Ethnomedicinal Plants Traditionally Used In Health Care Practices By Marathwada Tribals

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Ethnomedicinal Plants for indigenous people, traditional health care methods have been much enhanced by ethnomedicinal plants. The variety, application, and cultural value of ethnomedicinal plants consumed by Marathwada region tribes in Maharashtra, India, are investigated in this paper. To record the plants customarily used for treating different diseases, field studies and organized interviews with tribal healers and elders were undertaken. There were 85 plant species in all from 45 families, ranging in use from respiratory problems and skin ailments to treating fever, wounds, and gastrointestinal problems. Prepared either as decoctions, pastes, or powders, leaves, roots, and bark were the most often used plant parts: Especially mentioned for their therapeutic qualities were plants including *Terminalia arjuna, Ocimum sanctum, Withania somnifera, and Azadirachta indica*. This study emphasizes the extensive ethnobotanical knowledge of the Marathwada tribes and the significance of conserving this ancient understanding among development and habitat destruction. Moreover, the results offer a basis for next pharmacological research to confirm and make use of these botanicals in contemporary medical systems.

Key words: *Ocimum sanctum, Azadirachta indica*, ethnomedicinal herbs.

Introduction

Many indigenous civilizations all throughout the world have a great and rich body of knowledge derived from ethnomedicine, the ancient medicinal use of plants. Traditionally, Indian knowledge systems especially those of tribal people—have been founded on the utilization of native flora to heal different diseases. Deeply ingrained customs of using medicinal plants for their health care needs abound among the numerous tribal populations found in the Marathwada region, in the state of Maharashtra: Banjara, Kolam, Gond, and Bhil. Living near their surroundings, the Marathwada tribes have a great body of knowledge regarding the medicinal qualities of plants. Often verbally, this knowledge has been passed down over generations and is therefore an essential component of their cultural legacy. Common health concerns include fever, digestive problems, respiratory problems, skin ailments, and infections are largely addressed by these herbs. With an eye toward their therapeutic uses, plant parts utilized, and preparation techniques, this study aims to record the ethnomedicinal plants historically used by the tribes of the Marathwada region. Recognizing and safeguarding the traditional knowledge of indigenous people is vital as modern health systems develop since it provides insightful analysis of alternative, sustainable, and environmentally friendly medical approaches. Moreover, by investigating the scientific confirmation of the therapeutic qualities of many plants, this study seeks to close the difference between conventional and modern medicine. The results of this study should help to clarify the function of ethnomedicinal plants in traditional health care systems and support their sustainable use in modern medicine, so safeguarding the plants and the knowledge about them for next generations.

Methods and Materials

1. The present study has taken place in the Marathwada area, which is well-known for its varied vegetation and sizable tribe count. Tribal groups include Banjara, Kolam, and Gond call the area Aurangabad, Beed, Jalna, Latur, Nanded, Osmanabad, Parbhani, and Hingoli .

2. Data Collection : Ethnobotanical Studies Between 2023 and 2024, field trips took place in Marathwada's agricultural fields, tribal villages, forests, and Marathwada's fields.
To record the herbs utilized in traditional medicine, semi-structured interviews and conversations were carried out with tribal healers, seniors, and practitioners.
Data on plant species, local names, parts used, preparation techniques, and illnesses healed was gathered using a pre-designed questionnaire. Throughout fieldwork, gathered plant specimens were photographed and recorded. Standard botanical procedures were used in preparation of herbarium specimens. Local floras, reference books, and cross-verification with botanical research center experts helped to identify taxonomically. Details on the preparation of ethnomedicinal formulations, including decoctions, pastes, powders, or infusions, were noted. Additionally gathered were details on dosages, treatment techniques, and length of time. To ascertain a plant's significance, frequency of citation (FC)—the count of times informants mentioned a plant—was computed.
The gathered data was put into a thorough list of ethnomedicinal plants containing scientific names, local names, plant parts used, preparation techniques, and diseases treated. This methodical approach guaranteed correct recording and preservation of the rich ethnobotanical information of the Marathwada people.

Observations Table

Including their scientific and local names, plant parts used, preparation techniques, the table below highlights some of the ethnomedicinal plants the Marathwada tribes employed

Sr.No	Name of Plants & family	Local Name	Medicinal Uses
1	*Withania somnifera L.* **S***olanaceae*	*Ashwagandha)*	Used as Adaptogen; reduces stress/anxiety; supports sleep; anti-inflammatory; boosts immunity; may improve cognitive and physical performance; anticancer potential; hormonal support
2	*Amarantusviridis L. Amaranthaceae*	Tandulja	Used as blood purifier, used in piles, digestive agent.
3	*Allium sativumL. Liliaceae*	Lasun	Used as laxative, strength promoter,cures cough etc.
4	*AglemarmelosComea. Rutaceae*	Bel	Used in dysentery,leaves curs fever,diabetes, piles, fruit as brain tonic.
5	*Adathodavasica L. Acanthaceae*	Adhulsa	Used in asthama,diarrhea&dysentery,cough, flowers are used in eye disorder.
6	*Achyranthusaspera L. Amaranthaceae*	Aghada	Cures eye disorder,cough, worms,and indigestion used in snakebite.
7	*AccaciachundraWilld. Mimosaceae*	Khair	During dysentery concentrated bark extract given twice a day for 2-3 days continuously.
8	*Rutagraveolus L. Rutaceae*	Shitab	Juice of leaves is used as carminative.
9	*Syzigiumcumuni L. Myrtaceae*	Jamun	Seed powder is useful in diarrhora, dysentery, & diabetes. Bark is used for mouth wash.
10	*SemecarpusanacardiumL Anacardium.*	Bibba/Bhilawa	Seed oil is applied on the painful spots,Seed pulse used as dry fruit.
11	*TerminaliachebulaRoxbCombretaceae*	Hirda	Used as gargles in inflammation of mucous membrane, astringent,purgative, laxative etc.
12	*TerminaliabelericaRoxb*	Behada	Fruit epicarp of this plant mixed with hirda which is used on indigestion.
13	*Tinosporacordifolia L. Menispermiaceae*	Gulvel/Gudvel	Juice of plant with sugar is good for malerial and typhoid fever. Also it is useful for swine flue.
14	*Tamarandusindica L. Fabaceae*	Imali/Chinch	Laxative dry bark powder reliefs gastric pains on aphrodisiac.
15	*Zizipus jujube Lamark.Rhamnaceae*	Bor/Ber	Used in diarrhea & fever as a blood purifier.
16	*AzadirachtaindicaJuss.Meliaceae*	Neem	Seeds are used on skin diseases &rheumatisum,bark on malerial fever, Fruit are used as a tonic, bark powder cures wounds, twig are used as tooth brush.
17	*Asparagus racemosuswilld. Liliaceae*	Shatavari	Root powder is used to increases vigour and strength.
18	*Argemonemaxicana L. Papaveraceae*	Pivaladhotara/ Bilayati	Root powder is mixes with sugar & is taken with water for curing skin diseases.
19	*Cuscutareflexa L. Convolulaceae*	Amarvel	Plant extract is applied to get rid in dandruff.
20	*Cleodendronmultiforum (L) Moon Verbinaceae*	Arnya	During constipation in cattle leaves are feed or leaf extract is given once in a day for few days.

21	*Cassia tora L. Fabaceae*	Trvat	Dry seed powder was used on asthma.
22	*Cassia fistula L. Fabaceae*	Bahawa	Leaves and flower are used in ringworms and other skin diseases/infections. Roots are used in fever.
23	*Carica papaya L. caesalpiniaceae*	Papita /papaya	Used as digestive laxative, tonic, nutritive and diuretic.
24	*Curcuma longa L. Zingiberaceae,*	Turmeric	Used for Anti-inflammatory and antioxidant; supports joint health, immunity, liver function; may help in skin health and mood
25	*Calatropisprocera R.Br. Asclepiadaceae*	Madar/Rui	Leaves are boiled and used to remove the thorns from the legs of farmers or villagers.
26	*DalbergiasisooRoxb.*	Sisam/sisham	Used in ghanorrhoea.
27	*Phyllanthus emblica Phyllanthaceae*	Amla	Rich in vitamin C and antioxidants; rejuvenative, immunity-boosting, digestive support, skin and hair health
28.	*Ocimum sanctum* L. Lamiaceae	Tulsi	Used as Adaptogen; antimicrobial (anti-bacterial/viral/fungal); reduces stress, supports respiratory health; metabolic support (blood sugar, lipids); wound healing; antioxidant; immunomodulatory

: Present investigation recorded ethnomedicinal plant species historically used for different health-related objectives by the Marathwada region's tribes.

The main conclusions of the research are enumerated here:

1. Variability of Plants and their Parts Applied There were 45 families of a varied spectrum of plant species found; Lamiaceae, Acanthaceae, Solanaceae, and Combretaceae were the most often used ones. Leaves (33%) were the most often used plant component; followed by roots (22%), and bark (18%). Though less frequently, other ingredients including fruits, seeds, and flowers were sometimes used. The main therapeutic purposes of the ethnomedicinal plants were for treating digestive system (e.g., *Aegle marmelos* for gastrointestinal diseases), respiratory issues (e.g., *Ocimum sanctum* for cough and colds), and skin conditions (e.g., *Azadirachta indica* for skin infections and wounds). Mostly utilized for treating disorders including arthritis, stress, and heart ailments, plants like *Withania somnifera and Terminalia arjuna* were also used for enhancing general health and immunity. Many plants, like *Phyllanthus emblica and Curcuma longa,* were employed for their anti-inflammatory and antioxidant qualities, therefore stressing the need of these plants in preventative health care.
   Techniques of Preparation Most of the plants were made as decoctions, powders, or pastes; decoctions being the most often used technique to extract active ingredients. Depending on the disease being treated, other preparations—including juices and infusions—were also rather common. Usually passed down through generations, local healers followed certain preparation techniques and dosages meant to improve the therapeutic efficacy of the herbs. The study underlined the close cultural linkages of the Marathwada tribes with their medicinal plants, therefore promoting knowledge transmission in that field. Within these societies, traditional healers—also known as Vaidyas—form a major part in healthcare. Mostly passed down orally, knowledge of these plants comes from little written documents. The preservation of this priceless ethnomedicinal knowledge is threatened by the younger generation's disinterest in conventional knowledge and growing impact of modern medicine.
   5. Use Value and Consensus Among Informants: Particularly high was the use value (UV) of several plants, including *Terminalia arjuna, Withania somnifera, and Azadirachta indica*, which reflect their general relevance and usage in daily health practices.
   The informant consensus factor (ICF) revealed strong agreement among tribal people about the usage of particular herbs for particular diseases, implying that the therapeutic uses are well-established and generally recognized inside the tribal societies.
   Several of the herbs found in this study—*Azadirachta indica, Withania somnifera, Ocimum sanctum, and Terminalia arjuna*—have been previously noted for their therapeutic qualities in contemporary scientific literature. This implies that modern pharmacological results complement the ethnomedicinal expertise of the Marathwada tribes.

The identification of these plants presents a possible path for more pharmacological research to support their therapeutic assertions and include them into contemporary healthcare systems.

Result : The results of this present study reveals the great knowledge of medicinal plants owned by the Marathwada tribe, therefore highlighting their close relationship with nature and their dependence on plant-based treatments for medical treatment. The variety of ethnomedicinal techniques in the area is reflected in the documentation of eighty-five plant species utilized for different diseases. Important part of research, including the therapeutic value of these plants, cultural importance, and difficulties in maintaining this traditional knowledge, are discussed with an eye toward A variety of illnesses, including digestive problems, respiratory problems, skin infections, fever, and chronic diseases, are treated with the ethnomedicinal plants underlined in this work. Plants such as *Azadirachta indica* (Neem), *Ocimum sanctum* (Tulsi), *Curcuma longa* (Haldi), and *Withania somnifera* (Ashwagandha) are very important in traditional medicine of their great frequency of usage. Many pharmacological research have confirmed the efficiency and therapeutic possibilities of these plants by supporting their antibacterial, anti-inflammatory, and antioxidant qualities. Reflecting the whole approach of traditional medicine, many plants, including *Terminalia arjuna and Phyllanthus emblica*, are utilized not only for curative but also for preventive healthcare. Deeply ingrained into the Marathwada tribes' spiritual and cultural activities are medicinal herbs. Preserving and passing on this knowledge is mostly dependent on traditional healers called Vaidyas. Because of their availability, affordability, and confidence in traditional cures, many tribal populations still depend on ethnomedicinal herbs even with modern healthcare. The study emphasizes the need of safeguarding this priceless traditional knowledge, under danger from modernity, habitat damage, and younger generations' waning interest in traditional behaviors.

Conclusion : The studied survey concludes that, the role of ethno medicinal plants for the treatment of various diseases and disorders amongst the tribals .They use various plants, weeds, flowers, seeds, bark, stems in their day today treatment. Beyond the documented plants the tribal peoples used several other non medicinal plants. The collected information is good for next generation. In the studied area, the many tribals still have faith on the herbal remedy which plays an important role in the life of these communities. The study underlines the important part ethnomedicinal plants play in Marathwada tribes' healthcare customs as well as their possible benefits for contemporary medicine. Apart from cultural legacy, maintaining this traditional knowledge is crucial for investigating reasonably priced and environmentally friendly treatment options. even so guaranteeing the preservation of indigenous populations' traditional identity and biodiversity. The study emphasizes how urgently indigenous knowledge should be preserved and its sustainable application encouraged in contemporary medicine.

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