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# Ethnomedicinal Plants Used by Malayali and Narikuravar Communities in Erode District, Tamil Nadu, India

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## Abstract

**Background:** Traditional medicine plays an important role in primary healthcare of people reside in forest areas. We have reported the ethnomedicinal plants used by two ethnic communities in Western Ghats region of Erode district, Tamil Nadu, India.

**Aim of study:** The aim of this study is to gather ethnomedicinal information from local people and herbalists and calculate the documented information with statistical parameters.

**Materials and methods:** Semi structured questionnaire was used during the interview with Malayali and Narikuravar communities to document traditional knowledge on plants. The knowledge on medicinal plants used by informants to treat different types of ailments was analysed using the use value (UV) and frequency of citation (FC).

**Results:** A total number of 69 species of medicinal plants belonging to 33 families have been reported to treat various illnesses. Most of the plants reported in this study were used to treat diabetes, joint pain, snake bite, kidney problems, uterine disorders, sexual and fertility problems, cough, indigestion and cancer. *Moringa oleifera* was reported with highest UV of 5.08.

**Conclusion:** The present study revealed that, documentation of this knowledge will offer recognition of folk medicinal practices and could offer possible avenues for pharmacological analysis for a range of ailments.

**Keywords:** Malayalis; Narikuravars; Ethnobotany; Traditional medicine; Western Ghats

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## Introduction

Nature is a source of biologically active compounds and documentation on traditional medicinal plants is an important facet to reveal the past and present culture, the source of fundamental knowledge for pharmacology, sustainable use and conservation of biological resources [1]. The use of herbal remedies as an alternative to conventional medicine is becoming increasingly popular due to lesser side effects. Traditional knowledge of plants and their properties has always been transmitted from generation to generation [2]. Documentation of indigenous knowledge through field studies among tribal communities is an important factor for conservation and

utilization of biological resources [3]. Many ethnic groups rely on plants collected from wild habitats for their food and primary healthcare. The plants are reported to have rich in active biomolecules, thus knowledge on plant diversity of an area and traditional uses of those plants by indigenous communities is of prime importance for development of drugs in treating a variety of ailments [4].

India is one of the twelve mega-biodiversity countries of the world having a tradition of plant-based knowledge distributed amongst a vast number of ethnic groups [5-11]. In Tamil Nadu, 36 types of tribal and local communities are resides in forests and nearby areas. There are a number of ethno botanical researches

is underway in Tamil Nadu and few hill areas inhabited by indigenous communities are still not studied in ethno botanical point of view. One such forest area is forests in Erode district of Western Ghats in Tamil Nadu, India. Hence, the present study was carried out among the *Malayali* and *Narikuravar* communities and local knowledgeable persons in the Erode district to document ethno medicinal knowledge of plants used by them.

## Methodology

*Malayali* and *Narikuravar* ethnic communities inhabit the surveyed villages. Most of the ethnic communities and local people in these hills are using herbal medicines with a number of plants for their primary healthcare needs. The major livelihood of these people are agriculture, cattle farming, collection of fuel-wood and forest resources viz., herbal medicines, honey, edible fruits and tubers from nearby forests. Traditional healers of these communities acquired plant based knowledge from their ancestors. Some local people are collecting plant parts from forest areas and sell them to traditional healers who are professionally practicing herbal medicine.

The population of *Malayali* tribals is rich when compared to *Narikuravar* in Erode district. The detailed facts about the *Malayalis* were discussed in our previous publications [12,13]. In contrast to other tribal communities, *Narikuravars* (or *Kuruvikarar*) doesn't have particular place for their shelter and permanent hamlets. *Narikuravars* basically hail from a traditional hunting culture and they hunt fox, tiny wild animals and birds for their survival ([www.tribalbhharath.org](http://www.tribalbhharath.org)). They live in groups, speak unique language "Vaghridholi" and find their foods from selling beads and leather made craft items. They also speak Tamil. Most of the people believe that buying fox teeth from *Narikuravar* will bring prosperity. They make camp tents on roadsides and under the flyovers for stay and source of livelihood. Occasionally they made a temporary settlement for staying in particular region during festivel times to sell forest resources. This community has unique customs and practices like dress habits, food habits and way of life of *Narikuravar* community in Tamil Nadu are different from other communities.

In order to document the utilization of medicinal plants, a methodical survey was carried out during July 2015 to August 2016 in the study area (Figure 1). During the course of time, 24 informants were identified, of which two were professional traditional healers (herbalists). Twenty two informants were local persons who had much knowledge on medicinal plants and practicing herbal medicines for their neighbourhoods. Age of the interviewed people is ranging from 31 to 72. The documented medicinal plants were collected for identification and preparation of herbarium specimens. The plant materials were preserved using standard methodologies and identified using 'The Flora of Tamilnadu Carnatic' [14]. APG III [15] was followed for nomenclature of plants and families. The scientific names of plant species were confirmed with the standard taxonomy database 'Plant List' (<http://www.theplantlist.org>). The voucher specimens were deposited in herbarium of A.V.V.M. Sri Pushpam College, Poondi (SPCH), Thanjavur, India for future reference.

Data associated with collected ethnomedicinal plants were sorted in MS Excel 2010 and analysed for descriptive statistical patterns viz., use value (UV) and frequency of citation. The knowledge on medicinal plants used by informants of study area to treat different types of ailments were analysed using above statistical formulae.

Use value (UV) was calculated to evaluate the comparative significance of traditional use of specific plant species by local communities [16].

$$UV = \sum U/n$$

Where, U is number of use reports cited by each informant for a given plant species and n is the total number of informants interviewed for a given plant. The UV is helpful in determining the plants with highest use in the treatment of an ailment. UVs are high when there are many use reports for a plant and low when there are few reports related to its use.

Frequency of Citation of a plant species used was done using following formula,

$$FC = N_i / \sum N_i$$

Where,  $N_i$  is the number of times particular plant species was mentioned and  $\sum N_i$  is the total number of times that all species were mentioned.

## Results and Discussion

### Medicinal plant diversity and their uses

In the present study, 69 species of medicinal plants belonging to 33 families were reported with the help of informants (Table 1). Of the reported ethnomedicinal plants, 29 species were herbs (42%) followed by trees (27%), climbers (22%) and shrubs (9%) (Figure 2). Fabaceae (8 sps.) was recorded as most dominant family (Figure 3) followed by Amaranthaceae (5 sps.), Apocynaceae,

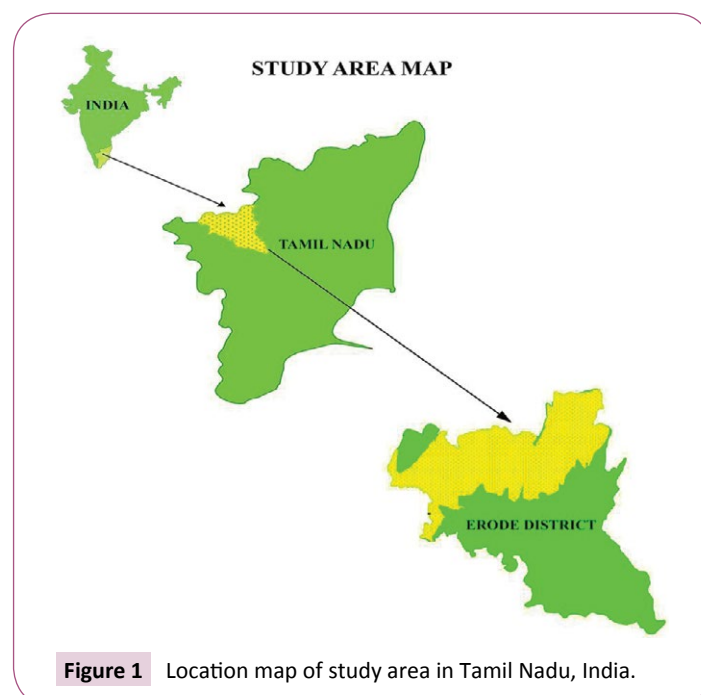


Figure 1 Location map of study area in Tamil Nadu, India.

**Table 1:** List of plants used in traditional medicine by Malayali and Narikuravar communities.

Botanical name, family, habit, availability and Voucher specimen number	Local name	FC	UV	Parts used and diseases treated	Preparation	Application
<i>Abrus precatorius</i> L., Fabaceae, Climber, SPCH-23	Kundumni	18	0.51	Leaf - Teeth disorder	Raw	Chewing
<i>Acacia nilotica</i> (L.) Delile, Fabaceae, Tree, SPCH-29	Karuvlam	16	0.63	Leaf - Cough; Stem - Toothache	Raw	Tooth brush
<i>Acalypha indica</i> L., Euphorbiaceae, Herb, SPCH-45	Kuppaimeni	27	1.31	Leaf - Psoriasis problem	Paste	Topical
<i>Acalypha alnifolia</i> Poir., Euphorbiaceae, Herb, SPCH-14	Kanni	18	0.51	Leaf - Poison bites	Crushing	Topical
<i>Achyranthes aspera</i> L., Amaranthaceae, Herb, SPCH-67	Naayuruvi	25	0.71	Root - Toothache	Raw	Chewing
<i>Achyranthes bidentata</i> Blum., Amaranthaceae, Herb, SPCH-109	Sen-naayuruvi	24	1.20	Whole plant - Kidney disease	Powder	Oral
<i>Aerva lanata</i> (L.) Juss., Amaranthaceae, Herb, SPCH-18	Sirupoolai	22	0.62	Whole plant - Kidney problem	Powder	Oral
<i>Alternanthera sessilis</i> (L.) R. Br. ex DC., Amaranthaceae, Herb, SPCH-105	Ponnan ganni	22	0.62	Leaf - Eye problem	Soup	Oral
<i>Amaranthus viridis</i> L., Amaranthaceae, Herb, SPCH-123	Kuppai keerai	21	0.60	Aerial parts - Anemia	Soup	Oral
<i>Andrographis echioides</i> (L.f.) Nees., Acanthaceae, Herb, SPCH-12	Kopuran thangi	20	0.86	Aerial parts - Snake bite	Paste	Oral
<i>Andrographis serpyllifolia</i> (Vahl.) Wight., Acanthaceae, Herb, SPCH-148	Kattu poorankodi	18	0.51	Aerial parts - Rheumatic fever	Decoction	Oral
<i>Anisomeles malabarica</i> (L.) R.Br. ex Sims., Lamiaceae, Herb, SPCH-58	Peimiratti	27	1.31	Leaf - Joint pain	Paste	Topical
<i>Asclepias curassavica</i> L., Apocynaceae, Herb, SPCH-97	Karunthuvarai	16	0.46	Whole plant - Cancer	Paste	Oral
<i>Artocarpus heterophyllus</i> Lam., Moraceae, Tree, SPCH-74	Pala	25	1.26	Fruit - Male erectile disorder	Raw	Oral
<i>Asparagus racemosus</i> Willd., Asparagaceae, Climber, SPCH-79	Thanner vittan kizhangu	35	1.66	Tuber - Uterine disorder	Powder	Oral
<i>Azadirachta indica</i> A. Juss., Meliaceae, Tree, SPCH-149	Veppilai	35	2.77	Leaf - Diabetes and chickpox	Paste	Oral
<i>Azima tetracantha</i> Lam., Salvadoraceae, Shrub, SPCH-136	Sankilai	24	0.69	Aerial parts - Uterine disorder	Juice	Oral
<i>Bacopa monnieri</i> (L.) Wettst., Plantaginaceae, Herb, SPCH-42	Nirbrahmi	29	0.83	Whole plant - Amnesia	Powder	Oral
<i>Bambusa bambos</i> (L.) Voss, Poaceae, Shrub, SPCH-32	Moongil	28	0.80	Seed - Joint pain	Paste	Topical
<i>Bombax ceiba</i> L., Malvaceae, Tree, SPCH-184	Ilavam	26	0.74	Leaf - Uterine disorder	Juice	Oral
<i>Boerhavia diffusa</i> L., Nyctaginaceae, Herb, SPCH-37	Mukkirattai	23	1.06	Root - Psoriasis proplem	Paste	Topical
<i>Borassus flabellifer</i> L., Arecaceae, Tree, SPCH-22	Panai	35	1.66	Fruit pulp - Sunburn	Raw	Oral
<i>Butea monosperma</i> (Lam.) Taub., Fabaceae, Tree, SPCH-192	Karumpurasu	27	1.54	Leaf - Diabetes	Decoction	Oral
<i>Calotropis gigantea</i> (L.) Dryand., Apocynaceae, Shrub, SPCH-21	Erukkanchedi	32	1.37	Flower - Cold	Raw	Oral
<i>Camellia sinensis</i> (L.) Kuntze., Theaceae, Tree, SPCH-197	Theyilai	24	0.69	Leaf - Head ache	Decoction	Oral
<i>Carthamus tinctorius</i> L., Asteraceae, Herb (Purchased), SPCH-154	Suriyagandhi	18	0.51	Seed - Heard disease	Oil	Oral
<i>Cassia fistula</i> L., Fabaceae, Tree, SPCH-17	Kondrai	27	1.29	Root - Snake bite	Paste	Topical
<i>Caesalpinia bonduc</i> (L.) Roxb., Fabaceae, Shrub, SPCH-212	Kazhatchikai	32	2.2	Seed - Uterine disorder	Powder	Oral
<i>Celastrus paniculatus</i> Willd., Celastraceae, Climber, SPCH-81	Kuvarikundal	25	0.71	Seed - Joint pain	oil	Topical
<i>Cinnamomum verum</i> J. Presl., Lauraceae, Tree, SPCH-09	Ilavangam	27	0.77	Stem bark - Joint pain	Decoction	Oral
<i>Cissampelos pareira</i> L., Menispermaceae, Climber, SPCH-36	Vattathiruppi	21	0.60	Leaf - Leg fracture	Paste	Topical
<i>Cissus quadrangularis</i> L., Vitaceae, Climber, SPCH-32	Pirandai	30	1.49	Stem - Stomachache and joint pain	Juice	Oral
<i>Cocculus hirsutus</i> (L.) W.Theob. Menispermaceae, Climber, SPCH-39	Kattukkodi	17	0.49	Leaf - Psoriasis proplem	Paste	Topical
<i>Coix lacryma-jobi</i> L., Poaceae, Shrub, SPCH-203	Kuraththipasi	25	0.71	Seed - Cancer	Paste	Oral
<i>Colocasia esculenta</i> (L.) Schott., Arecaceae, Herb, SPCH-243	Sembu	19	0.54	Leaf - Indigestion	Juice	Oral
<i>Corallocarpus epigaeus</i> (Rottler) C.B.Clarke, Cucurbitaceae, Climbe, SPCH-169	Agasa karudan kizhangu	34	0.97	Corm - Snake bite	Paste	Oral

<i>Cullen corylifolium</i> (L.) Medik., Fabaceae, Herb, SPCH-43	Karpoga arisi	26	0.74	Seed - Leprosy	Paste	Topical
<i>Cyclea peltata</i> (Lam.) Hook.f. and Thomson, Menispermaceae, Climber, SPCH-83	Appatta	21	0.80	Root - Malaria and jaundice	Decoction	Oral
<i>Decalepis hamiltonii</i> Wight and Arn., Apocynaceae, Climber, SPCH-86	Maakali kizhangu	15	0.71	Root - Psoriasis and diabetes	Paste	Oral
<i>Delonix elata</i> (L.) Gamble, Fabaceae, Tree, SPCH-30	Vadha narayanan	22	0.63	Lf; DCS: 22 (Piles- I84)	Decoction	Oral
<i>Dioscorea oppositifolia</i> L., Dioscoriaceae, Climber, SPCH-62	Vaerolai valli	21	0.60	Tb; DGS: 21 (Hydrocele - N43.3)	Paste	Topical
<i>Eclipta prostrata</i> (L.) L., Asteraceae, Herb, SPCH-64	Karisalan kanni	35	2.46	Root – Mental disorder and eye peoblem	Juice	Oral
<i>Ficus reliogiosa</i> L., Moraceae, Tree, SPCH-60	Arasamaram	32	2.17	Fruit – Infertility	Raw	Oral
<i>Heliotropium indicum</i> L., Boraginaceae, Herb, SPCH-28	Theal kodukki	35	1.57	Aerial parts – Poison bites	Raw	Oral
<i>Helicteres isora</i> L., Malvaceae, Shrub, SPCH-269	Idanjuli	24	0.69	Fruit - Earache	Emulsion	Topical
<i>Indigofera tinctoria</i> L., Fabaceae, Herb, SPCH-42	Neeli	15	0.57	Leaf - Snake bite and leprosy	Powder	Oral
<i>Ipomoea aquatica</i> Forssk., Convolvulaceae, Climber, SPCH-53	Thanneer keerai	13	0.37	Leaf - Sunburn	Paste	Topical
<i>Ipomoea batatas</i> (L.) Poir., Convolvulaceae, Climber, SPCH-189	Sakkaraivalli kizhangu	17	0.49	Tuber - Ulcer problem	Raw	Oral
<i>Kedrostis foetidissima</i> (Jacq.) Cogn., Cucurbitaceae, Climber, SPCH-51	Appakkovai kizhangu	26	1.09	Root - Asthma and piles	Paste	Oral
<i>Leucas aspera</i> (Willd.) Link., Lamiaceae, Herb, SPCH-65	Thumbai	24	0.69	Leaf - Cold	Juice	Oral
<i>Melia dubia</i> Cav., Meliaceae, Tree, SPCH-114	Malaivembu	24	0.68	Leaf - Malaria	Juice	Oral
<i>Momordica charantia</i> L., Cucurbitaceae, Climber, SPCH-76	Pagal	29	0.83	Fruit - Diabetes	Raw	Oral
<i>Morinda citrifolia</i> L., Rubiaceae, Tree, SPCH-78	Manjanaari	23	0.66	Fruit - Joint pain	Paste	Topical
<i>Moringa oleifera</i> Lam., Moringaceae, Tree, SPCH-92	Murungai	35	5.08	Leaf and fruit - Male erectile disorder	Decoction	Oral
<i>Nerium oleander</i> L., Apocynaceae, Herb, SPCH-84	Arali	27	0.77	Stem bark - Earache	Decoction	Topical
<i>Ocimum basilicum</i> L., Lamiaceae, Herb, SPCH-87	Thiru neetru pachchilai	35	2.54	Leaf - Cold and cough	Juice	Oral
<i>Pedaliium murex</i> L., Pedaliaceae, Herb, SPCH-57	Yanainerunjill	26	0.74	Fruit - Kidney problem	Powder	Oral
<i>Phyllanthus amarus</i> Sch. and Th., Euphorbiaceae, Herb, SPCH-02	Keezhanelli	32	0.91	Aearil parts - Jaundice	Powder	Oral
<i>Phyllanthus emblica</i> L., Euphorbiaceae, Tree, SPCH-146	Nellikani	34	1.69	Fruit rind - Diabetes	Juice	Oral
<i>Piper longum</i> L., Piperaceae, Herb (Purchased) – 113	Vaalmilagu	29	1.40	Fruit – Nervous problems	Powder	Oral
<i>Spilanthes acmella</i> (L.) L., Asteraceae, Herb, SPCH-124	Aangaravalli	32	0.91	Inflorescence - Toothache	Raw	Oral
<i>Syzygium cumini</i> (L.) Skeels, Myrtaceae, Tree, SPCH-90	Naaval maram	33	0.94	Fruit - Diabetes	Decoction	Oral
<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight and Arn., Combretaceae, Tree, SPCH-99	Marutha maram	25	0.71	Stem bark - Heart disease	Decoction	Oral
<i>Terminalia bellirica</i> (Gaertn.) Roxb., Combretaceae, Tree, SPCH-100	Thandrikkai	21	0.60	Fruit rind - Kidney problems	Powder	Oral
<i>Tinospora cordifolia</i> (Willd.) Miers, Menispermaceae, Climber, SPCH-10	Seendhil kodi	25	0.71	Stem - Fever	Decoction	Oral
<i>Tribulus terrestris</i> L., Zygophyllaceae, Herb, SPCH-100	Nerunjill	32	0.91	Fruit - Kidney problems	Powder	Oral
<i>Tridax procumbens</i> (L.) L., Asteraceae, Herb, SPCH-101	Vettukkaya poondu	25	0.71	Whole plant - Injuries	Paste	Topical
<i>Vitex negundo</i> L., Lamiaceae, Tree, SPCH-132	Nochchi	35	2.14	Leaf – Cold, cough and joint pain	Juice	Oral
<i>Zingiber officinale</i> Roscoe, Zingiberaceae, Herb, SPCH-108	Inji	26	1.11	Rhizome - Indigestion	Juice	Oral

Asteraceae, Euphorbiaceae, Lamiaceae, Menispermaceae (4 spp. each), Cucurbitaceae (3 spp.), Acanthaceae, Convolvulaceae, Malvaceae, Meliaceae, Moraceae, Combretaceae and Poaceae (2 spp. each).

The informants in the study area were practicing 9 types of preparation to treat different ailments. Of which mostly used

herbal preparation was paste (28%) followed by plant derived raw material, powder, decoction and juice (16% each) and remaining methods like soup, crushing, oil and emulsion (with 8%) with a very few preparations (**Figure 4**). For some herbal medicines with bitter taste, sweet ingredients like sugar, honey, jaggery (*palm sugar*) or milk were added during the preparation of medicines to

reduce bitterness. Various application methods were exercised by studied informants, in which oral application (73%) was most commonly used than other modes like topical (23%), chewing (3%) and used as tooth brush (1%) (Figure 5). Similarly Nadembega et al. [17], Kadir et al. [18], Mahmood et al. [19,20] and Sadeghi et al. [21] also revealed that, oral application was most frequently used administration to treat several illnesses.

### Quantitative analysis of data

*Moringa oleifera* was reported by most of interviewed informants and gives highest UV of 5.08 due to its diverse utilization among the interviewees. Majority of local people were using this plant to treat a variety of diseases mainly male erectile disorder, female infertility problems and cancer. Our previous report from Malayali tribals in Palamalai region of Tamil Nadu [13] and few more studies conferred the more or less same results [22,23].

Use value of a plant was considered based on the plant availability and accessibility and informant's knowledge. While plants with

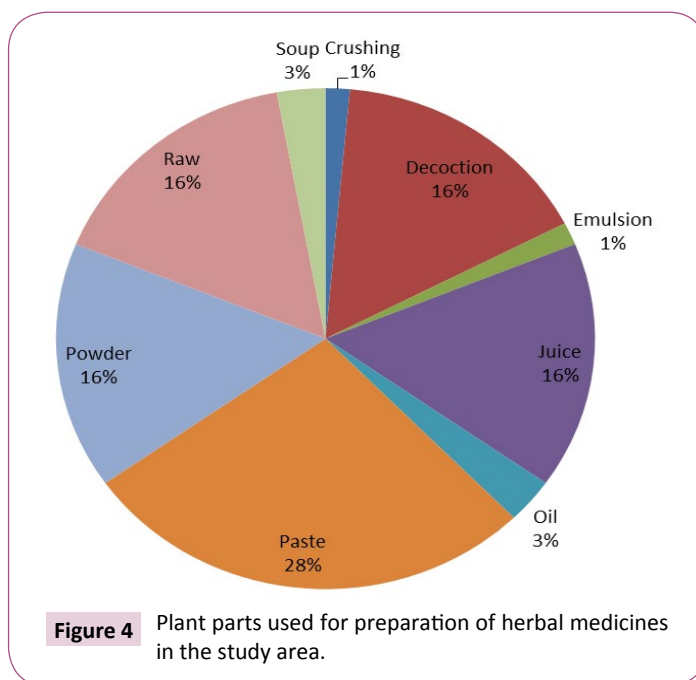


Figure 4 Plant parts used for preparation of herbal medicines in the study area.

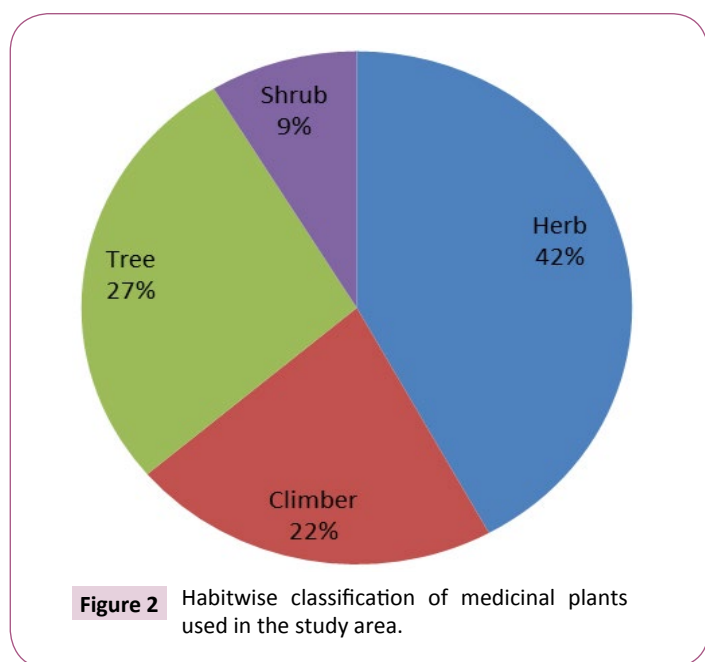


Figure 2 Habitwise classification of medicinal plants used in the study area.

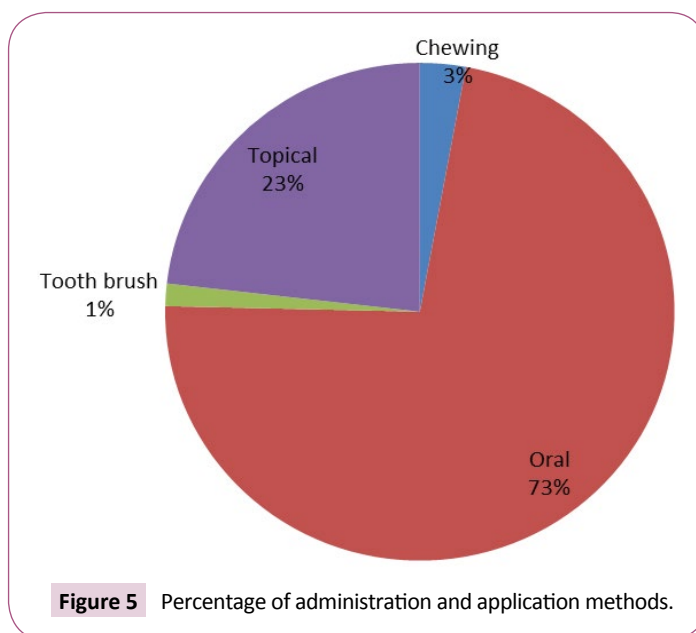


Figure 5 Percentage of administration and application methods.

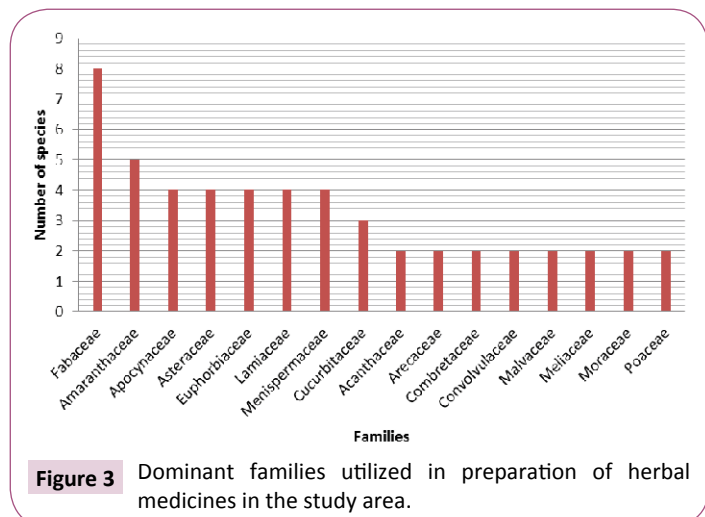


Figure 3 Dominant families utilized in preparation of herbal medicines in the study area.

high UV were most preferred species in study sites and plants with low UV should not be neglected as failing to mention them to future generations could increase the risk of gradual disappearance of the knowledge from a particular community [24]. The plants with low UV for the reported plants may be due to its scarce availability in studied sites [25]. The frequency of citation was used to determine local importance of each species of a study area. In the present study *Moringa oleifera* was recorded with highest FC which tends to show that it was locally important among all interviewed informants to treat variety of diseases like male erectile disorder, premature ejaculation, infertility problems and cancer.

### Special medicines to treat specific diseases

Most of the plants reported in this study were used to treat

diabetes, joint pain, snake bite, kidney problems, uterine disorders, premature ejaculation, other sexual problems, cough, indigestion and cancer. When herbalists prepare herbal preparations to treat various ailments, they frequently add some other plant parts, several ingredients and additives. Several previous studies by Ayyanar and Ignacimuthu [9], Keter and Mutiso [26], Kumar and Bharati [10] and Shah et al. [11] also supported this view.

Mixtures of several plant parts used in traditional healthcare practices were believed to exhibit synergistic interaction [27]. Apart from reported ethnomedicinal plants, informants of present study prepared fifteen types of medicines with mixture of several plant parts by means of particular names to treat specific illnesses (**Table 2**). Of which *Aalippodi* used frequently to treat various illnesses like behavioural syndromes associated with physiological disturbances and physical factors, diseases of musculo-skeletal system and connective tissues, disorder of eye and adnexa and diseases of male genital organs.

## Conclusion

The present investigation is first report from the Western Ghats region in Erode district to quantify the medicinal plants used by tribal and local people. The results of our exploration showed that, traditional use of plants to treat various diseases in an area is based on the knowledge of people reside in those regions and diversity of medicinal plants. Majority of people in the area use wild plants for preparation of herbal medicines although some plants were purchased from nearby markets and hills. However there is a gradual loss of traditional knowledge among younger age group since lack of interest. The present study demonstrated that, traditional herbal remedies which are in current use by informants of study area need further attention on dissemination of this knowledge to next generation. Several species of documented plants were reported to have much biological actions through pharmacological studies and it revealed the importance of folk medicine in search of new biologically active compounds.

**Table 2:** List of plants used in mixtures to treat specific ailments in the study area.

Major plants used for herbal preparation	Plants used in least quantity	Name of the medicine and treatment	Other ingredients used	Dosage
<i>Withania somnifera, Asparagus racemosus, Curculigo orchioides</i>	<i>Piper longum, Mucuna pruriens, Ipomoea obscura, Zingiber officinale</i>	Veeru - Chooranam (Sexual disorders for men - paste)	Honey, milk, sugar	5 g in early morning
<i>Moringa oleifera, Ipomoea obscura</i>	<i>Solanum trilobatum, Amaranthus viridis, Basella alba, Cuminum cyminum</i>	Aalippodi (Sexual disorders for men - powder)	Ghee or honey	3-5 g in the morning for three months
<i>Terminalia chebula, Ficus benghalensis</i>	<i>Mentha piperita</i>	Pal - Sotthaippodi (Dental care - powder)	Salt	Brushing with the powder twice a day
<i>Coccinia grandis, Andrographis paniculata</i>	<i>Zingiber officinale, Piper nigrum, Allium cepa, Allium sativum, Murraya koenigii</i>	Vallanga rasam (Fever, cold, cough, headache - decoction)	Water	50-100 ml taken twice a day till cure
<i>Cardiospermum halicacabum</i>	<i>Dodonaea viscosa, Senna occidentalis</i>	Moottu vali thailam (Joint pain - ointment)	Gingelly oil, egg (white yolk)	10-20 ml applied topically until cure
<i>Helicteres isora</i>	<i>Chrysopogon zizanioides</i>	Kaathu vali thailam (Ear pain - ointment)	Gingelly oil	2-5 ml applied in ear before go to bed
<i>Senna auriculata, Marsdenia sylvestris, Phyllanthus emblica</i>	<i>Asparagus racemosus, Moringa oleifera</i>	Sarkkarai podi (Diabetes - powder)	Milk	2-5 g taken twice a day until cure
<i>Ocimum tenuiflorum</i>	<i>Caesalpinia bonduc</i>	Virai veekka thailam (Hydrocele - ointment)	Gingelly oil, egg (white yolk)	2-5 ml applied topically during night until cure
<i>Terminalia chebula, Terminalia bellirica, Phyllanthus emblica, Piper longum, Zingiber officinale</i>	<i>Solanum americanum, Piper nigrum, Terminalia arjuna</i>	Paali - Chooranam (Fertility problems in men and women, general health tonic - paste)	Milk and Honey	2-5 g taken twice a day morning and evening (before food)
<i>Andrographis paniculata</i>	<i>Aristolochia indica</i>	Vishamuri kashayam (Poison bites - decoction)	Water	20-50 ml taken twice a day for a week
<i>Allium sativum, Mimosa elengi, Caesalpinia bonduc,</i>	<i>Citrus limon, Mentha piperita, Moringa oleifera</i>	Vaavu marunthu (Gastric problems - powder)	Water, milk	5-10 g taken twice a day for 3 days
<i>Phyllanthus amarus</i>	<i>Eclipta prostrata</i>	Kaamalai podi (Jaundice - powder)	Curd	5-10 g taken early in morning for a month
<i>Acalypha indica, Aloe vera</i>	<i>Pistia stratiotes</i>	Moola thailam (Piles - ointment)	Gingelly oil	2-5 ml applied before go to bed
<i>Azadirachta indica, Carica papaya</i>	<i>Cissus quadrangularis, Allium sativum</i>	Vayitru poochi podi (Intestinal worms - powder)	Gingelly oil	2-5 g taken before go to bed for 3 days
<i>Punica granatum, Ficus benghalensis, Moringa oleifera, Caesalpinia bonduc</i>	<i>Asparagus racemosus, Cuminum cyminum, Cinnamomum tamala</i>	Karpakkuli suththi podi (Diseases of uterine and related disorders - powder)	Milk, honey	2-10 g taken early in the morning for two months

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