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Ethnobotanical Survey of Medicinal Plants Used by Traditional Healers in Arugankulam Village of Tirunelveli District, Tamil Nadu

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ABSTRACT

Plants have long been utilized for treating various ailments, with the people of Arugankulam Village in Tamil Nadu relying on medicinal plants for their healthcare needs. Many community members possess a basic understanding of local plants used for first aid remedies, including treatments for conditions such as colds, coughs, fever, headaches, poisonous bites, and other common ailments. The aim of this study was to identify traditional healers practicing herbal medicine in Arugankulam Village, Tamil Nadu, and to document their indigenous knowledge regarding the use of medicinal plants, with a particular focus on the most commonly used ethnomedicinal species. The field study was conducted over eight months, during which ethnomedicinal information was gathered through interviews with local healers. A total of 105 plant species, representing 86 genera and 44 families, were identified as commonly used by traditional healers for treating 125 different ailments. Leaves were the most frequently used plant part. This study emphasizes the valuable ethnobotanical knowledge in Arugankulam Village and its potential for developing herbal-based drugs and products. A list of medicinal plants and their uses, as practiced by the people of the Arugankulam village, is provided in this paper.

Keywords: *Ethnobotany, medicinal plants, traditional knowledge, Arugankulam Village, Tirunelveli district.*

1. Introduction

Ethnobotany, which explores the connections between human societies and plant life, is crucial for understanding both traditional medicinal practices and the cultural importance of various plant species. In Arugankulam Village, situated in Tamil Nadu's Tirunelveli District, India, traditional healers harness a diverse array of local plants to treat a range of health conditions, building on generations of indigenous wisdom [1]. Traditional medicine holds great importance globally, with a significant portion of the population depending on

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herbal treatments to meet healthcare needs. In rural areas such as Arugankulam, where access to modern medical services may be restricted, communities often rely on traditional healers. These healers have a deep knowledge of local plants, often inherited across generations, allowing them to address health issues from minor illnesses to chronic conditions [2].

The Tirunelveli District, known for its ecological diversity and rich biodiversity, provides an ideal setting for conducting an ethnobotanical study. The region's varied climate and geography support a wide array of medicinal plants. Yet, with the rise of modernization and a reduction in traditional practices, there is an increasing risk that this invaluable knowledge may be lost [3]. The therapeutic properties of these plants also merit scientific investigation. Numerous plants used in traditional medicine are known to contain bioactive compounds with significant pharmacological potential, underscoring the value of ethnobotanical research for contemporary medicine [4].

The relationship between cultural practices and medicine deepens our insight into health and wellness within diverse communities, positioning this research as a meaningful addition to ethnobotanical knowledge [5]. This ethnobotanical study in Arugankulam Village is designed not only to catalogue the medicinal plants and the practices employed by traditional healers but also to underscore the necessity of preserving indigenous knowledge [6]. By bridging traditional and contemporary medical practices, the research aims to enhance appreciation for the role of plants in healthcare and the deep-seated wisdom within local communities. Ultimately, this investigation highlights the enduring bond between humans and nature, demonstrating how traditional practices can inform and improve modern health paradigms [7]. This study aims to document and analyze the medicinal plants utilized by traditional healers in Arugankulam, contributing to the preservation of local biodiversity and traditional knowledge systems while providing a foundation for future research on potential novel therapeutic agents.

2. Materials and Methods

Arugankulam Village in Tirunelveli District, Tamil Nadu, is renowned for its biodiversity and traditional herbal medicine practices. This study involved 13 exploratory visits to document medicinal plants used by local healers, guided by semi-structured interviews and field observations. Thirty traditional healers were selected through community consultations, and their knowledge on plant usage, preparation, and therapeutic applications was meticulously recorded. Medicinal plants were identified in their natural habitats, focusing on key morphological traits, with taxonomic verification through herbarium specimens and expert consultations. References such as Flora of the Presidency of Madras

and Flora of Tirunelveli Hills supported accurate classification. Ethno botanical interviews, conducted with consent, were analyzed qualitatively to categorize plant use and cultural significance. Preserved specimens are housed at St. John's College, Palayamkottai [8].

3. Results and Discussion

Sl. No	Botanical Name	Family	Habit	Useful Parts	Medicinal Uses
1	*Abutilon indicum* (L). Sw.	Malvaceae	Shrub	Leaves, Roots	Respiratory Disorders Wound Healing, Management of Urinary Issues, Pain Relief, Antiseptic, diuretic, Digestive Aid, Anti-inflammatory.
2	*Acalypha indica L.*	Euphorbiaceae	Herb	Leaves	Treatment of Respiratory Issues, Skin Disorders, Expectorant, laxative, Pain Relief Support for Digestive Health.
3	*Achyranthes aspera* L.	Amaranthaceae	Herb	Roots and Seeds	Wound Healing and Skin Care Disorders, Pain and Inflammation Relief, Diuretic.
4	*Adhatoda vasica* Nees.	Acanthaceae	Shrub	Leaves	Management of Tuberculosis, Control of Bleeding Disorders Expectorant, Antitussive Bronchodilator, Digestive Health.
5	*Aegle marmelos* (L.) Correa.	Rutaceae	Tree	Fruits and Leaves	Antioxidant, Antidiarrheal, Management of Diabetes, Treatment of Gastrointestinal Disorders, Immune System Support.
6	*Aloe vera* (L.) Burm.f.	Liliaceae	Herb	Leaves	Antiseptic, Skin coolant, Moisturizing, Antidiabetic, Hair Care.
7	*Alternanthera sessilis* (L.) R.Br. ex Dc.	Amaranthaceae	Herb	Leaves and stems	Antipyretic, Diuretic, Eye Infections. Wound Healing, Respiratory Disorders, Anti-inflammatory and Fever Relief.
8	*Amaranthus spinosus* L.	Amaranthaceae	Herb	Roots and Leaves	Diuretic, Anti-Inflammatory. Skin Conditions,

					Gastrointestinal Disorders, Blood Purification, Support for Urinary Health, Fever and Respiratory Relief.
9	*Andrographis echioides* (L.) Nees.	Acanthaceae	Herb	Whole plant	Treatment of Skin Disorders Management of Fever, Antimicrobial, Anti- inflammatory, Support for Gastrointestinal Health, and Respiratory Health.
10	*Andrographis alata* (Vahl.) Nees.	Acanthaceae	Under shrub	Whole plant	Anti-inflammatory, Relief for Respiratory Ailments, Gastrointestinal Support.
11	*Andrographis paniculata* (Burm.f) Wallich. Nees.	Acanthaceae	Herb	Leaves and stem	Boosting Immune System, Digestive Health, Liver Protection and Detoxification, Treatment of Respiratory Disorders.
12	*Annona squamosa* L.	Annonaceae	Tree	Leaves, Fruits and seeds	Treatment of Digestive Disorders, Pain Relief, Deworming, skin care, Management of Fever and Inflammation.
13	*Argemone mexicana* L.	Papaveraceae	Herb	Seeds and Latex	Anthelmintic, Analgesic. Antimalarial.
14	*Aristolochia bracteolata* Lam.	Aristolochiaceae	Herb	Leaves and roots	Anti-inflammatory, Digestive aid, Management of Fever and Malaria, Support for Reproductive Health.
15	*Asystasia gangetica* (L.) T. Anderson	Acanthaceae	Creeper	Leaves	Antioxidant, Anti-Inflammatory, Treatment of Snake Bites, Management of Respiratory Issues.
16	*Azadirachta indica* A. Juss.	Meliaceae	Tree	Leaves and bark	Antiseptic, Antimicrobial, Treatment of Skin Disorders, Dental and Oral Health, Pest Control and Antiparasitic Use, Blood Purification and Detoxification.
17	*Boerhavia diffusa* L.	Nyctaginaceae	Herb	Roots and Leaves	Kidney and Urinary Disorders, Liver Health, Management of Diabetes, Respiratory Disorders.
18	*Calotropis gigantea* (L.)	Asclepiadaceae	Shrub	Leaves and roots	Analgesic, Anti-inflammatory.

	R.Br.				
19	*Calotropis procera* (L.) R.Br	Asclepiadaceae	Shrub	Latex leaves	Analgesic, Stimulant. Anthelmintic and Purgative.
20	*Capsicum annum* L.	Solanaceae	Herb	Fruit	Antiseptic, Anti-inflammatory, Weight Management, Boosting Immunity.
21	*Cardiospermum halicacabum* L.	Sapindaceae	Herb	Leaves	Anti-inflammatory. Pain Relief, Anti-rheumatic, Antioxidant and General Health Tonic
22	*Carica papaya* L.	Caricaceae	Tree	Leaves and fruit	Anthelmintic, Digestive aid. Anti-inflammatory and Pain Relief, Wound Healing and Skin Care, Anti-parasitic, Boosting Immune System.
23	*Cassia auriculata* L.	Caesalpiniaceae	Shrub	Flowers and leaves	Antidiabetic, Liver Health and Detoxification, Skin Health and Hair care, Antibacterial and Antifungal.
24	*Cassia mimosoides* L.	Caesalpiniaceae	Shrub	Leaves and pods	Laxative, Digestive Aid, Antimicrobial, Fever and Antipyretic.
25	*Cassia senna* L.	Caesalpiniaceae	Shrub	Leaves and pods	Laxative, purgative, Detoxification and Liver Health**,** Skin Care, Weight Loss.
26	*Catharanthus roseus* L.	Apocynaceae	Shrub	Leaves and roots	Anticancer, Antidiabetic, Diabetes Management, Blood Pressure Reduction.
27	*Centella asiatica* (L.) Urb.	Apiaceae	Creeping Herb	Leaves	Wound healing, Cognitive enhancer, Memory Enhancement, Stress Reduction, Circulatory Health and Varicose Veins, calming effects on the nervous system.
28	*Centrosema pubescens* Benth.	Fabaceae	Climber	Leaves and Roots	Analgesic, Febrifuge, Anthelmintic, Antioxidant, Health Tonic, Diuretic, Respiratory Health.
29	*Chromolaena odorata* (L.) R. King.	Asteraceae	Shrub	Leaves	Hemostatic, Wound healing, Antimalarial, Coughs, Colds, and

					Respiratory Conditions.
30	*Cissus quadrangularis* L.	Vitaceae	Herb	Stems	Anti-inflammatory. Bone Health and Fracture Healing Weight Loss, Digestive Health, Antioxidant.
31	*Citrulluscolocynthis*L.	Cucurbitaceae	Climber	Fruits and roots	Laxative, Anthelmintic, Detoxification and Liver Health.
32	*Clitoria ternatea* L.	Fabaceae	Climber	Flowers and roots	Cognitive enhancer, anxiolytic, brain tonic.
33	*Coccinia grandis* (L.) Voigt.	Cucurbitaceae	Herbaceous vine	Leaves and fruit	Antidiabetic, antioxidant, Anti-stress, Antimicrobial, Weight Loss, Immune Booster.
34	*Cocos nucifera* L.	Arecaceae	Tree	Fruits	Antioxidant, Skin moisturizer.
35	*Coleus aromaticus* Benth.	Lamiaceae	Herb	Leaves	Expectorant, Digestive aid, Respiratory Health, Stomach Disorders.
36	*Colocasiae sculenta* (L.) Schott	Araceae	Herb	Corms and leaves	Nutritive, Digestive Health demulcent. Skin Care and Wound Healing, Remedy for Respiratory Issues.
37	*Crotalaria retusa* L.	Fabaceae	Shrub	Leaves and seeds	Anti-inflammatory, Antimicrobial, Anthelmintic, Cough and Respiratory Health.
38	*Crotalaria verrucosa* L.	Fabaceae	Shrub	Leaves and roots	Antiseptic, Anti-inflammatory, Antioxidant and Hepatoprotective.
39	*Cucumis sativus* L.	Cucurbitaceae	Climber	Fruit	Coolant, Anti-inflammatory, Skin Care and Soothing, Digestive Health, Weight Loss.
40	*Curcuma longa* L.	Zingiberaceae	Herb	Rhizome	Antiseptic, Anti-inflammatory, Pain Relief, Liver Protection, Neuroprotective Effects.
41	*Cyperus rotundus L.*	Poaceae	Herb	Rhizome	Digestive aid, Anti-inflammatory, Menstrual Disorders, Respiratory Health.
42	*Cymbopogon citratus* (DC.) Stapf.	Poaceae	Herb	Leaves	Antibacterial, Digestive aid. Stress Relief, Anxiety Reduction, Detoxification and Antioxidant

43	*Cynodon dactylon* (L.) Pers.	Poaceae	Herb	Whole plant	Hemostatic, Anti-Inflammatory, Urinary Health, Wound Healing and Skin Care.
44	*Euphorbia heterophylla* L.	Euphorbiaceae	Herb	Leaves and Latex	Antimicrobial, Laxative, Treatment of Warts and Tumors.
45	*Euphorbia hirta* L.	Euphorbiaceae	Herb	Whole plant	Antiasthmatic, antimicrobial, Diuretic and Kidney Health.
46	*Evolvulus alsinoides* (L.) *L.*	Convolvulaceae	Herb	Wholeplant	Cognitive enhancer, anxiolytic,Memory Booster, Stress Relief, Improving Sleep.
47	*Ficus benghalensis* L.	Moraceae	Tree	Bark and aerialroots	Astringent, antidiabetic, Skin Care, Anti-inflammatory and Pain Relief.
48	*Ficus religiosa* L.	Moraceae	Tree	Leaves and bark	Antiseptic, Wound healing, Pain Relief, Blood Sugar Regulation and Anti-diabetic Effects.
49	*Hibiscus lobatus* (Murray) Kuntze	Malvaceae	Herb	Leaves and flowers	Antipyretic, digestive aid,skin Health and Wound Healing.
50	*Hibiscus rosa – sinensis* L.	Malvaceae	Shrub	Flowers and Leaves	Antioxidant, Hair Care and Scalp Health, Skin Health, Anti-aging Effects, Digestive Health, Heart health and Detoxification.
51	*Hedyotisum bellate* L.	Rubiaceae	Herb	Whole plant	Anti- Inflammatory, antimicrobial, Anti-diabetic, Immunomodulatory Effects, Liver Health and Detoxification.
52	*Hygrophila auriculata* (*Schumach*).	Acanthaceae	Herb	Roots and seeds	Diuretic, Anti-Inflammatory, Treatment of Skin Disorders and Wound Healing.
53	*Indigo feratinctoria* L.	Fabaceae	Shrub	Leaves	Antiseptic, Anti-Inflammatory, Dyeing and Textile Industry.
54	*Ipomoea aquatic* Forsskal.	Convolvulaceae	Herb	Leaves and stems	Laxative, Anti-Inflammatory. Blood Pressure Regulation, Skin Health.
55	*Ipomoea indica* L.	Convolvulaceae	Herb	Leaves and roots	Antibacterial, Digestive aid, Respiratory Health and Cough Relief,

					Wound Healing and Improving Sleep
56	*Ixora coccinea* L.	Rubiaceae	Shrub	Flowers and roots	Antioxidant, astringent, Diabetic Management, Digestive Health.
57	*Jasminum angustifolium* (L) Willd.	Oleaceae	Shrub	Leaves and flowers	Aromatic, Anti-Inflammatory, Sedative, Anxiety Relief, Skin Health, Wound Healing, Respiratory Health.
58	*Jatropha curcas* L.	Euphorbiaceae	Small tree	Seeds and leaves	Antimicrobial, purgative, Wound Healing and Skin Disorders.
59	*Justiciapro cumbens* L.	Acanthaceae	Herb	Whole plant	Anti- Inflammatory, Antipyretic, Skin Health, Antioxidant and Detoxification.
60	*Lablab purpureus* (L.) Sweet.	Fabaceae	Herb	Seeds and leaves	Antidiabetic, antioxidant, Blood Pressure Regulation.
61	*Lantana camera*L.	Verbenaceae	Shrub	Leaves and flowers	Antimicrobial, antipyretic, Digestive Health.
62	*Lawsonia inermis* L.	Lythraceae	Shrub	Leaves	Antiseptic, coolant, Hair and Skin Dye.
63	*Leucas aspera* (Willd.) Link.	Lamiaceae	Herb	Leaves and flowers	Antipyretic, antimicrobial, Wound Healing.
64	*Mangifera indica* L.	Anacardiaceae	Tree	Leaves, bark and fruits	Antioxidant, digestive aid, Blood Sugar Regulation.
65	*Mimosa pudica* L.	Fabaceae	Herb	Leavesan d roots	Antiseptic, wound healing, Nervous System and Stress Relief.
66	*Mirabilis jalaba* L.	Nyctaginaceae	Herb	Leaves and roots	Antiviral, Anti-Inflammatory, Antioxidant.
67	*Morinda tinctoria Roxb.*	Rubiaceae	Small tree	Roots and fruit	Antimicrobial, Dyeing and Textile Industry, hepatoprotective, Blood Purification and Detoxification.
68	*Murraya koenigii* (L.) spreng	Rutaceae	Small tree	Leaves	Anti-diabetic, antioxidant, Hair Care, Blood Sugar Regulation.
69	*Musa paradisiaca* L.	Musaceae	Herb	Fruits and flowers	Astringent, digestive aid, Blood Pressure Regulation, Wound Healing, Skin Health.

70	*Nerium oleander* L.	Apocynaceae	Shrub	Leaves	Cardiotonic, Anti-cancer, Anti- Inflammatory, Antiviral Effects.
71	*Ocimum sanctum* L.	Lamiaceae	Herb	Leaves	Antiseptic, Stress Relief, Immunomodulatory, Immune System Boost, Blood Sugar Regulation.
72	*Ocimum tenuiflorum* L.	Lamiaceae	Herb	Leaves	Antioxidant, adaptogenic, Blood Sugar Regulation**,** Stress Relief**,** Immune System Support, Skin and Liver Health.
73	*Opuntia stricta* (Haw.) Haw. var. *dilleni* (Ker Gawl.) L.D. Benson.	Cactaceae	Shrub	Pods and fruits	Antioxidant, Anti-Inflammatory, Nutritional Value and Edible Fruit, Diabetes Management.
74	*Oryza sativa* L.	Poaceae	Herb	Grain and bran	Culinary Uses, Staple Food, Demulcent, nutritive. Diarrhea, Skin Care, Cosmetic Uses, Blood Sugar Regulation, Rice Bran Oil and Health Benefits.
75	*Passiflora edulis Sims*	Passifloraceae	Herb	Leaves and fruits	Culinary Uses, Sedative and Anxiety Relief, Antioxidant and Immune Boosting anti-tumor, antidiabetic, Heart Health.
76	*Passiflora foetida* L.	Passifloraceae	Herb	Leaves and fruits	Sedative, antispasmodic, Anxiety Relief, Immune Support, Fertility and Reproductive Health.
77	*Phyllanthus amarus* Schum & Thonner	Phyllanthaceae	Herb	Whole plant	Kidney Stone Treatment, Liver Health and Hepatoprotective,antiviral, Blood Sugar Regulation.
78	*Phyllanthus acidus* L.	Phyllanthaceae	Tree	Fruit	Diuretic, Antioxidant and Immune Support, Liver Health and Detoxification
79	*Phyllanthus emblica* L.	Phyllanthaceae	Tree	Fruit	Rich Source of Vitamin C and Immunity, Anti-aging and Skin Health Booster, Liver Protection, Cardiovascular Health, Blood Sugar Regulation, Antioxidant, Immunomodulatory.

80	*Polyalthia longifolia* (Sonn). Thwaites	Annonaceae	Tree	Bark and leaves	Antibacterial, Febrifuge, Mental Health and Stress Relief, Antioxidant and Anti-aging Effects.
81	*Pongamia pinnat*a L. Pierre.	Fabaceae	Tree	Seeds	Antimicrobial, Anti-Inflammatory, Liver Protection and Detoxification, Blood Sugar Regulation, Insect Repellent.
82	*Portulaca quadrifida* L.	Portulacaceae	Herb	Leaves and stems	Diuretic, coolant, Blood Sugar Regulation, Biofuel Production.
83	*Psidium guajava* L.	Myrtaceae	Tree	Leaves and fruit	Antidiarrheal, antimicrobial, Cough and Cold Relief, Liver Health, Weight Loss, Anticancer
84	*Punica granatum* L.	Lythraceae	Tree	Fruits and bark	Antioxidant, antimicrobial, Cardiovascular Health, Anticancer, Weight Loss, Hair Care.
85	*Ricinus communis* L.	Euphorbiaceae	Shrub	Seeds	Laxative, Digestive Aid, Skin and Hair Care, Anti-Inflammatory. Reproductive Health.
86	*Setaria pumila* (J. Koenig) Stapf.	Poaceae	Herb	Seeds	Diuretic, Nutritive, Food Source, urinary disorders and digestive issues**.**
87	*Sida cordata* (Burm.f) Borssum.	Malvaceae	Herb	Leaves and roots	Anti- Inflammatory, Antipyretic, Respiratory Disorders, Immunity Booster.
88	*Sida rhombifolia* L.	Malvaceae	Herb	Roots and Leaves	Anti- Inflammatory, analgesic, Fever and General Health Tonic, Stress Relief.
89	*Solanum nigrum* L.	Solanaceae	Herb	Leaves and Berries	Anti- Inflammatory, antipyretic, Stress Relief, Veterinary Medicine.
90	*Solanum procumbens Lour.*	Solanaceae	Herb	Whole plant	Anti- Inflammatory, antispasmodic.
91	*Solanum trilobatum* L.	Solanaceae	Climbing herb	Leaves and Berries	Expectorant, Antiasthmatic, Treatment of Respiratory Disorders, General Health Tonic and Fever Management.

92	*Solanum virginianum L.*	Solanaceae	Shrub	Roots and fruits	Expectorant, Antiasthmatic, Urinary Disorders. Snakebite Remedies.
93	*Tamarindus indica* L.	Fabaceae	Tree	Fruit pulp and leaves	Laxative, antioxidant, Treatment of Fevers and Malaria, Cooling Agent, Oral health.
94	*Tecoma stans* (L.) Kunth.	Bignoniaceae	Shrub	Leaves and flowers	Antidiabetic, Diuretic, Treatment of Fever and Malaria, Diuretic and Detoxifying Agent.
95	*Tectona grandis* L.f.	Lamiaceae	Tree	Leaves and bark	Anti- Inflammatory, Antibacterial, Treatment of Fever and Malaria, Cardiovascular Health.
96	*Terminalia catappa* L.	Combretaceae	Tree	Leaves and fruit	Antioxidant, Cardiovascular Health, Hepatoprotective.
97	*Thespesia populnea* (L.) Sol. Ex. Correa	Malvaceae	Tree	Bark and leaves	Antidiabetic and Blood Sugar Regulation, Anti-Inflammatory, Wound healing.
98	*Tinospora cordifolia* (Willd.) Miers ex Hook. f. & Thomson.	Meninspermaeae	Climbing Herb	Stem	Immunomodulatory, antipyretic, Reproductive Health, Fever Reduction.
99	*Tribulus terrestris* L.	Zygophyllaceae	Herb	Fruits and roots	Diuretic, aphrodisiac, Enhancing Reproductive Health and Fertility, Boosting Energy and Physical Stamina.
100	*Tridax procumbens* L.	Asteraceae	Herb	Leaves	Antiseptic, Control of Hair Loss and Dandruff, Hemostatic, Wound healing.
101	*Vernonia cinerea* (L.) Less.	Asteraceae	Herb	Whole plant	Anti- Inflammatory, Antipyretic, Digestive Health and Appetite Stimulation, Smoking Cessation Aid.
102	*Vitex negundo* L.	Lamiaceae	Shrub	Leaves and roots	Anti- Inflammatory, analgesic, Relief from Pain.
103	*Wattakaka volubilis* (L.f.) T. Cooke	Apocynaceae	Climbing shrub	Leaves and roots	Anti- Inflammatory, antipyretic, Menstrual and Reproductive Health.

104	*Zingiberofficinale*Rosc.	Zingiberaceae	Herb	Rhizome	Immune Boosting, Cold Remedies, Anti-Inflammatory, Digestive aid, Stress Relief, Liver Detoxification.
105	*Ziziphus mauritiana* Lam.	Rhamnaceae	Small tree	Fruits and leaves	Antioxidant, antimicrobial, Fever and Inflammation Reduction, Immune Booster and General Tonic.

This study highlights the traditional medicinal knowledge of Arugankulam village, documenting 105 plant species belonging to 86 genera and 44 families (Table 1). The Fabaceae family had the highest representation with 8 species, followed by Acanthaceae (7 species), and Malvaceae and Lamiaceae (6 species each). Herbaceous plants constituted 49% of the recorded species, reflecting their accessibility and efficacy in traditional medicine, as similarly observed among the Kani tribe in Karayar tribal village. Ethno botanical investigations by researchers such as [9, 10] also emphasize the significance of documenting traditional plant knowledge across different regions of India. Leaves were the most frequently used plant part (70%), a preference that aligns with other studies, as leaves are easy to harvest without harming the plant, available throughout the year, and rich in bioactive compounds vital for plant metabolism. Other plant parts used included fruits and roots (20%), flowers (7%), and bark, seeds, and bulbs (3%). A related ethnobotanical survey conducted by Sugumaran *et al*. [11] in the Pechiparai Hills documented 138 medicinal plant species used by the Kani tribes, with the Leguminosae family being most prominent (19 species, 14%). Leaves were again the primary plant part utilized (50%, 69 species), with leaf extracts commonly prepared as juice (26%) and administered orally (53%).

Similar findings by a total of 540 species were identified as herbs, predominantly annuals, along with 100 shrub species, 200 tree species, and 160 climbers. Additionally, 20 species of ferns and conifers and 15 orchid species were recorded. These plants were documented as Indian medicinal species through field studies conducted among 1,000 wild plants [12]. Similar research was conducted by Ragupathy and Newmaster [20] which explored the Irulas community's use of medicinal flora in the Kodiyakarai Reserve Forest. The study identified Euphorbiaceae (4 species) and Fabaceae (9 species) as the most commonly represented plant families. The documented flora included 10 herb species, 13 shrub species, and several climbers, emphasizing the region's biodiversity and its significance in traditional medicine [13]. Elumalai *et al*. [14] assessed ethnobotanical survey and Traditional Practices of Folkloric Populaces in and around Parvathamalai Hills and 126 species recorded.

The study identified 105 medicinal plants used to treat approximately 125 human ailments. Among these, seven plants are commonly utilized for managing cold and cough symptoms. Six plants are employed for conditions such as fever, stomachache, headache, wounds, bruises, boils, and ear ailments. Additionally, five plants are specifically used to address rheumatic or joint pain, bowel disorders, and snake bites. The primary therapeutic effects of these plants include their anti-inflammatory properties, followed by their effectiveness in treating respiratory disorders and enhancing digestive health. Many of these plants also demonstrate efficacy in treating skin conditions and possess antioxidant properties that are beneficial for managing severe diseases. Similarly, Sureshkumar *et al*. [15] documented an ethnopharmacological analysis of medicinal plants used by the Adiyan community in the Wayanad district of Kerala.

The present study identified 105 medicinal plants used to treat 125 different ailments, with cough being the most commonly addressed condition, managed by seven plant species. Ethnobotanical research conducted in the Tirunelveli district and nearby areas similarly highlights the extensive use of medicinal plants. For instance, 67 species were documented in the Karayar tribal village [16], while 70 species were reported in Subramaniapuram [17]. Research by Iyyanar and Ignacimuthu recorded 90 ethnobotanical plant species utilized by the Kani tribes in the Tirunelveli Hills [18], and 80 ethnomedicinal species were reported in the district overall [19]. Furthermore, Ignacimuthu *et al*. [20] documented 101 medicinal plants employed by the Paliyar tribals in the Theni district, and Iyyanar and Ignacimuthu [21] identified 54 species used by the Kani tribes in Kouthalai, Tirunelveli Hills. Ragupathy and Newmaster [22] also reported 53 ethnobotanical taxa used by the Irula community in the Kodiyakarai Reserve Forest, underscoring the biodiversity and medicinal relevance of the region.

In the neighboring Kanniyakumari district, several studies have documented the rich utilization of medicinal plants. Key findings include 47 species identified in Thengapattanam [23], 86 ethnomedicinal plants recorded in the Vellambi Forest [24], and 71 species traditionally used by the Kani tribes of Mudavanpothai [25]. Additionally, 150 medicinal herbs were cataloged in Agastheeswaram Taluk [26], 64 wild plants documented in Ganapathipuram [27], 101 ethnomedicinal species reported in Attoor [28], and 153 species utilized by the Vetans community in Shankaranputhur village [29]. Jayakumar *et al*. [30] further highlighted 70 plant species and their associated ailments, emphasizing the district's vast repository of traditional medicinal knowledge.

4. Conclusion

In conclusion, the ethnobotanical study in Arugankulam Village, Tirunelveli District, highlights the critical role of traditional healers in utilizing medicinal plants for local healthcare. The research documented a diverse range of plant species used for treating various ailments, emphasizing the community's extensive botanical knowledge. These findings underline the importance of preserving indigenous knowledge and exploring the pharmacological potential of these plants. Integrating traditional practices with modern medicine could enhance healthcare access and promote sustainability. However stringent steps have to be taken to check indiscriminate use of this ethnobotanical wealth. For this, the Government should take steps to support traditional healers and at the same time foster collaboration with scientific research which can lead to innovative treatments, safeguard cultural heritage, and conserve regional biodiversity.

References

1. Cheikhyoussef A., Shapi M., Matengu K., Ashekele H.M. Ethnobotanical study of indigenous knowledge on medicinal plant use by traditional healers in Oshikoto region, Namibia. Journal of Ethno biology and Ethnomedicine 2011; 71: 1 - 10.
2. Asase A. Ghana’s herbal medicine industry: prospects, challenges and ways forward from a developing country perspective. Frontiers in Pharmacology 2023; 14.
3. Junsongduang A., Kasemwan W., Lumjoomjung S., Sabprachai W., Tanming W., Balslev H. Ethnomedicinal knowledge of traditional healers in Roi Et, Thailand. Plants 2020; 9(9): 1177.
4. Domingo-Fernández D., Gadiya Y., Mubeen S., Bollerman T. J., Healy M. D., Chanana S., Sadovsky R. G., Healey D., Colluru, V. Modern drug discovery using ethno botany: A large-scale cross-cultural analysis of traditional medicine reveals common therapeutic uses. Science 2023; 26(9): 10772 - 10779.
5. Ndhlovu P.T., Asong J. A., Omotayo A. O., Otang-Mbeng W., Aremu, A. O. Ethnobotanical survey of medicinal plants used by indigenous knowledge holders to manage healthcare needs in children. Plus one 2023; 18(3): 0282113.
6. Kumar M., Rawat S., Nagar B., Kumar A., Pala N. A., Bhat J. A., Bussmann R. W., Cabral-Pinto M., Kunwar, R. Implementation of the use of ethnomedicinal plants for curing diseases in the Indian Himalayas and its role in sustainability of livelihoods and socioeconomic development. International Journal of Environmental Research and Public Health 2021; 18(4): 1509.

7. Redvers N., Celidwen Y., Schultz C., Horn O., Githaiga C., Vera M., Perdrisat M., Plume L. M., Kobei D., Kain M. C., Poelina A., Rojas J. N., Blondin, B. The determinants of planetary health: an Indigenous consensus perspective. The Lancet Planetary Health 2022; 6(2): 156 - 163.
8. Gamble J.S. Flora of the presidency of Madras. 1-3. Adland and Son Ltd.21, London 1936.
9. Jain S. K. A Manual of Ethno botany. Scientific Publishers 1987; 1 - 167.
10. Nair R., Karunagoda K. Ethnobotany of the tribes in the Kanyakumari District of Tamil Nadu. Indian Journal of Traditional Knowledge 2005; 4(6): 78 - 82.
11. Sukumaran S., Vethamoni S., Geetha S., Jeeva S. Ethnobotanical study of medicinal plants used by the kani tribes of Pechiparai Hills, Western Ghats, India. Acta Ecologica sinica 2020; 41(5): 365 - 376.
12. Ponnu Theerthagiri, S.A field study on Indian medicinal plants. Journal of Medicinal Plants Studies 2020; 8(4): 198 - 205.
13. Ragupathy S., Newmaster S.G. Valorizing the 'Irulas' traditional knowledge of medicinal plants in Tamil Nadu, India. Ethnobotany Research and Applications 2009; 6(3): 604 - 616.
14. Elumalai A., Irfan N., Prasad V.V.M., Ahamed H.N., Ismail Y. An ethnobotanical assessment, Inventory survey and traditional practices of folkloric populaces in and around Parvathamalai Hills, Thiruvannamalai district, Tamilnadu, India. Studies on ethnomedicine 2024; 18(1): 44 - 68.
15. Sureshkumar J., Silambarasan R., Ayyanar M. An Ethno pharmacological analysis of medicinal plants used by the Adiyan community in Wayanad district of Kerala, India. European Journal of Integrative medicine 2017; 12: 60 - 73.
16. Priyadharshana N. M., Smitha N. V., Sheela N. P., Vadivel, N. V. Ethno botanical survey of medicinal plants used by traditional healers in Karayar tribal village, Tirunelveli district, Tamil Nadu, India. Magna Scientia Advanced Research and Reviews 2024; 10(1): 038 - 045.
17. Rani C.P., Jayavarthana T., Jeeva S. Ethnobotanical survey of medicinal plants used by the rural people of Subramaniapuram village, Tirunelveli district, Tamilnadu, India. Plant Achieves 2018; 18(1): 256 - 265.
18. Iyyanar M., Ignacimuthu S. Ethnobotanical survey of medicinal plants commonly used by kani tribals in Tirunelveli hills of Western Ghats, India.Journal of Ethnopharmacology 2011; 134(3): 851 - 864.

19. Mohan V.R., Rajesh A., Athiperumalsamia T., Suthac S. Ethno medicinal Plants of the Tirunelveli District, Tamil Nadu, India.Ethno botanical Leaflets 2008; 12: 79 - 95.
20. Ragupathy S., Newmaster S.G. Valorizing the 'Irulas' traditional knowledge of medicinal plants in Tamilnadu, India. Ethnobotany Research and Applications 2009; 6(3): 604-616.
21. Gayathri Devi. S, Kensa M.V., Mahesh R. A survey on medicinal plants of Thengapattanam, Kanyakumari district, Tamilnadu, India. RJLBPCS 2022; 8(6): 1 - 10.
22. Shasheela P, Amutha I. A, Jemi J.R. Ethno botanical survey of medicinal plant species in Vellambi forest, Kanyakumari district. International Journal of Botany Studies 2021; 6(4): 278 - 282.
23. Priya J.C., Arul A.A. Ethnobotanical Study of Medicinal Plants used by Kani Tribes of Mudavanpothai, Kanyakumari District, Tamilnadu. Cross Res. 2022; 13(2): 157 - 170.
24. Deletta. J.G., Parthipan B. Traditional Medicinal Herbs used by Indigenous people of Agastheeswaram Taluk in Kanyakumari District, Tamilnadu, Southern India. International Journal of Creative Research Thoughts, 2018; 6(1): 1392 - 1415.
25. Darsana V.G., Selvaraj D., Raju G., Mahesh R., Vengadeswari A., Anushiya D.C., Ramalekshmi S.M., Petchimuthu K.K., Ramarajan S., Edison D.P.S., Sreelaja S., Rashida Banu A.M. Survey on Traditional Knowledge uses of medicinal wild plants among Ganapathipuram in Nagercoil, Kanyakumari District, Tamilnadu, India 2023: 692 - 7000.
26. Prakash A.T., Shajini S.R. Assessment of ethnomedicinal plants in Attoor, Kanyakumari, Tamilnadu. World Journal of Advanced Research and Reviews 2023; 20(3): 1644 - 1658.
27. Ignacimuthu S., Ayyanar M., Sankarasivaraman K.Ethnobotanical study of medicinal plants used by Paliyar tribals in Theni district of Tamil Nadu, India. Fitoterapia 2008; 79(7 - 8): 562 - 8.
28. Ayyanar M., Ignacimuthu S. Ethno botanical survey of medicinal plants commonly used by kanitribals in Tirunelveli hills of Western Ghats, India. Journal of Ethno pharmacology 2011; 134(3): 851 - 864.
29. Jeyakumar S., Kala Swarna M.S., Shynin Brintha T.S., Dometilla C., Mary Sujin R., Florence A.R., Ayun Vinuba A., Sathiya Geetha V., Jeeva S. Ethnomedicinal plants used by the Vetans of Kanyakumari District, TamilNadu, India. Indian Journal of Natural Sciences 2022; 13(73): 1 - 14.
30. Jeyakumar S., Shynin Brintha T.S., Dometilla C., Mary Sujin R., Florence A.R., Jebia Chinna Rani G., Ayun Vinuba A., Sathiya Geetha V., Jeeva S. Ethnomedicinal Plants used by the people of Thickanamcode Village, Kanyakumari District, Tamil Nadu, India. International Journal of Biology, Pharmacy and Allied Sciences (IJBPAS) 2023; 12(2): 955 - 968.