



A REVIEW ON ETHNOGRAPHIC INSIGHTS INTO MEDICINAL PLANT UTILIZATION IN TRIBAL COMMUNITIES OF CHHATTISGARH

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Abstract

This review explores the ethnographic insights into the utilization of medicinal plants among tribal communities in Chhattisgarh, India. The region's diverse tribal populations, including Gond, Baiga, and Oraon, have historically relied on indigenous flora for their healthcare needs. Ethnobotanical studies conducted in various districts such as Bastar, Dantewada, and Surguja have documented a rich repository of medicinal plant knowledge passed down through generations. These plants are used to treat a wide range of ailments, from common ailments like fever and skin disorders to more complex conditions requiring specialized herbal remedies. The review synthesizes findings on plant species, traditional medicinal practices, cultural beliefs associated with healing, and conservation challenges faced by these communities. It highlights the importance of preserving traditional knowledge amidst modernization pressures and environmental changes, advocating for collaborative efforts to sustainably manage and protect medicinal plant resources. Ethnographic insights into medicinal plant utilization not only contribute to biodiversity conservation but also offer valuable perspectives for integrating traditional medicine with contemporary healthcare practices in Chhattisgarh's tribal communities.

Keywords: Medicinal plant, utilization, tribal communities, Chhattisgarh, traditional medicine

1. INTRODUCTION

Plants have long been used medicinally in traditional medicine to treat a variety of ailments, such as high blood pressure, dysentery, constipation, diarrhea, bronchial,

stomach discomfort, asthma, fever, colds, coughs, and many more [1]. These herbs have been used for medicinal purposes since ancient times. Allopathic, homoeopathic, and Ayurvedic medicine, as well as other forms of medication made from plant extracts, have their place in the medical field [2]. The 2018 Indian State of Forests Report states that the total land area of Chhattisgarh is 41.33 percent (55,547 km²) covered by forests. Chhattisgarh, also referred to as the "herbal state," is home to a large diversity of plants with therapeutic applications [3]. Chhattisgarh is a herbal state with 44% forest land and a rich variety of flora [4]. The Chaturgarh Forest Reserve occupies over one-third of the area of the state's Korba district. The district is bounded to the north by Sarguja and Koriya, to the east by Raigarh, to the west by Bilaspur, and to the south by Janjgir-Champa [5]. Humid subtropical weather is characteristic of Korba weather. The seasons shift; summer is hot and muggy, and winter is pleasant. Thus, this study explores the ethno-medicine and taxonomy of wild herbaceous plants in Chhattisgarh's Chaturgarh Forest [6]. Human activity is primarily responsible for effects on tropical vegetation and species composition, changes in land use, and degradation of our native biodiversity. Thus, there is a significant rise in greenhouse gas emissions into the atmosphere, contributing to global warming [7, 8]. The recent development of changes in vegetation and habitat loss as ecological characteristics pose a significant challenge to maintaining the rapidly declining biodiversity of tropical forest ecosystems [9, 10]. Due to anthropogenic activities like clearing, burning, logging, agriculture, rural settlements, etc., which have increased over the past few decades, tropical landscapes have suffered widespread forest loss and increased fragmentation. Forest fragmentation is the progressive process that lowers once-large undisturbed forests to tiny remnant pockets. Symptoms of forest fragmentation include decreasing unbroken contiguous forest cover, rising forest edge, and isolating remaining regions in a woodland landscape. The World Health Organization (WHO) [11] estimates that 80% of people on the planet get their primary medical treatment from traditional remedies like herbs. Ethnobotanical studies are widely accepted and popular around the world. It can serve as a basis for the discovery of hitherto unknown medicinal qualities by scientists. Indian native communities cling to their traditional understanding of therapeutic plants. Numerous plants have been shown to provide relief from a range of ailments [12]. It is founded on the use of medicinal herbs as prescribed by the ancient Indian medical literature Ayurveda. There are several approaches to using plants. These techniques include Awaleh (plant and its parts boiled in milk and clarified butter), Asav (decoction of plants or plant parts fermented with jelly or honey), Choorna (powder derived from plants or plant parts), Quath (decoction of

plants or plant parts), and Ras (juice from plants or plant parts). This is the primary means of medical care for almost all tribes. Ayurveda is essentially a traditional medical system from India.

Such ethnobotanical knowledge is relevant to primary healthcare, nutrition security, and biodiversity conservation [13]. Because of the speed at which cultural and environmental change is occurring, many indigenous peoples' invaluable knowledge systems are in danger of disappearing [14]. Thus, gathering comprehensive data about the plants that the native people of Chhattisgarh's Kondagaon district have historically used for food and medicinal was the aim of this ethnobotanical study. The findings might shed light on the best ways to protect the natural resources of our world and the reasons it's critical to revive antiquated plant-based medicinal techniques.

1.2 Medicinal Plant Utilization in Chhattisgarh Tribal Communities

Medicinal plant use in Chhattisgarh tribal groups is a complex convergence of traditional knowledge, cultural traditions, and sustainable healthcare solutions [15]. For millennia, these societies have relied heavily on locally available flora to meet their medicinal needs, establishing a deep connection between nature and health. This technique is ingrained in their socio-cultural fabric, as elders pass along knowledge of medicinal plants through oral traditions, rituals, and practical application.

In Chhattisgarh, a state rich in biodiversity and home to various indigenous tribes, medicinal plants are used not just to alleviate diseases but also to maintain peace in the environment [16]. Each plant species has unique therapeutic characteristics that are well-known and valued in these cultures. Herbal healers, who are frequently esteemed in their communities, play an important role in conserving and transmitting this knowledge. They have acquired competence via apprenticeship and direct experience, selecting, making, and administering cures using complicated criteria that combine empirical observations with spiritual beliefs. The use of medicinal plants goes beyond personal health to include communal well-being and environmental responsibility [17]. Practices such as sustainable harvesting and cultivation help to replenish plant populations and prevent overexploitation. Furthermore, the holistic approach to healthcare embodied in these traditions is consistent with contemporary viewpoints on integrated medicine, which advocate for the collaboration of natural medicines and modern healthcare systems.

Despite the persistence and effectiveness of traditional therapeutic techniques, difficulties remain. Rapid socioeconomic development, environmental degradation, and a lack of recording all pose threats to the preservation of this knowledge. Efforts to chronicle and scientifically validate these traditions are crucial not just for cultural preservation, but also for investigating possible contributions to global health solutions. Initiatives that encourage

collaboration among traditional healers, scientific researchers, and politicians can improve understanding, promote sustainable practices, and help to recognize indigenous knowledge systems in healthcare discourse.

Table 1: Medicinal Plant Utilization in Chhattisgarh Tribal Communities

S.N.	Common Name of Plant	Botanical Name	Useful Parts of Plant	Finding	Reference
1	Amla	Phyllanthus emblica	Fruit, Leaves	Used for treating digestive disorders	[18]
2	Harad	Terminalia chebula	Fruit, Bark	Effective in treating respiratory ailments	[19]
3	Neem	Azadirachta indica	Leaves, Bark	Antimicrobial properties useful for skin infections	[20]
4	Tulsi	Ocimum tenuiflorum	Leaves	Used in treating fever and respiratory disorders	[21]
5	Arjuna	Terminalia arjuna	Bark	Cardioprotective properties observed	[22]
6	Baheda	Terminalia bellerica	Fruit, Bark	Useful in treating respiratory disorders	[23]
7	Bael	Aegle marmelos	Fruit, Leaves	Gastroprotective and antimicrobial properties	[24]
8	Guduchi	Tinospora cordifolia	Stem, Roots	Immunomodulatory effects noted	[25]
9	Ashwagan dha	Withania somnifera	Roots, Leaves	Adaptogenic and stress-relieving properties	[26]
10	Brahmi	Bacopa monnieri	Whole plant	Cognitive enhancing effects observed	[27]
11	Giloy	Tinospora cordifolia	Stem, Roots	Immunomodulatory and antipyretic properties	[28]

12	Kalonji	Nigella sativa	Seeds	Antioxidant and anti-inflammatory effects	[29]
13	Pudina	Mentha arvensis	Leaves	Digestive and analgesic properties	[30]
14	Sarpagandha	Rauvolfia serpentina	Roots	Hypotensive and sedative effects observed	[31]
15	Shatavari	Asparagus racemosus	Roots	Hormonal balancing properties noted	[32]

2. RELATED WORKS

Ahirwar et al. (2024) [33] identified the herbs and spices used in tribal cuisine in the Bilaspur district of Chhattisgarh, India. They conducted their fieldwork using an ethnobotanical methodology, which involved counting the plants they discovered. Use value (UV) and fidelity level (FL) were applied to the questionnaires given to the indigenous communities to evaluate the results. The collection, identification, and preparation of plant samples for use as voucher specimens was done in compliance with recognized ethnobotany protocols. The twenty-four plant species found here belong to fifteen distinct families and twenty-two different genera. Fruits (34%), leaves (23%), seeds (17%), rhizomes (10%), aril (4%), bark (3%), bulbs (3%), flower buds (3%), and stigmas (3%), were the main items collected from these plants. They raised awareness of the abundance of economically significant and therapeutic plants in the area, many of which are still in use by the native indigenous population. However, they also observed that a younger generation is becoming disengaged from the traditional indigenous knowledge of these plants.

Rai et al. (2024) [34] examined ethnopharmacology, characterizing it as "the multidisciplinary scientific investigation of the biologically active substances that are customarily used." To record fifteen families of medicinal plants with a history of ethnopharmacological efficacy—with an emphasis on those plants' capacity to expedite wound healing—research was conducted in the Dhamtari regions of Chhattisgarh, India. Researchers conducted surveys, conducted interviews, and otherwise interacted with the community from March 2021 to February 2023 to get firsthand information about wild medicinal plants. The scientific names, families, common names, and particular therapeutic ingredients that aid in wound healing were used to categorize the plants. Predominant plant families like Fabaceae, Liliaceae, and Amaranthaceae have been found to have significant medicinal potential, especially when used in conventional wound healing techniques. The study discovered that younger generations are growing disinterested in traditional

knowledge, despite its abundance, which may result in the loss of this invaluable legacy. They underlined the significance of recording ethnomedicinal plants today to protect them for upcoming generations. The potential utility of the database for the conservation of biodiversity by scientists, naturalists, planners, politicians, and chemists was also emphasized.

Rathore et al. (2024) [35] investigated the diversity of ethno-medicinal plants in the state of Chhattisgarh. The state of Chhattisgarh is well-known for its breathtaking scenery, rich history, and diverse culture. Over the past thirty years, ethnobotanists have meticulously documented a wide array of medicinal plants found in Chhattisgarh, revealing a significant diversity of plant species. The state is home to members of numerous distinct indigenous communities. There are the Pardi, Bhariya, Mandia, Kamar, Bhatara, Oraon, Binjhar, Kanwar, Korwa, Baiga, Bhumia, Agariya, and Gond among them. These people reside in mountainous, rural locations rich in medicinal plants that are utilized to cure both human and animal ailments. They specifically emphasize the value of techniques for obtaining therapeutic chemicals from plants. In order to maintain a diversity of ethnomedicinal plant species for use in traditional medicine and the prevention of chronic sickness, it highlights the efforts made by indigenous people in Chhattisgarh to protect the Chhattisgarh forest. Because of habitat degradation and mining activities in their natural habitats, these species are in grave danger of going extinct, so they must be documented and protected for the sake of future generations.

Verma et al. (2024) [36] conducted an ethnobotanical survey in Raipur district, one of Chhattisgarh's tribal areas. This region is well-known for the extensive use of plants in traditional medicine and pharmacology by both rural and urban residents. Thirty-four plant species were the main focus of the documentation efforts of the Agariya, Urav, Baiga, and Madiya tribes in 2022–2023. These plants, which belong to 28 distinct families and 34 different species, are used by the locals as remedies for a range of ailments. The ethnomedicinal knowledge gleaned from interviews with medicine men and traditional healers, or Ojhas, provided insight into the therapeutic qualities of these plants. They provide an alphabetical inventory of medicinal plants, listing their botanical names, families, local names, parts used, and ethnomedicinal applications. This helps advance our understanding of the ethnobotanical aspects of the medicinal flora of the Raipur district and highlights the significance of maintaining this traditional knowledge in the face of shifting societal dynamics and environmental challenges.

Nagwanshi et al. (2024) [37] highlighted the connection between witchcraft and supernatural powers in this culture. The Baiga people revere traditional healers as wondrous individuals with unique knowledge of herbal treatments. The tribe's reliance on treatments based on traditional knowledge was acknowledged, and superstitions were highlighted, such

as the notion that specific colors are lucky or unlucky for illness. Ethnographic study can provide a deeper understanding of any society's beliefs about health, illness, and medical practices—regardless of how complicated. To dispel harmful myths and promote beneficial practices, they emphasize the importance of conducting in-depth study on folk medicine. By exposing the Baiga tribe's reliance on traditional treatment methods, the research advances our understanding of how cultural and spiritual beliefs of indigenous communities influence their health outcomes and medical decisions.

Sharma et al. (2024) [38] examined the ethnomedicinal value of invasive plants in Durg District, Chhattisgarh, India. These plants have numerous detrimental effects and spread quickly in their new habitats. They sought to highlight the traditional medicinal benefits of these invasive species. Twenty-five invasive plant species were found, grouped into thirteen families: six species each for the Asteraceae, four for the Fabaceae, one for the Convolvulaceae, one for the Lamiaceae, one for Martyniaceae, two for Asclepiadaceae, one for Cleomaceae, two for Euphorbiaceae, one for Verbenaceae, two for Malvaceae, one for Solanaceae, one species for Poaceae, and one species for the Amaranthaceae. They emphasized the necessity of carrying out phytochemical tests to verify the ethnomedicinal claims associated with these plants and identify potential therapeutic components. This study clarifies the ethnomedical applications of invasive plants, which aids in our understanding of their ecological and therapeutic roles despite concerns over their invasiveness and ecological impact.

Sethi et al. (2024) [39] studied the traditional reproductive healthcare knowledge of Gond, Oraon, Pando, and Baiga women in Katkona Village. They discovered that the most common forms of treatment for women's reproductive health problems in these locations, such as vaginal discharge and disorders connected to pregnancy, were conventional medications and home remedies. Certain meals were considered taboo due to ethnic traditions during pregnancy and lactation. The importance of local medicinal plants in treating issues related to reproductive health demonstrated the community's reliance on traditional herbal knowledge. The more experienced women and village elders were largely responsible for preserving and passing on their wisdom through the generations. They found that, despite the increasing accessibility and affordability of modern reproductive healthcare choices, traditional treatments persisted due to cultural attitudes and accessibility concerns. However, they also noticed a growing trend in the region toward medical pluralism, which they linked to the gradual but persistent loss of indigenous knowledge brought about by cultural shifts and urbanization.

Shriwas et al. (2023) [40] examined the Achanakmar region of Chhattisgarh, India, and discovered 54 herbaceous medicinal plants from 30 different families. Field surveys were conducted between March 2020 and March 2022 to collect indigenous knowledge of

wild medicinal plants, which included extensive interactions with local communities. This information was acquired via interviews, conversations, and surveys. Plants were classified according to their scientific names, family, common names, medicinal applications, and the ailments they treated. The investigation found that the local indigenous population employed five different types of plants from the Zingiberaceae family. Other significant families included Amaranthaceae, Acanthaceae, Fabaceae, Asteraceae, and Lamiaceae, each with three species of therapeutic plants. Despite an absence of written archives of traditional medical knowledge, they highlighted how rural Achanakmar populations have traditionally relied on native flora for basic healthcare and illness treatment. Some believe that modern society has caused younger people to lose interest in traditional knowledge. They emphasized how important it is to document ethnomedicinal herbs for future generations. This underscores the database's potential value to scholars, lawmakers, and environmentalists striving to protect biodiversity and cultural heritage.

Darro et al. (2023) [41] provided significant information about medicinal plants in Indravati National Park that are endangered. They performed in-depth interviews with locals, comprehensive field surveys, and a review of pertinent literature in order to obtain knowledge about these plants. The lush vegetation of the park was home to a wide variety of significant medicinal plants, some of which are ethnomedicinally significant despite being rare, threatened, or endangered. Acknowledging the extensive spectrum of uses in traditional herbal medicine, a thorough inventory comprising 21 medicinal plants from 16 families was created. With three species each, the Bignoniaceae and Fabaceae families were stated to have the most species. With two species, the Buseraceae family came next, while a few other families had one species apiece. Plant materials such as roots, bark, flowers, fruits, seeds, pastes, powders, extracts, decoctions, and infusions were all used to make medicinal medicines. In addition to imparting age-old knowledge, they provided crucial information to scientists, legislators, and environmentalists that would enable them to safeguard the park's uncommon medicinal plants. By doing this, we can save biodiversity, promote the use of herbal remedies, and ensure that these plants will be around for future generations.

Tiwari et al. (2022) [42] examined the Ayurvedic-based ethnomedicine used by the tribal communities in the Indian state of Chhattisgarh, namely in Kanker, Bilaspur, and Jashpur. They praised traditional medicine for its integrative technique, which often yields new research directions, and emphasized its popularity as a popular and affordable choice for these communities' medical needs. This study bridged the knowledge gap between the local traditional medicine practitioners' deep plant knowledge and scientific methodology. An extensive ethnomedical study with 125 informants revealed variables such as experience, age, and literacy rates, highlighting the importance of indigenous knowledge transfer. We

examined secondary data using scientific methodologies, such as the Informant Consensus Factor, Fidelity Level, and Use Value. The findings showed that 80 species of medicinal plants belonging to 41 groups were employed for a variety of medical conditions. The maximum Use Value (UV), according to *Terminalia bellirica* Roxb, was 0.99. They found that the consensus factor for urological, hematological, and calculus problems was 1.0. Certain plants, like *Azadirachta indica* and *Andrographis paniculata*, have a 100% fidelity rate. The results show that ethnomedical practices should be recorded and conserved for the benefit of future generations and that traditional healers are crucial to the vertical transmission of indigenous knowledge.

Yadaw et al. (2022) conducted a comprehensive assessment in the Jashpur district, which is a hub for herbal medicine in Chhattisgarh and home to the Korwa, Gond, Nageshiya, Birhor, Pando, and Baiga tribes [43]. They documented the long-standing reliance of indigenous peoples on medicinal herbs cultivated in forests to treat a range of illnesses. These herbs are used medicinally by many indigenous cultures, in addition to being sold at neighborhood markets. They discovered over a hundred varieties of medicinal plants, which were used to treat a wide range of conditions, including fever, skin ailments, migraines, and joint and paralysis discomfort. In the Jashpur district, tribal healthcare traditions heavily rely on wild medicinal herbs. Native American cultures value these plants for their medicinal and economic value.

Pandey et al. (2021) [44] conducted an ethnobotanical study in New Raipur, popularly known as Atal Nagar. This location is located in Chhattisgarh, India, thirty kilometers outside of Raipur. By using PRA, rapid rural appraisal, and semi-structured interviews, they were able to obtain ethnobotanical information on area plants from native tribes. Utilizing metrics like the relative frequency of citation (RFC), use value, and informant consensus factor, the data was quantitatively analyzed. These 103 plants were used by the indigenous peoples to treat a variety of illnesses, such as diabetes, eczema, toothaches, asthma, elevated blood pressure, ulcers, and urinary tract infections. There were 40 families and 90 genera included among these plants. Plants such as *Ficus religiosa* and *Ziziphus marutiana* have RFC values as high as 0.92, indicating their widespread popularity. *Moringa oleifera* is a potent medicinal plant with a use value of 1.78. They also drew attention to the high informant consensus factor about gastrointestinal disorders, a sign that traditional healers are frequently in agreement with the efficacy of therapeutic plants. This comprehensive database offers valuable insights into the flora and traditional healing methods of the residents of multiple Atal Nagar villages. It assists with healthcare and biodiversity conservation efforts and advances our understanding of traditional medicine.

Table 2: Comparative Overview of Ethnobotanical Studies in Chhattisgarh, India

Study Reference	Focus / Area	Methods Used	Key Findings	Significance / Conservation Focus
Ahirwar et al. (2024)	Bilaspur, Chhattisgarh	Ethnobotanical survey, questionnaire, fidelity level	Identified 24 plant species used for culinary and medicinal purposes by tribal communities. Traditional knowledge decline noted among younger generations.	Conservation of traditional knowledge amid cultural shifts.
Rai et al. (2024)	Dhamtari, Chhattisgarh	Field surveys, interviews	Documented 18 therapeutic plants for wound healing. Concern over declining interest in traditional knowledge among youth.	Preservation of ethnomedicinal practices and biodiversity.
Rathore et al. (2024)	Chhattisgarh	Ethnobotanical documentation	Noted diversity of medicinal plants across Chhattisgarh, highlighting conservation challenges due to habitat destruction.	Emphasis on protecting diverse ethnomedicinal species.
Verma et al. (2024)	Raipur, Chhattisgarh	Ethnobotanical surveys, interviews	Cataloged 34 medicinal plant species used by tribal communities for various ailments.	Contribution to ethnobotanical understanding and cultural

			Emphasized the importance of preserving traditional knowledge.	heritage preservation.
Nagwanshi et al. (2024)	Baiga tribe, Chhattisgarh	Ethnological research	Explored health beliefs and traditional healing practices among Baiga tribe, highlighting cultural influences on healthcare choices.	Understanding cultural perceptions of health and illness in indigenous communities.
Sharma et al. (2024)	Durg District, Chhattisgarh	Ethnobotanical study	Studied ethnomedicinal uses of invasive plants, emphasizing the need for phytochemical investigations and conservation efforts.	Examining ecological roles and medicinal potential of invasive species.
Sethi et al. (2024)	Katkona Village, Chhattisgarh	Interviews, field surveys	Explored traditional reproductive healthcare practices among tribal women, noting cultural persistence amid modern healthcare availability.	Conservation of indigenous knowledge in reproductive healthcare.
Shriwas et al. (2023)	Achanakmar, Chhattisgarh	Field surveys, interviews	Documented 54 medicinal plants, highlighted	Urgency in documenting and preserving

			traditional use and conservation challenges due to declining interest in traditional knowledge.	ethnomedicinal plants for future generations.
Darro et al. (2023)	Indravati National Park	Field surveys, interviews	Identified 21 endangered medicinal plants, stressed conservation needs amidst habitat destruction and mining activities.	Preservation of endangered medicinal species in national parks.
Tiwari et al. (2022)	Kanker, Bilaspur, Jashpur	Ethnobotanical survey, scientific analysis	Surveyed 125 informants, documented 80 medicinal plant species. Emphasized role of traditional healers in knowledge transmission.	Importance of documenting and conserving ethnomedicinal practices for future generations.
Yadaw et al. (2022)	Jashpur, Chhattisgarh	Ethnobotanical survey	Identified over 100 medicinal plant species used extensively by tribal communities for healthcare and economic purposes.	Role of wild medicinal plants in tribal healthcare and local economy.
Pandey et al. (2021)	New Raipur, Chhattisgarh	Semi-structured interviews, PRA, rapid rural appraisal	Documented 103 medicinal plants, and highlighted their extensive use	Contribution to understanding local flora, supporting biodiversity conservation, and

			and high medicinal values.	healthcare practices.
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3. Challenges of the traditional use of Medicinal Plants

The traditional use of medicinal plants in tribal communities of Chhattisgarh faces several challenges, which impact their continued utilization and preservation. These challenges include:

- 1. Loss of Traditional Knowledge:** There is a risk of traditional knowledge associated with medicinal plants being lost due to the gradual erosion of cultural practices and the increasing influence of modern lifestyles. Younger generations may not be as interested in learning about traditional medicinal practices, leading to a decline in knowledge transmission.
- 2. Habitat Destruction and Environmental Change:** The natural habitats of medicinal plants are increasingly under threat due to deforestation, urbanization, industrialization, and agricultural expansion. This destruction reduces the availability of these plants in their natural environments, impacting their accessibility for traditional medicinal purposes.
- 3. Overexploitation and Resource Depletion:** Overharvesting of medicinal plants, often driven by commercial interests or unsustainable collection practices, can deplete local plant populations. This overexploitation threatens the sustainability of these resources and disrupts the ecological balance in which these plants thrive.
- 4. Legal and Regulatory Issues:** Inadequate legal frameworks and regulatory protections can fail to safeguard traditional knowledge and resources. This can lead to unauthorized exploitation of medicinal plants, lack of recognition or compensation for indigenous communities, and limited control over access to these resources.
- 5. Climate Change and Adaptation:** Climate change poses a significant threat by altering the distribution and availability of medicinal plants. Changes in temperature, precipitation patterns, and extreme weather events can disrupt plant growth cycles and impact the effectiveness of traditional healing practices that rely on specific plant species.
- 6. Health and Safety Concerns:** The safety and efficacy of traditional medicinal practices may not always meet modern scientific standards. This can raise concerns about adverse effects or inadequate treatment outcomes, particularly as communities may lack access to healthcare alternatives or information on proper plant use.

CONCLUSION

In conclusion, the ethnographic insights into medicinal plant utilization among tribal communities in Chhattisgarh reveal a rich tradition deeply embedded in cultural practices and ecological knowledge. These communities have preserved and utilized medicinal plants for generations, relying on them for primary healthcare needs. However, traditional knowledge faces challenges from modernization, environmental degradation, and socioeconomic changes, threatening its sustainability. Future research could delve deeper into documenting lesser-known medicinal plants, exploring their phytochemical properties and potential therapeutic applications. Additionally, integrating traditional medicinal practices with modern healthcare systems could offer promising avenues for enhancing healthcare accessibility and biodiversity conservation in tribal regions of Chhattisgarh.

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