

## Ethnomedicinal Studies of Lalmohan Thana in Bhola District, Bangladesh

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### Abstract

The purpose of the present study was to document the medicinal plants of a Unani folk medicinal practitioner in Lalmohan Thana that located in Bhola district in Bangladesh. There is very narrow information about plants used by traditional healers and general people in Bhola District in Bangladesh, for treating general ailments. An ethnomedicinal survey conducted among folk medicinal herbalists of one village in Bhola district resulted in the finding of 146 plants distributed into 64 families used by the herbalists. The various plants were used for treatment of ailments like Urinary Disorders, Contraceptive, Diuretics, Fever, Constipation, Menoxenia, Jaundice, Respiratory Disorders (Coughs, Mucus), Leprosy, Tuberculosis, Sexual disorders, Gastrointestinal Disorders (Dysentery, Diarrhea, Indigestion, Constipation), Vomiting, Helminthiasis, Jaundice, Infections, Heart Disorders, Skin Disorders, Gonorrhoea, Urinary Problems, Edema, Typhoid, Liver Disorders, Blood Poisoning, Eye Disorders, Memory Loss, Ovarian Problems, Vaginitis, and Hypertension.

This study could play an important role for future phytochemical and pharmacological investigation.

**Keywords:** Ethno medicinal; Lalmohan Thana; Bhola district; Folk medicine; Bangladesh

### Introduction

In Greece the Unani system of medicine originated. Hippocrates is the father of this system of medicine. Disease is usually caused by imbalance of the humors. Pharmacotherapy is resorted to balance of the humors. At present, Unani medicine is practiced in the Indian sub-continent countries of India, Bangladesh and Pakistan, the practitioners being known as Hakims. Traditional medicine in Bangladesh is a unique blend of different ethnomedicinal combination [1]. Folk medicinal practitioners (Kavirajes) form the primary healthcare providers to a significant section of the rural and urban population of Bangladesh. They exploit a variety of medicinal plants for treatment of different ailments. Folk medicine possibly is the most common form of these traditional medicinal practices, and folk medicinal practitioners (FMPs) can be found in every village, towns and cities within the country. From ancient time, the tradition of ethno-medicine practice has been established in Bangladesh and such medicine practitioners are known as Kavirajes. According to the WHO, about 80% of the world's population relies on traditional medicine for their primary health care [2,3]. About 80% of more than 4,000 million inhabitants of the world rely chiefly on traditional medicines for their primary health care needs [4]. Lalmohan is located in Bhola District. Bhola district is an administrative district in southwestern part of Bangladesh, which includes Bhola Island. Bhola Island is the largest island of Bangladesh. The objective of the present study was to document the medicinal plants used by FMPs in one village of Lalmohan Thana in Bhola district, Bangladesh [5]. Rural people are heavily dependent on natural resources due to lack of modern

medical knowledge [6]. Thus, over time, a practitioner can build up quite extensive knowledge on the medicinal properties of any given plant species [7]. The development of western medicine is believed to have been influenced by the writing of Greek philosophers, in particular, Hippocrates (460-377 BC) and Aristotle (384-322 BC) [8]. The folk medicinal practitioners do not have their own medicinal books or follow any standardized custom [9]. Medicinal plants play a significant role in the primary healthcare systems for the majority of the rural population. The ethnomedicinal knowledge about the use of medicinal plants can be a resource for the scientist to identify potential drugs, thus, proper documentation of this knowledge overtime is very essential to protect them from extinction [10]. It has been estimated that about 64% of the total global population still remains dependent on traditional medicines for healthcare needs [11].

### Materials and Methods

The survey was carried out in the villages of Purbophara 3No. Ward, Lalmohan Thana, which is located in Bhola district in Bangladesh. It is a part of Lalmohan Thana. The villages had one medicinal practitioner, who practiced folk medicine. However, his name is Hakeem Md. Jamal Uddin (M. M, D.U.M.S) the Hakeem title suggesting that his selection of medicinal plants was influenced by the ancient Unani system of medicine. Actual interviews were conducted with the help of a semi-structured questionnaire and the guided field-walk method of Martin and Maundu. Briefly, in this method, the practitioners took the interviewers on guided field-walks through areas from where they collected medicinal plants, pointed out the plants, and as interviewers belonged to the mainstream Bengali-speaking population [12,13]. The interviews were conducted among the locals of different age groups, mostly between 25 to 65 years, including herbal practitioners (Kabiraj).

The interviews focused on basic questions concerning the informant's knowledge of the uses of local plants and their different characteristics. A typical question would be: which local plants do you know and/or use? How many people in your area use the plant as medicine? [14]. In

this method, the Hakim took the interviewees on guided field-walks through areas from where he collected his medicinal plants, pointed out the plants, and described their uses [15] (Table 1).

Botanical Name	Local Name	Family	Plant parts used	Uses
<i>Abelmoschus esculentus</i>	Bhindi	Malvaceae	Seed	Gastric Disorders
<i>Abelmoschus moschatus</i>	Muskdana	Malvaceae	Seed	Tonics, Urinary Discharge
<i>Abroma augusta</i> L.	Ulatkambal	Sterculiaceae	Leaf, Root	Amenorrhoea and Dysmenorrhoea, Regulates Irregular Menses Pain and Gonorrhoea
<i>Abrus precatorius</i> L.	Kunch	Leguminosae	Seed, Leaf, Root	Contraceptive, Aphrodisiac
<i>Acacia farnesiana</i> (L.) Willd	Belatibabul	Fabaceae	Leaf, Bark	Diuretic, Treat Antiulcer, Anti-Pyritic
<i>Acacia nilotica</i> (Linn.)	Babul	Leguminosae	Leaf, Gum	Diarrhea, Fever
<i>Acalypha indica</i> L.	Muktajhuri, Biralhatchi	Euphorbiaceae	Leaf	Rheumatism, Constipation, Kill Worms In Sores
<i>Acanthus illicifolius</i> L.	Harkuch Kanta	Acanthaceae	Root, Plant	Diuretics
<i>Achyranthes Aspera</i> L.	Apang	Amaranthaceae	Whole Plant	Prolonged Menstrual Flow, Menoxenia (Abnormal Menses), Habitual Abortion, Jaundice
<i>Adhatoda vasica</i> Nees	Basak.	Acanthaceae	Root, Bark and Leaves	Cough, Asthma
<i>Adina cordifolia</i> Benth & Hook	Kelikadam	Malvaceae	Seed	Kill Worms In Sores
<i>Aegle marmelos</i> L.	Bael	Rutaceae	Fruit, Leaves	Constipation, Cough
<i>Albizia lebeck</i> (L.) Benth.	Sirish	Leguminosae	Leaf	Leprosy, Diarrhoea
<i>Albizia procera</i> (Roxb.) Benth.	Koroi	Leguminosae	Leaf	The leaves are insecticidal; made into poultice they are applied to ulcer.
<i>Allium cepa</i> Linn.	Pyaj	Liliaceae	Bulb	Aphrodisiac, Rheumatism
<i>Alocasia Indica</i> (Roxb.) Schott.	Mankachu	Araceae	Roots	Rheumatism, leprosy
<i>Aloe Indica</i> Wild.	Ghritakumari	Liliaceae	Skin of Fruit, Leaf	Digestive problems such as constipation, colitis and irritable bowel syndrome Kidney stones, Menstrual discomfort
<i>Alstonia scholaris</i> (L.) R. Br.	Chattim	Apocynaceae	Bark	Anthelmintic, Antipyretic, Antimalarial
<i>Amaranthus spinosus</i> Linn.	Kantanotyia	Amaranthaceae	Leaf, Root	Diuretic, Gonorrhoea
<i>Amaranthus tricolor</i> L.	Lalshak.	Amaranthaceae	Leaves	Diuretics
<i>Amomum aromaticum</i> Roxb.	Morang elachi	Zingiberaceae	Fruit	Appetizer
<i>Amorphophallus campanulatus</i> (Roxb.) Bl. Ex. Decne.	Olkachu	Araceae	Tuber	Rheumatism, Abdominal Pain, Elephantiasis
<i>Anacardium occidentale</i> L.	Cashew Nut	Anacardiaceae	Fruit	Anti-diabetic, anti-bacterial
<i>Ananas Sativus</i> schult. F.	Anaras	Bromeliaceae	Leaf, fruit	Anthelmintic, diuretic, abortifacient

<i>Annona reticulata</i> L.	Nona Ata	Annonaceae	Leaves and seeds	Anthelmintic, Insecticidal
<i>Anthocephalus indicus</i>	Kadam	Rubiaceae	Leaf	Anthelmintic
<i>Aphanamixis polystachya</i> (Wall.) R.N. Parker.	Royena	Meliaceae	Bark, Seed Oil	Spleen and Liver Diseases, Edema, Stimulating Liniment In Rheumatism
<i>Arachis hypogaea</i> L.	Mata kalai	Leguminosae	Fruit	Gonorrhoea, Nutritious
<i>Areca catechth</i> L.	Supari	Palmae	Fruit	Anthelmintic, Rheumatism, Aphrodisiac
<i>Argyreia nervosa</i>	Bijarka	Convolvulaceae	Leaf, Fruit	Rheumatism, Diuretics
<i>Aristolochia indica</i> L.	Iswarmul.	Aristolochiaceae	Root, Leaf	Fever, Stimulant
<i>Artocarpus heterophyllus</i> Lamk.	Kathal	Moraceae	Fruit	Skin diseases, Nutritious
<i>Asparagus racemosus</i> L	Shatamull	Liliaceae	Root	Diuretic, Aphrodisiac, Antidiarrhoeaic
<i>Averrhoa carrambola</i> Linn	Kamranga	Oxalidaceae	Fruit	Antipyretic and anthelmintic, Antioxidant
<i>Azadirachta indica</i> A. Juss.	Neem	Meliaceae	Leaf, Bark, Seed Oil	Bacterial, Fungal, Antipyretic and Antimalarial
<i>Bacopa moniera</i> L.	Brahmi	Serophulariaceae	Whole Plant	Reducing anxiety, Improving memory formation
<i>Barringtonia acutangula</i> (L.) Gaertn.	Hijal	Lacynthidaceae	Seed, Bark, Leaf, Root	Diuretics, Fever, Headache
<i>Basella alba</i> Linn.	Puishak	Basellaceae	Leaf	Skin diseases, Sexual weakness, Ulcers and laxative
<i>Benincasa hispida</i> (Thunb.) Cogn.	Chalkumra	Cucurbitaceae	Seed, Fruit	Epilepsy and Nervous Diseases
<i>Blumea lacera</i> (Burm.f.) DC.	Kukurshinga	Asteraceae	Whole plant	Antiviral, Antipyretic
<i>Boerhaavia diffusa</i> L.	Punarnava	Nyctaginaceae	Whole plant	Diuretic, Edema
<i>Brassica campestris</i> L.	Sarisa shak	Cruciferae	Seed	Cough, Leprosy
<i>Bombax ceiba</i> L.	Shimul-Tula	Bombacaceae	Root	Increase Sex In Male, Gynecological And Urinogenital Disorders
<i>Buettneria pilosa</i> Roxb.	Harjora	Sterculiaceae	stem with leaves	treatment of fractured bones
<i>Butea monosperma</i> Roxb.	Palas	Leguminosae	Seed, Gum	Astringent, anthelmintic
<i>Caesalpinia bonduc</i> (L.) Roxb.	Nata	Fabaceae	Fruit, Root, Bark, Leaves	Antipyretic, Antispasmodic, Anthelmintic, Kidney Troubles, Asthma
<i>Cajanus cajan</i> (L.) Huth.	Arhar	Fabaceae	Leaves	Jaundice and Pneumonia
<i>Calotropis Gigantea</i> (L.) R. Br.	Akanda	Asclepiadaceae	Root, Leaf, Bark	Asthma, Emetic, Leprosy, Rheumatism
<i>Capsicum annuum</i> L	Jhal marich	Solanaceae	Fruit	Carminative, Stimulant, Sores, Tonic
<i>Cerica papaya</i> Linn	Papay	Caricaceae	Fruit	Carminative, Eczema, Warts, Anthelmintic, Digestion problems
<i>Carum roxbunghianum</i> Benth.	Radhuni	Apiaceae	Seed	abdominal spasm (colic)
<i>Cassia alata</i> (L.) Gaertn.	Daud pata	Leguminosae	Leaf	Skin diseases, Microbial infections.

<i>Cassia fistula L.</i>	Sonalu	Leguminosae	Leaf, Bark, Root, Fruit	Helminthiasis, Constipation, Rheumatism
<i>Cassia occidentalis Linn.</i>	Kasondi	Caesalpinia ceae	Leaf, Seed	Hepatotoxicity
<i>Cassia tora Linn.</i>	Chakunda	Caesalpinia ceae	Seed, Fruit	Skin diseases like ringworm and itching, Anthelmintic
<i>Catharanthus roseus L.</i>	Nyantara	Apocynaceae	Root, Leaf	Diabetes mellitus, Hypotensive
<i>Cayratia pedata (Lam.) Juss. Ex Gagnep.</i>	Goalilata	Vitaceae	Leaf	Astringent
<i>Centella asiatica L.</i>	Thankuni	Umbelliferae	Whole Plant, leaf	Dysentery, Stomach pain, Memory tonic, Diuretic
<i>Chenopodium album L.</i>	Bathu sag	Chenopodiaceae)	Seed, plant	Improves the appetite, Abdominal pain
<i>Chrysopogon aciculatus (Retz.) Trin</i>	Premkata	Poaceae	Root, Seed	Anthelmintic
<i>Cinnamomum tamals Nees</i>	Tejpata	Lauraceae	Leaf	Heart disease, Gastrointestinal disorders, Diarrhea
<i>Citrullus lanatus (Thunb.) Mats.</i>	Tarmuj	Cucurbitaceae	Seed, Rife fruit	Cooling, Refreshing and stomachic, Laxative, Diuretic, Tonic
<i>Citrus aurantifolia (Christm.) Swingle</i>	Lebu, Kaghzilebu	Rutaceae	Fruit, Leaves	Appetizer, Eczema
<i>Cleome viscosa L.</i>	Hurhuria	Capparidaceae	Seed	Stomachic, laxative, Diuretic
<i>Clerodendrum indicum L.</i>	Bamanhati, Banchat,	Verbenaceae	Root, Leaf,	Respiratory problems, Cough, Irregular menstruation, Irregular blood pressure
<i>Clerodendrum viscosum Vent.</i>	Vant, Ghetu	Verbenaceae	Leaf, Root, Fruit	Scabies, Fever, Anthelmintic,
<i>Coccinia grandis (L.) Voigt</i>	Telakucha	Cucurbitaceae	Leaf	Hypertension, Diabetes, Jaundice
<i>Cocos nucifera L.</i>	Narikel	Arecaceae	Leaf, Fruit	Diuretics, Keep head cool, diabetes.
<i>Corchorus capsularis L.</i>	Pat shakh	Tiliaceae	Leaf, Seed	Dysentery
<i>Coriandrum Sativum Linn.</i>	Dhonia	Apiaceae	Seed	Loss of appetite
<i>Crataeva nurvala Buch-Ham</i>	Barun	Capparidaceae	Leaf, Root, Bark	To promote appetite and decrease secretion of bile
<i>Cucumis sativus L.</i>	Khira	Cucurbitaceae	Fruit, Seed	Reduce cholesterol, Diuretics
<i>Cucurbita maxima Duch.</i>	Calakumro	Cucurbitaceae	Seed	Diuretics, Anthelmintic
<i>Cuminum cyminum Linn</i>	Jeera	Umbelliferae	Fruit	Astringent, Carminative
<i>Cucuma longa L.</i>	Kacha Holud	Zingiberaceae	Rhizomes	Allergy, Inflammation, Skin disease, Anthelmintic
<i>Cuscuta reflexa Roxb.</i>	Swarnalata	Cuscutaceae	Seed, Stem	Flatulence, stomach pain, constipation
<i>Cymbopogon citratus (Dc.) Stapf.</i>	Lebugandhi Ghas.	Graminae	leaves	Fever, Rheumatism, appetizer and Anthelmintic
<i>Cyperus rotundus Linn.</i>	Mutha Ghas	Cyperaceae	Rhizomes	Stimulant, Stomachic aromatic

<i>Dalbergia bissoo</i> Roxb.	Shishu	Leguminosae	Leaf, bark, seed	Leprosy, scabies, Astringent
<i>Datura meta</i> Linn.	Dhutura	Solanaceae	Leaf, Root, Seed	Asthma, Rheumatism, Fever, pain
<i>Derris trifoliata</i> Lour.	Panlata	Fabaceae	Bark, Stem	Stimulant, Insecticides, Rheumatism
<i>Dillenia indica</i> Linn	Chalta	Dilleniaceae	Fruit, Leaves	tonic and laxative; used in diarrhoea
<i>Diospyros peregrine</i> Gurke	Desi gabh	Ebenaceae	Fruit	Dysentery and diarrhea, Diuretics
<i>Dioscorea bulbifera</i> L.	Pagla Alu	Dioscoreaceae	tubers	dysentery, diarrhea, stomachic
<i>Dolichos lablab</i> linn.	Shim	Leguminosae	Seed, Leaf	Astringent, Nausea, vomiting and abdominal pains
<i>Eclipta alba</i> Hassk	Kesuriya	Asteraceae	Whole Plant	Protect the liver, tonic, deobstruent in hepatic and splenic enlargements, jaundice
<i>Elaeocarpus robustus</i> linn.	Jalpai, Jalphui.	Elaeocarpaceae	Fruit, Leaf	Splenic enlargements, Lethargy to food
<i>Elettaria cardamomum</i> (L.) Maton	Elas	Zingiberaceae	Fruit	Remedy for impotence and low sexual response. abdominal pains, Appetizer
<i>Embelia ribes</i> Burm F	Biranga	Myrsinaceae	Seed	Anthelmintic
<i>Eryngium foetidum</i> L.	Bon dhonia	Apiaceae	Root, Leaf	Diuretics, colds, coughs, hypertension, Arthritis
<i>Erythrina variegata</i> L	Madar	Fabaceae	Leaf, Bark, Root	Fever, Anthelmintic,
<i>Eucalyptus citriodora</i> Hook.	Eucalyptus	Myrtaceae	Juice of leaves	anti-inflammatory and analgesic qualities and can be applied to wounds to help prevent infection
<i>Eugenia jambolana</i> (Lam)	Jum	Myrtaceae	Juice of young leaves	Dysentery and diarrhoea.
<i>Eupatorium odoratum</i> Linn	Japanilata	Compositae	Leaf	The juice of the leaf is applied on wounds to cheek Bleeding.
<i>Ficus benghalensis</i> L.	Bot	Moraceae	Bark, Gum, leaf, fruit, root	Gonorrhea, Venereal diseases, Abscess, astringent, aphrodisiac
<i>Ficus glomerata</i> Roxb.	Jagadumur	Moraceae	Fruit, Bark	Leucorrhoea, biliousness, burning sensation, fatigue, Diabetes, Dysentery, nose bleeding
<i>Ficus hispida</i> Linn.	Kakdumul	Moraceae	Bark, fruit, leaf, root	Galactagogue, emetic, anaemia, haemorrhoids
<i>Glinus oppositifolius</i> L.	Gima shak	Molluginaceae	Whole plant	Abdominal pain and jaundice, loss of appetite, indigestion
<i>Glycosmis pentaphylla</i> (Retz.) A. Dc.	Ashshaora, Datmajan,	Rufaceae	Root, Leaf, Stem, Fruit, Whole Plant,	Cough, Rheumatism, Anaemia And Jaundice, Eczema, Pimple, Rheumatism, Dysentery, Dental Caries
<i>Gmelina arborea</i> L.	Gamar	Verbenaceae	Bark, Root	Astringent, Tonic
<i>Hedyotis corymbosa</i> (L.) Link.	Khetpapa	Rubiaceae	Whole Plant	Jaundice, Liver Disease, Fever, Heat Eruption,
<i>Hygrophila auriculata</i> (Schum.) Heyne.	Kulekhara, Talmakhna.	Acanthaceae	Whole Plant	Diuretics, Jaundice, Gonorrhea, Urinary Discharges, Inflammations
<i>Imperata cylindrica</i> Rausch.	Ulu	Poaceae	Roots	Fever
<i>Ipomea aquatica</i> Forsk.	Kalmi, Shak.	Convolvulaceae	Root, leaves	Plants are used in leucoderma, biliousness, carminative
<i>Ipomoea batatas</i> (L.) Lamk.	Misti Alu	Convolvulaceae	Tubers, Root	Nutritional Source, Diarrhoea
<i>Ipomoea mauritiana</i> Jacq.	Bhuikumra	Convolvulaceae	Root, Tubers	Sexual Disabilities, Galactagogue

<i>Jatropha curcus</i> Linn.	Bagh Verenda, Ban Verenda	Euphorbiaceae	Seed, Leaf	Purgative
<i>Kalanchoe pinnata</i> (Lam.)Pers.	Patharkuchi;	Crassulaceae	Leaves	Diuretic
<i>Lagenaria siceraria</i> (Mol.) Stan.	Lau, Kadu	Cucurbitaceae	Fruit and seed	Diuretic, headache
<i>Lannea Coromandelica</i> (Houtt.) Merr.	Kamila	Anacardiaceae	Bark	Astringent, Jaundice
<i>Lawsonia inermis</i> Linn.	Mehedi, Mendi,	Lythraceae	Leaf, Bark	Arthritis, Skin disease,
<i>LENS culinaris</i> Medik.	Musuri	Fabaceae	Seeds	Constipation
<i>Lippia nodiflora</i> (L.) Rich.	Bhui Okar	Verbenaceae	Leaf, Plant	diuretic, stomachic, good for ulcers, wounds, asthma, bronchitis, diarrhoea
<i>Ludwigia Adscendens</i> (L.) Hara.	Kesardam	Onagraceae	leaf	Dysentery
<i>Lycopersicon lycopersicum</i> (L.)	Tomato, bilati, beguna	Solanaceae	Fruit	Antioxidant
<i>Mangifera indica</i> L.	Aam	Anacardiaceae	Leaf, Fruit, Seed,	Toothache, Astringent, Diuretics
<i>Manilkara achras</i> (Mill.) Fosberg	Sofeda	Sapotaceae	Seed	Fever, tonic, diuretica
<i>Marsilea quadrifolia</i> Linn.	Sushni saag	Marseliaceae	Leaf	Hypnotic
<i>Melia sempervirens</i> L.	Ghoranim	Meliaceae	Bark	Diuretics, leprosy, Anthelmintic
<i>Mentha spicata</i> Linn.	Pudina	Labiatae	Whole plant	Abdomina; pain, Constipation
<i>Mimosa pudica</i> Linn.	'Lojjaboti	Fabaceae	Whole plant	Diuretics, uterine complaints, inflammation, fatigue
<i>Momordica charantia</i> Linn.	Korolla	Cucurbitaceae	leaf	Diabetes, helminthiasis, Ulcer
<i>Momordica cochinchinensis</i> (Lour) Spreng.	Kakroal	Cucurbitaceae	Fruit	Diabetes, Abdominal pain, Stimulent
<i>Musa paradisiacal</i> L.	Kala	Musaceae	Root, tubers, Fruit	Dysentery, Astringent, BP
<i>Nerium indicum</i> Mill.	Korobi	Apocynaceae	Root, leaves	Skin disease, Leprosy
<i>Nigella sativa</i> Linn.	Kalojira, Kalijira	Ranunculaceae	Seed	Stimulant and diuretic.
<i>Nymphaea nouchali</i> Burm.f	Sapla	Nymphaeaceae	Flower	Dysentery, Diarrhea, Heart disease,
<i>Ocimum basilicum</i> Linn.	Babui Tulshi	Lamiaceae	Whole plant	Fever, carminative,
<i>Ocimum sanctum</i> Linn.	Tulshi	Lamiaceae	Leaf	Fever, cough
<i>Phoenix Sylvestris</i> (L.)	Khejur	Arecaceae	Fruit, Root	Toothache, Nutritious
<i>Phyllanthus emblica</i> L.	Amloki	Euphorbiaceae	Fruit	Vomiting, cough, indigestion, jaundice, Skin disease
<i>Piper nigrum</i> L.	Gol morich	piperaceae	Seed, Fruit	Chest and joint pain, hair loss, diuretics
<i>Piper betle</i> L.	Paan pata	piperaceae	leaf	Brest and prostate cancer, stomach disorder
<i>Psidium guajava</i> Linn,	Piyara	Myrtaceae	leaves	Scarby, menstrual problem, diarrhea
<i>Punica granatum</i> L.	Dalim	Punicaceae	Bark	Anaemia, anthelmintics

<i>Raphanus Sativus</i> Linn	Mula	Cruciferae	Leaf, Seed, Root	Carminative, stimulant, increase digestion
<i>Rauwolfia serpentina</i> (L.) Benth. ex Kurz	Sarpogondha	Apocynaceae	Root	Root extract is directly feed to neutralize the snake venom
<i>Rosa damascena mill</i> L	Golap	Rosaceae	Flower	Carminative, Astringent, Tonic, Vaginal disease
<i>Rumex Maritimus</i> L	Ban Palang	Polygonaceae	Plant	Refrigerant
<i>Rumex vesicarius</i> Linn.	Chuka Sak	Polygonaceae	Leaf	Refrigerent, diuretics, Appetizer
<i>Sesamum indicum</i> L.	Til	Pedaliaceae	Leaf, Seed, oil	Dysentery
<i>Solanum melongena</i> L.	Begun	Solanaceae	Leaf, Seed, Fruit	Laxative, Cough
<i>Tamarindus indica</i> Linn	Tentul	Leguminosae	Seed	Constipation
<i>Terminalia arjuna</i>	Arjun	Combretaceae	Bark	Heart disease
<i>Zingiber officinale</i> Rose.	Ada	Zingiberaceae	Rhizomes	stomachic, appetiser, expectorant
<i>Zizyphus mauritiana</i> Lamk.	Boroi	Rhamnaceae	Fruit, Root	astringent, laxative, stomachic

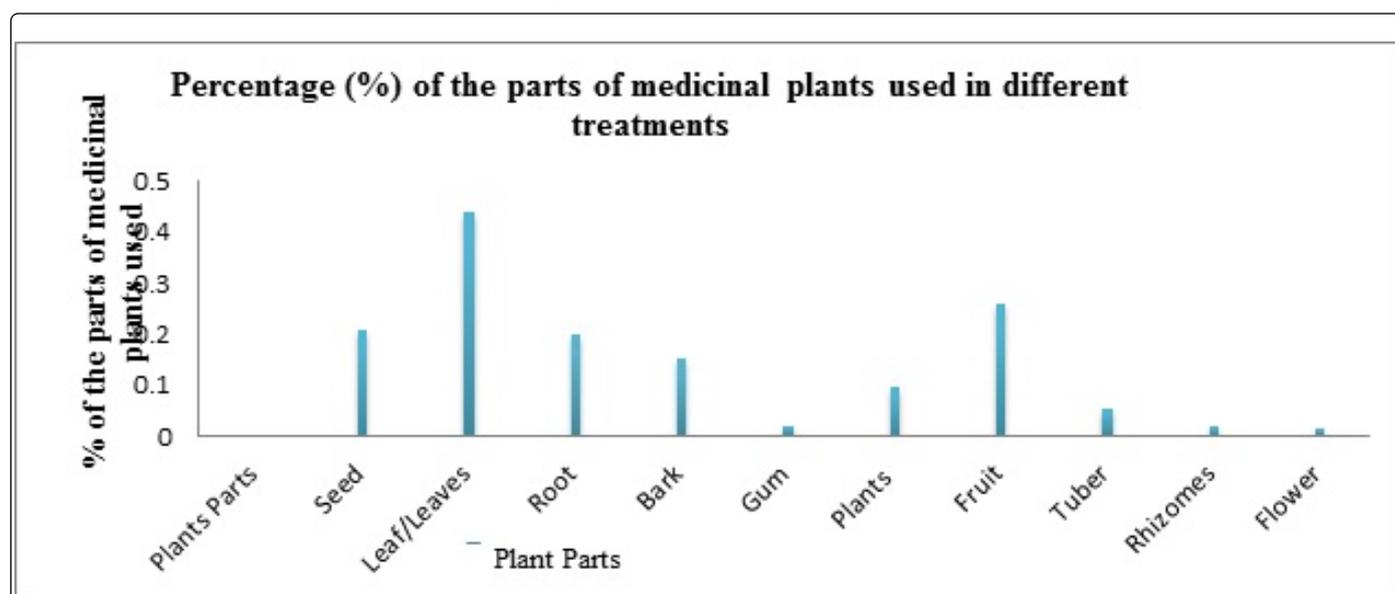
**Table 1:** Ethnomedicinal uses of medicinal plants in Lalmohan Thana, Bhola district.

## Results and Discussion

In our study, we found large number participants who are female. According to Ikhtiar Alam SM, in Developing countries, society is, in general, male dominated in terms of participation in household decision making [16]. In Bangladesh, the male villagers are more

knowledgeable than female in term of medicinal knowledge. Again, aged person are more knowledgeable than younger one.

According to Dr. Abdul Ghani almost 455 medicinal plants name so far been enlisted as growing or available in Bangladesh [17] (Figure 1).



**Figure 1:** Parts of medicinal plants used in different preparations in the study area.

The Hakim was observed to use a total of almost 146 plants distributed into 64 families for different ailments. The percentage of

medicinal plants parts Leaves (43.83%), Seed (20.55%), Root (19.86%), Bark (15.07%), Gum (2.05%), Plants (9.59%), Fruit (26.03%), Tuber

(5.48%), Rhizomes (2.05%), Flower (1.37%) are used for treatment of different ailments. The various plants were used for treatment of ailments like Urinary Disorders, Contraceptive, Diuretics, Fever, Constipation, Menoxenia, Jaundice, Respiratory Disorders (Coughs, Mucus), Leprosy, Tuberculosis, Sexual disorders, Gastrointestinal Disorders (Dysentery, Diarrhea, Indigestion, Constipation), Vomiting, Helminthiasis, Jaundice, Infections, Heart Disorders, Skin Disorders, Gonorrhoea, Urinary Problems, Edema, Typhoid, Liver Disorders, Blood Poisoning, Eye Disorders, Memory Loss, Ovarian Problems, Vaginitis, and Hypertension (Figure 1).

Percentages were calculated as the ratio between the number of plants in which a certain part is used and the total number of plants.

### Data analysis

The FC of the species of plants being utilized was evaluated using the formula:  $FC = \frac{\text{Number of times a particular species was mentioned}}{\text{Total number of times that all species were mentioned}} \times 100$  [18] (Figure 2).

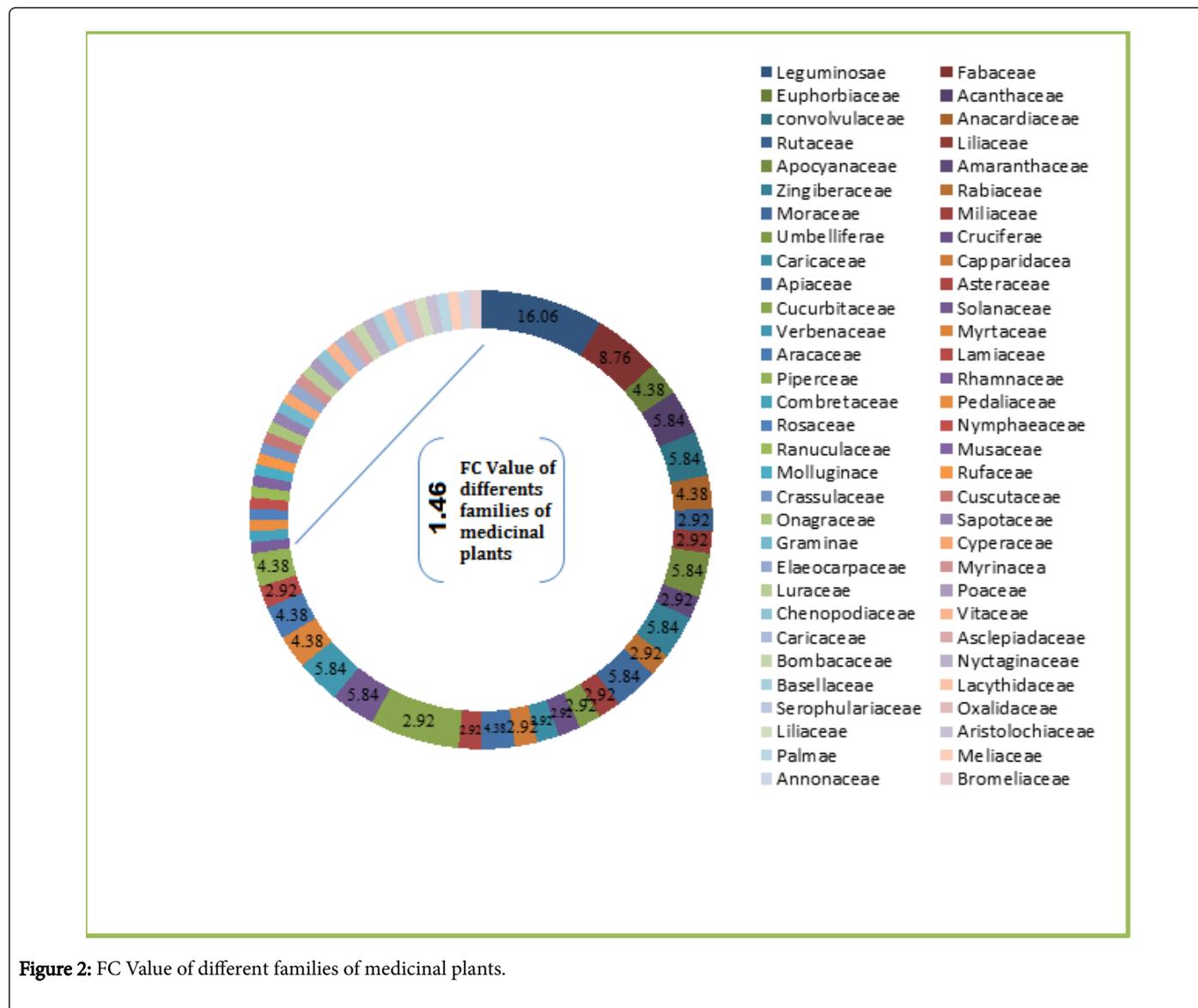


Figure 2: FC Value of different families of medicinal plants.

### Conclusion

Our study reveals that plants are still a major source of medicine for the local communities of most of the portions of our surveyed area, as modern health care facilities are still not sufficient. This report may represent a useful and long-lasting document, which can contribute to preserve knowledge on the use of medicinal plants in this region and also stimulate the interest of future generations on traditional healing practices. The information provided in the paper is limited and there is

a scope to initiate further ethno botanical study among the communities to gather information as far as possible. The medicated claims incorporated in the study need to be evaluated through phytochemical and pharmacological investigations to discover their potentiality as drugs. It is urgent need for documenting these before such valuable knowledge becomes inaccessible and extinct.

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