DISCOVERY
(International Multidisciplinary Refereed Research Journal)
(Peer-reviewed, Refereed, Indexed & Open Access Journal)
ISSN: DOI: IMPACT FACTOR:

Traditional Medicinal Plants Used by Local People in Jalna District: A Review of the Ethno-Medicinal and Pharmacological Evidence.

Sharad Patekar[1] and Yogesh Urdukhe[2],
Department of Botany, JES College, Jalna, 431203 (MS)
yogeshurdukhe3005@gmail.com

DOI No: **DOI Link:**

Abstract

The study aimed to record the traditional applications of wild medicinal herbs in the villages of Jalna district in Maharashtra state. During the study, it was observed that 61 species of ethnomedicinal plants belonging to 27 families are being used in the folk-medicine system by the indigenous people of this region. For the present study, an intensive and extensive survey was made in adjoining villages of the Jalna district for the identification of plant species and to explore their traditional usage for curing health ailments. The survey will help us gather information about novel applications of commonly found medicinal plants in the Jalna region that may help in understanding human environment interactions.

Keywords: *Ethnomedicinal, Medicinal Plants, Treatment, Indigenous people*

Introduction

Due to the high cost of modern medicine, which keeps it out of the reach of the poor, the side effects of synthetic drugs, and the emergence of drug resistance to currently prescribed medications for infectious diseases, the use of traditional herbal medicine for the treatment of common ailments is still very relevant today. Primitive people have used plants to treat a wide range of illnesses, but they don't keep records and mainly pass on their knowledge verbally from generation to generation. In one or more of its parts, a medicinal plant contains compounds that can be used therapeutically or that act as precursors for the semi-synthesis of chemo-pharmaceuticals. Wild medicinal plants are those that

naturally grow on cultivated and uncultivated land and have edible parts (Addis 2009, Teketay *et al.* 2010).

The majority of the rural population still prefers to stick with their traditional herbal medications, despite accepting modern healthcare facilities. Therefore, it's possible that in the future, people will no longer be aware of the therapeutic benefits of plants. Due to the young generation's lack of interest in traditional knowledge and the unscientific exploitation of natural forests, it is imperative to gather and document such valuable knowledge from remote areas before it is completely depleted. It is also crucial to increase awareness among remote communities about the significance of plant conservation (Zhang *et al*., 2018). Thus, there is a pressing need to preserve the information for the good of all humankind. There is little knowledge of the region's ethnobotany. As a result, an effort has been made to research and inventory the medicinal plants used by the Jalna locals.

Materials and Methods

In the Jalna district, a field survey was carried out in the years 2021–2022. Randomly selected villages such as Rakhi Antarvali, Karla, Mamdabad, Hisvan, Raniuchegao, etc. were the subjects of the survey. Reports were established during each field trip with local elders, village elders, or herbal practitioners. Through casual conversation, interviews, and discussions, information was obtained from the local herbalists and the elderly men and women of the respective communities. Additionally, some medicinal plants were sold at a small village market, and the information was cross-checked against published sources. A total of 61 plant species were identified using the flora of Marathwada (Naik, V.N. 1998). Herbariums were created after ethnobotanical surveys using the methods described in (Jain *et al*.,1967).The collected plant specimens were deposited in the herbarium repository of the Department of Botany, JES College Jalna (MS).

Results and Discussion

The current study looks into the indigenous knowledge associated with these uses of plants that has been preserved in the local folklore. Table 1 contains information about medicinal plants that was gathered from a few villages in the Jalna district. In order to document the 61 plant species that were collected from the study sites, representing 27 families, along with their common names, botanical names, families, parts used, and medicinal uses, the plants were arranged alphabetically (Table 1). Lamiaceae, Asteraceae Poaceae, Rutaceae, Solanaceae, Malvaceae, Fabaceae were the most prevalent families. The most prevalent general health issues in Jalna District include sore dysentery, cough, ulcers, skin diseases, diarrhoea, stomach pain, and fever. In addition, tonic, sinus, gastric, eye, and toothache issues, bronchitis, and jaundice are other health issues that are frequently reported. Compared to other plant types, herbaceous medicinal plants have been used on a much larger scale in the traditional medical system (Kamble et.al 2011). The study found that people are reluctant to share their traditional knowledge because doing so earns them social recognition, which is why they are reluctant to do so.

Additionally, it was discovered that this information had been passed down orally from one generation to the next. Therefore, it is imperative that this valuable traditional knowledge, which is already present at the local level, be properly documented and shared with everyone.

Sl.	Scientific Name	Common Name	Family	Habit	Part Used	Medicinal uses
1	*Adhatoda vesica*	Bahak	Acanthaceae	Herb	Leaf	Cough, bronchitis
2	*Aegle Marmelos*	Bel	Rutaceae	Tree	Fruit	Dysentery piles.
3	*Abrus precatorious* L	Gunj	Fabaceae	Climber	Leaves	Anti-inflammatory, Ulcer
4	*Abutilon Indicum* (L.) Sweet	shikha	Malvaceae	Shrub	Leaves	Fever, Wound healing
5	*Acacia arabica*	Babul	Mimosaceae	Tree	Bark	Bleeding disorder , Diarrhoea -
6	*Acacia catechu* willd	Khair	Mimosaceae	Tree	Bark	Conjunctivitis - Unknown
7	*Acacia chundra* Willd	Khair	Mimosaceae	Tree		Skin burns
8	*Acacia loucophoea*	Hivar	Fabaceae	Tree	Bark	Ulcer - Unknown.
9	*Acacia nilotica* (L) willd.	Vedi Babhul, Babhul	Mimosaceae	Tree	Bark	Acidity, Cough and Cold, Diarrhoea
10	*Azadirachta indica L.*	Mohanim	Meliaceae	Tree	Whole plant	Ulcers, skin disease
11	*Bauhinia racemose* L	Apataa	Caesalpiniaceae	Small Tree	Leaves, Flowers, Bark, Root	Anti-inflammatory, Asthma, Bleeding disorder, Dysentery,
12	*Berberis aristata* (L.) DC.	Daru Haridra	Berberidaceae	shrub	Root bark	Anti-Inflammatory -
13	*Bidens pilosa* L	Chorpushpi	Asteraceae	Herb	Whole plant	Eye diseases
14	*Blumea lacera* Burn	Kukurband	Asteraceae	Shrub	Root	Cholera
15	*Boerhaavia diffusa* L.	Punarnava	Nyctaginaceae	Herb	Whole plant, Root	Blood, Eye diseases, Fever, Skin disease
16	*Cinchona officinalis*	Cinchona	Rubiaceae	Tree	Bark	Malarial fever

17	*Colocasia marcrorhiza*	Kola Kasu	Araceae	Shrub	Corm, leaves,	Dysentery
18	*Commelina benghalensis*	Kana simalu	Commelinaceae	Herb	Young twig	Eye problem (Asina)
19	*Corchorus capsulanis L.*	Morapat	Tiliaceae	Shrub	Leaves	Fever
20	*Curcuma*	Haladhi	Zingiberaceae	Shrub	Rhizome	Skin treatment, stomach problem,
21	*Calotropis gigantean (Linn.) R.Br.*	Rui, Amalwadi	Asclepiadaceae	Shrub	Root, Latex	Jaundice, Skin disease, Vomiting
22	*Capparis decidua (Forssk.) Edgew.*	Yelya haran, Velitlaram	Capparidaceae	Herb	Bark	Digestive disorder, Migraine
23	*Cardiospermum halicacabum* L.	Kapalphodi, Kanphuti	Sapindaceae	Climber	Root bark, Leaves, Bark	Asthma, Ear pain, Fever , Stomachache
24	*Cassia auriculata* L	Chambhar-awali, Chamrawali	Caesalpiniaceae	Small Tree	Leaf, Fruit, Flowers	Anti-inflammatory, Asthma, Body pain, Diabetes, Jaundice
25	*Cassia fistula* L.	Bahava, Amaltas	Caesalpiniaceae	Small Tree	Fruit, Leaf, Seeds	Anti-inflammatory, Stomachache - Unknown
26	*Cassia tora* L.	Chakunda, Titi, Tarota, Dukkarsheng, Powadya, Tarota	Caesalpiniaceae	Shrub	Leaves, Seed, Root	Anthelmintic, Asthma, Epilepsy, Skin disease
27	*Cyndon dactylon*	Durva	Poaceae	Herb	Whole plant	Malaria - Unknown
28	*Cyperus rotundus* L.	Lavhala/ Nagarmotha	Cyperaceae	Herb	Rhizome, Root	Anti-inflammatory - Unknown
29	*Dalbergia sisoo*	Sisam	Fabaceae	Tree	Root, Leaves	Anthelmintic, Asthma, Fever
30	*Datura innoxia* Mill	Dhotra	Solanaceae	Shrub	Seed	Dog bite

31	*Datura metal* L.	Datura	Solanaceae	shrub	Leaves	Anti-inflammatory, Asthma , Paralysis, Wound healing - Leaf juice applied in wound ulcers.
32	*Datura stomanium*	Datura	Solanaceae	shrub	Fruit	Ulcer - Unknown
33	*Daucus carota* L.	Gajar	Apiaceae	shrub	Root	Jaundice - Root juice in jaundice is given
34	*Delonix elata* (L) Gamble	Sansada	Caesalpiniaceae	tree	Leaves	Body pain - Warmed leaves are tied on body parts for muscular pain
35	*Eclipta alba (L) Hassk*	-	Asteraceae	Herb	Whole plant	Spleen enlargement, tonic
36	*Emblica officinalis*	Avla	Euphorbiaceae	Tree	Fruit	Jaundice, Eye Problems
37	*Ficus hispida L.*	Dimaru	Moraceae	Tree	Fruit	Purgative, emetic
38	*Hibiscus rosasinensis*	Joba phul	Malvaceae	Shrub	Flowers	Emollient
39	*Ipomea aquatica*	Kolmou	Convolvulaceae	Shrub	Leaf, young	Blood purified, skin diseases
40	*Lawsonia inermis*	Jetuka	Lythraceae	Shrub	Leaf	Prevent bleeding skin diseases, dysentery
41	*Mangifera indica L.*	Aam	Anacardicacease	Tree	Bark	Ophthalminitic,
42	*Melia azadirachta L.*	Ghora-nim	Meliaceae	Tree	All parts	Skin diseases,
43	*Mentha arvensis*	Pudina	Lamiaceae	Herb	Leaf	Stomach trouble
44	*Nyctanthes arbartristis*	Parijatak	oliaceae	Shrub	Young	Fever,
45	*Ocimum sanctum L.*	Tulsi	Lamiaceae	Shrub	Leaves	Cough
46	*Ocimum basilicem L.*	Tulsi	Lamiaceae	Shrub	Fruit Root, Bark	Dysentery, diarrhea, purgative.
47	*Oxalis corniculata L.*	Tengesi	Oxalidaceae	Herb	Leaf	Stomachic,
48	*Phyllanthus niruri*	Bhui avala	Euphorbiac	Herb	Leaf	Stop bleeding

			eae			
49	*Piper longum L.*	Pipoli	Pikeraceae	Climber	Seed, leaves	Cough, throat problem
50	*Psidium guajava L.*	Peru	Myrtaceae	Tree	Leaves, Bark	Dysentery, diarrhea, burns
51	*Rauwolfia serpentina*	Sarpagandha	Apocynaceae	Shrub	Root, leaf	High blood pressure, stimulant, eye diseases
52	*Ricinus communis*	Erand	Euphorbiaceae	Shrub	Whole plant	Boils
53	*Saraca indica*	Ashoka	Caesalpiniaceae	Shrub	Bark	Menstrual disorder
54	*Solanum indicum*	Bheakuri	Solanaceae	Shrub	Seeds	carminative
55	*Spilenthes acemella*	Rangmii	Asteraceae	Herb	Leaf	Gas problem, ulcer
56	*Spondias mangifera*	Amora	Anacardiaceae	Tree	Fruit,young leaf, bark	Dysentery, anaemia
57	*Syzygium cumini (L.)*	Jalbhul	Myrtaceae	Tree	Bark, fruit,	Dysentery, diabetes
58	*Terminalia orjeina W.&A*	Arjun	Combritaceae	Tree	Bark	Teeth problem, cardiac tonic
59	*Vitex negundo L.*	Nirgudi	Verbenaceae	Tree	Leaves	Insecticide
60	*Zingiber officinale Rosc*	Ale	Zingiberacene	Herb	Rhizome	Dyspepsia,
61	*Zizyphus mauritiana Lam*	Bor	Rhamnaceae	Tree	Bark, fruit	Blood purifier

Conculustion

Villagers still depend primarily on medicinal herbs to treat common ailments like coughs, headaches, body aches, constipation, cuts, etc., despite the expansion of rural health services. The common villager is well aware of the medicinal plants used in indigenous medicines. The pharmaceutical industries have been encouraged by the global increase in demand for herbal medicines to exploit untapped natural resources through ignorant rural youth. Wild medicinal plants are being illegally and irresponsibly harvested, harming the environment so much that natural regeneration is no longer possible. Furthermore, herbal remedies are a staple of rural health because they are widely accessible, economically feasible, and free of side effects. The aforementioned findings highlight the

need to preserve traditional knowledge as well as the medicinal flora that is present in the Maathwada region.

Acknowledgments

The authors would like to express their gratitude to the Head of Department at JES College Jalna. The authors would like to express their gratitude to resource persons from various remote communities in the Jalna district for sharing their traditional knowledge.

References

1. Addis G (2009) Edible wild and semi-wild plants of Hamar and Xonso (South Ethiopia) with emphasis on their Ethnobotany and nutritional composition of selected species,Ph.D Thesis, Addis Ababa University, Addis Ababa,.
2. Bennett E. (1970) Tactics of plants exploration, In: Genetic resources in plants-their exploration and conservation, by Frankel O. H. & Bennet E, (IBP, Oxford, Blackwell); 157-159.
3. Deshmukh, R.R., Rathod, V.S., & Pardeshi, V.N. (2011). Ethnoveterinary medicine from Jalna district of Maharashtra state.
4. Jagtap DK, Patil HS, Jakhi PS.(2013) Ethno-medicinal survey of some plants from villages of Khatav Tahashil (MS) *India. Int J Life Sci*; 1(4):264-269.
5. Jain SK, Rao RR. (1967) A handbook of field and herbarium methods, (Today & Tomorrow, Printers and Publishers, New Delhi; 33-58.
6. Kamble RB, Mungole A, Maske M, Chaturvedi A, Chaturvedi A. (2011) Indigenous traditional knowledge (ITK) from forest dwellers of Gondia district, Maharashtra. *J Ecobiotech*; 3(10):14-18
7. Naik, V.N. (1998). Flora of Marathwada. Vol. I & II, Amurt Prakashan, Aurangabad.
8. Pandey BP. (1993) Taxonomy of angiosperms. S. Chand & Company LTD, New Delhi; 642 pp.
9. Rajesh S. Gaikwad and Rajendra B. Kakde (2022) Some Wild Medicinal Plants in Mantha Region of Jalna District. International Journal of Current Science; 12 pp 61-69
10. Teketay D, Lemenih M, Bekele T (2010). Forest resources and challenges of sustainable forest management and conservation in Ethiopia," in Degraded Forests in Eastern Africa, pp. 31–75, Routledge.
11. Vidyarthi RD. (1989) Text Book of Botany. S. Chand & Company LTD, New Delhi; 752pp.