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Ethnomedicinal Flora on AKS University Campus: Traditional Uses and Insights

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Abstract
Ethnomedicinal knowledge, embedded within cultures for centuries, offers a rich repository of remedies derived from natural sources. This review delves into the ethnomedicinal plants found on the campus of AKS University, exploring their traditional uses as documented in indigenous knowledge systems. The study aims to compile, document, and analyze the diverse array of plant species utilized by local communities for medicinal purposes. Through a comprehensive survey of literature, ethnobotanical databases, and fieldwork, this review identifies a plethora of plant species growing abundantly on the AKS University campus, known for their medicinal properties. Traditional uses of these plants encompass various ailments including digestive disorders, respiratory issues, skin ailments, and more. Furthermore, the review discusses the cultural significance, methods of preparation, and administration routes associated with each plant species.

In addition to cataloging the ethnomedicinal plants, this review also sheds light on the importance of preserving indigenous knowledge and biodiversity. It underscores the need for further research into the pharmacological properties of these plants to validate their efficacy and safety for modern medicinal use. Moreover, the integration of traditional medicinal practices with contemporary healthcare systems holds promise for sustainable healthcare solutions.This review serves as a valuable resource for researchers, botanists, ethnobotanists, and healthcare professionals interested in traditional medicinal practices and biodiversity conservation. It emphasizes the significance of recognizing and respecting traditional knowledge systems while advocating for their preservation and incorporation into mainstream healthcare frameworks.

Keywords: Ethnomedical, Medicinal Plants, Satna, AKS University, Health, Biodiversity.

INTRODUCTION

Satna, situated in the heart of India's Madhya Pradesh state, lies approximately between 24.55° to 25.20° North latitude and 80.50° to 81.15° East longitude. This strategic geographical location places Satna amidst the rich cultural heritage and diverse landscape of central India. The city, bordered by the Tamas River, benefits from its proximity to major transportation routes, fostering trade and connectivity across the region. Its longitude coordinates of approximately 80.50° to 81.15° East position it within a significant corridor of economic activity and historical significance in the Indian subcontinent (latlong.net). Satna, located in the middle of Madhya Pradesh, India, has a lot of traditional healing knowledge passed down through families for many years. People here use plants that grow naturally around them to treat different health issues. These remedies are a big part of Satna's culture and are trusted for their effectiveness. They've

been shared through stories and teachings, forming an important aspect of community health practices (Singh and Beg, 2015).

The latitude and longitude coordinates of AKS University in Satna, Madhya Pradesh, India, are approximately 24.5800° N latitude and 80.8200° E longitude. Situated amidst the serene landscapes of Satna, AKS University is a prestigious educational institution dedicated to fostering academic excellence and holistic development. With modern infrastructure, experienced faculty, and a wide array of academic disciplines, the university provides students with a conducive environment for learning, research, and personal growth. Through its commitment to quality education and innovation, AKS University aims to empower individuals to become future leaders and make meaningful contributions to society (aksuniversity.ac.in).

The tribal communities in Satna, Madhya Pradesh, hold rich ethnomedicinal perceptions deeply rooted in their cultural heritage and traditional practices. For generations, these communities have relied on indigenous knowledge passed down through oral traditions, utilizing local flora and fauna for healing purposes. Plants like neem, tulsi, giloy, and aloe vera are revered for their medicinal properties and play a significant role in tribal healthcare systems. Despite modern advancements in healthcare, tribal communities in Satna continue to value and preserve their ethnomedicinal practices as an integral part of their identity and cultural heritage. Efforts to document and safeguard this indigenous knowledge are essential for ensuring the well-being and resilience of these communities, as well as promoting cultural diversity and sustainable healthcare practices in the region (Bala, and Singh, 2016).

EXPLORING TRADITIONAL MEDICINAL USES OF SELECTED PLANTS

Indian food uses a wide variety of herbs and spices, such as onion, garlic, ginger, turmeric, clove, cardamom, cinnamon, cumin, coriander, fenugreek, fennel, ajwain, bay leaf, and hing. In Ayurvedic medicine, all of them are taken as medications or included in the diet (Petrovska, 2012). Medicinal plants contain secondary metabolites like flavonoids, diterpenes, phenols, glycosides, phytosterols, and alkaloids. These secondary metabolites give medicinal plants a tremendous deal of healing potential (Yadav et al. 2017). Some plants are currently at risk of going extinct and need to be saved due to excessive anthropogenic activities including indiscriminate development, population increase, the effects of tourism, deforestation, etc (Mahesh and Satish, 2008).

This review study's main objective is to deepen our knowledge of the helpful medicinal plants that are present in our surroundings.The author of the review made an effort to clarify the traditional medicinal uses of plant species (Table 1; 1–18) for a range of conditions, such as fever, diabetes, jaundice, piles, dysentery, stomach pain, constipation, menstruation problems, snake bites, and skin disorders. This review study's main objective is to deepen our knowledge of the helpful medicinal plants that are present in our surroundings. These plants come in both wild and developed varieties. In terms of medicinal plants, herbs are more common than shrubs, trees, and climbers. Herbal remedies were made from plant parts such as leaves, roots, flowers, bark, fruits, and rhizomes. Plants are beneficial to medicine because they generate secondary metabolites.

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Table: 1: Medicinal plants with their properties
(Mahesh B. and Satish S. (2008); Srivastava Anupam et.al.2012; Madhu Sharma (2014);Chandra M. (2013); Bamolaet.al. (2018); Sharma N. and Pareek Aparna (2021**)**

S. No.	Botanical Name	Common Name	Family of plant	Plant Parts used	Pharmacological Properties
1.	*Asparagus racemosus*	Satavari	Asparagaceae	Tuber, Root	It functions as an aphrodisiac, increases lactation, lessens menopausal symptoms and infertility, and eases rheumatism.
2.	*Aloe barbadensis*	Gwarpatha	Liliaceae	Leaf pulp	It can be used to treat sunburn, reduce blood sugar, treat fever, and treat any skin-related issue.
3.	*Azadirachta indica*	Neem	Meliaceae	Leaves and Tree	The bark is used for stomach problems, intestinal worms, and skin sores; the leaf is used to treat leprosy. In addition, the bark is utilized to treat fever, skin conditions, intestinal ulcers, and malaria.
4.	*Embilica officinalis*	Amla	Euphorbiaceae	Fruit Tree	Plants are used to cure anaemia, cough, colds, hypertension, laxatives, hair, eyes, blood purifiers, and respiratory disorders.
5.	*Achyranthes aspera*	Apamarga	Amaranthaceae	Whole plant	It is used to treat gastrointestinal disorders, skin infections, diuretics, respiratory conditions, lower infertility, and hormone management.
6.	*Aegle marmelos*	Bel	Rutaceae	Fruit, Leaves	Fruit relieves constipation, lowers cholesterol, lowers cancer risk, and aids in snakebite. Swelling is reduced by leaves used for conjunctivitis and jaundice.
7	*Bacopa monnieri*	Brahmi	Plantaginaceae	Leaves	improving memory; treating sleeplessness, wounds, and hair loss; lowering inflammation, stress, and anxiety.

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8	*Dalbergia sisso*	Shisham	Fabaceae	Leaves	Animals with leg sores and blisters, stomach and body aches, anaemia, ulcers, and eye conditions are given leaf paste mixed with water.
9	*Embilica officinalis*	Amla	Euphorbiaceae	Fruit	used as a laxative, to cure hair, eyes, respiratory problems, anaemia, cough, colds, and hypertension. It also purifies blood and acts as a diuretic.
10	*Hibiscus rosa sinensis*	Gurhal	Malvaceae	Flower and leaf	Flowers are used to treat colds, mumps, coughs, cystitis, venereal disorders, and heavy and unpleasant menstruation. Leaf and flower juices can be used to treat hair.
11	*Mentha spicta*	Pudina	Lamiaceae	Leaves	help with digestion, headache relief, anxiety and depression relief, nausea reduction, skin cleaning, dental health maintenance, memory improvement, and the treatment of bloody diarrhea.
12	*Tinospora cordifolia*	Giloe	Menispermaceae	Stem	Booster of immunity; aids in dengue fever, fever, jaundice, gout, piles, and throat infections.
13	*Ocimum sanctum*	Tulsi	Lamiaceae	Leaves	Increase immunity, treat gastrointestinal and respiratory illnesses, cure fever, colds, and coughs, and lower blood pressure.
14	*Carica papaya*	Papita	Cariaceae	Latex of fruits and leaves	Latex fruit is used to treat ringworm and dermatitis, prevent bloating and digestive problems, and reduce the risk of heart disease. Leaves are used to treat dengue fever and enhance the condition of skin and hair.
15	*Nyctanthes arbor-tristis*	Harsingar	Oleaceae	Leaves and flowers	used to treat rheumatism, arthritis, scurvy, persistent

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					fever, and joint pain.
16	*Plumeria alba*	Gulchin	Apocynaceae	Leaves and root bark	leafof the plant is used in muscle pain, and the root and bark are used in blennorrhagia.
17	*Withaniasomnifera*	Ashwagandha	Solanaceae	Root	In addition to treating conditions like diabetes, cancer, anxiety, and infertility, ashwagandha powder also elevates mood, sharpens memory, and lowers stress levels.
18	*Zingiber officinale*	Adrak	Zingirberaceae	Root	used as a treatment for tonsillitis, colds, nausea, and throat infections.

CONCLUSION

Plants are still a useful source of chemical compounds for therapeutic research, having been utilized for ages in traditional medical systems. There has been much research done on the use of medicinal plants for a variety of conditions, including anti-inflammatory and anti-allergic therapies. These investigations have brought to light the wide range of phytochemicals found in plants, such as terpenoids, alkaloids, and phenolics, which have potential therapeutic benefits. Additionally, it has been demonstrated that some plant preparations and drugs have antibacterial activity, demonstrating their efficacy in treating a range of illnesses. Consequently, medicinal plants have a great deal of promise for the creation of novel medications and the cure of a wide range of illnesses. In summary, medicinal plants remain an important and promising source for the creation of pharmaceuticals. The extensive range of secondary metabolites these plants produce, their long history of usage as medicinal plants, and their growing significance in contemporary medicine all point to the worth and potential utility of these plants going forward. The use of medicinal plants is becoming more widespread in the pharmaceutical and cosmetic industries in addition to traditional medicine.

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