

Research Article

**Ethno Medicinal and Therapeutic Knowledge of Plants in Siruvani Tribal Tracts of Coimbatore District****B. Sakthinathan*, D. Udhaya Nandhini**Assistant Professor (Agriculture), School of Agriculture and Bio Sciences,
Karunya Institute of Technology and Sciences, Coimbatore – 114, India.*Corresponding author's E-mail: sakthinathan@karunya.edu

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ABSTRACT

Tamil Nadu is treasure of practical knowledge on traditional herbal medicines. In recent years, indigenous knowledge about natural resources is becoming increasingly important in defining strategies and actions for conservation. An ethno medicinal survey was conducted to collect the information on ethnomedicinal uses of plants was obtained through direct field interviews and designed questionnaire. The study revealed that local communities have a great faith in the traditional healing system and they rely on medicinal plants for treatment of various diseases. Therefore, this work will also contribute for the investigation of new medicines and treatments.

Keywords: Conservation, indigenous knowledge, ethnomedicinal, traditional healing, diseases.**INTRODUCTION**

Indian sub-continent is blessed with most varied and diverse soil and climatic conditions, which are suitable for the growth of almost every plant species. Since ancient time, mankind depended mainly on the plant kingdom to meet its need for medicine, fragrance and flavours. The study of indigenous knowledge about natural resources is fetching more important in significant strategies and actions for conservation across the globe, as the plants are playing a significant role in the welfare of people's life in many villages of Indian states in their routine life by its traditional convention.

The tribal and rural people of various parts of Indian states are highly reliant on medicinal plant therapy for fulfilling their health care needs¹. However, valid scientific data on the custom of ethnomedicinal plants is rather obscure. Richness of medicinal plants in the Western Ghats parts of Coimbatore and Nilgiri districts of Tamil Nadu is high due to the existence of varied types of ecosystems in this landscape².

The indigenous people nurture rich knowledge about medicinal plants developed over generations by bold experimentation through trial and error methods³. This treasure of knowledge has been passed orally without any written documents and is still retained by them⁴. In the last few years, there has been an exponential growth in the field of herbal or traditional medicine and these drugs are gaining popularity because of their natural origin and exhibit remarkable efficacy in the treatment of various ailments⁵.

There is a considerable scope for India to contribute towards the increasing worldwide demand for medicinal and aromatic plant products. Several workers were reported the utility of plants for the treatment of various diseases by the different tribal and rural people inhabiting

in various regions of Tamil Nadu. Therefore, collection of ethnobotanical information and documentation of traditional knowledge has gained prominence for the welfare of humanitarian.

MATERIALS AND METHODS**Study area**

Siruvani is located in suburb of Coimbatore in the Indian state of Tamil Nadu. It is a western suburb of Coimbatore city. Siruvani is located 10° 93' 0" North, 76° 68' 0" East. Siruvani receives an average of 730 mm of rainfall yearly and the average annual temperature is 25.5 °C. The traditional healers of Siruvani region of Tamil Nadu are having a commendable knowledge of the medicinal values those grow around them. This knowledge is now stated to disappear due to modernization and the tendency among younger generation to discard their traditional life style. There is an urgent need to study and document this precious for the future generation. Few elders in this community have the knowledge on medicinal uses of plants which are used mainly for first aid remedies like stomach problems, fever, headache, skin problems, etc.

Collection of information

Standard questionnaire was used to gather the knowledge on ethnomedicinal use of medicinal herbs from the rural people of this village. The questionnaire contains the details of the plants, parts used, medicinal uses and mode of preparation of remedies. The information regarding the medicinal uses of plants, perception of the local people regarding use of plants in common diseases were collected through questionnaires among the traditional practitioners in the study area. In addition to the vernacular names, information on plant



part used, mode of preparation, forms of usage were also collected.

Identification

Preliminary identification of ethno medicinal plants was done by examining fresh plants products from the field with the help of villagers. Few respondents were more informative and co-operative. They have shown fresh plants in the habitat, which was useful for the final identification. The identification of plant materials was confirmed with the help of published data.

RESULTS AND DISCUSSION

The present study shows 20 species were distributed in 18 families, were identified from the region of Siruvani, Coimbatore district by recording their Vernacular names (Table 1). Most of the plants are wholly medicinal. The local people of Siruvani are using these plants to cure many diseases like Asthma, Jaundice, Tuberculosis, Leprosy, Rheumatism, cough, fever, vomiting, skin diseases, hypertension, wound healing, diabetes, anti-inflammation, etc.,

Among the various plant part used, the leaves (35%) were commonly utilized followed by the Shoot & whole plants (19 %), Seeds (10 %), flowers, barks (6 %), and roots (3 %)(Figure 1).

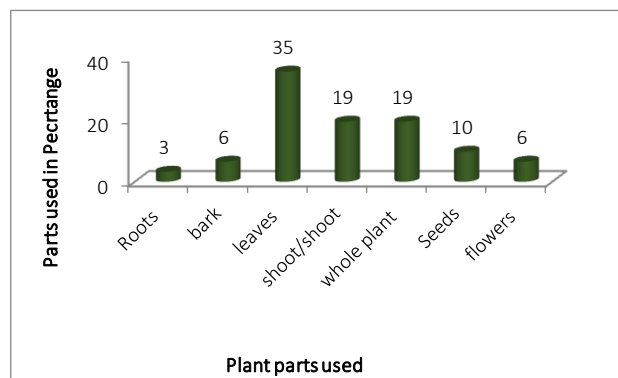


Figure 1: Percentage of plant parts used with therapeutic value

Table 1: List of plants used for various medicinal uses

S.No	Scientific name	Common name	Family	Tamil name	Parts used	Therapeutic uses	Mode of administration
1.	<i>Abrus precatorius, L.</i>	Rosary pea	Fabaceae	Gundumani	Seed, leaves	Eye diseases, asthma, swellings	Decoction
2.	<i>Azadirachta indica</i>	Neem	Meliaceae	Vembu	Stem bark, leaves, seed	Toothache, headache, chicken pox wounds, dandruff	Juice, paste,
3.	<i>Bambusa arundinacea</i>	Bamboo	Poaceae	Moongil	Leave stem, young shoot	Anthelmintic,	Food
4.	<i>Centella asiatica</i>	Indian pennywort	Apiaceae	Vallarai	Whole plant	Jaundice	Paste
5.	<i>Cissus quadrangularis L.</i>	Veld grape	Vitaceae	Pirandai	Stem, leave	Digestive and stomache	Paste
6.	<i>Coccinia indica</i>	Ivy gourd	Cucurbitaceae	Kovaikkai	Roots	Antidote	Food
7.	<i>Datura metel</i>	Devil's trumpet	Solanaceae	Oomathai	Flowers	Ear pain	Decoction
8.	<i>Ficus carica, L.</i>	Common fig	Moraceae	Simaiyattai	Bark, leaves, shoot	Anti-inflammatory, throat infection	Paste
9.	<i>Hamidesmas indicus</i>	Indian sarsaparilla	Apocynaceae	Nannari	Whole plant	Temperature maintenance	Juice
10.	<i>Murraya koenigii (L.) Spreng.</i>	Curry Leaf	Rutaceae	Karuveppilai	Whole plant	Indigestion, chicken pox, stomach-ache	Paste
11.	<i>Ocimum sanctum</i>	Holy Basil	Lamiaceae	Thulasi	Whole plant	Cold cough fever, scorpion bite,	Decoction, juice

12.	<i>Pedaliium murex</i>	Large Caltrops	Pedaliaceae	Yanai nerunjil	Whole plants	Puerperal diseases, digestive	Juice
13.	<i>Phyllanthus niruri</i>	Seed-under-leaf	Phyllanthaceae	Keelanelli	Leaves	Jaundice	Paste
14.	<i>Piper betle</i> L.	Beetle pepper	Piperaceae	Vettilai	Leaves	Skin diseases, digestive, scorpion bite	Juice
15.	<i>Plectranthus amboinicus</i>	Country borage	Lamiaceae	Karpooravalli	Leaves	Cold & cough	Juice
16.	<i>Pongamia pinnata</i>	Indian beech	Papilionaceae	Pungamaram	Seed, flower, seeds	Skin diseases, diabetes, rheumatism	Paste
17.	<i>Santalum album</i> L.	Sandalwood	Santalaceae	Sandhanam	Leaf and stem	Gastric irritability, dysentery skin diseases	Paste
18.	<i>Solanum nigrum</i> L.	Black nightshade	Solanaceae	Manathakkali	Whole plant	Stomach-ache, ulcer, wounds, fever	Decoction, juice,
19.	<i>Solanum trilobatum</i>	Purple Fruited Pea eggplant	Solanaceae	Thoothuvalai	Leaves	Cold & cough	Decoction
20.	<i>Vitex negundo</i>	Five-Leaved Chaste Tree	Verbenaceae	Notchi	Leaves stem	Asthma, headache, fever, cough	Juice

Many indigenous communities throughout the world also utilized mostly leaves for the preparation of herbal medicines⁶ and the recent ethno botanical studies confirmed that leaves are the major portion of the plants used in the treatment of diseases⁷. Generally, fresh part of the plant is used for the preparation of medicine. When fresh plant parts are unavailable, dried parts are also used. For diseases like cold, fever, cough, diarrhoea, fertility problems, tooth diseases and stomach ache only internal consumption is adopted. The major mode of administration is juices, paste (35 %), decoction (22 %) and food (8 %) (Figure 2).

Most of the reported preparations are drawn from a single plant; mixtures are used rarely. The frequent use of multiple plant remedies among the local traditional healers could be attributed to the belief of synergic reactions where one plant could have a potentiating effect than other⁸.

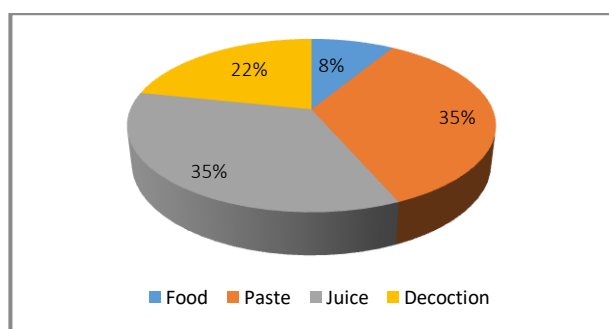


Figure 2: Distribution percentage of medicinal plants according to their mode of administration

Water, milk and the oils of castor, coconut, gingelly, mustard, neem and sesame were commonly used for the preparation of paste or medicated oil. The local healers were using specific plant parts and specific dosages for the treatment of diseases and the dose given to the patient depends on age, physical status and health conditions.

Most of the traditional knowledge about medicinal plants and their use survived only by words of mouth from generation to generation and are slowly lost. Moreover, the herbal healers had the strong tendency to keep their knowledge secret without any documentation. In most cases, the active molecules of the medicinal plant reported here are unknown.

Medicinal plant-based traditional knowledge has become an accepted means in search for new sources for nutraceutical compounds. Similar ethnobotanical studies have been reported in several parts of Indian states to document the traditional knowledge that has been fading. Indigenous knowledge of conventional practice is the important sources of locating bio-resources of the neighborhood. From time immemorial the people have been using plant remedies against various ailments without knowing their curative constituents⁹. This finding of common medicinal plant families in the study is in agreement with that of previous findings in TNAU along with therapeutic value. Dissemination of the knowledge of medicinal and therapeutic property would advance the socioeconomic eminence of the tribes.

CONCLUSION

All the enumerated plant species are very commonly used for various ailments by the local peoples of this region. The present-day traditional healers are very old, due to lack of interest among the younger generation as well as their tendency to migrate to cities for lucrative jobs; there is a possibility of losing this wealth of knowledge in the near future. Hence, proper documentation and preservation of traditional skills and technology of medicinal plants is a vital necessity.

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