

Medicinal Plants Used in the Health Care System Practiced by Traditional *Vaidyas* in Alaknanda Catchment of Uttarakhand, India

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Abstract

The present study documents the indigenous knowledge of medicinal plants used in the Alaknanda catchment of Uttarakhand state in India. Ethnomedicinal uses of 100 medicinal plant species along with botanical name, vernacular name, family, habit, part used and folk medicinal uses are presented. They belong to 91 genera and 51 families. These plants have been used to cure 60 types of different ailments out of the 58 plant species used to cure more than one disease. The most widely sought after plant parts in the preparation of remedies are the underground parts such as root, tuber, bulb, rhizome etc. Most of the remedies were reported to have been from herbal species. Approximately 70% of the population was found dependent on herbal treatments and the remaining 30% of the population was dependent on an allopathic form of treatment. In this study it was found that maximum 69% veteran of female category in Berahi valley prefer to visit traditional *Vaidyas* (traditional herbal practitioners) for curing ailments. The study emphasizes the potentials of the ethnobotanical research and the need for the documentation of traditional knowledge pertaining to the medicinal plant utilization for the greater benefit of mankind.

Key words: Medicinal plants, Health care system, Traditional *Vaidyas*, Alaknanda catchment.

Introduction

Uttarakhand is one of the hilly states in the Indian Himalayan region. Because of its unique geography and diverse climatic conditions it harbors the highest number of plant species known for medicinal properties among all the Indian Himalayan states (Kala *et al.*, 2004). The majority of the human populations in Uttarakhand state (78%) live in rural areas. There are very few primary health centers in the states. Each primary health center caters more than 31,000 people although the stipulated norm of 20,000 is expected for the hilly region of Uttarakhand (Samal *et al.*, 2004). Therefore, the inhabitants of Uttarakhand are still dependent on the *Vaidhyas* (traditional herbal practitioners) for treating disease due to isolation and relatively poor access to modern medical facilities (Maikhuri *et al.* 1998; Kala, 2002a, 2005).

The Medicinal and Aromatic Plants (MAPs) and their products have a very long history of being utilized and traded in the lower Himalayan region and plains of India from the higher Himalayan Mountains. There has been a recent dramatic surge of interest of appears to be the result of emerging new strategy for economic development, health improvement and conservation and management of valuable species. Of the 2500 wild

plant species of known medicinal value growing in the Indian sub-continent (Kempnana, 1974), 300 species are used by 8000 licensed drug manufacturing units in India (Ahamad, 1993). It is reported that western Himalayan contains 50% of plant drugs mentioned in the British Pharmacopoeia. It caters to 80%, 46% and 33% of the Ayurvedic, Unani and Allopathic system of medicines, respectively and contributes a major share in the economy of the rural and traditional communities. According to a survey report by WHO, about 25% of the prescribed human medicines are derived from plants and over 80% of the population in the developing countries still depends on the traditional or folk system of medicine (Chauhan, 1996).

Traditional system of medicine is a wise practice of indigenous knowledge system, which has saved the lives of poor people around the globe. Traditional knowledge system is of particular relevance to the poor in the following sectors: agriculture, animal husbandry and ethnic veterinary medicine, management of natural resources, primary health care and preventive medicine, psycho-social care, saving and lending, community development, poverty alleviation, etc. (Maikhuri et al., 2000). According to an estimate of the world Health Organization about 80% of the populations of developing countries rely on traditional medicine, mostly plant drugs, for their primary health care. One important common element of complementary or traditional medicine is that they encourage and elect self-healing.

The traditional health care systems, including Ayurveda, were transmitted from generation to generation by 'Gurukula' mode of instruction (Kala, 2002b). In most cases, the knowledge base was kept strictly within the family circle. The apprentices lived with and learnt at the feet of the masters who maintained a conventional oral tradition. The disciples prepared the medicines, administered them and nursed the patients according to the instructions received from the masters. The texts were sacred, and most of the texts were learnt by heart. Only after several years of learning and experience could the apprentices become practitioners themselves. Knowledge and experience were transmitted gradually, but completely, at a pace determined by the master. The disciples did not attend any formal schools or undergo a specific, prescribed curriculum. Their claim to practice was dependent on the intimate knowledge, which was passed on for many years by the Guru while he was treating each individual case to the disciple. Therefore, an urgent need for a comprehensive analysis and documentation of indigenous knowledge based traditional health care system of hill societies inhabited in remote and an isolated valley of Alaknanda catchment in Uttarakhand becomes increasingly important.

Study area

The river Alaknanda has its source in the Satopanth and Bhagirath kharak glaciers, which rise from the eastern slope of Chaukamba peak (7138m.) of Rudraprayag district of Uttarakhand state. In its course of 141.5 km it drains approximately 11000 km² area. The catchment of Alaknanda river extends between 29^o 58' 34" to 31^o 04' 20" N and 78^o 34' 31" to 80^o 17' 54" E. The dendrite pattern of drainage basin of Alaknanda has a maximum width of 171.63 km (N-S) and minimum width of 161.60 km (E-W) along the Saraswati-Vishnuganga. It narrows down towards west and tapers off at Devprayag making confluence with the river Bhagirathi and forms the holy Ganga.

The present study was carried out in 35 villages of three prominent valleys such as Nandakini valley (1450-2750masl.), Berahi valley (1650-3000masl.) and Pinder valley (1500-2900 masl.) of the high altitude regions of Chamoli district in Alaknanda catchment of Uttarakhand (Fig.1). All the study villages is situated in 3-24 Km distance away from the road head where the primary health care center is rare or in very poor conditions. In these valleys the major economic activities of the people is collection of non-timber forest products, Agriculture, Animal husbandry and Tourism. The tribal and non-tribal population of these areas depends on

traditional system of medicine for curing different ailments they suffer from, and famous for its rich biodiversity, cultural, tradition and mythology.



Fig. 1. The location of Study area in Alaknanda catchment of Uttarakhand.

Methodology

An extensive literature survey (Kala, 2002; Maikhuri *et al.*, 1998; Gaur, 1999) was carried out to gather information on locality, local names, altitude range, habitat, and plant parts used for curing different ailments by various ethnic communities of the study area. The information related to ethnobotany of traditional communities was collected using questionnaires, Interviews and group discussion in the fields was carried out. Extensive field visits was made with traditional herbal practitioners to gather information on the identity and occurrence of medicinal plants and mode of their utilization. Randomly selected households in the study site were surveyed to gather information on dependency of herbal and allopathic system of treatments and perception of local people on the basis of gender in different age groups, preferred to visit *Vaidyas* for

curing ailments (Kala, 2004b). The information related to quantity/dosage of medicine prepared from different medicinal plants and prescribed to the patient for particular period of time was obtained from the traditional herbal practitioners. The data obtained was analyzed carefully in MS Excel spread sheet were utilized to make simple calculations, determine proportions and draw graphs. The plant species collected was maintained in to herbarium specimens, and were identified with the help of flora books (Gaur, 1999; Naithani, 1985) literature, and taxonomical experts of the HNB Garhwal Central University Srinagar. Specimens of each species identified were brought to the G.B. Pant Institute (Garhwal Unit) herbarium for scientific identification where they were subsequently deposited. This study was carried out between April 2007 to March 2009.

Results and Discussion

The results showed the immense knowledge of these communities, who use as many as 100 plant species belonging 51 families are extensively being used for medicinal purposes for curing 60 common ailments. Out of 58 plant species is used to cure more than one disease and maximum plant parts in the preparation of remedies in the study area are used underground parts (27%) leaves (22%), fruits (13%), seeds (9%), whole (7%), bark (5%), flower (3%) and other (14%) of medicinal plant species contributes in curing a verity of diseases. In addition to this, out of the total medicinal plants used majority of them belonged to herbaceous community (60%) followed by trees (24%), shrubs (8%), climber (7%) and creeper (1%), collected by them from the forest and alpine meadows since time immemorial (Table 1). However, remaining plant species are used for vegetables, fruits, fuel, fodder etc.

Table 1. Medicinal plants used for curing various ailments by traditional *Vaidyas* of three different valleys in Alaknanda Catchment.

S.No.	Name of plants	Vernacular name	Family	Habit	Part used	Folk medicinal uses
1.	<i>Achyranthes aspera</i>	Latjiri, Apamarg	Amaranthaceae	Climber	Whole	Ring worm, Asthma
2.	<i>Aconitum balfourii</i>	Mithabish	Ranunculaceae	Herb	Root	Leucoderma
3.	<i>Aconitum hetrophyllum</i>	Atis	Ranunculaceae	Herb	Root	Fever, Stomach ache
4.	<i>Acorus calamus</i>	Buch	Araceae	Herb	Whole	Cough, Dyspepsia
5.	<i>Adhatoda vasica</i>	Vashika	Acanthaceae	Shrub	Leaves	Fever, Bronchitis
6.	<i>Allium cepa</i>	Pyaz	Liliaceae	Herb	Bulb	Stomach disease
7.	<i>Allium humile</i>	Jambu faran	Liliaceae	Herb	Leaves	Gastric, Digestion
8.	<i>Allium sativum</i>	Lashun	Liliaceae	Herb	Bulb	Stomach disease
9.	<i>Aloe vera</i>	Ghirt kumari	Liliaceae	Herb	Leaves	Diabetes, Skin disease
10.	<i>Angelica glauca</i>	Choru	Apiaceae	Herb	Root	Fever, Gastric
11.	<i>Arisaema tortuosum</i>	Bag-Mungri	Araceae	Herb	Fruit	Piles
12.	<i>Arnebia benthami</i>	Balchhari	Boraginaceae	Herb	Root	Hair disease
13.	<i>Asculus indica</i>	Pangar	Hippocastanaceae	Tree	Root, Bark	Rheumatic pain

14.	<i>Asparagus racemosus</i>	Sataver, Jhirna	Liliaceae	Shrub	Root	Epilepsy
15.	<i>Berberis aristata</i>	Chatru	Berberidaceae	Shrub	Root	Eye disease
16.	<i>Berberis lyceum</i>	Kinmor	Berberidaceae	Shrub	Root	Piles
17.	<i>Bergenia ciliata</i>	Silphori	Saxifragaceae	Herb	Root	Kidney stone, Piles, Paralysis
18.	<i>Betula utilis</i>	Bhojpatra	Betulaceae	Tree	Bark, Leaves	Gout, rheumatism, blood purify
19.	<i>Brassica compestris</i>	Sarsoo	Brassicaceae	Herb	Leaves, Seed	Anemia, Skin disease
20.	<i>Cannabis sativa</i>	Bhang	Cannabaceae	Herb	Leaves	Piles
21.	<i>Capsicum annuum</i>	Mirch	Solanaceae	Herb	Fruit	Rabies, Snake bite
22.	<i>Carica papya</i>	Papeeta	Cucurbitaceae	Tree	Fruit	Skin disease, Warmosis
23.	<i>Carum carvi</i>	Kala jeera	Apiaceae	Herb	Seed	Stomachache
24.	<i>Cedrus deodara</i>	Devdar	Pinaceae	Tree	Bark	Rheumatism, Back pain
25.	<i>Centella asiatica</i>	Brahmi	Apiaceae	Herb	Leaves	Leucorrhea, Epilepsy, Mental
26.	<i>Chlorophytum tuberosum</i>	Safed musli	Anthericaceae	Herb	Leaves	Cutaneous
27.	<i>Citrus aurantifolia</i>	Kaghzi Nimbu	Rutaceae	Tree	Fruit	Common cold
28.	<i>Coriandrum sativum</i>	Dhaniya	Apiaceae	Herb	Leaves	Stomach disorder
29.	<i>Cucumis hardwickii</i>	Elaroo	Cucurbitaceae	Herb	Root, Seed	Fever, Urination
30.	<i>Cucumis sativus</i>	Kakree	Cucurbitaceae	Climber	Seed	Urinary disorder
31.	<i>Curcuma domestica</i>	Haldi	Zingiberaceae	Herb	Rhizome	Blood purifier, Eye disease
32.	<i>Cymbopogon martini</i>	Mirchya ghash	Poaceae	Herb	Leaves	Itching
33.	<i>Cynodon dactylon</i>	Dub ghash	Poaceae	Creepers	Whole	Vomiting, Dysentery, Powerful
34.	<i>Dactylorhiza hatagirea</i>	Hatajari	Orchidaceae	Herb	Root	Cuts, Wounds
35.	<i>Daucus carota</i>	Gajar	Apiaceae	Herb	Root, Seed	Anemia, Abortifacient
36.	<i>Elettaria cardamomum</i>	Badi elachi	Zingiberaceae	Herb	Seed	Heart disease, Asthma
37.	<i>Eupatorium perfoliatum</i>	Bashya, Gandhel	Asteraceae	Shrub	Leaves	Cuts
38.	<i>Evolvulus alsinoides</i>	Sankhpusphi	Convolvulaceae	Herb	Leaves	Bronchitis, Cough, Brain
39.	<i>Ficus semicardata</i>	Khina	Moraceae	Tree	Fruit, Milk	Provide strength, Baldness
40.	<i>Glycine max</i>	Kala bhatt	Fabaceae	Climber	Seed	Kidney stone
41.	<i>Hedychium spicatum</i>	Van-Haldi	Zingiberaceae	Herb	Rhizome	Asthma, Energetic
42.	<i>Hippophae salicifolia</i>	Amesh	Elaeagnaceae	Tree	Fruit	Cold, Cough, Cancer

43.	<i>Juglans regia</i>	Akhrot	Juglandaceae	Tree	Embryo	Pregnancy
44.	<i>Lilium polyphyllum</i>	Cheerkaguli	Liliaceae	Herb	Flower	Fever
45.	<i>Lyonia ovalifolia</i>	Anyar	Ericaceae	Tree	Buds	Itching
46.	<i>Macrotyloma uniflorum</i>	Gaheth	Fabaceae	Herb	Seed	Kidney stone
47.	<i>Megacarpa polyandra</i>	Bermula	Cruciferae	Herb	Root	Boils, Wounds
48.	<i>Mentha arvensis</i>	Podina	Lamiaceae	Herb	Leaves	Stomach disorder
49.	<i>Microstylis muscifera</i>	Reebjak	Orchidaceae	Herb	Tuber	Tonic
50.	<i>Microstylis wallichii</i>	Jeevak	Orchidaceae	Herb	Bulb	Bronchitis, Tonic
51.	<i>Momordica charantia</i>	Karela	Cucurbitaceae	Climber	Fruit, Seed	Rheumatic, Stomachache
52.	<i>Musa paradisca</i>	Kela	Musaceae	Tree	Spadix	Cough, Cold
53.	<i>Myrica esculenta</i>	Kafal	Myricaceae	Tree	Fruit	Cardiac disorder
54.	<i>Nardostachyas grandiflora</i>	Jatamansi	Valerianaceae	Herb	Rhizome	BP, Jaundice, Leprosy, Heart
55.	<i>Ocimum sanctum</i>	Tulsi	Liliaceae	Herb	Leaves	Bronchitis, Constipation
56.	<i>Paeonia emodi</i>	Chandra	Paeoniaceae	Herb	Whole	Vomiting, Epilepsy, Dysentery
57.	<i>Panicum milaceum</i>	Cheena	Poaceae	Herb	Seed	Measles
58.	<i>Phyllanthus emblica</i>	Anowla	Euphorbiaceae	Tree	Fruit, Bark	Blood purifier, Throatache
59.	<i>Picrorhiza kurrooa</i>	Kutaki	Scrophulaceae	Herb	Root	Typhoid fever, Jaundice
60.	<i>Pinus wallichiana</i>	Kail	Pinaceae	Tree	Resin	Arthritis
61.	<i>Piper nigrum</i>	Kali mirch	Piperaceae	Herb	Fruit	Common cold
62.	<i>Pistacia integerrima</i>	Kaker singhee	Anacardiaceae	Tree	Leaves	Jaundice, Chronic wounds
63.	<i>Plantago ovate</i>	Isabgol	Plantaginaceae	Herb	Seed	Stomachache
64.	<i>Podophyllum hexandrum</i>	Bankakri	Podophyllaceae	Herb	Root	Cancer
65.	<i>Polygonatum cerrhifolium</i>	Bakrolu (Mahameda)	Liliaceae	Herb	Root	Boils, Wounds
66.	<i>Polygonatum verticillatum</i>	Salam misri (Meda)	Liliaceae	Herb	Root	Anemia, Leucorrhea
67.	<i>Potentilla fulgens</i>	Bajaradanti	Rosaceae	Herb	Leaves	Toothache
68.	<i>Prinsepia utilis</i>	Bhekal	Rosaceae	Shrub	Fruit	Rheumatism
69.	<i>Prunus persica</i>	Aaru	Rosaceae	Tree	Leaves	Warmosis
70.	<i>Quercus leucotrichophora</i>	Banj	Fagaceae	Tree	Seed	Snake bite
71.	<i>Raphanus sativa</i>	Muli	Brassicaceae	Herb	Root	Jaundice
72.	<i>Rauwolfia serpentina</i>	Sharpgandha	Apocynaceae	Herb	Root	Cough, Heart disease

73.	<i>Reinwardtia indica</i>	Phiunli	Linaceae	Herb	Petal	Toughwash
74.	<i>Rhamnus virgatus</i>	Chadolu	Rhamnaceae	Tree	Bark	Eczema, Ringworm
75.	<i>Rheum australe</i>	Dolu	Polygonaceae	Herb	Root	Internal wounds
76.	<i>Rhododendron anthopogon</i>	Awon	Ericaceae	Tree	Leaves	Ring worm
77.	<i>Rosa sinensis</i>	Gulab	Rosaceae	Shrub	Flower	Eye disease
78.	<i>Rumex hastatus</i>	Almoru	Polygonaceae	Herb	Leaves	Wounds, Bleeding
79.	<i>Sapindus mukorossi</i>	Reetha	Sapindaceae	Tree	Fruit	Snakebite
80.	<i>Saussurea costus</i>	Kuth	Asteraceae	Herb	Root	Toothache, Jaundice, Snakebite
81.	<i>Saussurea ovalata</i>	Brahm kamal	Asteraceae	Herb	Flower	Leucorrhea, Mental disorder
82.	<i>Selinum tenuifolium</i>	Bhutkeshi	Apiaceae	Herb	Root	Cough, Asthma
83.	<i>Sesamum orientale</i>	Til	Pedaliaceae	Herb	Seed, Leaves	Aphrodisiac, Body pain
84.	<i>Smilax aspera</i>	Kukurdara	Smilacaceae	Climber	Root	Rheumatic, Arthritis
85.	<i>Solanum nigrum</i>	Makoi	Solanaceae	Herb	Fruit	Liver, Piles, Diarrhea,
86.	<i>Spondia pinnata</i>	Amra	Anacardiaceae	Tree	Leaves	Ear disease
87.	<i>Swertia chirata</i>	Cheraita	Gentianaceae	Herb	Whole	Fever, Diabetes
88.	<i>Taxus baccata</i>	Thuner	Taxaceae	Tree	Bark	Anti- cancer, Bone fracture
89.	<i>Terminalia arjuna</i>	Arjuna	Combretaceae	Tree	Bark	Bone fracture
90.	<i>Terminalia bellirica</i>	Bahera	Combretaceae	Tree	Fruit	Provide strength
91.	<i>Terminalia chebula</i>	Haira	Combretaceae	Tree		Provide strength
92.	<i>Thalictrum javanicum</i>	Peeli jari, Mameri	Ranunculaceae	Herb	Root	Diabetes, Jaundice
93.	<i>Tinospora sinensis</i>	Gilai	Menispermaceae	Climber	Whole	Fever, Leprosy, Urinary
94.	<i>Trigonella foenum</i>	Methi	Fabaceae	Herb	Leaves	Pneumonia
95.	<i>Valeriana hardwickii</i>	Tagar	Valerianaceae	Herb	Root	Urinary disorder, Joint pain
96.	<i>Verbascum Thapsus</i>	Akulbeer	Scrophulaceae	Herb	Whole	Bronchitis, Asthma
97.	<i>Vigna mungo</i>	Kali dal	Fabaceae	Climber	Seed	Bone fracture
98.	<i>Withamia somnifera</i>	Ashwagandha	Solanaceae	Herb	Whole	Rheumatism, Ulcer, Carbuncle
99.	<i>Zanthoxylum armatum</i>	Timru	Rutaceae	Shrub	Bark	Toothache
100.	<i>Zingiber officinale</i>	Adrak	Zingiberaceae	Herb	Rhizome	Paralysis, Epilepsy

Approximately 70% population of these three prominent valleys was found dependent on herbal treatment and rest 30% population was dependent allopathic treatment for curing 60 common ailments. However, to cure the rest of the diseases, maximum people preferred to visit *Vaidyas* (local medical practitioners). It was found

that besides *Vaidyas*, every elder both man and woman in the villages had sound knowledge about medicinal values of some plant, especially those species which are very oftenly used for common diseases like cough, cold, fever, viral fever, headache, stomachache, diarrhea, dysentery, minor wounds and cuts. This could be said as wisdom of age because the younger were poor in knowledge of medicinal plants but still they had faith in the efficacy of these medicines.

The three prominent valleys of the Alaknanda catchment were surveyed regarding percentage of people preferred to visit *Vaidyas* for curing their ailments. It was found that maximum 69% veteran of female category in Berahi valley prefers to visit *Vaidyas* followed by 68% veteran of female category in Pinder valley and 66% veteran of female category in Nandakini valley for curing ailments. The percentage of young and male gender visiting *Vaidyas* is very less in all the valleys as compared to adult and veteran of female gender for curing ailments (Table 2).

The dependency of local people on herbal and allopathic system of medicine was worked out. It was observed that in all three valleys poor family still depend more on herbal systems and preferred to visit *Vaidyas* (traditional herbal practitioners) for treatment compression to rich family. It was also noticed that for some particular diseases/ailments poor family visit to allopathic treatment as they known that *Vaidyas* or Ayurvedic system of treatment will take more time for cure. Similarly for particular diseases even rich family also depend on herbal system either due to remoteness or easy access to *Vaidyas* (Fig.

2).

Table 2. Perception of local people (more than 40%) on the basis of gender in different age groups preferred to visit *Vaidyas* for curing ailments.

S. No.	Valleys	Gender	Young (%) (16-25)	Adult (%) (26-45)	Veteran (%) (> 46)
1.	Nandakini	Male	41±1.0	54±0.6	55±0.7
		Female	38±0.5	65±2.4	66±0.9
2.	Pinder	Male	35±0.6	55±0.4	62±0.4
		Female	37±0.6	61±0.7	68±2.1
3.	Berahi	Male	39±1.2	56±0.7	62±0.7
		Female	40±0.5	61±0.5	69±0.6

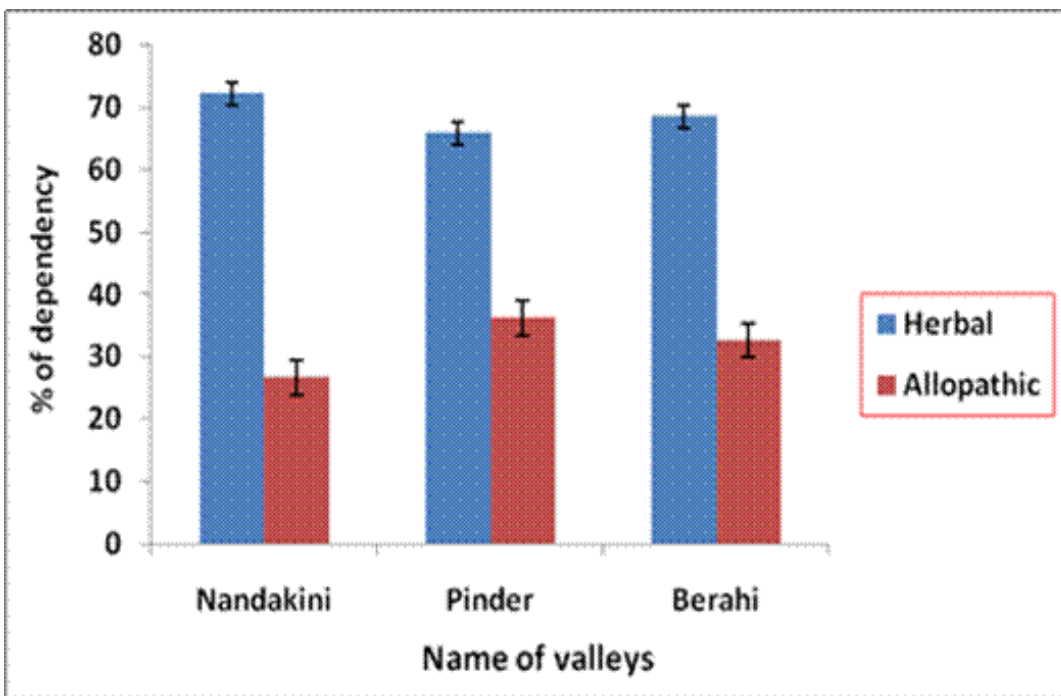


Fig. 2. Dependency of local people on herbal and allopathic system of treatment in three different valleys of Alaknanda catchment.

People preferred to go *Vaidyas* to diagnose their problem although they know some medicinal plants themselves. They said the effectiveness of the herb was connected to the knowledge of the exact nature of diseases. They also added that dose response differs from person to person and also for the same person from time to time because the cause and effect varies. It was found difficult to extract indigenous knowledge base particularly related to medicinal plants from these communities. Even *Vaidyas* do not pass information to their family members. The younger generations show no interest in learning about this indigenous knowledge preferring modern medicine instead. Thus most of the young people are ignorant regarding the use of medicinal plants in curing ailments, however, they do know about the importance of these plants with respect to market.

The use method of the plants varies according to the nature of the disease. In some cases most of the plant species are not used alone but are mixed with other herbs in specific amounts. The medicines are mostly consumed in a powdered form, as the local people believe this form is considered to be more effective than any other form i.e. as pills, tablets etc. In majority of the cases, a decoction of leaves, stem, fruits and root/tuber is drunk or rubbed on the body to cure a disease or diseases. Most of the decoctions were made just by crushing the plant parts with the help of the mortar and pestle, but some were made by boiling plant parts with water, decanting of the liquid and drinking after cooling. Some plant decoctions were used directly on the wound or the infected part of the body. In some cases the patient is bathed in the decoction made by boiling with water. Generally bathing with the decoction was found common to cure skin diseases. Paste of some plants was plastered to set dislocated or fractured bones or muscular pain. Some of the diseases like headache, cuts, wounds, burns, boils and skin disease were treated through external application. It was also found that garland made of either the root or the stem was also worn to cure diseases like fever. In these garlands the numbers of species of the plant part remain fixed. Some herbs are taken empty stomach for its best results and in others there are some restrictions of food for the period of medication.

Conclusion

The documentation of indigenous knowledge and evaluation of the use of plants for a variety of

purposes assumes greater significance not just to store it, but also to keep it alive and make it available for future use because of rapid socio-economic and cultural changes that are taking place across the tribal community of the region. This implies maintaining the ecosystems or natural habitat as well as the socio-cultural organizations of the local people. However, this would conflict with the autonomy of the people introduced. It seems that the only alternative is to carefully record the knowledge and insights of the people living within these societies. Knowledge of herbs, traditional practices and wisdom is in the hands of the older particularly the local medical practitioners known as *Vaidyas*. However, this wisdom, and certain medicinal plants, their distribution, important attributes, harvesting and management practices and the extraction of useful properties from them are fast disappearing due to various reasons. Some of the reasons are a lack of interest from the younger generation, abandonment of apprenticeship with *Vaidyas* which has broken the continuation of knowledge flow to the younger generations, deforestation and illegal collection, which has significantly reduced the availability of herbs in their natural habitat. The so-called scientific outlook has demoralized local practitioners and the drastic change in lifestyles and food habits have necessitated the need to look for alternative methods of relief.

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