

Ethnomedicinal Plants Used in the Healthcare Systems of Tribes of Dantewada, Chhattisgarh India

Pankaj K. Sahu¹, Vaneer Masih¹, Sharmistha Gupta², Devki L. Sen³, Anushree Tiwari¹

¹Department of Botany, Dr. C. V. Raman University Kota, Bilaspur, India

²West Bengal State Council of Science & Technology, Kolkata, India

³Department of Botany, Government Science College, Raipur, India

Email: sahu.pankaj1@gmail.com

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Abstract

The tribal people depend on forests for their livelihood and most of the rural people still depend on traditional medicine as a primary healthcare source. The paper highlights the rich plant resources and the vast wealth of ethnobotanical information available with the various tribes of the region. In this paper, some new and less known ethno medicinal uses of 104 plants of tribes of Dantewada, Dakshin Bastar C.G. in different ailments have been reported. The main objective of present work is to give the information and documentation of medicinal plant used by tribal of the study sites. The ethnomedicinal information was gathered from interviews with living elders belonging to Madiya, Muriya, Gond and Bhatra tribes of the study area. The present work on ethnomedicinal plants, used in the healthcare systems of tribes in 15 villages, was carried out from Geedam block of Dantewada, Dakshin Bastar C.G.

Keywords

Phytotherapy, Tribe, Ethno Botany, Documentation, Dantewada

1. Introduction

India is rich in medicinal plant diversity which is distributed in different geographical, environmental conditions and associated tribal & folk knowledge systems. The tribal people mostly depend on forests for their livelihood and up to 70% of the rural population still depends on traditional medicine as a primary healthcare source. In India there are about 550 tribal communities covered under 227 ethnic groups residing in about 5000 villages in

different forest and vegetable types. In the developed countries the medical drugs (25%) are based on plants and their derivatives [1] and uses of medicinal plants among the indigenous people in rural areas of many developing countries. Forests cover better than 44% of the states geographic area, for a total of 56,448 sq. km. dense forests constitutes 67.10%, while 32.89% is considered open forests, of the total forests area [2]-[5]. Botanically derived medicinal plants have played a major role in human societies throughout history and prehistory [6] but with the development of modern civilization, use of allopathic drugs is at increasing rate and use of herbal drugs is either restricted to few communities or areas only. The ethno-botanical uses of this unique group are of immense importance [7] [8] and Ferns are used by the physicians in unani system of medicine [9]. The plant based traditional knowledge has become a recognized toll in search for new sources of drugs, wound healing properties and mentalceuticals [10]-[12]. India is one of the eight major centres of origin and diversification of domesticated taxa due to its glorious part of traditional medical system and used pattern of different plants [13] [14], having rich biodiversity and is one of the world's twelve mega diversity countries. In present paper, some new findings and less known ethno-medicinal uses of 104 plants of tribes of Geedam block of Dantewada, Dakshin Bastar C.G. in different ailments have been reported. The objective of the present work is to give the information and documentation of medicinal plant used by tribal of the various villages of Geedam block Dantewada C.G.

2. Material and Methods

2.1. Study Sites

The present work was carried out in different villages of Barsur of Geedam block of Dantewada, Dakshin Bastar C.G. on phyto-therapeutic drugs in the healthcare systems of tribes. Following are representing the study sites *i.e.* Hitameta, Gadhpara, Temrubhata, Skulpara, Baasantarai, Malumunda, Muchanar, Purantarai, Salphikonta, Thotapara, Nayapara, Saatdhar, Sargiguda, Mauliguda, Upet, villages. Geedam Tehsil is surrounded by Dantewada to south district Bastar to the North and West & District Bijapur to the East (**Figure 1**).

2.2. Vegetation & Climate

Bailadila Reserve forest of Dantewada range of Bastar district comes under Dakshin part of C.G. lies on the Gondwana biodiversity zone and paradise for one interested in medicinal plants which mostly comprises of the Tropical Forests. As this area is full of terrains, much of the forest remains unexplored and it is highly probable that this area contains some of the undocumented species. Out of the many precious Medicinal Plants that are available in the dense forests of district Dantewada. The forests on the upper ridge consists of dense vegetation whereas, along nala banks and lower hill slopes luxuriant tree growth consisting of semi-evergreen tree species, shrubs, herbs, ferns and palms, are found.

On account of varied physiographic feature and consequent varying microclimatic elements and vegetation associations, the area is bestowed with rich and varied medicinal flora. Temperature varies between 30°C - 47°C in summer and between 5°C - 25°C during winter [12].

2.3. Tribal Community

Survival of ethnobotanical knowledge was evident in the abundant economic important data gathered in this study, from published and unpublished sources from historic and contemporary times, and from interviews with living elders belong to Madiya, Muriya, Gond and Bhatra tribes of the study area.

2.4. Data Collection

The study area is very significant for ethnobotanical studies showing to the dominance of different tribal communities like Madiya, Muriya, Gond, Bhatra etc. The questionnaires were devised to identify the indigenous knowledge of plant based remedies from local people. Information was gathered through semi-structural interviews that were held with selected knowledgeable elders. At the end of each interview, plant specimens were collected, dried, identified and preserved. Samples of recorded herbs, shrubs and trees were identified with the help of local floras and previous literature and the extensive studies were conducted with the tribal people and village medicine-men of the area *i.e.* Sondhar, Shivram, Laxaman, Dineshwar, Charan, Ramdhar, Amar Singh, Shivlal, Bhagatram, Jalaram, Panku, Devchand, Sukru, Assiram, Sukhdev, Kamlu, Rajadhar. The local name,

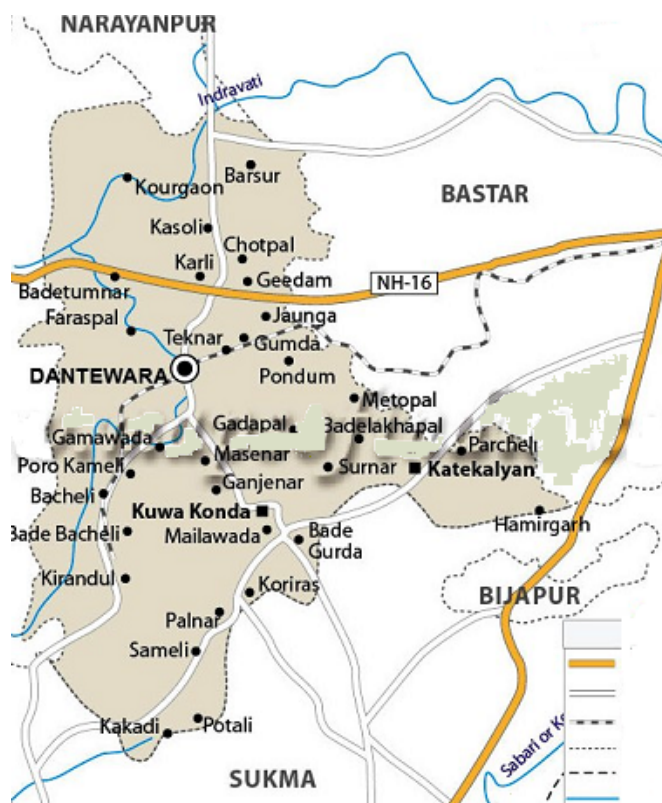


Figure 1. Representing the study sites of different villages of Barsur, Geedam block of Dantewada, C.G.

part used and medicinal importance was recorded. The botanical name of each plant is followed by, local name, family, used plant part, ethno-medicinal importance, mode of administration, habit and study sites.

3. Result

In the ethnobotanical and ethnomedicinal survey 104 plants species were reported representing 85 families with dominant families *i.e.* Fabaceae, Cucurbitaceae and Euphorbiaceae, Asteraceae etc. Research information and ethnobotanical data was gathered and organized extant Dantewada C.G. and assembled it into a database for analysis. The representing plants are mostly used to cure skin disorders, diarrhea, jaundice, cough, wounds, piles, urinary troubles, antiseptic and antidote to snakebite and pus formation. Leaves are the most widely (35%) used plant part of the reported medicinal plant uses, followed by root (28%), seed (19%), fruit (15%) and bark (13%). A majority of remedies are prepared in the form of juice followed by powder and paste form, from freshly collected plant parts. Medical administration includes inhalation, oral administration, paste/applying and rubbing massage. Most of the ailments such as stomachache, urinary problems, piles, jaundice and diarrhea can be cured by oral absorption while most of the skin diseases, wounds and body swelling can be cured by external application. The most extensively used plant part in the preparation of medicine for various ailments is the leaf, followed by roots. The collection of underground plant parts and whole plant is of grave consequences from both ecological as well as survival point of view of the species (**Table 1**).

4. Discussion

The preservation of herbal medicinal plants along with the traditional knowledge of how to use them is an indispensable obligation for sustaining traditional medicine as a medicinal and cultural resource [15]. The traditional knowledge available with the ethnic people plays an important role in quick and proper identification of natural resources and discussed the scope of ethnobotany [16] [17]. According to Biswas and Mukherjee [18], 70% of the wound healing Ayurvedic drugs are of plant origin, 20% of mineral origin, and the remaining 10%

Table 1. Shows ethnobotanical and ethnomedicinal observation of 104 plant species of different villages of Geedam block of Dantewada, C.G.

Botanical Name	Local Name	Family	UPP	Ethno-botanical & Ethnomedicinal Uses	MA	Hb	Study sites
<i>Achyranthes aspera</i> Linn.	Khoruch	Amaranthaceae	Wp Rt, Sd	The whole plant extract is given orally once in snakebite. Root decoction is used in stomach pain, fever and cough. Seeds are used for the treatment of hydrophobia and skin disease.	I, E	H	In all sites of Barsur
<i>Aegle marmelos</i> (L.) J. Corree da Serra	Bel	Rutaceae	Lf, Fr	Leaves are used in diabetes, diarrhea, dysentery and piles. Fruit pulp is used to cure diarrhea and also as tonic.	I	T	SP, GP, MG
<i>Albizia lebeck</i> (L.) Benth.	Segta/Siri	Fabaceae	Br Lf	Bark paste is applied externally in ulcers. Bark is used in cough and tosnake bite. Leaf juice used to cure night blindness and also as blood purifier.	E, I	T	SP
<i>Aloe vera</i> (L.) Burm. f.	Kataban	Liliaceae	Lf	The pulp is used to cure piles, cough, rheumatic pain, constipation and menstrual disorders. The pulp is also used as blood purifier.	I	H	NP, GP, TP
<i>Anacyclus pyrethrum</i> (L.) J. H. Friedrich	Akarkara	Asteraceae	Rt, Sd	Root paste used in headache. Seeds are used in toothache.	E	H	GP, BT
<i>Andrographis paniculata</i> (Burm. f.) Wall ex Nees.	Bhui Neem	Acanthaceae	Wp	The whole plant is used as blood purifier, in skin diseases, malaria and anti snake venom.	I	H	BT, MG, BT
<i>Annona reticulata</i> Linn.	Ramphal	Annonaceae	Fr, Sd, Lf	Seeds are used in treatment of intestinal worms. Leaves are used in the control of diabetes, tumor and cancer. Fruits are used indigestion.	I, E	T	In all sites of Barsur
<i>Annona squamosa</i> Linn.	Sitaphal	Annonaceae	Lf, Fr, Rt	Leaf juice is used for antiseptic and wound healing. Leaves and fruits are also useful in treatment of tumor and cancer. Fruits are used in burning sensation.	E, I	T	In all sites of Barsur
<i>Argemone mexicana</i> Linn.	Chitricar	Papaveraceae	Rt, Sd, L	Latex is used in jaundice, skin diseases, & wound healing. Roots are used in ant-helminic. Seeds are purgative used in skin disease.	E	H	In all sites of Barsur
<i>Artocarpus heterophyllus</i> J.B. Lamark.	Fanas	Moraceae	Rt, Lf	Roots used in asthma, diarrhea and toothache. Leaves are used in wound healing and skin diseases.	I, E	T	MN, GP, SP, BT, MG
<i>Azadirachta indica</i> Adrien de Jussieu	Neem	Meliaceae	Sd, Lf, Rh	Bark is used in rheumatism, fever, diabetes, ulcer and bacterial infections. Leaves are used in skin diseases, tuberculosis and toothache. Oil is used in rheumatism, leprosy and ulcer.	I, E	T	In all sites of Barsur
<i>Bambusa arundinacea</i> (L.) Schreb.	Bans	Poaceae	Wp	The whole plant is used in tuberculosis, wound healing, bronchitis and leprosy.	I	T	MN, HM, BT
<i>Barleria prionitis</i> Linn.	Itola	Acanthaceae	Lf, Rt	Decoction of plant is given in cough, and toothache. Leaf juice is used in fever and wounds. Root paste is applied over boils.	I	H	NP, TP, MG

Continued

<i>Basella alba</i> Linn.	Poi	Basellaceae	Lf, Fr, Rt	Leaves are used in constipation and gonorrhoea. Fruit juice is used in conjunctivitis. Decoction of root is given in intestinal disorders.	I H	GP, SG, MG
<i>Bauhinia variegata</i> Linn.	Kolyari Phaji	Fabaceae	Fl, Br	Flowers are used in piles, diabetes and obesity. Stem bark in skin diseases, asthma and intestinal worm infection. Flower buds are used in dysentery and diarrhea.	I T	BT, MG
<i>Bombax ceiba</i> Linn.	Semar	Malvaceae	Lf, Br, Fl	Leaves are used in anemia. Bark is used in blood dysentery and diarrhea and used in rheumatic pain, scorpion bite, snake bite leprosy and piles.	I, E T	MN, MG, SP
<i>Borassus flabellifer</i> Linn.	Tadi	Aracaceae	Fr, Rt	Plant is useful in liver and spleen diseases. Fresh sap of palm have useful in inflammatory affections and leprosy. The juice of the young leaves mixed with water is given in cases of dysentery.	E, I T	GP, VA, MG, SG, TP
<i>Bryophyllum pinnatum</i> (Lam.) Kurz.	Patharchtta	Crassulaceae	Lf	Leaves paste is used as an antiseptic in wounds.	E H	SG, SP, TP
<i>Buchanania lanzan</i> Sprengel	Char	Anacardiaceae	Br	Bark is used to snake bite, also in cut, wounds and skin diseases.	E T	GP, HMMN
<i>Butea monosperma</i> J.B. Lamark	Tesu/ Morod	Fabaceae	G, Fr	Gum is used in diarrhea and dysentery. Used in piles, skin diseases. Seed powder is used in scorpion sting. Fruit is used in irregular menstruation.	I, E T	BT, MN, SC TMP
<i>Caesalpinia bonduc</i> (L.) Roxb.	Phul jhad	Fabaceae	Lf, St	Leaves are used in toothache and skin diseases.	E Sh	GP, BT
<i>Calotropis procera</i> (Aiton) W.T. Aiton	Aak/Shishudurw	Asclepiadaceae	Lf, Rt	Root paste is applied on cuts and wounds. Milky juice is used for treatment of leprosy, dropsy and rheumatic pain. Ash of the leaves mixed with sugar is used to cure asthma and bronchitis.	E, I Sh	GP, MN, BT, MG, SG
<i>Carica papaya</i> Linn.	Papaya	Caricaceae	Fr, Lf	Fruits are used in piles diarrhea and in liver enlargement. Seeds are used in worm infections. Leaves juice is used in heart problems.	I T	In all sites of Barsur.
<i>Carissa carandus</i> Linn.	Karonda	Apocynaceae	Fr, Rt	Fruit is useful for anemia. Root paste is used as purgative in habitual constipation and carminative aphrodisiac.	I Sh	GP, MM
<i>Caryota urens</i> Linn.	Salfi	Arecaceae	Lf, N	It is used to hyperpiesia arthritis, burning sensation, migraine and general weakness.	I T	In all sites of Barsur
<i>Cassia fistula</i> Linn.	Amaltas	Fabaceae	Lf, Sd Rt	Leaf juice is anti fungal and anti septic used in the treatment of ringworm and clearing cuts, wounds and rheumatic pain. Leaves are also useful in fever, cough and leprosy.	E, I T	BT, N, ST
<i>Chrysanthemum corinarium</i> Linn.	Sevanti	Asteraceae	Br	Bark is used as purgative. It has been used as anti-helminthic, insecticidal property and sedative also.	E H	GP, TP
<i>Citrullus colocynthis</i> (L.) Schrad.	Boda	Cucurbitaceae	Fr, Rt	Fruits are used in constipation. Root is used in skin diseases.	E Cl	MN, GP, MG

Continued

<i>Citrus medica</i> Linn.	Limbu	Rutaceae	Lf, Fr	Used in liver diseases, cough throat disorders and fever. Fruits are used as anti-helminthic, antiseptic and digestive.	I Sh	All sites of Barsur
<i>Clitoria ternatea</i> Linn.	Syahiful	Fabaceae	Rt, Lf	Root is used in headache, cough, fever, leprosy and as an antidote to snake bite. Powdered leaves are used in urinary troubles.	I Cl	SP, GP, BT
<i>Coccinia grandis</i> (L.) J. Otto Voigt.	Kunuru	Cucurbitaceae	Lf	Leaves paste is used in high fever also used in diabetes, jaundice, tuberculosis and skin diseases.	I Cl	MP, ST, HT, MG
<i>Coriandrum sativum</i> Linn.	Thane	Apiaceae	Wp	Leafs are used to digestion, vomiting and dysentery.	I H	All sites of Barsur
<i>Cucurbita moschata</i> Duchesne ex Poir.	Kumhda	Cucurbitaceae	Fr, Sd	It is anti-diabetic, anti oxidant, anti inflammatory, other digestive problems.	I, E Cl	All sites of Barsur
<i>Curcuma angustifolia</i> W. Roxb.	Tikhur	Zingiberaceae	Rh	It is nutritive and is used as an agreeable, non irritating diet in certain chronic diseases, in irritations of the alimentary canal pulmonary organs or of the urinary apparatus.	I H	MM, M
<i>Curcuma longa</i> Linn.	Kamka	Zingiberaceae	Wp	It is used as a spice and coloring agent especially for ointments and cream. The whole plant is used in cough, skin diseases, diabetes and worm in affection and sometimes as blood purifier.	I, E H	MG, NP, MN
<i>Cuscuta reflexa</i> Linn.	Podha tonda	Convolvulaceae	Wp	Plant paste warm with mustard oil and wheat flour is applied on joint pain. Paste plant paste is applied externally to cure headache.	E Cl	TP, SG, GP
<i>Cynodon dactylon</i> (L.) Christian Hendrik pers.	Doob ronda	Poaceae	Rt	Root powder is given in treatment of urinary tract infection, diabetes fever, hypertension, cancer, and headache.	I H	All sites of Barsur
<i>Cyperus rotundus</i> Linn.	Motha	Cyperaceae	Wp, Rt	The whole plant is used in skin diseases, fever and wound healing, also used as blood purifier. Tuber powder mixed with cow butter is given to patients suffering from snake bite.	E, I H	BT, MG, SG
<i>Dalbergia sissoo</i> Roxb.	Bahabija/Hermala	Fabaceae	Br, Lf, Wd	Decoction of leaves is given in gonorrhoea. Bark powder in bleeding piles, diarrhea skin diseases and leprosy. Wood is used in cough and fever.	E, I T	MG, MN, NP
<i>Datura metel</i> Linn.	Nelakarka	Solanaceae	Lf, Sd	Leaves are used in treatment of asthma and cough. Seed powder is used in fever, skin diseases and rheumatism.	I, E Sh	HM, MN, SG
<i>Delonix regia</i> Boj. ex Hook. Raf.	Gulmohar	Fabaceae	Lf	Leaves are used in treatment of skin troubles.	E T	NP, GP
<i>Desmotachya bipinnata</i> (L.) Otto Stapf.	Kusha	Poaceae	Rt	Plant root is used in Diuretic, and dysentery and menorrhoea.	I H	AP, HM
<i>Dioscorea pentaphylla</i> Linn.	Katalu	Dioscoreaceae	Tb	Tuber powder used as tonic.	I Cl	SG, GP, NP, FC, MN, BT
<i>Diospyros melanoxylon</i> Roxb.	Tendu	Ebenaceae	Fr, Rt, Fl	Fruits are astringent used in dysentery. Root paste used in scorpion sting. Flower is used as aphrodisiac and to cure leucorrhoea.	I, E T	All sites of Barsur

Continued

<i>Emblica officinalis</i> Linn.	Nelli	Euphorbiaceae	Fr	Fruit is used in jaundice and wound healing and rheumatism.	I, E T	GP, BT, M, GSP, SG, HM
<i>Eucalyptus globulus</i> Labil.	Nilgiri Ped	Myrtaceae	Lf	Leaves powder is used for antiseptic and diarrhea. It is used to relieve cough and asthma.	I T	GP, FC,
<i>Euphorbia ligularia</i> Roxb.	Thuhar/Udhangulla	Euphorbiaceae	Wp	Plant twig is used as purgative, diuretic and also in piles, skin diseases, fever and gastric troubles.	I, E Sh	GP, MN, SD
<i>Euphorbia thymifolia</i> Linn.	Dudhi	Euphorbiaceae	Lf, Rt	Leaves are used in against helminthes property and intestinal worm against children. Leaf juice is used in skin diseases, fever, bronchial asthma and dysentery. Roots are used in leucorrhoea.	I, E H	BT, TMP, GP, SG
<i>Ficus benghalensis</i> Linn.	Madar/ Marmada	Moraceae	Br, Lf	Bark is used in dental problems. Leaves are used on wound healing, and skin diseases.	E T	All sites of Barsur
<i>Ficus racemosa</i> Linn.	Dumar	Moraceae	L, Fr, Rt	Latex is used in piles diarrhea and dysentery. Fruits are used in urinary troubles and Roots are used as anti-diabetic.	I T	All sites of Barsur
<i>Ficus religiosa</i> Linn.	Aalemarra	Moraceae	Br, Lf	Bark infusion is given in skin diseases. Decoction of leaves is given in gonorrhoea also used as blood purifier, anti-helminthic.	E, I T	All sites of Barsur
<i>Hemidesmus indicus</i> (L.) R. Brown	Suganti Jad	Asclepiadaceae	Lf	Leaves used as an antidote to snake bite, scorpion sting and wound healing.	E Cl	MN, SD, HM
<i>Hibiscus rosa-sinensis</i> Linn.	Jaba	Malvaceae	Rt, St, Fl	Roots are used in cough. Stems are diuretic kidney trouble. The floral buds are claimed to increase fertility in males.	I, E Sh	SP, SG, TMO, NP
<i>Ipomoea carnea</i> Jace.	Besrum	Convolvulaceae	Lf	Leaves paste is used in treatment of paralytic condition.	E H	GP, MG, SG
<i>Ixora coccinea</i> Linn.	Lalphul	Rubiaceae	Lf	Leaves used in bronchitis, digestive problem and ulcers.	I Sh	M, GP, SG
<i>Jatropha curcas</i> Linn.	Ratan Jot	Euphorbiaceae	Lf	Leaves are used for cancer and blood pressure.	I Sh	GP, M, R
<i>Lablab purpureus</i> (L.) R. Sweet	Semi	Fabaceae	Rt, Lf	Root is used as anti-helminthic. Leaves are used in cough and skin diseases.	E, I H	All sites of Barsur
<i>Lawsonia inermis</i> Linn.	Mehndi	Lythraceae	Lf	Leaves are used as a good hair dye and hair care product like hair conditioner.	E Sh	GP, TP, MN
<i>Luffa acutangula</i> (L.) W. Roxburgh	Torai	Cucurbitaceae	Fr, Td Sd	Juice is used in treatment of jaundice. Tendrils are used as an antidote to snake bite. Seeds are used in constipation.	I, E Cl	TMP, NP, MG, SG
<i>Madhuca longifolia</i> (J. Konig) J.F. Macbr.	Mahua	Sapotaceae	Fl, Br Sd	Flowers are claimed for its nutrient richness. Bark is used in toothache and diabetes. Seed oil is used in rheumatism.	I, E T	GP, TP, SP, NP, M,
<i>Mangifera indica</i> Linn.	Aamba	Anacardiaceae	L, Fr	Latex is applied over gums and teath twice a day to cure pyorrhoea. Fruits are antioxidants and prevention of cancer and heart disease.	E, I T	All sites of Barsur

Continued

<i>Mentha spicata</i> Linn.	Podina	Lamiaceae	Lf	Leaves are used in gastro intestinal disorders, cough, cold, cholera and fever.	I T	GP, NP
<i>Mimosa pudica</i> Linn.	Uskadpoda	Fabaceae	Lf, Rt	Roots are used to snake bite and toothache. Leaves are used in piles, and wound healing.	E Sh	GP, BT, MG
<i>Momordica charantia</i> Descourt.	Karel	Cucurbitaceae	Fr	Fruits as well as juice of fresh fruits reduce blood sugar level and used for diabetic treatment.	I Cl	All sites of Barsur
<i>Momordica dioica</i> W. Roxb. ex Will.	Kheksi	Cucurbitaceae	Rt	Tuber is used in diarrhea, diabetes and asthma and headache. Roots are used in piles and fever.	I, E Cl	MM, M
<i>Moringa oleifera</i> Lamarck.	Munga	Moringaceae	Br, St, Fr	Flower is used in treatment of some problems of bladder. Fruits are used prevention of heart disease. Bark is used in dental disorders. Fruits are used in liver and spleen disorders.	I, E T	NP, MG, BT, HT
<i>Murraya koenigii</i> (L.) Sprengel	Meethi Neem	Rutaceae	Lf, Rt	Leaves are used in diarrhea and vomiting. Roots are used to curing of wound.	I, E Sh	GP, MN, SG
<i>Musa paradisiaca</i> Linn.	Kela	Musaceae	Fr, Lf, Fl	Leaves are used in treatment of anemia and reduce the blood pressure. Fruits with black pepper are taken in respiratory problems. Flowers are used in diabetes.	I T	GP, MG, MD
<i>Nelumbium nucifera</i> Joseph Gaertner	Kamal	Nelumbonaceae	St, Rt	Stems are used in heart trouble, urinary diseases, bleeding piles and nerve tonic. Root is used to tuberculosis, asthma and heart diseases.	I H	GP, R
<i>Ocimum sanctum</i> Linn.	Tulsi	Lamiaceae	O, Lf,	The oil is used in antibacterial and insecticidal. Used in leprosy, fever, urinary trouble and diabetes. Also used in liver diseases, gastric troubles and skin diseases.	E, I Sh	All sites of Barsur.
<i>Origanum vulgare</i> Linn.	Dounapatti	Lamiaceae	Wp	Leaves are used in cough and dysentery. Whole plant is used as antibacterial and antifungal.	E, I H	NP, SP, R
<i>Oxalis corniculata</i> Linn.	Tinpatiya	Oxalidaceae	Lf	Leaf decoction is used in fever, diarrhea, wound and dysentery.	I H	All sites of Barsur
<i>Phyllanthus amarus</i> Linn.	Bhui korma/Jipa	Eubhorbiaceae	Lf, Rt	Leaves are given in diabetes and roots are used to jaundice and fever. Decoction of whole plant is given in malarial fever and skin diseases.	I H	All sites of Barsur
<i>Phoenix acaulis</i> Roxb.	Chind	Palmaceae	Fr	Fruit ointment is used in diuretic abnormalities and asthma.	I T	All sites of Barsur
<i>Piper nigrum</i> Linn.	Kalimircha	Piperaceae	Sd, Lf	Seeds are used in wound healing and skin diseases. Leafs are used as toothache.	E H	M, GP
<i>Plumbago zeylanica</i> Linn.	Agnishikha	Plumbaginaceae	Rt	Root powder is used as tonic.	I H	SP, GP, MN
<i>Pongamia glabra</i> Ventenat.	Karanji	Fabaceae	Sd	Seed is used in treatment of scabies, leucoderma and cutaneous diseases.	E T	BT, TP, TMP NP, MG
<i>Psidium guajava</i> Linn.	Beloti	Myrtaceae	Lf, Br	Decoction of leaves is used in bleeding gums diarrhea, toothache, wounds, and ulcer. Bark and leaves are used in cholera.	I T	All sites of study area
<i>Pueraria tuberosa</i> A. P. de Candolle	Kohda	Fabaceae	Tb	Tubers are used in increase lactation in females and also used in rheumatic pain and diarrhea.	I T	GP, R, NP

Continued

<i>Raphanus sativus</i> Linn.	Mura	Brassicaceae	Lf, Rt	Juice of roots and leaves are given for curing jaundice.	I H	MG, BT, NP
<i>Ricinus communis</i> Linn.	Arandi	Euphorbiaceae	Sd	Seed oil is used as purgative, skin diseases, piles and rheumatism.	E Sh	GP, BT, MN
<i>Rosa damascena</i> P. Miller	Rose	Rosaceae	Rt, Fl, Lf	The roots are useful in intestinal ulcers, diarrhea. The leaves are treating to cure wounds.	E Sh	In all sites of Barsur
<i>Rauwolfia serpentina</i> (L.) G. Bentham ex W.S. Kurtz	Bhuikurma	Apocynaceae	Lf	Leaves are used to high blood pressure and madness also used as an antidote to snake bite.	I, E Sh	SG, NP
<i>Schlerchera oleosa</i> Joao Lour.	Kusum	Sapindaceae	Fr, Sd	Pulp of fruits is given to dilute the excess consumption of alcohol. Seed paste is used to kill worms in animals.	I, E T	All sites of Barsur
<i>Semecarpus anacardium</i> Linn.	Bhelwa	Anacardiaceae	Fr	Fruits are used for anti-cancer purpose.	I T	M, MM, NP
<i>Senna obtusifolia</i> (L.) H S. Irwin & R. C. Barneby	Chrota	Fabaceae	Sd, Lf	Seeds are used in skin diseases, ringworm and eczema. Leaves are used in constipation.	E, I Sh	NP, HT, BT, MG
<i>Senna occidentalis</i> (L.) J. H. Friedrich Link	Dandepadla	Fabaceae	Sd, Lf	Seeds are used in skin diseases leprosy and cough. Leaves are used as purgative. Bark infusion is given in diabetes.	E, I H	All sites of Barsur
<i>Shorea robusta</i> A.W. Roth.	Sal Sarayi	Dipterocarpaceae	Fr	Fruits are used for dysentery and scorpion sting.	E, I T	NP, BT, R, M
<i>Sida cordifolia</i> Linn.	Jhanti	Malvaceae	Rt	Roots are used to wound healing root paste is used in diarrhea.	I H	All sites of Barsur
<i>Solanum surattense</i> Burm f.	Kanta jhati	Solanaceae	Wp, Fr	Fruit pulp is applied over gums and teeth in toothache and mouth ulcer. Root extract is used in cough. Extract of whole plant is used to hair falling.	I, E H	BT, SG, TP
<i>Sphaeranthus indicus</i> Linn.	Molal phaji	Asteraceae	Wp, Fl	Leaf extract mixed with black paper power is dropped in to ease of cure earache. Floral heads are chewed in toothache. The whole plant is used in jaundice, piles, vomiting and uterus pain.	I, E H	All sites of Barsur
<i>Syzygium cumini</i> (L.) Skeels.	Jam	Myrtaceae	Fr, Lf, Br	Fruits are used in diabetes. Leaves are used in diarrhea and dysentery. Bark is used in dental problems.	I, E T	All sites of Barsur
<i>Tagetes erecta</i> Linn.	Genda	Asteraceae	Lf	Leaves are used in cut, wounds and dental problems.	E H	GP, TP, TMP, SG, BT
<i>Tamarindus indica</i> Linn.	Itta	Fabaceae	Wp, St, Lf	The whole plant is used in Treatment of diabetes, asthma and diarrhea. Stem bark is used in fever. Leaves are used in piles & fruits are used in gastric troubles.	I T	All sites of Barsur
<i>Tectona grandis</i> Linn.	Sagon	Lamiaceae	Lf, Br, Rt	Leaves are used to burning sensation and skin disease. Bark powder is used diabetes, and ulcer. Root is used in kidney disease and arthritis.	E, I T	HT, MN, BT
<i>Tephrosia purpurea</i> (L.) Pers.	Sarpunkha	Fabaceae	Sd, Wp	Seed oil is applied externally in skin diseases. Extract of whole plant is used in liver disorders.	E, I H	All sites of Barsur
<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight and Arn.	Kahua	Combretaceae	Br, Lf	Bark powder is used in heart and liver diseases. Leaves are used in wound healing.	I T	SD, BT

Continued

<i>Terminalia bellerica</i> (Gaertn.) Roxb.	Tahka	Combretaceae	Fr	Fruits are used in gastric troubles, cough and cold.	I	T	SG, BT, HM
<i>Terminalia chebula</i> A. J. Retzius	Horra	Combretaceae	Fr, Br	Fruits are used in digestive problems and fruit's paste is applied on wounds. Bark is used in skin diseases paste of fruit is applied on wounds.	E	T	BR, PT, KC, MN
<i>Thevetia peruviana</i> (Pers.) Kschum	Kaner	Apocynaceae	Lf	Latex is put in dental cavities to cure toothache. Root juice is used for healing, cut and wounds.	E	Sh	GD, MNHM, BR
<i>Tinospora cordifolia</i> (Thumb.) Miers.	Guduchi	Menispermaceae	Wp	Decoction of whole plant is given in rheumatism, fever, urinary troubles and heart problems.	I	Cl	BR, MG
<i>Tribulus terrestris</i> Linn.	Gukhru	Zygophyllaceae	F	Fruits are used as diuretic tonic, and are also used as aphrodisiac.	I	H	GP, SP, SD
<i>Trigonella foenum</i> Linn.	Menthi	Fabaceae	Sd, L	Seeds are used in rheumatism and diabetes.	I	H	All sites of Barsur
<i>Zizyphus jujuba</i> Miller.	Ber	Rhamnaceae	Fr, Lf, Br	Bark decoction is used for wounds. The fruits are used in ulcer, fever, and abdominal pain. The leaves are used to cure the asthma, fever and wounds.	E	T	GP, MD, MN

Abbreviations: UPP: Used Plant Part, Hb: Habit, MA- Mode of Administration, H: Herb, Cl: Climbing Herb, Sh: Shrub, T: Tree, Wp: Whole plant, R: Root, St: Stem, Lf: Leaf, Fr: Fruit, Fl: Flower, Br: Bark, Sd: Seed, Td: Tendril, L: Latex, Rt: Root, Tb: Tuber, N: Nut, G: Gum, Wd: Wood, O: Oil, Rh: Rhizome, SP: Schoolpara, GP: Gadhpura, MG: Mavliguda, MN: Madhernala, MD: Mundatikra, SD: Satdhar, BT: Basantarai, HM: Hitameta, PT: Purantarai, KC: Kosa Centre, SG: Sargi Guda, TP: Thodhapara, R: Ronje, NP: Nayapara, M: Muchnar, TMP: Tamruphata, MM: Malumunda, GP: Ghotpal, VA: Vanbasi Ashram, SC: Salficonta, FC: Forest Colony, MP: Mangulpot.

consisting of animal products. Antimicrobial activity of unexploited or pteridophytic plants is being used ethno-medicinally but, very little work has been done on antimicrobial aspects was screened by [19].

Plant based remedies were presented with botanical name of species followed by local name, parts used, mode of preparation and ethno medical uses [20]. Certain species of medicinal plants are being exploited by the local residents who are unaware of the importance of medicinal plants in the ecosystem [21].

The present-day traditional healers are very old. India is profusely rich in the history of medicinal plants and its 75% folk population is still using herbal preparations in the form of powder, extracts and decoction because these are easily available in nature and the natives have stronger faith on traditional knowledge [22]. The traditional African medicine highlighted its benefits drawbacks of orthodox medicine and reported sixteen species of pteridophyte, collected from greater Mymensingh district, Bangladesh, were studied for their use as vegetables and traditional herbal medicine reported [23] [24]. There are about 305 genera, comprising more than 10,000 species all over the world reported [25] and about 191 genera and more than 1000 species were reported from India [26]. The study of ethnomedical systems and herbal medicines as therapeutic agents of a paramount importance in addressing health problems of traditional communities and third world countries as well as industrialized societies [27] [28]. The sustainable harvesting and management issues of ethnobotanical species were discussed in view of their conservation and management [4] [29]. The information was collected by interviewing local vaidya and local herbal-healers of forty four plant species representing 23 families have been reported to be in use among in Barsur and its villages of Geedam block Dantewada, CG were reported by [30]. The study revealed that traditional medicinal plants still play a vital role in primary health care need in Dantewada district and the knowledge received from them will be very useful for researchers in ethnobotany and pharmacological study.

5. Conclusion

The survey indicated that, the study area has plenty of medicinal plants to treat a wide spectrum of human ailments. Earlier studies on traditional medicinal plants also revealed that the economically backward local and tribal people of Barsur prefer folk medicine due to low cost and sometimes it is a part of their social life and culture. It is evident from the interviews conducted in different villages; knowledge of medicinal plants is li-

mitted to traditional healers, herbalists and elderly persons who are living in rural areas. This study concluded that even though the accessibility of medicine for simple and complicated diseases is available, many people in the studied parts of Dantewada district still continue to depend on medicinal plants, at least for the treatment of some simple diseases *i.e.* cold, cough, fever, headache, poison bites, skin diseases and tooth infections. Well knowledge healers have good interactions with patients and this would improve the quality of healthcare delivery. 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. It thus becomes necessary to acquire and preserve this traditional system of medicine by proper documentation and identification of specimens.

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