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Ethnomedicinal knowledge and novel folk claims from Sunderbani Block, Rajouri District, Jammu & Kashmir, India

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Abstract. Medicinal plants have been essential to indigenous practices since ancient times. The Sunderbani region in Jammu and Kashmir (India) hosts a wealth of medicinal plants and traditional wisdom. However, these resources have faced threats due to socio-cultural changes, urbanization, and economic development, highlighting the need for conservation measures. Therefore, this study focuses on documenting the ethnobotanical knowledge of the study area. With prior consent, interviews and group discussions were conducted with traditional healers and locals to collect the data. The collected data were analysed using various quantitative indices. The study identified 66 plant taxa used to treat 12 ailment categories. Herbs constituted 45.45% of the plants, with leaves being the most frequently use plant part (40.5%). Asteraceae emerged as the dominant family. The majority of raw drugs were prepared as powders (32.5%). Prominent plants based on use report (UR) and use value (UV) included *Terminalia bellirica* (UR 51, UV 0.055), *Phyllanthus emblica* (UR 48, UV 0.052), *Terminalia chebula* (UR 47, UV 0.051), and *Grewia optiva* (UR 46, UV 0.050). Diseases of the circulatory system (ICD code 11) had the highest Informant Consensus Factor (ICF 0.97), while respiratory diseases (ICD code 12) had the lowest (ICF 0.15). Families like Phyllanthaceae (FUV 0.052) and Combretaceae (FUV 0.048) were highly cited. Many folk claims were novel and documented for the first time. The Sunderbani region is a repository of unique medicinal plants and traditional knowledge. Exploring the novel plant uses could serve as a lead for pharmacological research and future drug development while emphasizing the need for conservation efforts.

Keywords: traditional healers, ethnobotanical knowledge, herbal medicine, folk claims, Sunderbani block.

1. Introduction

For centuries, medicinal plants have been an integral part of traditional healing systems, particularly among indigenous communities. These communities have adapted different modes of application and use of plants to exploit this natural resource (Ahmad et al., 2018). Herbal practices are found globally, and the demand for traditional medicinal services continues to rise. It has been observed that almost 80% population of the underdeveloped countries is dependent upon the folk knowledge of ethnomedicinal plants (Calixto, 2005), and local communities continue to rely on plant-based medicines despite the availability of modern healthcare, which itself depends largely on plant-derived drugs (Srithi

et al., 2009). Plants continue to play a crucial role in modern medicine, with a significant number of pharmaceutical drugs originating from plant sources, underlining the integral connection between traditional knowledge and modern pharmaceutical science. The practice of using wild plants as both food and medicine remains prevalent, especially in rural areas around the world (Shinwari, 2010). This persistence is due to their quality and efficacy as compared to the synthetic drugs (Yuan et al., 2016). The knowledge of utilization of plants by humans' dates back to ancient times, with people developing various methods to treat diseases (Gerique-Zipfel, 2006). This indigenous knowledge has been passed down through generations for centuries (Ugulu et al., 2009). While the use of plants in modern medicine has increased, traditional knowledge is gradually diminishing due to rapid urbanization and a growing dependence on modern healthcare systems (Tripathi et al., 2012).

The Jammu and Kashmir Himalaya is well known for its biodiversity of medicinal plants (Dar et al., 2007; Dar & Khurro, 2020; Tali et al., 2019). Additionally, this region is also home to diverse ethnic communities, who maintain their own culture and folk knowledge. The ethnobotany of this region is well developed and may be due to the presence of primitive tribes in large number, diversity of species and remote location. Fragmented information on ethnomedicines of Gujjar and Bakerwal tribes of Rajouri and Poonch districts is available in the work of Sharma and Singh (1989), Nawchoo et al. (1994), Pant and Verma (2008), Rashid et al., (2008), Mahmood and Kadam, (2012), Shah et al., (2012), Azad and Bhat, (2013), Kumari et al., (2013), Shah et al., (2015), Sharma and Raina, (2016), Mahmood and Farooq, (2021) and Thakur et al., (2024).

Sunderbani block of Rajouri district harbours a rich plant diversity and associated traditional knowledge. However, threat due to, socio-cultural transformation and economic development, the biodiversity as well as associated traditional knowledge in this region is facing a high risk of extinction. Therefore, present study is the first attempt to document the traditional knowledge in Sunderbani Block of District Rajouri, Jammu and Kashmir, India.

2. Materials and Methods

2.1. Study Area

Sunderbani town is located in the Rajouri District of Jammu and Kashmir, India and lies between 33.04°N 74.49°E at an elevation of 600-1500 m asl (Fig. 1). The total population of the area is 64,215 of which 34,451 are males and 29,764 are females. This area comes under the subtropical zone of the inner Shiwaliks range of the Nowshera forest division. The climate is generally warm and humid, and maximum temperature goes up to 37°C during summer and 5-10°C during winter. Average annual rainfall in the area is 500 mm. Most of the rainfall occurs during monsoon season (District Census Handbook, 2011). Landscape is characterized by undulating hills and shallow valleys. The Soil is generally sandy loam type. The major crops grown includes wheat, maize and rice. The Subtropical broad leaved deciduous and evergreen chir pine forests are common at different altitude. Common trees species are, *Pinus roxburghii, Mallotus philippensis*, *Wendlandia heynei*, *Punica granatum*, *Bauhinia variegata*, *Phyllanthus emblica*, *Ziziphus mauritiana*, *Cassia fistula* etc. Among the shrubs species *Colebrookea oppositifolia*, *Dodonaea visosa*, *Woodfordia fruticosa*, *Adhatoda vasica* and *Erythrina indica* were dominant. Common herbs found in this region are *Arisaema jacquemontii*, *Euphorbia hirta*, *Oxalis corniculata*, *Verbena officinalis*, *Amaranthus spinosus*, *Achyranthes aspera* and *Gagea elegans*.

2.2. Field survey and data collection

The study was conducted from January, 2024 to February, 2025 in the selected villages of Sunderbani block of Rajouri District Jammu and Kashmir India. Prior to survey, permission was sought from the Principal Chief Conservator of Forest (PCCF), J&K Govt, and concerned Block Development Officer (BDO). Season wise field trips were undertaken to collect the maximum information. A Stratified random sampling method was employed to select the 40 informants which have been identified through snowball sampling with the help of village head (Table 1). Informed consent was obtained from all informants including traditional healer and local informants. Questionnaires were prepared in English and interviews were conducted in Urdu and Hindi. Informants were accompanied to the field for collection of plant samples. Based on the questionnaire, data regarding the local name of plant, part used, drug form, frequency, dose and dosage, disease cured were documented. Plants were collected, photographed, pressed and brought to the laboratory. The samples were poisoned and further dried as per the standard herbarium techniques and mounted on herbarium sheets. The collected plants were identified using standard literature and local floras (Hooker ,1872-1897; Polunin & Stainton, 1984; Sharma & Kachroo, 1983; Singh & Kachroo, 1994) and were submitted to the Regional Ayurveda Research Institute Jammu herbarium (RJH) and accession number were assigned from RJH0001-RJH0066. The accepted name was verified following databases like The Plant List (2024), POWO (2025), WFO (2025).

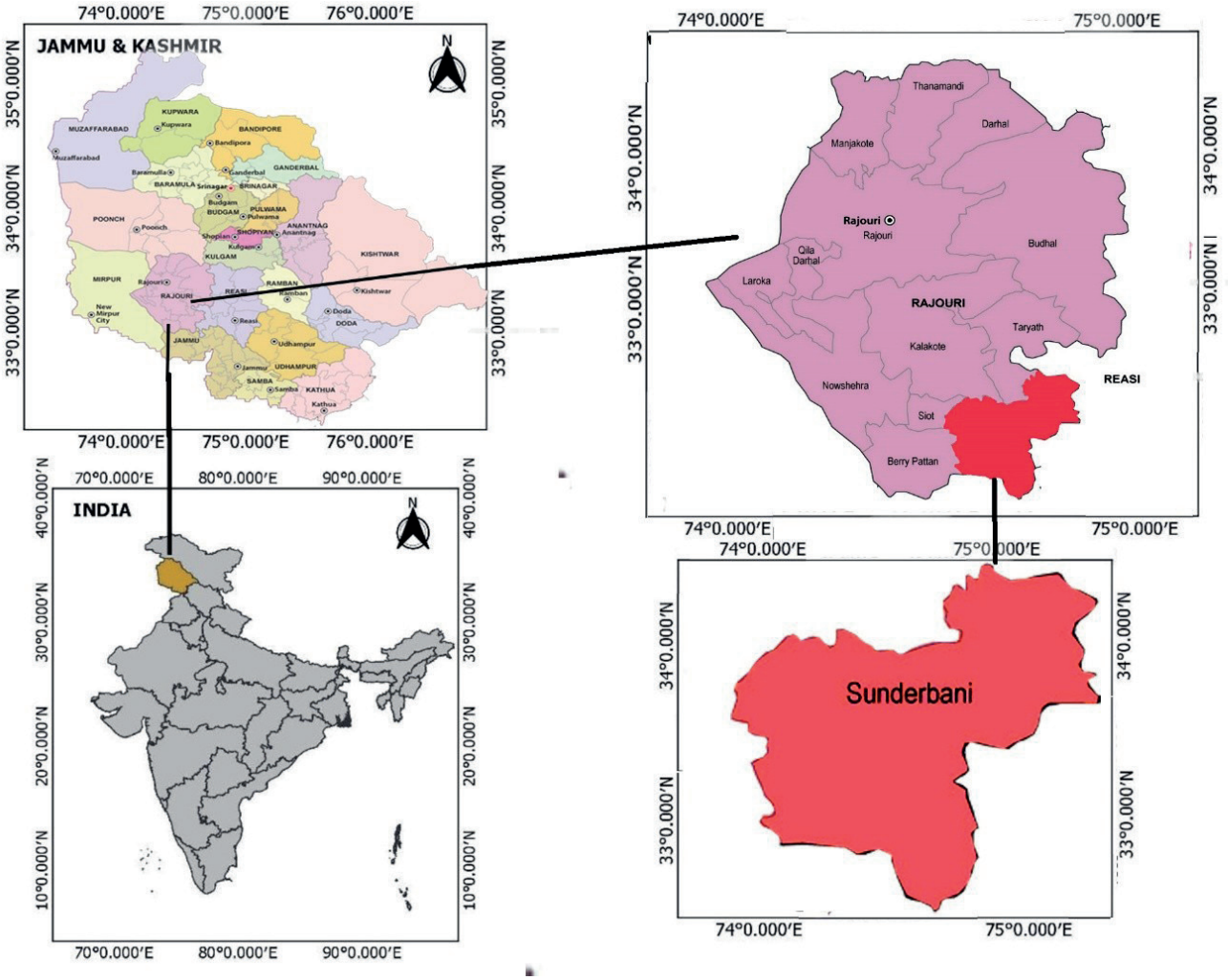

Figure 1. Map showing Sunderbani Block of District Rajouri, Union Territory of Jammu and Kashmir, India

Table 1. Demographic profile of the informants

Demographic features	Categories	No of persons	Percentage
Informants	Male	34	45.3
	Female	6	8.0
Total		**40**	**100.0**
	Local healers male	12	16.0
	Local healers female	2	2.7
Age group	31-40	5	6.7
	41-50	10	13.3
	51-60	19	25.3
	61-70	3	4.0
	71-80	3	4.0
Level of Education	Illiterate	4	5.3
	Primary	7	9.3
	Middle	11	14.7
	Matric	8	10.7
	12th	4	5.3
	above 12th	6	8.0
Source of Knowledge	Friend	5	6.7
	Parents	27	36.0
	Self interest	8	10.7

2.3. Quantitative data analysis

The data was analyzed using Microsoft Excel 2013 and origin version 2024 (b) and following indices were calculated.

Use report (URs)

Use report is the sum of total citation for a particular plant. If a species has single use and high URs means the species is popular among the inhabitant and also has high use efficiency and can be further investigated for pharmacological testing and drug discoveries (Weckerle et al., 2018; Trotter & Logan, 1986).

Use value (Uv)

Use value index proposed by Phillips and Gentry (1993) is used to quantify the relative importance of the species. It is calculated by the following formula modified by Rossato et al. (1999).

$$UV = \Sigma Ui/n.$$

Here, Ui is the number of uses mentioned by each informant for a particular species, and n is equal to the total number of informants.

Family use value (FUV)

The FUV is employed to compare the significance of plant families (Phillips & Gentry, 1993). It is calculated through the following formula:

$$FUV = \frac{UVf}{Nt}$$

where, "UVf" represents the use-values for all species within a specific family, and "Nt" denotes the total number of species within that family.

Informant consensus factor (ICF)

The ICF was determined using formula given by Phillips and Gentry (1993)

$$ICF = Nur\text{-}N \text{ species } / (Nur\text{-}1)$$

where Nur indicates use-reports number for a certain category of ailment while N taxa denote the total number of taxa utilized for that ailment category by all informants. The ICF scale runs between 0 to 1 and a high value suggests that a small fraction of informants utilize a small number of taxa (Tamang et al., 2021).

Similarity percentage

Similarity percentage of the data was calculated as the no of plant use similar with published literature with respect to present study (Hussain et al., 2023a)

$$\text{Similarity percentage} = \frac{\text{No. of plants uses found similar with the previous study}}{\text{Total no. of plants mentioned in the present study}} * 100$$

3. Results

3.1. Ethnomedicinal plants

A total of 66 plants species belonging to 44 families and 61 genera, out of which 65 were angiosperms, 1 gymnosperm species were documented (Table 2). The most dominant families were Asteraceae (4 species) followed by Fabaceae, Apocynaceae, Combretaceae and Solanaceae (3 species each), Acanthaceae, Amaryllidaceae, Berberidaceae, Euphorbiaceae, Malvaceae, Meliaceae, Menispermaceae, Myrtaceae, Nyctaginaceae, Rosaceae, Rutaceae (2 species each) and 28 families with one species each as shown in the Figure 2.

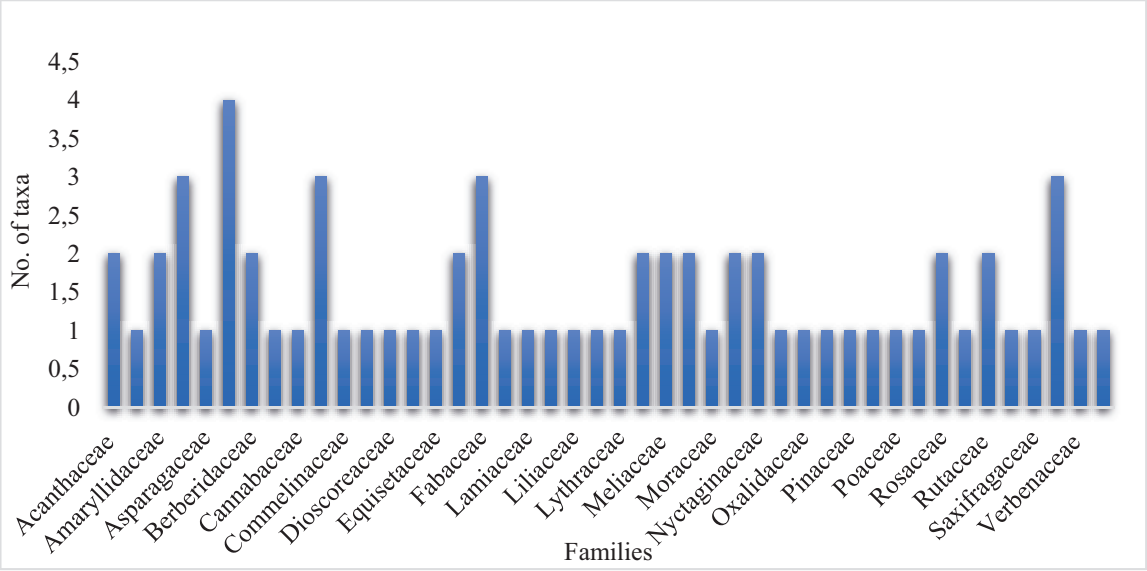

Figure 2. Number of species contributed by each family

Table 2. Ethnomedicinal plants used by the local people of Sunderbani Block of Jammu and Kashmir, India

Botanical name/ Family	Local name	Part used*	Dosage form/ drug form	Disease cured	Use reports	Preparation method, dose, frequency and duration	Use value
Senegalia catechu (L.f.) P.J.H.Hurter & Mabb. /Fabaceae	Khair	Twg	Pwdr	Oral ulcers (17), general body infection (3)	20	3-5gm powder of dried twigs is given with water twice a day for 3-7 days.	0.022
Achyranthes aspera L./ Amaranthaceae	Puthkanda	Sds, Rts and Stm, Lvs	Kheer, Pst, raw, Ash Extrt, Pwdr	Against incresesd apetite (1), boils (4), cough (1), whooping cough (4), asthma (4), labour pain (2), fever (1), Snake bite (6), Delayed delivery(1).	24	Milk pudding (Kheer) made of seed (3-4 tablespoon) is used against the increased appetite. Leaf paste against boils. 1 teaspoon root powder given daily for 3-4 days to cure cough. 1 teaspoon ash extract (bhasma) with honey against whooping cough. root powder mixed with kheer against asthma. A piece of root is tied on the women navel during labour pain for ease in delivery. A piece of root or stem is tied on neck against fever. 1-2 teaspoon root powder with water twice a day against snake bite.	0.026
Aegle marmelos (L.)Correa/ Rutaceae	Bil	Sds and Lvs	Pwdr	Diabetes (23)	23	1 teaspoon powder of dried seed or leaves is used against diabetes	0.025
Allium cepa L. / Amaryllidaceae	Pyaz	Blb	Pst	Boils (13)	13	Paste of bulb is applied on boils.	0.014
Allium sativum L./ Amaryllidaceae	Thom	Blb	Pst	Scorpion sting (6)	6	1 teaspoon paste of raw bulb mixed with jaggery is applied on the scorpion sting	0.007
Asparagus racemosus Willd./ Asparagaceae	Shatavar	Rts	Pwdr	Infertility (12), sexual stamina (13)	25	1 teaspoon dried root powder is given twice a day with Luke warm water for 3-4 days.	0.027
Azadirachta indica A.Juss/ Meliaceae	Drank	Lvs	Raw	Headache (3), internal heat (9), pimples (10)	22	3-5 leaves are applied on forehead once a day. 10 ml extract with a glass of water. Paste of leaves is applied on pimples.	0.024
Berberis aristata DC. /Berberidaceae	Krumbal	Rts,Rt brk	Pwdr or Decocn	Oral ulcers (10), skin infection in genitals (2), Kidney stone (1), diabetes(4)	17	5-10 gm powder of dried roots is given twice a day against oral ulcers. 5 gm powder with cold water (or 100 ml decoction as wash), twice daily against genital infection. ¼ tsp powder (1:1:1 mix of *Berberis aristata* root bark, borax, and black pepper) with curd against kidney stone. Powder of dried root bark is also given against diabetes.	0.018
Berberis lycium Royle/ Berberidaceae	Simlu	Rts	Decocn	Jaundice (16)	16	1 glass of decoction of fresh root is taken once a day against jaundice, fever and liver complaints.	0.017
Bergenia ciliata (Haw.) Sternb. / Saxifragaceae	Dandy ki jadi	Rt brk, Lvs	Pwdr	Oral ulcer (1) urine infection(1)	2	1/4 powder of dried root bark of *Bergenia ciliata* and leaf powder of *Clemetis virgiana* are given with water against oral ulcers and urine infection.	0.002
Bidens biternata (Lour.) Merr. & Sherff/Asteraceae	Khumber	Lvs	Pst	Antiseptic (2), oral ulcers (1) and boils (11)	14	Paste of fresh leaves are antiseptic and applied to ulcers and boils.	0.015
Boerhavia diffusa L. /Nyctaginaceae	Punarwa/ itt-sitt	Lvs	Decocn, Pst	Snake bite (12), swelling (1) and kidney infection (2)	15	50 ml of decoction is given thrice a day against kidney infection and swelling. 1-2 teaspoon paste of fresh leaves is applied twice a day against snake bite.	0.016

Table 2 continuation

Botanical name/ Family	Local name	Part used*	Dosage form/ drug form	Disease cured	Use reports	Preparation method, dose, frequency and duration	Use value
Calotropis procera (Aiton) Dryand./ Apocynaceae	Aak	Brk, Stm, Rts, Ltx	Pwdr, Raw	Leucorrhoea (12) and gonorrhoea(12), snake bite (10), backache(2)	36	1 pinch bark powder taken twice daily with cold water for 1-2 weeks against leucorrhoea and gonorrhoea. For snake bites, apply 1 ml latex externally twice daily. For backache, take 1-2 tsp dried root powder with water twice daily.	0.039
Cannabis sativa L. /Cannabaceae	Bhang	Lvs, sds	Pwdr, Raw	Diarrhoea (1), Infertility (1), belly inflammation (1)	3	Young leaves are dried on pan, add few black pepper and jaggery and heat it for 2-3 minutes. Make pill of this whole material, 1-2 pills are given to children's against diarrhoea twice a day. 5 seed are eaten daily against infertility. Leaf tied against belly inflammation.	0.003
Cassia fistula L./ Fabaceae	Amaltas/ krangal	Pods	Decocn, Pwdr	Constipation (12), intestinal pain (12), abdominal gas (12), Irregular menses (3)	39	1-2 teaspoon decoction with luke warm water is given twice a day for 3-7 days. 1-2 gm powder of dried flower is given with sugar/jaggery twice a day against irregular menses.	0.042
Catharanthus roseus (L.) G.Don / Apocynaceae	Sada bahar	Flwr	Raw	Blood sugar (1)	1	2-3 raw flower are eaten with water against blood sugar.	0.001
Cinnamomum camphora (L.) J.Presl/Lauraceae	Mushkapur	Lvs	Raw	Asthma (2)	2	2-3 fresh leaves are chewed to reduce asthma	0.002
Cissampelos pareira L. / Menispermaceae	Batal bail	Lvs	Pwdr	Diarrhea (13), dysentery (13)	26	1 teaspoon powder of dried leaves is taken with a glass of water twice a day.	0.028
Commelina benghalensis L./ Commelinaceae		Lvs	Pst	Boils (1)	1	Paste of leaves is applied on boils.	0.001
Cynodon dactylon (L.) Pers./ Poaceae	Khabbal	Lvs	Raw	To prevent miscarriage (1)	1	A large plate filled with water is taken and add leaves of *Cynodon dactylon* are added in it. The patient has to wear a white cotton cloth and put the feet in the plate now another woman will start bathing her by putting the hand in the water filled with *Cynodon dactylon* and start bathing the patient from foot toward head. now the patient is given a single seed of wheat to eat and then the patient will take a rose and do surya namskar. this process is repeated 3 time after a gap of 2 and half month. The roots of *Achyranthes aspera* are tied around the naval of a patient. and these roots are removed at the time of delivery. if these roots are not removed then the delivery will not happen.	0.001
Dalbergia sissoo Roxb. ex DC./ Fabaceae	Shesham	Lvs	Extrt	Night fall (spermatorrhoea) (2)	2	1-2 teaspoon extract is given with a glass of water once a day.	0.002
Datura stramonium L./Solanaceae	Datura	Lvs and Flwr	Pwdr	Asthma (13)	13	1- teaspoon powder of leaves and flower is given once a day as against asthma patient.	0.014

Table 2 continuation

Botanical name/ Family	Local name	Part used*	Dosage form/ drug form	Disease cured	Use reports	Preparation method, dose, frequency and duration	Use value
Dicliptera brachiata Spreng./ Acanthaceae		Lvs	Pst	Snake bite (1)	1	Paste of leaves is applied for 10-12 days.	0.001
Dioscorea bulbifera L. / Dioscoreaceae	Talad	Flwr	Pwdr	Constipation (12)	12	Cooked flowers (Sabzi) is given against constipation	0.013
Diplocyclos palmatus (L.) C.Jeffrey. / Cucurbitaceae	shivlingi	Sds	raw	Gender development (1)	1	5 seeds of *Diplocyclos palmatus* and 4 seeds of *Cannabis sativa* are mixed and taken empty stomach with warm cow's milk for 10 days and 9 seeds in evening with warm water. After 10 days take 9 seeds empty stomach with water for 21 days. this will develop a male child. For female child 9 seeds empty stomach with cold milk and evening 9 seeds with cold water for 10 days. after 10 days 9 seeds with empty stomach with water for 21 days. This whole process is started after 10 days of the menses.	0.001
Dolomiaea costus (Falc.) Kasana &A.K.Pandey/ Asteraceae	Kuth	Rts	Pwdr	Joint pain (1)	1	1/2 teaspoon powder of dried root is given against joint pain.	0.001
Dryopteris filix-mas (L.) Schott / Dtyopteridaceae	Jatli jadi	Stm and Rts	Pwdr	Green stool in children's (1), malnourishment in children (2)	4	Powder of dried stem mixed with the extract of kala bana (*Vitex negundo*) is made and then 1 pinch of this mixture is given twice a day to children's with Luke warm water against green stool in children's. 1-2 teaspoon powder of dried root is given once a day with water against malnourishment.	0.004
Eclipta prostrata (L.) L. /Asteraceae	Bhringraj	Lvs	Oil	White hair (9), dandruff (12)	21	Leaves mixed with sesame oil are fried and the oil is used against dandruff and white hair.	0.023
Phyllanthus emblica L. / Phyllanthaceae	Amla	Frts	Pwdr	Piles (1), Liver inflammation (2), digestion (18), cough (2), cold (1), abdominal pain (8), abdominal gas (16)	48	1.1.1 ratio of fruits of *Emblica officinalis*, *Terminalia chebula*, and *Terminalia bellirica* is used to make triphla churan. 1-2 teaspoon powder of dried fruits is given twice a day with lukewarm water.	0.052
Equisetum arvense L. / Equisetaceae	Nadi	Stm	Extrt	Urine constipation (stopage) (2)	2	1-2 teaspoon extract is given with a glass of water once a day.	0.002
Euphorbia hirta L. /Euphorbiaceae		Lvs	Extrt	Kidney stone (1)	1	1-2 teaspoon leaf extract is given with a glass of water against kidney stone	0.001
*Ficus auriculata*L. /Moraceae		Ltx	Raw	Alopecia (2)	2	10 gm of Neela thotha (a drug purchased from market + 20 gm of pathkari are grinded and made into powder. The powder is then heated on a pan it will turn into liquid, cool it down, it will solidify again and then grind it again to make powder. Before using the powder latex of *Ficus auriculata* is applied on the infected portion of the hair. wash it after 2-3 hours.	0.002

Table 2 continuation

Botanical name/ Family	Local name	Part used*	Dosage form/ drug form	Disease cured	Use reports	Preparation method, dose, frequency and duration	Use value
Fumaria indica (Hausskn.) Pugsley /Fumariaceae	Pit-papra	Wp	Pwdr	Fever (12), liver complaints (2), skin infections (1)	15	1-2 teaspoon powder of whole plant is given twice a day as against fever, liver complaints and skin infections.	0.016
Gloriosa superba L. /Liliaceae	Kukat shera	Root	Pst	Insect bite (scorpion, wasp etc) (1)	1	1-2 teaspoon paste of fresh root is applied on the insect bite.	0.001
Grewia optiva J.R.Drumm. ex Burret /Malvaceae	Dhaman	Brk	Extrt	Smooth delivery (23), constipation (23)	46	Bark extract is given for smooth delivery and constipation.	0.050
*Impatiens balsamina*L. / Balsaminaceae		Lvs	Pst	Ring worm (15)	15	Paste of fresh leaves is applied against Ring worm.	0.016
Justicia adhatoda L. /Acanthaceae	Brankhad/ Vasa	Stm,Lvs, Flwr bud	Raw, Pst, Decocn	Asthma (12), Whooping cough (12), cough (1), Headache (1), Broken bone (1), Fever (1), Intestinal pain (1)	28	Raw stem is chewed against asthma, whooping cough and cough.3-4 leaves are tied on forehead once a day against headache. Paste made of leaves are applied on broken bone once a day.50 ml of decoction of fresh leaves and flower bud is given once a day against fever and intestinal pain.	0.030
Linum usitatissimum L. /Linaceae	Alsi	Sds	Soaked seed	Broken bones (1)	1	1 teaspoon flack seeds are soaked in warm water for 15 minutes and are then tied on the broken part of the bone by a cotton cloth for a night. This will help in separating the tissue from the bone which is the then joined.	0.001
Malvastrum coromandelianum (L.) Garcke / Malvaceae		Lvs	Pwdr	Diabetes (1)	1	1-2 teaspoon powder of dried leaves is given with a glass of water twice a day.	0.001
Melia azedarach L. /Meliaceae	Grounth/ maha neem	Frt	Pwdr	Intestinal pain (12), intestinal worm (12)	24	Half teaspoon powder of dried fruit is taken with a glass of water once a day.	0.026
Mirabilis jalapa L. /Nyctaginaceae	Gul abasi	Lvs	Decocn	Gout (2)	2	5 ml decoction of leaves is given with a glass of water twice a day.	0.002
Nerium oleander L. /Apocynaceae	Gadella	Rts	Extrt	Poisoning (1)	1	10 ml of the extract is given with a glass of cold water once a day to remove the poison from the body.	0.001
Olea cuspidata (Wall. & G. Don) Cif. /Oleaceae	Kawa/kou	Lvs, Twg	Decocn,raw, Extrt	Cold (4), tooth cleaning (16), toothache (7)	27	100 ml decoction is given once a day for 2-3 days against cold. Piece of twig is used for teeth cleaning.2-3 drop of extract fresh leaf is applied on aching teeth	0.029
Oxalis corniculata L. /Oxalidaceae	Ammi/ khatkal/ khatnar	Lvs	Pst	Cuts and wound (1)	1	Paste of fresh leaves is applied cuts and wounds.	0.001
Pinus roxburghii Sarg. /Pinaceae	Chir	Mc	Decocn	Fever (1)	1	50 ml of decoction is given once a day against fever.	0.001
Plumbago zeylanica L. / Plumbaginaceae	Shetra	Lvs	Extrt	Skin infection (20)	20	Extract of the leaves is used to treat skin infection.	0.022
Prunus persica (L.) Stokes /Rosaceae	Aadu	Sds	Pst	Boils (23)	23	Paste of seed is applied on boils once a day.	0.025

Table 2 continuation

Botanical name/ Family	Local name	Part used*	Dosage form/ drug form	Disease cured	Use reports	Preparation method, dose, frequency and duration	Use value
Psidium guajava L. /Myrtaceae	Amrud	Lvs	Decocn	Cough (2), cold (1), teeth infection (12)	15	50 ml decoction of young leaves is taken once a day during bed time against cough and cold. Twigs are used as datun (brushing teeth) to prevent tooth infection.	0.016
Ricinus communis L. /Euphorbiaceae	Arund	Sds, Lvs	Oil	Joint pain (13), constipation (6), dandruff (4)	23	Oil obtained from seed is massaged on joint pain. 1 teaspoon oil mixed with a glass of milk is given against constipation. Leaves mixed with sesame oil are applied on the hairs to reduce dandruff.	0.025
Rubia cordifolia L. /Rubiaceae	Jhand masher/ majitha	Rts	Pwdr	Oral ulcers (12)	12	1 pinch powder of dried root is given with water twice a day for 3-4 days	0.013
Rubus ellipticus Sm./Rosaceae	Akhre	Rts	Pwdr	Urine infection (2)	2	1-teaspoon powder of dried root is given with a glass of water once a day.	0.002
Rumex nepalensis Spreng. / Polygonaceae		Lvs, Rts	Raw, Pwdr	Joint inflammation (1), Liver infection (1)	2	Fresh leaves are tied on joints to reduce uinflammation.1/2 teaspoon powder of dried root powder is given twice a day against liver infection.	0.002
Sapindus mukorossi Gaertn. /Sapindaceae	Reentha	Frt	Pwdr	Snake bite (2)	2	1-2 teaspoon powder of dried fruit is given with a glass of water twice a day.	0.002
Solanum nigrum L. /Solanaceae	Mokay/ kachmach, kayakoti	Frt	Pst	Finger pain (1)	1	1 teaspoon paste of fresh fruits is applied on the affected finger.	0.001
Solanum virginianum L. /Solanaceae	Kandyari	Lvs, Sds	Pst,Raw	Skin infection (1), Tooth decay	1	1 ml twice a day until cured. Seeds are smoked in cigarette to remove tooth decay.	0.001
Syzygium cumini (L.) Skeels / Myrtaceae	Jamun	Lvs,Frt	Raw	Headache (1), diabetes (16)	17	3-4 leaves are tied on forehead once a day. Raw fruits are eaten directly twice a day against diabetes.	0.018
Terminalia arjuna (Roxb. ex DC.) Wight & Arn. / Combretaceae	Arjun	Brk	Decocn and Pwdr	Heart tonic (23) and blood pressure (12)	35	100ml of decoction is given once a day or I teaspoon powder is given with jaggery once a day.	0.038
Terminalia bellirica (Gaertn.) Roxb. / Combretaceae	Bheda	Frt	Pwdr,raw, Pst	Cough (9) and cold (9), abdominal pain (6), abdominal gas (23), Increases heat (1), headache (1), joint pain (1), boils (1)	51	1.1.1 ratio of fruits of *Emblica officinalis*, *Terminalia chebula*, and *Terminalia bellirica* is used to make triphla churan. 1-2 teaspoon powder of dried fruits is given twice a day with lukewarm water.2-3 raw fruits are eaten once a day against increases heat, against headache. 1-2 teaspoon powder of dried fruit is eaten with a glass of water against joint pain. paste of fresh or dried fruit is applied on boils .	0.055
Terminalia chebula Retz. / Combretaceae	Harad	Frt, Lvs	Pwdr, raw	Cough (9) and cold (9), abdominal pain (6) , abdominal gas (23)	47	1 teaspoon dried fruit powder is given twice a day with Luke warm water for 3-4 days. 1-2 fresh leaves are tied on abdomen for 12 hours to reduce abdominal pain in children.	0.051
Tinospora cordifolia (Willd.) Hook.f. & Thomson /Menispermaceae	Giloy	Lvs	Pwdr, Raw	Constipation (3), fever (24), malnourishment in children (1), Antibiotic (2)	30	1-2 teaspoon dried leaves powder is given once a day with luke warm water for 3-4 days. Raw twigs are chewed directly twice a day as antibiotic.	0.033

Table 2 continuation

Botanical name/ Family	Local name	Part used*	Dosage form/ drug form	Disease cured	Use reports	Preparation method, dose, frequency and duration	Use value
Verbena officinalis L. /Verbenaceae	Marchein wali jadi	Lvs	Extrt	Snake bite (1)	1	Fresh leaves of *Verbena officinalis* and *Achyranthes aspera* are collected and extract is obtained by crushing them with the help of mortar and pestle. 100 ml of the extract is given thrice a day after a gap of 3-4 hours against snake bite.	0.001
Viola canescens Wall. /Violaceae	Banafsha	Flwr	Pwdr	Cough (14)	14	1-2 teaspoon powder of dried flower is given with lukewarm water twice a day.	0.015
Vitex negundo L / Lamiaceae	Nirgundi/ Kala banna	Lvs	Pst, Decocn	Hair growth (12), joint pain (3), muscles fatigue (2)	17	Paste of fresh leaves is applied on hairs to promote hair growth. Leaves are tied on joints to reduce pain. Decoction of the leaves is used to wash the muscles after fatigue.	0.018
Woodfordia fruticosa(L.) Kurz / Lythraceae	Tai kay phool/dhai kay phool	Flwr	Extrt	Diarrhoea with blood (3)	3	1-2 teaspoon extract is given with a glass of water once a day.	0.003
Xanthium strumarium L. / Asteraceae	Jhojde	Rts	Decocn	Fever (2), oral ulcers (1), internal heat (2)	5	1 glass of decoction of fresh root is taken once a day against fever, oral ulcers, internal heat.	0.005
Zanthoxylum armatum DC. / Rutaceae	Timru	Frt	Raw	Pneumonia (1), digestion (23)	24	3-4 spoon fruit are eaten raw once a day.	0.026

* Explanations: decocn- decoction, extrt- extract, Flower-Flwr, Frt- Fruits, ltx- latex, Roots-Rts, Leaves-Lvs, mc- male cone, pst- paste, pwdr- Powder, rt brk- Root bark, Sds- seeds, stm- Stem, st brk- Stem bark, twg- twigs, wp- whole plant.

3.2. Life form and plant part used

The most dominant life form observed were herbs (46%), followed by trees (30%), shrubs (15%), climbers (9%) (Fig. 3). The most frequently used plant part were leaves (37.6%), roots (15.3%), fruits and seeds (9.4% each), flowers and stems (5.9%), stem bark (3.5%), latex, bulbs and twigs (2.4%), Root barks, flower buds, male cones, pods and whole plant accounted for 1.2% each (Fig. 4).

3.3. Mode of drug form

A total of 10 drug preparations were reported, and it was observed through chord diagram that powder (31%), was most frequently utilized drug form for maximum numbers of treated diseases. It was followed by raw (20.7%), paste (18.4%), decoction (13.8%), extract (10.3%), whereas only few diseases were treated by preparation like, oil (2.3% each), ash extract, kheer (milk based preparation) and soaked seeds (1.1% each) (Fig. 5).

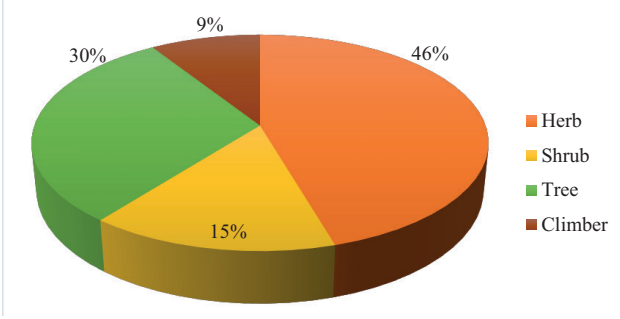

Figure 3. Life form of the plants

3.4. Medicinal uses and use report

In the present study the highest use report was recorded for *Terminalia bellirica* (51UR), used for the treatment of cough and cold, abdominal pain, abdominal gas, Increases heat, headache, joint pain, boils. It was followed by *Phyllanthus emblica* (48 UR) used for the treatment of piles, liver inflammation, digestion, cough, cold, abdominal pain and abdominal gas. Similarly, *Terminalia chebula* having (47 UR) used for the treatment of cough and cold, abdominal pain, abdominal gas. *Grewia optiva* (46 UR) used for the treatment of smooth child birth and constipation. *Cassia fistula* (39 UR) used for the treatment of constipation, intestinal pain, abdominal gas, menstrual irregularity. *Calotropis procera* (36 UR) used for the treatment of Leucorrhoea, gonorrhoea, snake bite and backache. *Tinospora cordifolia* (UR 30) used for the treatment of Constipation, fever, malnourishment in children and as antibiotic. Whereas least cited plants

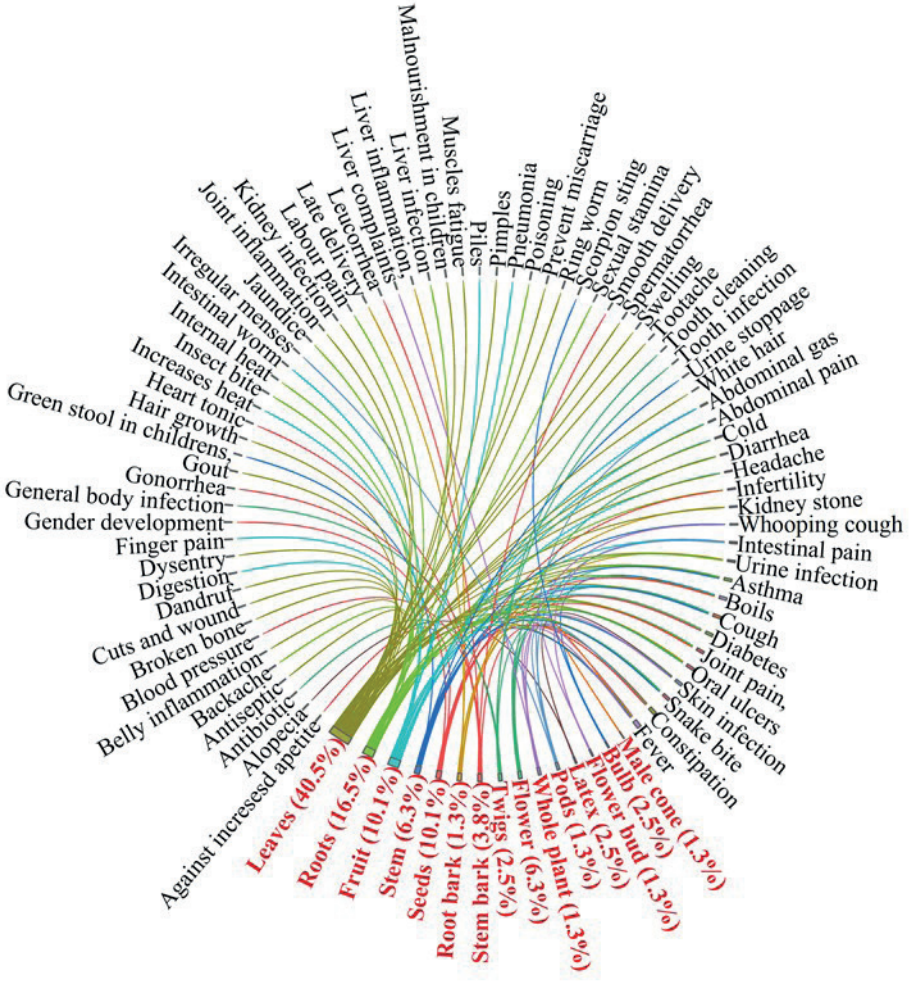

Figure 4. Chord diagram representing interrelationship between the percentage of part used and the associated diseases treated. [Different colour arcs represent the interrelationship between % of part used and associated diseases]

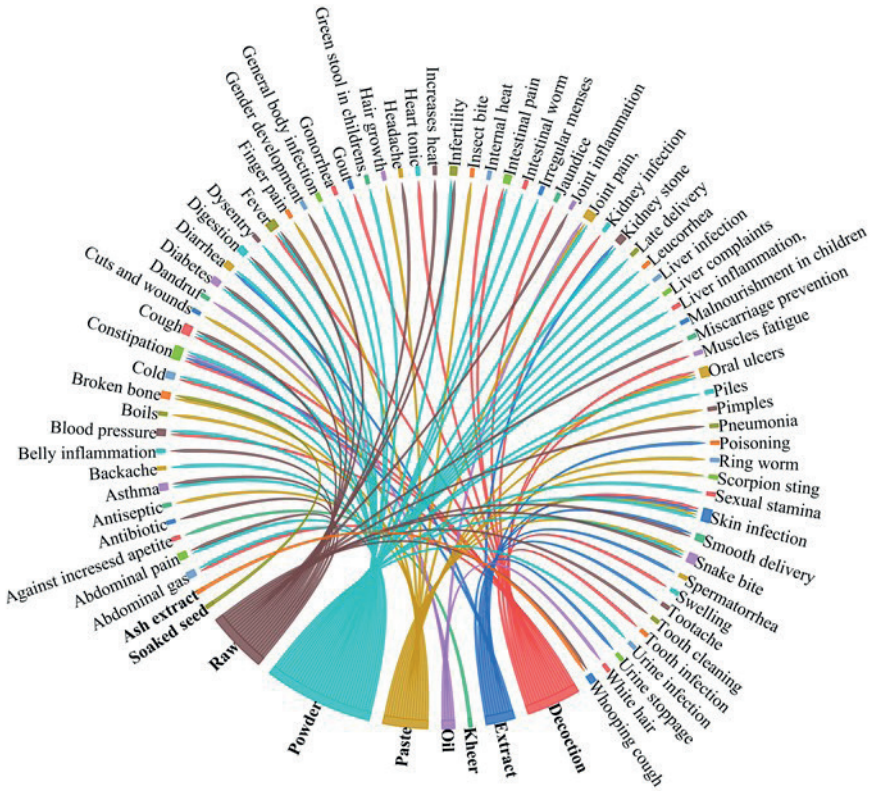

Figure 5. Chord diagram representing interrelationship between herbal drug preparations and treated diseases. [Different colour arcs represent the interrelationship between drug form and diseases]

with only (1 UR) were *Catharanthus roseus*, *Commelina benghalensis*, *Cynodon dactylon*, *Dicliptera bupleuroides*, *Diplocyclos palmatus*, *Dolomiaea costus*, *Euphorbia hirta*, *Gloriosa superba*, *Linum usitatissimum*, *Cannabis sativa*, *Malvastrum coromandelianum*, *Oxalis corniculata*, *Pinus roxburgii*, *Solanum nigrum*, *Solanum virginianum*, *Verbena officinalis*.

3.5. Plant use value (UV)

From the use value evaluation, *Terminalia bellirica* (0.055), *Phyllanthus emblica* (0.052), and *Terminalia chebula* (0.051), *Grewia optiva* (0.051), *Cassia fistula* (0.042), *Calotropis procera* (0.039) were reported to have the highest use value, whereas the lowest use value were recorded for *Catharanthus roseus*, *Commelina benghalensis*, *Cynodondactylon*, *Dicliptera bupleuroides*, *Diplocyclos palmatus*, *Dolomiaea costus*, *Euphorbia hirta*, *Gloriosa superba*, *Linum usitatissimum*, *Cannabis sativa*, *Malvastrum coromandelianum*, *Oxalis corniculata*, *Pinus roxburgii*, *Solanum nigrum*, *Solanum virginianum*, *Verbena officinalis* (0.001 each) which were quite unpopular among the informants (Table 2).

3.6. Family use value (FUV)

The Family use value ranges between 0.001 to 0.052 (Fig. 6). Phyllanthaceae exhibited the highest FUV, followed by combretaceae (0.048), Menispermaceae (0.030), Oleaceae (0.029), Asparagaceae (0.027), Amaranthaceae, Malvaceae and Rutaceae (0.026 each), whereas lowest (FUV) was recorded for Commelinaceae, Cuccurbitaceae, Liliaceae, Linaceae, Oxalidaceae, Pinaceae. Poaceae and Verbenaceae (0.001 each).

3.7. Polyherbal preparation

In the present study most of the diseases were treated by single plant, but in many cases the use of more than one plant species to treat a single kind of disease were also reported. A total of 9 polyherbal and 2 herbo-mineral preparations was recorded i.e., powder of dried root bark of *Bergenia ciliata* and leaf powder of *Clemetis virgiana* are given with water against oral ulcers and urine infection, dried leaves of *Cannabis sativa* and fruits of *Piper nigrum* mixed with jaggery is given against diarrhoea, similarly *Cynodon dactylon* and *Achyranthes aspera* are used in a procedure treatment to prevent miscarriage among pregnant womens. The details of the procedure are given in the Table 2. *Diplocyclos palmatus* and *Cannabis sativa* are given to conceive a male or female child, equal ratio of fruits of *Emblica officinalis*, *Terminalia chebula*, and *Terminalia bellirica* is used to make triphla churan. Powder of dried stem of *Dryopteris filix mass* and leaf extract of *Vitex negundo* is given against green stool in children's. Fresh leaves of *Verbena officinalis* and *Achyranthes aspera*is given against snake bite.In addition to this two herbo-mineral preparation were, 1:1:1 ratio of Powder of dried root bark of *Berberis aristata* mix with powder of Borax (locally called "*swaga*") and fruit of *Piper nigrum*. 1/4 teaspoon powder of this is given with curd against kidney stone, similarly copper sulphate (locally called "*neela thotha*") Fitkari, (also known as alum stone) and *Ficus auriculata* is applied against alopecia.

3.8. Informant consensus factor

The ICF values were calculated by categorizing the reported illness into 12 ailments categories based on the International Classification of Disease (ICD 11). The highest ICF (0.97) was recorded for ICD code 11 (Diseases of the circulatory system) the species used to treat this disease category includes *Terminalia arjuna,* it was followed by ICD code 13 and 17 (Diseases of the digestive system and Conditions related to sexual health) with ICF value of 0.91 each. The species utilized in this ailments category includes *Terminalia bellirica*, *Phyllanthus emblica*, *Terminalia chebula*, *Grewia optiva*, *Cassia fistula, and Diplocyclos palmatus, Asparagus racemosus, Calotropis procera*. ICD code 14 (0.89), ICD code 18 (0.88), ICD code 21 (0.85), ICD code 1 (0.84), whereas lowest ICF was recorded for ICD code 12 (0.15) diseases of respiratory system which includes species like *Achyranthes aspera, Cinnamomum camphora* and *Justicia adathoda*. As per the ailments categories the highest use report and taxa utilized were for ICD 13 (UR 287, Nt 26) followed by ICD code 1 (UR 113, Nt 19) whereas lowest was recorded for ICD 16 (UR 9, Nt 6) as shown in Table 3.

3.9. Comparison and Novelty

To find the similarity and variability of the ethnomedicinal uses with the previous studies, we compared 32 published ethnobotanical studies from the adjoining Districts, States as well as the neighboring Countries, and it was found that similarity percentage ranged between 0 - 25.76%. The highest similarity was found with the Sharma and Raina (2016) (25.76%) and Bhatia et al. (2014) (19.70%), whereas the least similarity was found with Bamola et al. (2018), Hassan et al. (2018), Mahmood and Farooq (2021), Mir et al. (2021b) (0%) (Table 4).

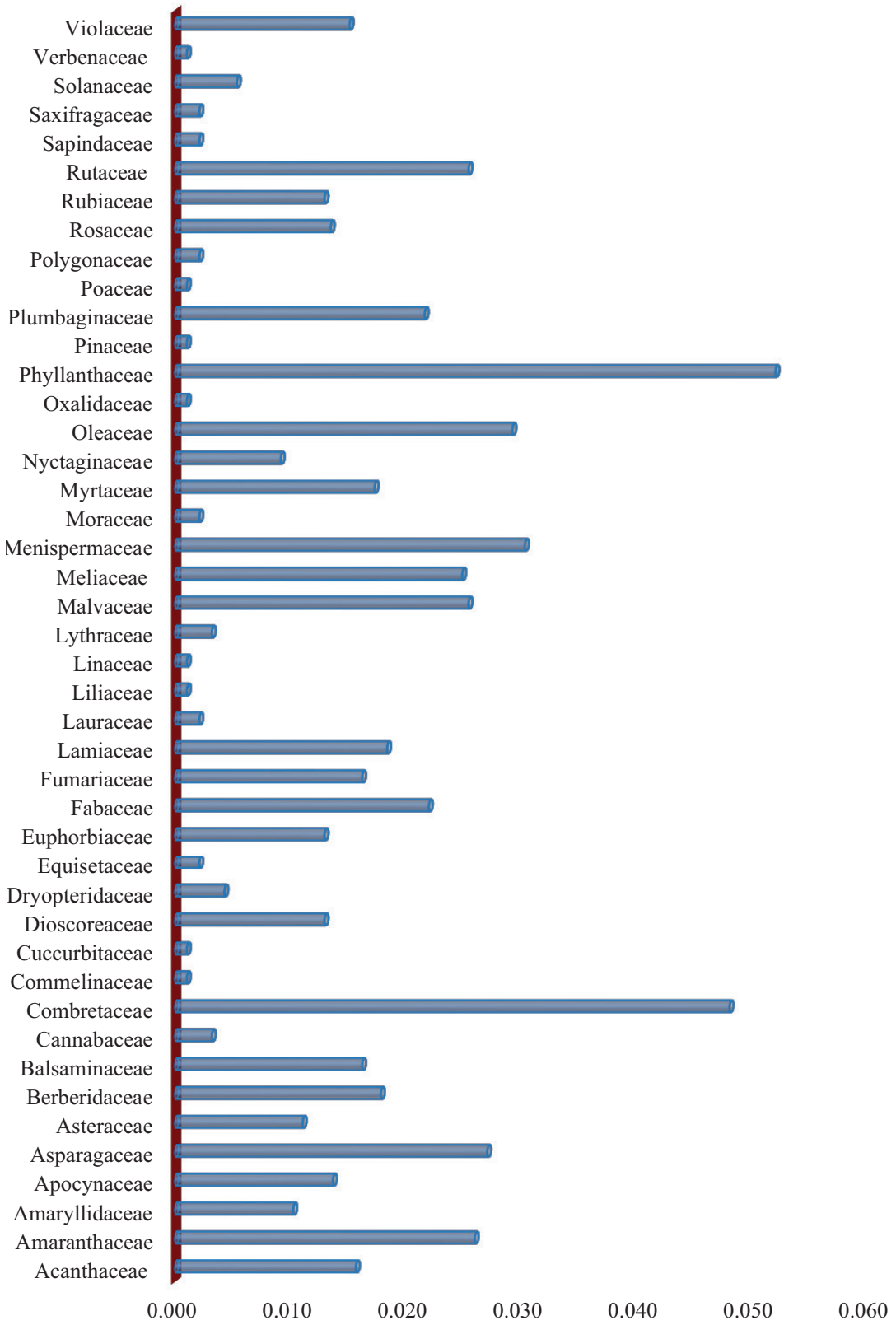

Figure 6. Family use value of different families

Table 3. Informant consensus factor (ICF) of the categorized ailments as per the International classification of the disease

ICD code	ICD category	Disease	No. of use report	No of taxa	Sum of use report	Sum of taxa	ICF
1	Certain infectious or parasitic diseases	Fever	41	6	113	19	0.84
		Cold	24	5			
		Dysentery	13	1			
		Diarrhoea	17	3			
		Antibiotic	2	1			
		General body infection	3	1			
		Intestinal worm	12	1			
		Pneumonia	1	1			
5	Endocrine, nutritional or metabolic diseases	Diabetes	41	4	62	13	0.80
		Against increased appetite	1	1			
		Headache	6	4			
		Internal heat	11	2			
		Malnourishment in children	3	2			
11	Diseases of the circulatory system	Heart tonic	23	1	35	2	0.97
		Blood pressure	12	1			
12	Diseases of the respiratory system	Cough	38	7	85	13	0.15
		Asthma	31	4			
		Whooping cough	16	2			
13	Diseases of the digestive system	Digestion	41	2	287	26	0.91
		Constipation	56	5			
		Abdominal gas	83	4			
		Abdominal pain	20	3			
		Intestinal pain	25	3			
		Jaundice	16	1			
		Liver complaints	2	1			
		Liver inflammation,	2	1			
		Liver infection	1	1			
		Oral ulcers	41	5			
14	Diseases of the skin	Boils	53	6	108	13	0.89
		Pimples	10	1			
		Ring worm	15	1			
		Scorpion sting	6	1			
		Skin infection	24	4			
15	Diseases of the musculoskeletal system or connective tissue	Broken bone	2	2	28	11	0.63
		Backache	2	1			
		Finger pain	1	1			
		Gout	2	1			
		Joint inflammation	1	1			
		Joint pain	18	4			
		Muscles fatigue	2	1			
16	Diseases of the genitourinary system	Kidney stone	2	2	9	6	0.38
		Kidney infection	2	1			
		Urine infection	3	2			
		Urine stoppage	2	1			
17	Conditions related to sexual health	Gonorrhoea	12	1	54	6	0.91
		Infertility	12	1			
		Irregular menses	3	1			
		Leucorrhoea	12	1			
		Sexual stamina	13	1			
		Spermatorrhea	2	1			

Table 3 continuation

ICD code	ICD category	Disease	No. of use report	No of taxa	Sum of use report	Sum of taxa	ICF
18	Pregnancy, childbirth or the puerperium	Labour pain	2	1	27	4	0.88
		Delayed delivery	1	1			
		Prevent miscarriage	1	1			
		Smooth delivery	23	1			
21	Symptoms, signs or clinical findings, not elsewhere classified	Alopecia	2	1	79	13	0.85
		Belly inflammation	1	1			
		Dandruff	16	2			
		Gender development	1	1			
		Hair growth	12	1			
		Increases heat	1	1			
		Piles	1	1			
		Swelling	1	1			
		Toothache	7	1			
		Tooth cleaning	16	1			
		Tooth infection	12	1			
		White hair	9	1			
22	Injury, poisoning or certain other consequences of external causes	Cuts and wound	1	1	36	9	0.77
		Antiseptic	2	1			
		Insect bite	1	1			
		Snake bite	31	5			
		Poisoning	1	1			

Table 4. Comparison of the present study with the previous studies of the adjoining areas

Citation	District	State	No. of plants	Not reported	Similar uses	Dissimilar uses	% Similarity
Sharma and Raina, 2016	Rajouri	J&K	56	37	17	12	25.76
Shah et al., 2015a	Rajouri	J&K	104	57	1	8	1.52
Shah et al., 2015b	Rajouri	J&K	42	57	1	8	1.52
Mahmood and Farooq, 2021	Rajouri	J&K	24	65	0	1	0.00
Zanit et al., 2022	Rajouri	J&K	6	64	2	0	3.03
Wani et al., 2021	Poonch	J&K	145	44	6	16	9.09
Ajaz and Ahmed, 2017	0Poonch	J&K	50	55	3	8	4.55
Manzoor and Ali, 2017	Poonch	J&K	72	46	8	12	12.12
Bhatia et al., 2014	Udhampur	J&K	166	23	13	30	19.70
Dutt et al., 2015	Kathua	J&K	190	48	6	12	9.09
Bhushan and Khajuria, 2018	Kathua	J&K	25	56	3	7	4.55
Kumari et al., 2013	Jammu	J&K	70	52	6	8	9.09
Singh et al., 2020	Jammu	J&K	125	35	7	24	10.61
Sarver et al., 2016	Reasi	J&K	80	41	7	18	10.61
Mir et al., 2021a	Budgam	J&K	82	55	3	8	4.55
Mir et al., 2021b	Budgam	J&K	56	60	0	6	0.00
Mir et al., 2023	Shopian	J&K	80	65	1	0	1.52
Kumar et al., 2015	Srinagar	J&K	130	56	4	6	6.06
Hassan et al., 2018	Ramban	J&K	29	61	0	5	0.00
Hussain et al., 2023a	Doda	J&K	80	58	3	5	4.55
Hussain et al., 2023b	Tehri	Uttarakhand	68	54	4	8	6.06
Bamola et al., 2018	Dehradun	Uttarakhand	21	61	0	5	0.00
Kala et al., 2006	-	New Delhi	49	57	2	7	3.03

Table 4 continuation

Citation	District	State	No. of plants	Not reported	Similar uses	Dissimilar uses	% Similarity
Kaur et al., 2020	Kapurthala	Punjab	50	51	6	9	9.09
Sidhu et al., 2012	Jalandhar	Punjab	119	37	11	18	16.67
Laldingilani et al., 2022	Champai	Mizoram	93	62	1	4	1.52
Radha et al., 2019	Sirmour	Himachal Pradesh	41	58	1	7	1.52
Sharma and Raju, 2022	Mandi	Himachal Pradesh	54	58	3	5	4.55
Kumar et al., 2021	Solan	Himachal Pradesh	115	41	8	17	12.12
Ali et al., 2023	Swat	Pakistan	118	45	2	19	3.03
Aziz et al., 2017	Bajaur	Pakistan	79	50	8	8	12.12
Ahmad et al., 2018	Rawalpindi	Pakistan	92	51	8	7	12.12

3.10. Novel folk claim

Comparison of local uses with previous ethnobotanical studies from adjoining area of Jammu and Kashmir (Table 4) showed variability among ethnobotanical uses majority of reported medicinal plants showed some novel uses i.e., *Achyranthes aspera* is used against increased appetite, *Azadirachta indica* against headache and internal heat, *Berberis aristata* against oral ulcers, genital skin infection, and kidney stone, *Bergenia ciliata* against urine infection, *Calotropis procera* against leucorrhea gonorrhea and backache, *Cannabis sativa* against infertility, *Cynodon dactylon* is used to prevent abortion, *Dalbergia sissoo* is used against spermatorrhea (Night fall), *Dicliptera bupleuroides* against snake bite, *Diplocyclos palmatus* is given to conceive a male or female child, *Euphorbia hirta* against kidney stone, *Ficus auriculata* against alopecia, *Linum usitatissimum* is used in joining the fractured bones, *Malvastrum coromandelianum* is used against diabetes, *Mirabilis jalapa* against gout, *Nerium oleander* is used for inducing vomiting against poisoning, *Olea cuspidata* against cold, *Plumbago zeylanica* against skin infection, *Rumex nepalensis* against joint inflammation and liver infection, *Solanum virginianum* are smoked against tooth decay, *Terminalia bellirica* against headache, joint pain, boils, cough, cold, and induces heat in the body, *Tinospora cordifolia* is given against constipation, malnourishment in children, diabetes, *Zanthoxyllum armatum* against pneumonia.

4. Discussion

The present study revealed that people of the study area rely mostly on plants to cure a diverse range of diseases. Most of the informants were predominantly male 34, as compared to the 6 females. Their age ranged from 30 to 80 years. However, it looks young generation lack the knowledge of the use of medicinal plants indicating a great decline in interest among the young generation to inherit the traditional knowledge due to their exposure to modernization and modern culture (Bhatia et al., 2014; Mpondo & Didier, 2011; Hussain et al., 2023a; Singh et al., 2017).

The most important families in terms of number of taxa reported in the current study are Asteraceae (4 species) followed by Fabaceae, Apocynaceae, Combretaceae and Solanaceae (3 species each). Our outcome was in line with the preceding studies (Bhatia et al., 2014; Mir et al., 2021b; Singh et al., 2019). Asteraceae is the dominant plant family at the regional and global level (Khajuria et al., 2021; Monika et al.; 2020, Singh et al., 2019), the dominance of these families in traditional herbal medicine could be due to their spontaneous availability and higher content of phenols and flavonoids (Maulidiani et al., 2015; Miara et al., 2018).

In the present study, the most dominant life form reported were herb (36%) followed by trees (30%) similar to earlier studies (Hussain et al., 2023b; Shah et al., 2015a). However, several studies conducted in different parts of the Himalayan regions reported a very lower percentage of trees utilised for medicinal purpose as these regions are mostly dominated by conifers and few broad leaved species (Hussain et al., 2023a; Shah et al., 2015a), which in contrary to the present study shows higher percentage of trees. This is due to the fact that the prevalent climatic conditions support the growth of important trees like *Terminalia bellirica*, *Terminalia chebula*, *Phyllanthus emblica*, *Olea cuspidata*, *Cassia fistula* etc., which are widely used in traditional medicine.

The current study shows that leaves are the most utilized plant part (36.7%). Dutt et al. (2015) also reported leaves as the most preferred plant part by the Gaddi tribe in Jammu and Kashmir. This is because leaves are the main photosynthetic centers where most of the secondary metabolites are formed (Mir et al., 2021a). Also, easy harvesting, availability and storage of leaves is attributed for the wider utilization (Dutt et al., 2015; Hussain et al., 2023b). The most frequently used drug form is powder (31%), raw (20.7%), paste (18.4%). Hussain et

al., (2023a) also reported powder as the most utilized drug form.

The present study also listed the use of polyherbal and herbo-mineral preparation. The ancient Ayurvedic text *Sarangdhar Samhita* first emphasized the concept of polyherbal formulations to achieve enhanced therapeutic efficacy. According to Shrikar and Ashpak (2020), the active phytochemical constituents of individual plants are often insufficient to produce the desired therapeutic effects. However, when multiple herbs are combined in precise ratios, as in polyherbal and herbo-mineral formulations, the therapeutic effects are amplified, while potential toxicity is reduced (Hussain et al., 2023b; Shah et al., 2015b).

The relative importance of a plant for a particular community is determined by its use value. The most prominent plants in term of Use value and Use report in the present study were *Terminalia bellirica* (UV 0.055, 51 UR), *Phyllanthus emblica* (UV 0.052, 48 UR), and *Terminalia chebula* (UV 0.051, 47 UR), *Grewia optiva* (UV 0.051, 46 UR), whereas the lowest use value were recorded for *Catharanthus roseus*, *Commelina benghalensis* and *Cynodon dactylon* (0.001). Higher the use report higher will be the use value, and vice-versa. Higher Use report indicates that maximum informants are with the same opinion that these species are known to many informants (Hussain et al., 2023b; Kumar et al., 2021; Shah et al., 2015a). The species with low Use value (0.001) indicates that these species are either used rarely to treat the different ailments or the OTK on such species has got diminished over the time period (Dutt et al., 2015).

ICF highlights the reliability of informants on the uses of medicinal plant species. In the present study the highest ICF (0.97) was recorded for ICD code 11 (Diseases of the circulatory system), followed by ICD code 13 and 17 (Diseases of the digestive system and Conditions related to sexual health) with ICF value of 0.91 each. Hussain et al. (2023a) have also recorded similar ICF values for the above mentioned disease categories. However, low ICF values indicate less uniformity of informants' knowledge. Frequently, a high ICF value is allied with a few specific plants with high use reports for treating a single disease category, while low values are associated with many plant species with almost equal or high use reports suggesting a lower level of agreement among the informants on the use of these plant species to treat a particular disease category (Amjad et al., 2017; Hussain et al., 2023a).

Novel folk claims collected in the present study highlights the value of traditional knowledge in discovering new therapeutics like *Achyranthes aspera* seeds is used in reducing excessive appetite. This offers a natural, and culturally rooted approach to appetite suppression that has implication for modern needs e.g., for obesity and diabetes management. Mangal and Sharma (2009) also reported positive result of the plant against obesity. It suggests the presence of bioactive compounds that could regulate hunger and satiety, providing a potential alternative to synthetic suppressants. Similarly, seeds of *Diplocyclos palmatus* and *Cannabis sativa* are given to conceive a male or female child. Ayurveda also mentioned *D. palmatus* for its Vrishyarasayana (i.e., medicines used for maintaining sexual performance and fertility), Garbhdharan (to promote conceiving) and Vajjikaran (aphrodisiac). However, Nalinaksh and Anand (2024) evaluated *D. palmatus* seeds for its androgenic potential. The findings revealed an increase in body mass and the weights of the prostate gland, seminal vesicles, epididymis, testes and enhanced sperm concentration. Furthermore, the novel claims which have documented in the present study is a baseline pivotal information and can serve as lead toward the discovery, development and designing of future drug from herbal resources.

5. Conclusion

Present study is the first attempt to document the ethno medicinal wealth of Sunderbani Block of Rajouri District, Jammu and Kashmir, India. During the survey it was found that maximum information was shared by the elder people of the community indicating a great decline among the younger generation. A total of 66 plants species were documented having medicinal properties. The data gathered in this study has furnished us with novel claims that not only will provide recognition of this undocumented knowledge but could be a basis for new drug discovery. However, this information demands detailed pharmacological investigation to explore the pharmacologically active metabolites to design the effective novel drugs.

Declarations

Abbreviations: ICF Informant consensus factor, UV Use value, UR Use report, FUV Family use value, ICD International classification of disease.

Ethical approval and consent of participants: We confirm that the work was conducted in compliance with all relevant ethical guidelines, no clinical trial was done. Permission to carry out the survey was sought from Principal chief conservator of forest (PCCF), J&K Govt, and concerned Block Development Officer (BDO), Participants gave their prior consent before the interviews were conducted.

Availability of data and materials: Data used in this work are available from the corresponding author.

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