

Exploring the Folk Medicinal Flora of Abbotabad City, Pakistan

Maria Sabeen and Dr. Sheikh Saeed Ahmad

Dept of Environmental science, Fatima Jinnah Women University, Pakistan
drsaeed@fjwu.edu.pk

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Abstract

The research work was carried out around the selected areas of Abbotabad city. The study was aimed to document the traditional folk knowledge of local people about use of medicinal plants as ethno medicines. The methodology includes questionnaire survey and personal communications. The ethnomedicinal data on 108 plant species belonging to 52 families were recorded during field expeditions from remote villages around Abbotabad city. The data was arranged alphabetically by family name followed by botanical name, vernacular name, part used, folk use and recipe. The plant species were collected identified, preserved and the voucher specimens deposited in the Department of Environmental Sciences, Fatima Jinnah Women University, and Rawalpindi for future reference.

Keywords: Folk use, medicinal plants, Abbotabad city, Pakistan.

Introduction

A medicinal plant is one used by people for medicinal purposes and to build or maintain health, stave off diseases or promote recovery from illness or misfortune. Traditions of healthcare must always been features of human societies and from the available evidences it is found that plants are playing a lead role in the therapy (Srivastava, 2000). Even today the traditional medicines (largely herbs) are supporting the primary healthcare of majority of people globally more than the conventional or allopathic medicines (Farnsworth et al., 1985). The plants have been used as medicines since the beginning of human civilizations (Hill, 1952) and have been a source of treatment of the common day ailments. People use their indigenous flora for negotiating their

multidimensional requirements. Medicinal herbs make an effective source for the traditional and modern medicine (Abatan et al., 1986).

Even today it is being in use by hundred and thousands of people in the developing world and are deriving a significant part of them for their survival and also for their income generation by gathering the animal and plant products (Iqbal 1993; Walter 2001) This gathering of the valuable products such as mushrooms and medicinal plants like ginseng, black cohosh and goldenseal also takes place in the developed countries for different cultural and economic reasons (Jones et al., 2002).

The usage of plants as medicine still presents a very important phenomenon in the traditional medicine which is imbedded in the culture of people of developing countries (Kloucek et al., 2005; Duraipandiyan et al., 2006). The nature has provided abundant plant wealth for all living creatures, which possess medicinal virtues. The essential values of some plants have long been published but a large number of them remain unexplored as yet. The traditional systems of the medicine like Chinese, Ayurvedic, Unani and Biomedicine are very effective particularly in rural areas for the treatment of various ailments. In spite of the advent of the modern medicines, tribal populations are still practicing the art of herbal medicine. Near about 80% of the total human populations still depends upon traditional remedies together with folklore system based mainly on phytotherapy (Azaizeh et al., 2003). The green pharmaceuticals are getting fame and extraordinary importance. The drugs that have been used in the past as safe and effective must be reminded and retagged due to their unexpected adverse effects. The medicinal herbs on the other hand do not have any side effects as they have been formed in combination with many of the essential minerals and vitamins (Hussain et al., 2003 Herbal medicine even today plays an important role in rural areas and various locally produce drugs are still being used as household remedies for various diseases especially in these areas for different ailments (Qureshi & Ghufraan, 2005).

There are certain reasons for the popularity of herbal medicines. Herbal medicines are found to be cheaper (Uniyal et al., 2005), though not invariably so (McMillen, 2008) and are generally much more easily handy in the rural areas (Runyoro et al., 2006). Nowadays the use of complementary and alternative medicine is being increasing and plant derived drugs are also growing slowly and gradually (Nayak et al., 2003; Park, 2005; Nuzzi, 2008). Previous ethno botanical studies of medicinal plants confirm the balanced use of recipes by different people, group from different communities for various illnesses ranging from common fever to complex illnesses such as asthma, psychosis and even epilepsy (Oyedepo et al., 1997; Ayyanar and Ignacimuthu, 2005; Gilani et al., 2006; Ogundiya et al., 2006; Sonibare and Gbile, 2008).

Pakistan is blessed with diverse flora and climates. It has been estimated

that more than 1000 plant species contain phyto-chemical properties while 350-400 plant species are traded in different local markets by 28 leading manufacturing units of Greco-Arabic, Ayurvedic and Homeopathic medicines. About 50,000 to 60,000 tabibs (practitioners of Greco-Arabic medicine) and a large number of unregistered practitioners scattered in rural and remote hilly areas of Pakistan utilize more than 200 plants as household remedies for curing several diseases (Shinwari et., al 2003). It has also been estimated that almost 84% population of Pakistan depend upon the traditional medicines for all the medicine to be used for their ailments (Goodman and Ghafoor 1995). According to Haq (1983), Pakistan has about 40,000 registered practitioners of traditional medicine and majority of the population, especially rural people, is getting health care by tabibs. It is estimated that 60% of the population use the herbal prescriptions of traditional practitioners. Ahmad (2007) illustrated the usage of medicinal plants growing along the motorway (M-2) passing through different geographical areas of Punjab, Pakistan. 81 plants from 44 families were documented overall. Similarly Ahmad and Hussain (2008) investigated the use of medicinal plants along the salt range in Kallar Kahar region. They investigated 29 species belonging to 18 families from the local area and documented the use of native plants by the local people medicinally. It was found that common disorders such as fever, cold, cough and diarrhea could be treated by simple herbal teas and herbal powders which are locally available and have no side effects.

Keeping in view the importance of medicinal flora of the Abbotabad area the study was confined to collect and document the indigenous knowledge of local people about medicinal uses of native plants .The present study was aimed to document the traditional knowledge of Abbotabad and preserve it to be used by the future generations.

Materials and Methods

The present research study was undertaken to explore the indigenous flora of Abbot Abad which has been used locally for treatment of various diseases. The research included the survey method involving collection of data through questionnaire interviews of men, women, herbalists, teachers and students were taken during transect and guided walks. The present study was confined to the identification and collection of medicinal flora of abbot Abad. The study was conducted in the months of March-May 2009 in different areas of Abbotabad.

Collection of medicinal plants

The method adopted for the documentation of the indigenous knowledge was based upon the questionnaire consisting of the semi-structured interviews employing a checklist of questions and direct observations, regular field trips were arranged in order to collect information about the folk knowledge of medicinal plants used by the local people of Abbotabad for curing their ailments.

During field trips, the questionnaire was used to interview the local inhabitants, older people including men and women both, herbalists and pansaries, teachers and students who were familiar with the traditional use of local plants, on random basis. In total 150 respondents. Interviews were conducted in with local people in different villages individually following procedure as described by Ahmad et al., (2004). Repeated queries were also done for the confirmation of the data. Analysis of data was carried out and indigenous knowledge was documented.

Collection and preservation of plants

Plant specimens were brought to the lab and plants were preserved and dried herbarium and voucher specimen were made. Plants were identified with the help of available literature and comparing it with already identified flora of Indo-Pak (Stewart 1972)

Ethno botanical inventory

Ethno botanical inventory was developed consisting of botanical names followed by the vernacular names, family, part used, folk medicinal uses and recipes.

Results and Discussion

Check list of medicinal data on 108 plant species belonging to 52 families during March, April and May 2009. Information regarding their vernacular name, family name, part used, uses and recipes is given in the table 1.

Medicinal importance of plants has long been known for centuries and various therapies are considerably higher in remote areas than in urban areas and semi-urban areas. The important part of the therapy involves the use of plant extracts or their active compounds (WHO, IUCN and WWF, 1993). The compounds which are important from medicinal property of medicines are the secondary metabolites, alkaloids, glycosides, resins, oleoresins and some of the common active compounds of the medicinal herbs (Singh and Sandhu, 2004).

Medicinal plants used in this field can be easily found in gardens, forests, mountains, valleys and agricultural fields. This traditional healing system is inexpensive and near to nature. In Indo-Pak subcontinents these traditional healing practices are termed as “Unani” or “Ayurvedic system” (Haq, 1993). Many of the different categories of indigenous uses of plants across the sphere includes different types of gastrointestinal disorders, and an ample number of plant species are been found to cure such ailments around the globe by different cultural societies (Ankli *et al.*, 1999; Bennett & Prance, 2000).

The present study provides information about some therapeutic uses of 108 plant

species belonging to 52 families. The plants are either used individually or in combination with some other plants or plant parts. Some plant species are claimed to be quite effectual remedies for cutaneous affection of head, snakebite, fever, jaundice, backache, stomach ache, cancer, diarrhea, malaria, cough and cold, and stomach troubles, asthma, joints pains and diabetes etc. Since the uses are based on observed knowledge, the scientific study of all these herbal drugs is highly desirable to establish their efficacy for safe use. These plants are also used by the local herbalists and hakims as traditional medicines. Different areas of Abbotabad region are supplemented with useful medicinal plants. However, these areas are facing severe problems of biotic interference and need to be protected and conserved through community participation. Community participation can be set off by giving motivation and creating awareness among the native people about the useful properties of medicinal plants and their commercial values. Different parts of the plant were used in curing different complaints. During this research project it was noted that the medicinal plant wealth of Abbot Abad, were not fully exploited. Some important medicinal plant species are rapidly decreasing, mainly due to anthropogenic activities. So, the area needs proper safeguard for the conservation and survival bio-resources. The medicinal plants can be protected by introducing conservation programs by the help of local people. Chemical screening of medicinal plant and their useful parts collected from the fields in different seasons should be done on regular basis. The oil bearing medicinal plants should be screened for chemical and biological investigation, as well as for averting overgrazing, cutting and to be used as a fuel wood.

This study provided a large number of medicinal plants used in different medicines which could be a considerable interest to the developers of modern drugs. In the same way the conservation of these valuable medicinal plants has also become vital (Dhar *et al.*, 2000) owing to the increasing interest in the herbal medicines for health care all across the globe (Franz, 1993).

Advance research works should be sanctified on base line of indigenous studies because there are still some diseases like “Cancer” and “AIDS”, for which there are no acknowledged cures. Ethno directed studies can help in these research works (Ahmad & Ali, 1998). It was concluded from this study that on national scale a survey of medicinal flora should be conducted to investigate and modernize the catalog of existing natural plants’ resources of the area specially and generally throughout Pakistan.

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Table 1. Checklist of different plants found in the study area.

Family	Botanical name	N.V.	Parts used	Folk Uses	Recipes
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Acanthaceae	<i>Justicia adathatoda</i> L.	Bhekar	Whole Plant	Bronchitis, fever, cough, abortifacient, tumors, diseases of mouth, leucorrhoea.	The Roots are useful in bronchitis and other chronic coughs especially when used along ginger. Leaves are very effective in the treatment of asthma and rheumatism. The decoction of roots is taken twice a day as a powerful abortifacient for seven days.
Adiantaceae	<i>Adiantum capillus-veneris</i> L.	Kak-pai	Whole Plant	Piles and jaundice	Decoction of plant is taken in and dry powder is also taken as a remedy to piles and jaundice.
Alliaceae	<i>Allium sativum</i> L.	Lehsan (Urdu), Thoom	Bulb	Enhance conception, weight reduction, dysentery, heat diseases and earache	Usually the paste of bulb is used in the uterus to enhance the conception and fertility. One crushed clove, taken along a glass of water reduces weight and cholesterol level. A clove is fried in <i>Brassica campestris</i> oil and dropped in the ear for the relief of pain.
	<i>Allium cepa</i> L.	Piaz/ Onion (English)	Underground leaves and bulb.	Stomach, swelling, laxative, wounds diarrhea, wasp sting and snake bite	It is warmed in oil and used as a pultus on acne. It is used with a small amount of vinegar for the cure of diarrhea. Raw onion is very useful to be eaten as well as applied over the wasp or insect sting.
Amaranthaceae/ Chenopodiaceae	<i>Achyranthes aspera</i> L.	Poth Kanda	Whole Plant	Tooth ache, dysentery, rheumatism, skin diseases, cough, asthma, and insect bite and bowel complaints.	Decoction of both leaves and roots are used for the tooth ache and abdominal pains. The juice of the plant is used for dysentery, rheumatism and skin diseases. The paste of fresh leaves is used over the insect bites
	<i>Spinacia oleracea</i> L.	Palak	Whole Plant	Stomach swellings, kidney pain, diuretic, abdominal pains, tuber cloisis.	Boiled leaves are used for the relief of stomach swelling, thirst relief and abdominal pains. Crushed seeds are effective for abdominal pains, tuber cloisis and heart pains.
	<i>Chenopodium album</i> L.	Bathu	Whole Plant	Abdominal problems, laxative, jaundice, urinary diseases, rheumatism, snake bite and antihelmitic	The fruit and roots are used as an antidote for snake poison. Roots are used for jaundice, urinary problems and rheumatism
Apiaceae	<i>Foeniculum vulgare</i> Mill.	Sonph	Leaves and seeds.	Diuretic, Digestive, aromatic, laxative, aphrodisiac and stimulant	Usually the seeds are eaten up orally and sometimes boiled in water and the syrup is taken in. The syrup is also taken for weight loss and digestion. It is especially recommended for the babies and kids.
	<i>Coriandrum sativum</i> L.	Dhania	Whole Plant	Mouth swelling, toothache, and tranquilizer, smell reduction, gum bleeding, tooth strength and control birth rate.	Its syrup act as a tranquilizer. Coriander leaf extract can reduce the paleness of eyes and also prevent the boils of small pox. Mouth and toothache can be reduced by its gurgles. Its paste can reduce gum bleeding. Its seeds are soaked in water for over night and given to males to produce sterility as an effective and cheaper method of population control.
	<i>Dacus carota</i> L.	Gajar	Whole Plant	Liver problems, diuretic, abortifacient, anti depressant	Its seed-ash is applied over wounds. Decoction of seeds is also helpful in to regularize menstruation and its high dose is effective in abortifacient. The juice is very helpful for liver and urinary tract infections (UTI)
	<i>Trachyspermum ammi</i> (L) Sprague ex. Turill	Jawain/ Ajwain	Seeds	Scanty menstruations, cough gas trouble and stomach tonic	Powdered seed are taken along brown sugar and desi ghee or butter orally once a day for three days to treat the scanty menstruations and it also clears the uterus and regularize menstruations especially after delivery. The seed are fried over the cooking dish for a few seconds are then ground to powder which is quite effective to be used in cough and cold. The seeds are boiled in water and the syrup is taken in for dysmenorrhoeal pains.
	<i>Pimpinella diversifolia</i> DC	Chora	Roots	Pain killer, stomach pains	100 mg powdered dry roots are used along water everyday for the relief of pain.
Araliaceae	<i>Hedera nepalensis</i> K.Koch	Albhommar	Leaves	Antidiabetic, increase milk yield in animals	Fresh leaves are eaten up for ten days by using one leaf a day and increasing the number of leaves per day.
Asclepiadaceae	<i>Calotropis procera</i> (Willd) R.Br (AC)	Akk	Leaves, roots and latex	Scabies, laxative, ulcers, and purgative, leucoderma, diseases of liver, spleen and abdomen, malaria, asthma and cholera.	The extract is strengthening. The powdered leaves are taken for scabies. Ash acts as an expectorant. The hot leaves are applied on the abdomen to reduce the abdominal pains. Latex is used for the treatment of skin diseases.
Asteraceae	<i>Silybium marianum</i> Gaertn.	Kandiari	Ripe Seeds	Liver problems, cirrhosis (hardening of liver), Jaundice, Hepatitis-C and gall-bladder disorders.	The seeds are ground to powder and taken with water.
	<i>Vernonia anthelmintica</i> Willd.	Kali zeri	Seeds	Antibiotic, ear ache, cough, toothache, chest infection, pneumonia, anti-diabetic, allergy, acne, dysmenorrhoeal, and anticancer	Sometimes the seed powder is taken and often the seeds are boiled in water which is taken twice a day.
	<i>Sonchus asper</i> (Linn.) Hill	Hand (saag)	Leaves and roots	Fever, constipation, heart burning, anti diabetic, scabies and heart diseases.	Plant powder is applied over burns. Roots and leaves are boiled in water and this syrup is taken in fever and heart burning. It is cooked as food and eaten up for the cure of scabies, diabetes, constipation and heart diseases
	<i>Lactuca serriola</i> L.	Kaho	Whole plant	Refrigerant, sedative, diaphoretic, diuretic, antiseptic, expectorant, whooping cough and asthma	It is used in combination with different herbs and also used orally.
	<i>Arisaema flavum</i> Forssk.	Adbis	Rhizome, fruit	Snake bite, cough and cold	Leaf extract is applied over snake bite to act as an antidote. It also saves milk from being stale when mixed with each other and dried roots of the plant is put in the container to have the milk from being staled.
	<i>Artemisia fragrans</i> Willd.	Chaho	Leaves	Asthma, earache, toothache, antiseptic, antihelmitic	Leaves extract is given to children once a day to remove the worms. It is applied over wounds. Extract is also used for asthma, earache and tooth ache.
	<i>Chrysanthemum indicum</i> L.	Gul-e-daudi	Flower and stem	Anti-Bacterial and anti diabetic	Flower extract is taken as a remedy for diabetes. The extract of flower and stem is antibacterial in action.
	<i>Senecio salignus</i> DC.	Chitta hula	Roots, leaves and seeds	Astringent, antihelmitic, back ache, diseases of cattle, antidote	Leaf extract is used as an antiseptic over wounds. Crushed roots are used in constipation and are antihelmitic. Crushed roots are boiled and used in cattle's backache and swelling of joints. The plant extract is used as an antidote for snake bite.
Berberidaceae	<i>Berberis lycium</i> Royle	Sumblo	Whole plant	Anti-diabetic, antibiotic, anti cancer, acne, dysentery, sore throat, diuretic, dyspepsia, jaundice, liver disorders, mouth swelling, cough and pain killer.	Decoction of leaves is given in jaundice. Roots are febrifuge. Sprinkling of powdered roots with oil acts as an ointment over fractures. Root powder is also used in ulcers and applied on wounds. The bark of root is soaked in water for over night and the water is drunk for the pains. The fruit is laxative.

Brassicaceae	<i>Brassica juncea</i> (L.) Czern	Rae	Seeds	Weight loss	Used in combination with herbs to reduce weight.
Boraginaceae	<i>Cynoglossum lancoelatum</i> Forssk	Choro	Leaves and branches	Cough	Fresh leaves along branches are chewed.
Cannabinnaceae	<i>Cannabis sativa</i> L.	Bhang	Leaves, seeds and stem	Sedative, anodyne, ear-ache, malaria, anthrax, sore throat, piles and scabies	Small drops of its essence are used to reduce ear-ache. The seed of Cassia fistula and one gram leaves of <i>Cannabis sativa</i> are taken along a cup of milk purifies blood and prevent scabies. Decoction of leaves is mixed with the excreta of pigeon and then smoked over coal is very effective for piles.
Convolvulaceae	<i>Convolvulus arvensis</i> L.	Lehli	Whole plant	Piles skin disorders, purgative	The herb is boiled in water end used for piles. Roots are purgative.
Cruciferae	<i>Raphanus sativum</i> Linn	Mooli	Whole plant	Jaundice	Fruit is cut longitudinally, salted, hung over night and taken to treat jaundice.
	<i>Eruca sativa</i> Lamk	Tara mera	Whole Plant	Anti-hypertension, anti-diabetic, piles, ulcers, epilepsy, toothache and vomiting.	In infectious situations the oil is massaged on the skin. Leaves are stomachic, ground fresh leaves are applied to abscesses and seeds are given in colic. It is quite effective in piles, ulcers, epilepsy, toothache and stops vomiting.
Cuscutaceae	<i>Cascuta reflexa</i> Roxb.	Akaas bail /aft-e-mone (Tibb)	Whole Plant	Hair treatment, memory booster, pain killer, anthelmintic, carminative, purgative, diuretic and jaundice.	It is boiled in oil and water and then used for the treatment of damaged hair. Mostly used in combination with other herbs for the treatment of complicated diseases.
Dryopteraceae	<i>Dryopteris ramose</i> (Hope) C. Chr.	Pakha	Leaves	Ulcers, constipation, immunizer, strengthening	Used as a vegetable for stomach ulcers, constipation, provides strength to body
Ebenaceae	<i>Diospyros lotus</i> Linn	Maloak / Amloak	Fruit	Sedative and purgative	The fruit is sedative and purgative
Euphorbiaceae	<i>Ricinus communis</i> L.	Arand	Whole Plant	Cough, paralysis, lockjaw, and asthma, increase milk yield in mothers, bronchitis, and carminative, useful in pains, leprosy, tumors, piles, ringworm, asthma and amenorrhea	The leaves are cooked as food and given to mothers to increase the quantity of milk. Roots are carminative and useful in pains, fever, bronchitis, leprosy, tumors and diseases of rectum and head. Flowers are useful in glandular tumors, troubles and vaginal pains. Root bark is purgative.
	<i>Euphorbia royleana</i> Boiss	Dozkhi meva/ zakoom/ cactus	Whole Plant	Earache, paralysis, loose motions, bladder stones.	A piece of main stem is cut and put on fire for a few minutes and the extract is then used for earache. The plant extract added with salt is given to babies drop wise for the cure of lose motions. By removing the bark of plant and eating the jelly like material is useful removal of urinary bladder stones.
	<i>Euphorbia caducifolia</i> Hains	Danda thor	Roots	Abortifacant	Root decoction is used as an effective abortifacant at initial stages.
	<i>Euphorbia helioscopia</i> L.	Gandi booti / chattri dodak	Seeds, roots and latex	abdominal cramps, cholera and eruptions	Powdered plant is taken with water to treat abdominal cramps. Latex is applied over eruptions and the seeds are taken along pepper during cholera. Root is anthelmintic.
	<i>Euphorbia wallichii</i> Hook.f.	Harvi	Latex	Skin diseases, wounds	The stem latex is applied over skin to treat the wounds and the pains are relieved in a single day.
Fabaceae	<i>Bauhinia verigata</i>	Kulyar/ kachnar	Flowers	Loose motions, expectorant, sedative, diuretic.	The flowers are boiled in water and taken for the cure of loose motions
Fumariaceae	<i>Fumaria indica</i> (Hausskn) Pungsley.	Shahtra / Papra	Whole Plant	Stomach strength, scabies, acnes, fever, blood purifier, anthelmintic, laxative, diuretic, alternative, diaphoretic and febrifuge, poultice and blood purifier.	Mostly taken as boiled syrup (joshanda).The plant extract is very effective for diabetes, fever and bladder infections when taken before breakfast. Ground powder is also taken as a medicine and some times the plant is soaked in water and then used up.
Gentianaceae	<i>Swertia chirata</i> (Roxb ex. Fleming) H. Karst.	Choriata / karaita	Whole Plant	Diabetes, typhoid, anticancer, pneumonia and malaria.	The fresh plant extract is taken along water twice or thrice a day for diabetes etc. Mostly powder is used for treatments. It is used for rheumatic fever and other fever, when boiled in water. It is also good for vomiting during pregnancy.
	<i>Swertia petiolata</i> Royle	Momiri	Roots	Eye pain	Locally pulverized root is mixed with milk and poured into eyes for the relief of pain in eyes.
	<i>Gentia kurro</i> Royle	Neil kanth	Roots	Stomach and urinary bladder complaints	Dried roots are boiled in water and the syrup is taken in. Plant decoction is used as a tonic.
Geraniaceae	<i>Geranium wallichium</i> D. Don ex Sweet	Rattan jote	Leaves and roots	Relieves post-delivery pains, weakness, joints and muscles pain especially back ache.	Dried roots powder is taken along milk and sugar for the relief of pain. Dried leaves are taken which is efficacious for backache. Decoction of leaves is taken for toothache, jaundice, kidney and spleen problems and irritating eyes.
Hippocastanaceae	<i>Aesculus indica</i> (Wall ex. Camb.)Hook fil.	Ban khore	Fruit and leaves	Diseases of animals (cough and fever), stomach pains, applied over wounds.	Powdered fruit is mixed in the cattle meal and given once a day for the cure of cough, fever and stomach pains. Fruit is also given orally to buffaloes and horses during cold and fever. Seed oil is pain killer and applied over wounds.
Juglandaceae	<i>Juglans regia</i> L.	khore/ akhroat	Leaves, bark and fruit	Cooling, tonic, appetizer, heart diseases, bronchitis, piles, watery eyes, hydrophobia, and anthelmintic	Leaves are astringent and tonic. Decoction of leaves is supposed to be anthelmintic. Fruit is supposed to be alternative effect in rheumatism. Bark and leaves are used as an alternative, laxative and also used in herpes, eczema, and scrofula and syphilis. Externally infusion is applied to skin eruptions.
Labiatae / Lamiaceae	<i>Ajuga bracteosa</i> Wall ex Bth	Ratti booti	Whole Plant	Headache, jaundice, malaria, hypertension, sore throat and earache	Whole plant is crushed and the extract is taken in for the relief of pains.
	<i>Isodon rugosus</i> (Wall ex Benth) Codd	Boee	Leaves	Ear ache and scabies	Fresh leaves are crushed and the extract is obtained. This extract is applied over effected skin for immediate effect and for earache 1-2 drops are used.
	<i>Mentha Longifolia</i> (L.) Hunds	Jungli pudina / safaid pudina	Whole Plant	Vomiting, stomach pain, weight reduction, digestion, rheumatism, diarrhea and dysentery, stimulant, coolant and insect bite	It is mostly taken in as dry powder for stomachic or leaves are boiled in water, cooled and drunk frequently for weight reduction and digestion problems. It is used along the boiled eggs in tonsillitis
	<i>Mentha piperate</i> L.	Sabaz pudina	Whole Plant	Indigestion, headache, antispasmodic, vomiting, abdominal pains, carminative and purgative.	Dried leaves are taken in abdominal pain, fresh leaves are chewed to reduce headache. It is also used in food stuffs to enhance the digestion; usually dried leaves are mixed in yogurt and taken in for stomach problems.
	<i>Ocimum balsilicum</i> Linn	Niazbo/ khush boi	Leaves, flowers	Mouth sores	Fresh leaves are chewed to treat mouth sore
Leguminoseae	<i>Indigofera heterantha</i> Wall	Kainthi	Leaves	Internal body disorders, warts	Leaves are crushed and the extract is used in the internal body disorders and used against the warts in the mouth.
Lilliaceae	<i>Aloe barbadensis</i> Mill.	Kavar gandal	Whole Plant	Antidiabetic, hair treatment, skin, constipation, fever, menstrual irregularities.	The fleshy leaves are used in diabetes also for skin and hair treatment. Leaves are also used for the treatment of gas troubles and abdominal pains.

	<i>Chlorophytum borovillianum</i> Baker.	Moosli safaid	Roots	Pains, weakness, energizer, male potency and natal and post-natal problems.	1 tbs of dry powder is added in 50 ml milk and cooked until the milk evaporates. This solid mixture is then eaten daily before breakfast.
	<i>Colchicum luteum</i> Baker	Soranjan-e-talkh	Whole Plant	Joints pain, sciatica, blood infections and skin problems and liver and spleen related problems.	Powdered herb is used orally for joint pains and arthritis. The plant extract is useful in digestive and gastric problems and also efficacious in liver and spleen disorders.
	<i>Merendera persica</i> Bioss	Soranjan-e-shirin	Roots	Pains, rheumatism, sciatic and gout	It is mostly used in combination with other herbs and its powder can be used singly in very small amount.
Malvaceae	<i>Althea rosea</i> L.	Gul-e-khaira	Roots	Jaundice, abdominal pain, liver and urinary bladder complaints	Small pieces of root are soaked in water for 24 hours until it thickens. This thick syrup is taken everyday before breakfast.
	<i>Malva sylvestris</i> L.	Sonchal	Leaves	Laxative, aphrodisiacs and demulcent	The leaves are cooked as food and eaten up.
Meliaceae	<i>Azadirachta indica</i> (L.) A. Juss	Dharaikh/Bakain	Leaves	Acne cure	Decoction of leaves is used to prevent acne. The juice of leaves is laxative. It is also used in earache.
	<i>Melia azadirachta</i> L.	Neem	Leaves, root, seeds flowers	Tonic, laxative, earache and liver disorders	Root is useful in bowels, vomiting, blood impurities, heart diseases, ulcers, headache, and uterine pains, laxative. Seed oil is useful for earache and liver disorders. Flowers and leaves are diuretic; relieves headache.
Moraceae	<i>Broussonetia papyrifera</i> (L.) Vent.	Jangli tooth	Fruit	Cough	Fruit is eaten as a cure for cough.
	<i>Ficus carica</i> L.	Anjir	Stem, milky latex, fruit pulp.	Birthrate control, insect bite and treating warts.	Decoction of stem is used to check the spermatogenesis and oogenesis of few weeks to control the population growth. Milky latex of leaves and stem is used for treating warts and insect stings and bites. Fruit pulp is applied in face for glow and nourishment.
	<i>Ficus palmata</i> Forssk.	Phagware	Fruit and latex	Expectorant, kidney stones, laxative and demulcent.	The white milky latex of the plant is applied to cancer wounds for healing which is quite effective.
	<i>Ficus religiosa</i> L.	Pepal	Leaves and stem bark	Vomiting, astringent, swelling, motions, asthma	The leaves which are being shed from the trees by themselves are boiled in water and drunk for vomiting and sickness. Leaves powder is taken along water for the treatment of asthma.
	<i>Morus alba</i> L.	Toot safaid	Fruit	Sore throat	Fruit is taken orally or syrup is made to cure sore throat.
	<i>Morus nigra</i> L.	shah toot	Fruit	Blood pressure and anti-diabetic	Infusion is used to reduce blood glucose level and arterial pressure
Myrtaceae	<i>Psidium guajava</i> L.	Amrud	Leaves and bark	Cancer, bacterial infections, coughs, inflammations and pains	Leaf and bark extract is used against cancer, bacterial infections, inflammations and pains. Leaves and bark are astringent, antimicrobial properties and also used as an antidiabetic. Essential oil from guava leaves have an anticancer property. Leaves are boiled in water and water is taken as a remedy for cough.
	<i>Syzygium cumini</i> (L.) Skeels	Jaaman	Fruit, leaves and seeds	Anti-diabetic, stomachic, liver, strengthening teeth, make hair sprout.	Fruit is used frequently by the diabetic patients. The crushed seed powder is also taken for Diabetes. Leaves of the plant are given to the cattle for treating loose motions on animals. The fruit is good for making the vocal cords strong. Dry powder can avoid the swelling of burns.
Oleaceae	<i>Jasmine officinalis</i> L.	Chambeli	Flower and roots	Headache, toothache, lockjaw, sciatica, diuretic, antihelminthic, scorpion sting, eruption in mouth.	Its syrup reduces the facial acne. Gargles of its syrup reduce toothache. Its oil is very effective in headache.
Oxalidaceae	<i>Oxalis corniculata</i> Linn.	Khatmithra/khati booti	Whole Plant	Fever, laxative, alternative tonic, rheumatism, skin diseases, piles, bleeding of lungs.	Juice of plant is mixed with onion to remove warts and also remove opacities of cornea. Juice of plant is also used in stomach troubles. Decoction of roots is given for worms, and to clean the rusted vessels and extract of plant is applied over scorpion sting. Crushed plant and sugar are kept over night and taken before breakfast as a cure for fever.
Paeoniaceae	<i>Paeonia emodi</i> Wall	Mamekh	Roots	Weakness and pains.	Root powder is used for the relief of pain. Roots are crushed and mixed with milk, sugar and roots of <i>Geranium wallichium</i> and this traditional halva (sweet dish) is taken for internal body aches, especially backache. Sometimes cut parts of the dry roots are boiled in milk along roots of <i>Geranium wallichium</i> and this milk is taken twice a day till recovery.
Papaveraceae	<i>Papaver somniferum</i> Linn	Posht	Flowers	Diarrhea, diabetes, pains and chest infection in kids.	The petals of the flower are removed and the rest of it is boiled in water. This syrup is given to the kids for the cure of bronchitis.
Pinaceae	<i>Pinus roxburghii</i> Sargent	Chirr	Seeds and gums	Stimulant, antispasmodic, astringent, diuretic and anti pathogen.	The gums are mixed with dry fruits and desi ghee (butter) and used by women as a tonic after child birth to relieve the weakness.
Plantaginaceae	<i>Plantago major</i> L.	Ispaghoal	Whole Plant	Constipation and weight loss	Its flower is soaked in water and taken along milk and sugar for intestinal problems and constipation. It also acts as a coolant. To take one table spoon with water before break fast reduces the tummy.
	<i>Veronica melissaefolia</i> Desf. Ex Poir	Mushkna	Leaves	Abdominal pain	Fresh or dry leaves are boiled in water and syrup is used in the abdominal pains.
	<i>Cyanodon dactylon</i> (L.) Pers	Khabbal ghash	Whole Plant	Piles, vomiting, dysentery, irritation of urinary tract.	Infusion of grass with milk is used for piles. Juice of plant is used in dysentery. Same infusion is used vomiting and urinary tract irritation.
	<i>Cymbopogon citrates</i> (DC.) Stapf	Lemongrass	Leaves	Astringent, antiseptic, insecticide, fungicide, relaxing, carminative.	Leaves are boiled in water and tea is made which is very effective in releasing fatigue, lessens mental stress, fever, and assists the process of digestion. Its oil is applied over the skin effected from ringworm or any kind of infection on the skin.
Podophyllaceae	<i>Podophyllum emodi</i> Wall ex. Royle	Ban kakri	Fruit and seeds	Liver disorders, tonic, stomach disorders, joints pains and heart problems	Fruit is used as a tonic. Syrup of fruit provides strength to body. Crushed seeds are taken once a day for the treatment of liver and stomach disorders.
Polygonaceae	<i>Polygonum amplexicaule</i> L.	Masloon	Leaves and roots	Fever	Fresh leaves and roots are boiled in water and the tea is used for fever and flu. It provides heat to the body.
	<i>Rumex dentatus</i> L.	Khatimbal	Leaves and roots	Jaundice, astringent, stomachic and abortificant	The syrup is used as an astringent, diuretic and abortificant.
	<i>Rumex nepalensis</i> Spreng	Haula	Leaves	Antiseptic, anti allergic	Crushed leaves syrup is applied on wounds to stop bleeding. Leaves are rubbed over the areas affected from allergy of <i>Acacia nilotica</i> (kikar).

Portulacaceae	<i>Portulaca oleraceae</i> L.	Qulfa (saag)	Leaves	Low fever, kidney and spleen diseases, stomatitis, piles, scabies and burns, vomiting.	The leaves are refrigerant, seeds are vermifuge, and leaves are applied on swellings. Leaves are also recommended in bilious conditions and allay thirst and headache. It acts as a tonic stops vomiting. It is good for kidney diseases in boiled or cooked form.
Primulaceae	<i>Androsace rotundifolia</i> Hardw	Marcholla	Leaves	Stomach and skin diseases	The leaves are boiled in water and the extract is then used orally
Punicaceae	<i>Punica granatum</i> Linn.	Daruna	Stem,seed Fruit bark, flowers	stomach, astringent, cough, tonic, jaundice, fever, diarrhea and dysentery	Dry powder of fruit bark is mixed with yogurt and taken in for diarrhea and dysentery. Seeds are taken along brown sugar and taken up for jaundice.
Rhamanaceae	<i>Zizyphus jujuba</i> Mill.	Unab	Leaves and fruit	Diabetes, acne, anti marks, antiallergic, digestive system disorders	The fruit (10 pcs) is soaked in water and taken orally before breakfast act as antimarks. Decoction of leaves is used for the cure of diabetes.
Rosaceae	<i>Cydonia oblonga</i> Mill	Bhae	Fruit	Cough, piles, rectal bleeding and gums bleeding, kidney disorders and abdominal pains	The fruit is used for chronic coughs, piles, gums bleeding and rectal bleeding
	<i>Fragaria nubicola</i> . Lind. ex Lacaita	Budhi meva / Panjakha	leaves and fruit	Abdominal problems, carminative and antiseptic	Fruit is taken in for abdominal problems and leaves are used as an antiseptic on the wounds. The leaves and fruits are mixed with the leaves of <i>Berberis lycium</i> and used in the cure of stomach ulcers.
	<i>Fragaria vesca</i> L.	Jangali meva	Whole Plant	Digestive, backache ,vomiting, astringent, diuretic	Tea of roots and stem is used in winter. are astringent and diuretic, used in children diarrhea and infection of urinary organs
	<i>Pyrus communis</i> L.	Naakh / Nashpati	Fruit	Laxative	The edible fruit is laxative.
	<i>Pyrus pashia</i> Ham.ex D. Don	Batangi	Fruits and leaves	Laxative, febrifuge, sedative and astringent.	Fruit is taken in for the cure of different diseases.
	<i>Rosa brunonii</i> Lindl.	Chahal	Flowers.	Abdominal pain and constipation	Flowers are boiled and syrup is taken till recovery.
	<i>Rosa indica</i> (Wild) Koehne.	Gulaab	Leaves, flowers	Astringent, tonic, antihelminic, applied to wounds and injuries, vomiting, diarrhea and nausea.	Flowers are applied to wounds and injuries. Roots are astringent and are used as a tonic and antihelminic.
Rubiaceae	<i>Galium aparine</i> L.	Kachna / Kochin	Whole Plant	Jaundice and over wounds	Whole plant is wrapped over the wound till recovery. The plant extract is used once a day for the cure of jaundice.
Rutaceae	<i>Citrus paradise</i> Macfad	Chakotra / Grape fruit	Fruit and leaves	Diuretic, jaundice	The juice of fruit is effective in high blood-pressure. Dry bark of fruit is ground to powder which is quite effective in jaundice.
	<i>Skimmia laureola</i> (DC.) Sieb & Zucc. ex Walp.	Neir	Leaves	Chicken pox, measles, stomach and liver problems, fever, headache	Crushed leaves with addition of water are best for stomach and liver problems, fevers and headache. Crushed leaves can also be spread over the effected skin as a cure. Smoke of its leaves is also used in the treatment of skin diseases
	<i>Zanthoxylem armatum</i> D.C.	Timmber	Seeds, leaves and fruit	Stomach pain, piles, appetizer, vomiting and weight loss, abortifacant and infertility.	The seeds are used in food stuffs for carmination and stomachic. Seeds are also used as aromatic tonic for fever end dyspepsia. Fruit extract is used to repel roundworm.
Solanaceae	<i>Atropa acumiata</i> Royle (solanaceae)	Chella lubbar	Roots and leaves	Sedative, stimulant, antispasmodic, cough, diuretic,	Decoction of roots is very effectively used in cough and abdominal problems. Leaf extract is diuretic.
	<i>Datura innoxia</i> Mill	Datura	Leaves, seeds	Snakebite and wounds	Leaves are applied to sores, fruits are sedative and intoxicating. Seeds are narcotic and antiseptic.
	<i>Datura stramonium</i> L.	Datura	Leaves, seeds	Pains, rheumatism, lockjaw and Parkinson's disease	Leaves are useful as a local application of rheumatism.
	<i>Solanum nigrum</i> L.	Kach mach/ mako	Leaves	Constipation, Sedative, diaphoretic diuretic, laxative, tonic	The leaves are cooked as a food and used for different purposes
Sapindaceae	<i>Dodonaea viscosa</i> (L.)Jacq	Sanatha	Leaves, seeds and Bark	Cure for wounds, blood purifier, stomach disorders, relieves pain, fever and migraine	The leaves are applied internally for the treatment of fever and externally used to treat toothache, sore throat, wounds, skin rash and stings. Leaves are chewed and the juice is swallowed in for as a treatment of toothache. Bark is employed in astringent baths and poultice.
	<i>Sapindus mukorossi</i> Gaertn.	Reetha	Seeds and stem	Piles	Seeds and pulp is used in dry form with a combination of other herbs for the treatment of piles and the seeds are also soaked I water and the water is taken up for piles.
Saxifragaceae	<i>Bergenia ligulata</i> (Haw) Sternb	But pewa	Roots	Stomach, diuretic, skin diseases, cardio active.	Roots are ground to powder and applied over wounds. For intestinal complaints roots are cut into small pieces and mixed with sugar and milk. This mixture is dried and preserved and used everyday before breakfast.
	<i>Berginia stracheyi</i> Hook .f. & Thorns	Zakam-e-hayat	Leaves and roots	Anti cancer, ulcers, stomach and intestine complaints.	Crushed leaves are applied over wounds. Root and leaves powder is taken in with water to reduce abdominal complaints. The leaves are boiled in water and the syrup is taken for stomach ulcers.
Tiliaceae	<i>Grewia asiatica</i> L.	Dhaman / Phalsa	Stem bark and fruit	Heart and blood disorders, inflammation, fever, constipation, throat troubles, help in removal of dead fetus.	The ripe fruit is used to cure the inflammation, relieves thirst and burning sensation, heart and blood disorders, fever, constipation, throat troubles, help in removal of dead fetus. The bark is used as a cure for biliousness and it removes the troubles and burning of vagina.
Urticaceae	<i>Urtica dioica</i> L.	Bicchu booti / Kharishi booti	Whole plant	Kidney diseases, rashes, skin diseases, diuretic, rheumatism, jaundice, antihelminic, astringent.	Plant extract is used for the temporary relief of pain in rheumatism, nettle rash and skin diseases. The decoction of plant is diuretic, astringent and antihelminic. Most common household remedy for kidney diseases and jaundice. Nettle tea is given in fever. Seeds are diuretic, astringent and tonic.
Valarianaceae	<i>Valeriana jutamansi</i> Jones	Mushkbala	Roots and rhizome	Body pains, stomach pain, carminative, cholera, epilepsy, used in dysentery and nourishing	Dried roots are ground to powder and taken for seven days to avoid malnutrition in kids. Roots are used in habitual constipation and scorpion sting. The volatile oil of roots and rhizomes is used in all cases of merous debility and hysteria.
Violaceae	<i>Viola serpens</i> Wall.Roxb	Banafsha	Leaves, seeds and flowers	Cough chest infection, asthma, headache, and constipation and urinary bladder swellings.	The herb is used in combination for stomach problems and constipation. Flowers are diuretic, laxative and are used as a common household remedy for cough, hoarseness, sore throat, kidney diseases, liver and infantile disorders. Seeds and roots are purgative and diuretic.