and treatment methods. While modern medicine is based on scientific

evidence, diagnosis, and pharmacological interventions, Lodhas attribute illness to supernatural forces, displeased deities, or spiritual imbalances. For example, certain ailments, such as epilepsy or schizophrenia, are not merely seen as neurological disorders but are believed to be caused by malevolent spirits (Field Interviews, 2024). This perspective often leads Lodhas to seek intervention from shamans or priests rather than medical professionals.

Despite the government's efforts to establish modern healthcare facilities in tribal areas, the Lodhas largely depend on their folk healers. This is partly due to geographical constraints, economic limitations, and a lack of trust in institutionalized medicine. Moreover, some healing practices—such as animal sacrifices, spiritual exorcisms, and the use of potentially toxic herbal mixtures—conflict with biomedical ethics and safety standards. The enforcement of forest conservation laws by the British colonial administration and later Indian government further restricted access to medicinal plants, disrupting the Lodhas' traditional healthcare system (Bhowmick, p.130).

However, there are instances of convergence between traditional and modern systems. Some folk healers have incorporated elements of scientific knowledge into their practices, using a more systematic approach to diagnosing and treating ailments. Similarly, researchers and ethnobotanists recognize the potential pharmacological benefits of certain medicinal plants used by the Lodhas, highlighting the need for further studies in tribal ethnomedicine.

### **Preserving Ethnobotanical Knowledge of the Lodhas**

The traditional knowledge of medicinal plants among the Lodhas is an invaluable component of indigenous science and cultural heritage. However, this knowledge is at risk of being lost due to modernization, deforestation, and the declining interest among younger generations. The transfer of healing wisdom primarily occurs through oral tradition, from experienced herbalists (Kabiraj) to their sons or chosen disciples. Unlike formal medical training, this learning process involves direct observation, apprenticeship, and experiential practice over many years (P.O. Boddington, 1925).

Lodha healers collect their raw materials roots, leaves, bark, and seeds from nearby forests, fields, and riverbanks. As an interviewee points out, some practitioners even travel to neighboring states such as Odisha and Jharkhand in search of rare medicinal plants. However, they face significant challenges in preserving and storing herbs, as most traditional medicine preparation occurs on an as-needed basis. While some herbal treatments are taken orally, others are applied topically or consumed in specific ways—such as mixed with honey, water, or certain oils to enhance their efficacy.

Certain taboos and beliefs influence their ethnobotanical practices. For example, the Lodhas believe that plants with latex possess strong medicinal properties and that herbs should be harvested before noon, preferably facing eastward, to maximize their potency (Interviews, 2024). Additionally, numbers such as three and seven are considered to have mystical power, leading them to prepare medicines in those proportions. While these practices may seem superstitious, they reflect an intricate relationship between nature, medicine, and cultural traditions.

Given the increasing influence of modernity, efforts must be made to document and preserve Lodha ethnobotanical knowledge. Collaboration between ethno botanists, anthropologists, and tribal elders can facilitate the scientific validation of traditional remedies while ensuring that the Lodha people retain control over their indigenous healing practices. Integrating this knowledge into community-led conservation projects can also help maintain biodiversity and ensure sustainable access to medicinal plants.

## **CONCLUSION**

The traditional healing system of the Lodha community remains an intricate, holistic, and ecologically embedded practice that continues to serve as a primary healthcare approach in their daily lives. Rooted in indigenous knowledge, herbal medicine, and spiritual beliefs, Lodha healing practices reflect a profound understanding of nature's medicinal resources. The existence of various specialists, from Kabirajs (herbal

healers) and Ojhas (shamans) to Nagametias (snakebite curers) and midwives, highlights the complexity and depth of their indigenous medical system. This rich tradition has not only provided effective healthcare for generations but has also strengthened their cultural identity and connection to the environment.

Despite the enduring relevance of these practices, the Lodha healing system faces challenges in the wake of modernization and shifting healthcare preferences. The increasing influence of allopathic medicine, coupled with government health initiatives, is leading younger generations to rely more on biomedical approaches, causing a gradual erosion of traditional knowledge. While many Lodha remedies have proven efficacy, some practices—particularly those related to emergency treatments like snakebites—necessitate scientific validation and improvement to ensure safety. These challenges underscore the urgent need for documentation, validation, and integration of Lodha medicinal knowledge into broader healthcare systems.

A way forward lies in fostering collaborative healthcare models that combine traditional knowledge with modern medical advancements. Training traditional healers in basic scientific principles, establishing community-based research initiatives, and implementing sustainable harvesting of medicinal plants can enhance the effectiveness and longevity of their healing system. Furthermore, intellectual property protection and patenting frameworks can help safeguard Lodha ethno botanical knowledge, preventing exploitation while promoting its ethical use in modern herbal medicine.

In essence, the Lodha healing system is not merely an archaic practice but a living tradition with immense potential to complement modern healthcare. Through scientific validation, policy support, and sustainable integration, this indigenous medical knowledge can continue to benefit both the Lodha community and the broader field of ethno medicine, ensuring its preservation and relevance for generations to come.

#### **Declaration of generative AI and AI-assisted technologies in the writing process**

During the preparation of this work, the author(s) used Chat GPT in order to improve the language and readability in some places of the manuscript only. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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#### **Conflict of Interest Statement:**

On behalf of both authors, the corresponding authors state that there is no conflict of interest.

#### **Ethics Declaration:**

All participants were informed about the purpose, scope, and methods of the research. Verbal consent was obtained before any interviews or data collection activities. For participants with limited literacy, the consent process was explained in detail in their native language, ensuring full understanding. Participation in the study was entirely voluntary. Participants were free to withdraw from the research at any point without any consequences or obligations. The research was designed and conducted with deep respect for the cultural practices and traditions of the Lodha community. Efforts were made to ensure that the study did not disrupt or interfere with their customary activities.

#### **Authors Contributions:**

MS and SI jointly designed the study and collected data through field visits across the study region. MS prepared the manuscript, while SI provided technical guidance, edited the draft, and mentored MS throughout the process. Both authors have read and approved the final manuscript.

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### Consent for Publication:

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