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, Hemorrhhiasis, Jaundice, Infections, Heart Disorders, Skin Disorders, Gonorrhea, 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 a usually caused by imbalance of the humors. Pharmacotherapy is resorted the balance of the humors. At present, Unani medicine is practiced in the Indian subcontinent 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 villages of Lalmohan Thana in Bhola district, Bangladesh [5]. Rural people are heavily depend 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 interviewers 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                                      |
|--------------------------------|------------|--------------|------------------|-------------------------------------------|
| Abelmoschus esculentus          | Bhindi     | Malvaceae    | Seed             | Gastric Disorders                         |
| Abelmoschus moschatus           | Muskdana   | Malvaceae    | Seed             | Tonics, Urinary Discharge                 |
| Abroma augusta L.               | Ulatkambal | Sterculiaceae| Leaf, Root       | Amenorrhoea and Dysmenorrhoea, Regulates Irregular Menses Pain and Gonorrhea |
| Abrus precatorius L.            | Kunch      | Leguminosae  | Seed, Leaf, Root | Contraceptive, Aphrodisiac                 |
| Acacia farnesiana (L.) Wild     | Belatibabul| Fabaceae     | Leaf, Bark       | Diuretic, Treat Antulcer, Anti-Pyritic     |
| Acacia nilotica (Linn.)         | Babul      | Leguminosae  | Leaf, Gum        | Diarrhea, Fever                           |
| Acalypha indica L.              | Muktajhuri,Biralhachi | Euphorbiaceae | Leaf             | Rheumatism, Constipation, Kill Worms In Sores |
| Acanthus illofolis L.           | Harkuch Kanta | Acanthacea   | Root, Plant      | Diuretics                                 |
| Achyrantes Aspera L.            | Apang      | Amaranthaceae| Whole Plant      | Prolonged Menstrual Flow, Menoxenia (Abnormal Menses), Habitual Abortion, Jaundice |
| Adhatoda vasica Nees            | Basak.     | Acanthacea   | Root, Bark and Leaves | Cough, Asthma                             |
| Adina cordifolia Benth & Hook   | Kelikadam  | Malvaceae    | Seed             | Kill Worms In Sores                       |
| Aegle marmelos L.               | Bael       | Rutaceae     | Fruit, Leaves    | Constipation, Cough                       |
| Albizia lebbeck (L.) Benth.     | Sirish     | Leguminosae  | Leaf             | Leprosy, Diarrhoea                        |
| Albizia procera (Roxb.) Benth.  | Koroi      | Leguminosae  | Leaf             | The leaves are insecticidal; made into poultice they are applied to ulcer.             |
| Allium cepa Linn.               | Pyaj       | Liliaceae    | Bulb             | Aphrodisiac, Rheumatism                   |
| Alocasia Indica (Roxb.) Schott. | Mankachu   | Araceae      | Roots            | Rheumatism, leprosy                       |
| Aloe Indica Wild.               | Ghrlakumari| Liliaceae    | Skin of Fruit, Leaf | Digestive problems such as constipation, colitis and irritable bowel syndrome Kidney stones, Menstrual discomfort |
| Alstonia scholaris (L.) R. Br.  | Chattim    | Apocynaceae  | Bark             | Anthelmintic, Antipyretic, Antimalarial     |
| Amaranthus spinosus Linn.       | Kantanotya | Amaranthaceae| Leaf, Root       | Diuretic, Gonorrhoea                      |
| Amaranthus tricolor L.          | Lalshak.   | Amaranthaceae| Leaves           | Diuretics                                 |
| Anamomum aromaticum Roxb.       | Morang elachi | Zingiberaceae | Fruit             | Appetizer                                 |
| Amorphophallus campanulatus (Roxb.) Bl. Ex. Decne. | Oikachu | Araceae | Tuber           | Rheumatism, Abdominal Pain, Elephantiasis |
| Anacardium occidentale L.       | Cashew Nut | Anacardiacae | Fruit             | Anti-diabetic, anti-bacterial              |
| Ananas Sativus schult. F.       | Anaras     | Bromeliaceae | Leaf, fruit      | Anthelmintic, diuretic, abortifacent       |

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| Plant Name                  | Common Name | Family     | Part Used                | Uses                                      |
|----------------------------|-------------|------------|--------------------------|-------------------------------------------|
| Annona reticulata L.       | Nona Ata    | Annonaceae | Leaves and seeds         | Anthelmintic, Insecticidal                |
| Anthocephalus indicus       | Kadam       | Rubiaceae  | Leaf                     | Anthelmintic                              |
| Apinanixis polystachya (Wall.) | Royena     | Meliaceae  | Bark, Seed Oil           | Spleen and Liver Diseases, Edema, Stimulating Liniment In Rheumatism |
| Arachis hypogaea L.         | Mata kalai  | Leguminosae| Fruit                    | Gonorrhea, Nutritious                     |
| Areca catechth L.           | Supari      | Palmae     | Fruit                    | Anthelmintic, Rheumatism, Aphrodisiac     |
| Argyreia nervosa            | Bijarka     | Convolvulaceae | Leaf, Fruit              | Rheumatism, Diuretics                     |
| Aristolochia indica L.      | Iswarmul.   | Aristolochiaceae | Root, Leaf               | Fever, Stimulant                          |
| Artocarpus heterophyllus Lamk. | Kathal    | Moraceae   | Fruit                    | Skin diseases, Nutritious                |
| Asparagus racemosus L.      | Shatamull   | Liliaceae  | Root                     | Diuretic, Aphrodisiac, Antidarrhoeaic    |
| Averrhoa carambola Linn     | Kamranga    | Oxalidaceae| Fruit                    | Antipyretic and anthelmintic, Antioxidant |
| Azadirachta indica A. Juss. | Neem        | Meliaceae  | Leaf, Bark, Seed Oil     | Bacterial, Fungal, Antipyretic and Antimalarial |
| Bacopa moniera L.           | Brahmi      | Serophulariaceae | Whole Plant             | Reducing anxiety, Improving memory formation |
| Barringtonia acutangula (L.) Gaertn. | Hijal      | Lacythidaceae | Seed, Bark, Leaf, Root        | Diuretics, Fever, Headache               |
| Basella alba Linn.          | Puishak     | Basellaceae| Leaf                     | Skin diseases, Sexual weakness, Ulcers and laxative |
| Benincasa hispida (Thunb.) Cogn. | Chalkumra  | Cucurbitaceae | Seed, Fruit              | Epilepsy and Nervous Diseases             |
| Blumea lacera (Burm.f.) DC.  | Kukurshinga| Asteraceae  | Whole plant              | Antiviral, Antipyretic                    |
| Boerhaavia diffusa L.       | Punamava    | Nyctaginaceae | Whole plant              | Diuretic, Edema                          |
| Brassica campestris L.      | Sarisa shak | Cruciferae  | Seed                     | Cough, Leprosy                           |
| Bombax ceiba L.             | Shimul-Tula | Bombacaceae | Root                     | Increase Sex In Male, Gynecological And Urinogenital Disorders |
| Buettneria pilosa Roxb.     | Harjora     | Sterculiaceae | stem with leaves        | treatment of fractured bones             |
| Butea monosperma Roxb.      | Palas       | Leguminosae | Seed, Gum                | Astringent, anthelmintic                 |
| Caesalpinia bonduc (L.) Roxb. | Nata        | Fabaceae   | Fruit, Root, Bark, Leaves| Antipyretic, Antispasmodic, Anthelmintic, Kidney Troubles, Asthma |
| Cajanus cajan (L.) Huth.    | Arhar       | Fabaceae   | Leaves                   | Jaundice and Pneumonia                   |
| Calotropis Gigantea (L.) R. Br. | Akanda     | Asclepiadae | Root, Leaf, Bark         | Asthma, Emetic, Leprosy, Rheumatism      |
| Capsicum annuum L           | Jhal marich | Solanaceae  | Fruit                    | Carminative, Stimulant, Sores, Tonic     |
| Cerica papaya Linn          | Papay       | Caricaceae  | Fruit                    | Carminative, Eczema, Warts, Anthelmintic, Digestion problems |
| Curcum Roxbunghianum Berth. | Radhuni     | Apiceae    | Seed                     | abdominal spasm (colic)                  |
| Cassia alata (L.) Gaertn.    | Daud pata   | Leguminosae | Leaf                     | Skin diseases, Microbial infections.     |
| Plant Name                        | Common Name | Family        | Parts Used                      | Uses                                                                 |
|----------------------------------|-------------|---------------|---------------------------------|----------------------------------------------------------------------|
| Cassia fistula L.                | Sonalu      | Leguminosae   | Leaf, Bark, Root, Fruit         | Helminthiasis, Constipation, Rheumatism                              |
| Cassia occidentalis Linn.        | Kasondi     | Caesalpiniae  | Leaf, Seed                      | Hepatotoxicity                                                        |
| Cassia tora Linn.                | Chakunda    | Caesalpiniae  | Seed, Fruit                    | Skin diseases like ringworm and itching, Anthelmintic                |
| Catharanthus roseus L.           | Nyamanta    | Apocynaceae   | Root, Leaf                      | Diabetes mellitus, Hypotensive                                        |
| Cayratia pedata (Lam.) Juss. Ex Gagnep. | Goaliata | Vitaceae      | Leaf                           | Astringent                                                           |
| Centella asiatica L.             | Thankuni    | Umbelliferae  | Whole Plant, leaf               | Dysentery, Stomach pain, Memory tonic, Diuretic                      |
| Chenopodium album L.             | Bathu sag   | Chenopodiaceae| Seed, Plant                     | Improves the appetite, Abdominal pain                                |
| Chrysopogon aciculatus (Retz.) Trin. | Premkata  | Poaceae       | Root, Seed                      | Anthelmintic                                                         |
| Cinnamomum tamalas Nees          | Tejpata     | Lauraceae     | Leaf                           | Heart disease, Gastrointestinal disorders, Diarrhea                   |
| Citrus lanatus (Thunb.) Mats.    | Tarmuj      | Cucurbitaceae | Seed, Ripe fruit               | Cooling, Refreshing and stomachic, Laxative, Diuretic, Tonic         |
| Citrus aurantifolia (Christm.) Swingle | Lebu, Kaghzilebu | Rutaceae | Fruit, Leaves                   | Appetizer, Eczema                                                    |
| Cleome viscosa L.                | Hurhuria    | Capparidaceae | Seed                           | Stomachic, laxative, Diuretic                                        |
| Clerodendrum indicum L.          | Bamanhati, Banchat | Verbenaceae | Root, Leaf,                    | Respiratory problems, Cough, Irregular menstruation, Irregular blood pressure |
| Clerodendrum viscosum Vent.      | Vant, Ghetu | Verbenaceae   | Leaf, Root, Fruit              | Scabies, Fever, Anthelmintic,                                        |
| Coccinia grandis (L.) Voigt      | Telakucha   | Cucurbitaceae | Leaf                           | Hypertension, Diabetes, Jaundice                                     |
| Cocos nucifera L.                | Narikel     | Areceae       | Leaf, Fruit                    | Diuretics, Keep head cool, diabetes.                                 |
| Corchorus capsularis L.          | Pat shak    | Tiliaceae     | Leaf, Seed                     | Dysentery                                                            |
| Coriandrum Sativum Linn.         | Dhonia      | Apiaceae      | Seed                           | Loss of appetite                                                      |
| Crateaevi nervula Buch-Ham.      | Barun       | Capparidaceae | Leaf, Root, Bark               | To promote appetite and decrease secretion of bile                    |
| Cucumis sativus L.               | Khira       | Cucurbitaceae | Fruit, Seed                    | Reduce cholesterol, Diuretics                                        |
| Cucurbita maxima Duch.           | Calakamro   | Cucurbitaceae | Seed                           | Diuretics, Anthelmintic                                              |
| Cuminum cyminum Linn.            | Jeera       | Umbelliferae  | Fruit                          | Astringent, Carminative                                              |
| Cucuma longa L.                  | Kacha Holud | Zingiberaceae | Rhizomes                       | Allergy, Inflammation, Skin disease, Anthelmintic                     |
| Cuscuta reflexa Roxb.            | Swarnalata  | Cuscutaceae   | Seed, Stem                     | Flatulence, stomach pain, constipation                               |
| Cymbopogon citratus (Dc.) Stapf. | Lebugandhi Ghas. | Graminae | leaves                         | Fever, Rheumatism, appetizer and Anthelmintic                        |
| Cyperus rotundus Linn.           | Multha Ghas | Cyperacea     | Rhizomes                       | Stimulant, Stomachic aromatic                                        |
Dalbergia bissoo Roxb.  
Shishu  
Leguminosae  
Leaf, bark, seed  
Leprosy, scabies, Astringent

Datura met Linn.  
Dhutra  
Solanaceae  
Leaf, Root, Seed  
Asthma, Rheumatism, Fever, pain

Derris trifoliata Lour.  
Panlata  
Fabaceae  
Bark, Stem  
Stimulant, Insecticides, Rheumatism

Dillenia indica Linn  
Chalta  
Dilleniaceae  
Fruit, Leaves  
tonic and laxative; used in diarrhoea

Diospyros peregrine Gurke  
Desi gahb  
Ebenaceae  
Fruit  
Dysentery and diarrhea, Diuretics

Dioscorea bulbifera L.  
Pagla Alu  
Dioscoreaceae  
tubers  
Dysentery and diarrhoea, Diuretics

Dolichos lablab linn.  
Shim  
Leguminosae  
Seed, Leaf  
Astringent, Nausea, vomiting and abdominal pains

Eclipta alba Hassk  
Kesuriya  
Asteraceae  
Whole Plant  
Protect the liver, tonic, deobstruent in hepatic and splenic enlargements, jaundice

Elaeocarpus robustus linn.  
Jalpai, Jalphul.  
Elaeocarpaceae  
Fruit, Leaf  
Splenic enlargements, Lethargy to food

Elettaria cardamomum (L.) Maton  
Elas  
Zingiberaceae  
Fruit  
Remedy for impotence and low sexual response. abdominal pains, Appetizer

Embelia ribes Burm F  
Biranga  
Myrsinaceae  
Seed  
Anthelmintic

Eryngium foetidum L.  
Bon dhoania  
Apiaceae  
Root, Leaf  
Diuretics, colds, coughs, hypertension, Arthritis

Erythrina variegata L  
Madar  
Fabaceae  
Leaf, Bark, Root  
Fever, Anthelmintic

Eucalyptus citriodora Hook.  
Eucalyptus  
Myrtaceae  
Juice of leaves  
anti-inflammatory and analgesic qualities and can be applied to wounds to help prevent infection

Eugenia jambolana (Lam)  
Jum  
Myrtaceae  
Juice of young leaves  
Dysentery and diarrhoea.

Eupatorium odoratum Linn  
Japanilata  
Compositae  
Leaf  
The juice of the leaf is applied on wounds to cheek Bleeding.

Ficus benghalensis L.  
Bot  
Moraceae  
Bark, Gum, leaf, fruit, root  
Gonorrhea, Venereal diseases, Abscess, astringent, aphrodisiac

Ficus glomerata Roxb.  
Jagadumur  
Moraceae  
Fruit, Bark  
Leucorrhoea, biliousness, burning sensation, fatigue, Diabetes, Dysentry, nose bleeding

Ficus hispida Linn.  
Kakdumul  
Moraceae  
Bark, fruit, leaf, root  
Galactagogue, emetic, anaemia, haemorrhoids

Glinus oppositifolius L.  
Gima shak  
Molluginaceae  
Whole plant  
Abdominal pain and jaundice, loss of appetite, indigestion

Glycosmis pentaphylla (Retz.) A. Dc.  
Ashshaora, Datmajan,  
Rufaceae  
Root, Leaf, Stem, Fruit, Whole Plant,  
Cough, Rheumatism, Anaemia And Jaundice, Eczema, Pimple, Rheumatism, Dysentery, Dental Caries

Gmelina arborea L.  
Gamar  
Verbenaceae  
Bark, Root  
Astringent, Tonic

Hedyotis corymbosa (L.) Link.  
Khetpapra  
Rubiaceae  
Whole plant  
Jaundice, Liver Disease, Fever, Heat Eruption,

Hygrophila auriculata (Schum.) Heyne.  
Kulekhara, Talmakhna.  
Acanthaceae  
Whole Plant  
Diuretics, Jaundice, Gonorrhea, Urinary Discharges, Inflammations

Imperata cylindrica Rausch.  
Ulu  
Poaceae  
Roots  
Fever

Ipomea aquatica Forsk.  
Kalmi, Kalmi Shak.  
Convolvulaceae  
Root, leaves  
Plants are used in leucoderma, biliousness, carminative

Ipomoea batatus (L.) Lamk.  
Misti Alu  
Convolvulaceae  
Tubers, Root  
Nutritional Source, Diarrhoea

Ipomoea mauritiana Jacq.  
Bhuikumra  
Convolvulaceae  
Root, Tubers  
Sexual Disabilities, Galactagogue
| Scientific Name                          | Common Names          | Family            | Parts Used       | Uses                                      |
|----------------------------------------|-----------------------|-------------------|------------------|-------------------------------------------|
| Jatropha curcus Linn.                  | Bagh Verenda, Ban Verenda | Euphorbiaceae     | Seed, Leaf       | Purgative                                 |
| Kalanchoe pinnata (Lam.) Pers.         | Patharkuchi;           | Crassulaceae      | Leaves           | Diuretic                                  |
| Lagenaria siceraria (Mol.) Stan.       | Lau, Kadu              | Cucurbitaceae     | Fruit and seed   | Diuretic, headache                        |
| Lannea Coromandelica (Houtt.) Merr.    | Kamila                 | Anacardiaceae     | Bark             | Astringent, Jaundice                      |
| Lawsonia inermis Linn.                 | Mehedi, Mendi,        | Lythraceae        | Leaf, Bark       | Arthritis, Skin disease,                  |
| LENS culinaris Medik.                  |                       | Fabaceae          | Seeds            | Constipation                              |
| Lippia nodiflora (L.) Rich.            | Bhu Okar               | Verbenaceae       | Leaf, Plant      | diuretic, stomachic, good for ulcers, wounds, asthma, bronchitis, diarrhoea |
| Ludwigia Adscendens (L.) Harra.        | Kesardam               | Onagraceae        | leaf             | Dysentery                                 |
| Lycopersicon lycopersicum (L.)         | Tomato, bilati beguna | Solanaceae        | Fruit            | Antioxidant                               |
| Mangifera indica L.                    | Aam                    | Anacardiaceae     | Leaf, Fruit, Seed, | Toothache, Astringent, Diuretics                           |
| Manilkara achars (Mill.) Fosberg       | Sofeda                 | Sapotaceae        | Seed             | Fever, tonic, diuretica                   |
| Marsilea quadrifolia Linn.             | Sushni saag            | Marseilaceae      | Leaf             | Hypnotic                                  |
| Melia smpervirens L.                   | Ghoranim               | Meliaceae         | Bark             | Diuretics, leprosy, Anthelmintic          |
| Mentha spicata Linn.                   |                       | Lamiaceae         | Whole plant      | Abdomina; pain, Constipation              |
| Mimosa pudica Linn.                    | 'Lojiaboli'            | Fabaceae          | Whole plant      | Diuretics, uterine complaints, inflammation, fatique |
| Momordica charantia Linn.              | Korolla                | Cucurbitaceae     | leaf             | Diabetes, helminthiasis, Ulcer            |
| Momordica cochinchinensis (Lour) Spreng.| Kakoal                | Cucurbitaceae     | Fruit            | Diabetes, Abdominal pain, Stimulent       |
| Musa paradisiacal L.                   | Kala                   | Musaceae          | Root, tubers, Fruit | Dysentery, Astringent, BP                |
| Nerium indicum Mill.                   | Korobi                 | Apocynaceae       | Root, leaves     | Skin disease, Leprosy                     |
| Nigella sativa Linn.                   | Kalojira, Kalijira     | Ranunculaceae     | Seed             | Stimulant and diuretic.                   |
| Nymphaea nouchali Burm.f               | Sapla                  | Nymphaeaceae      | Flower           | Dysentery, Diarrhea, Heart disease,       |
| Ocimum basilicum Linn.                 | Babui Tulshi           | Lamiaceae         | Whole plant      | Fever, carminative,                       |
| Ocimum sanctum Linn.                   | Tulshi                 | Lamiaceae         | Leaf             | Fever, cough                             |
| Phoenix Sylvestris (L.)                | Khejur                 | Arecaceae         | Fruit, Root      | Toothache, Nutritious                     |
| Phyllanthus emblica L.                 | Amliki                 | Euphorbiaceae     | Fruit            | Vomiting, cough, indigestion, jaundice, Skin disease |
| Piper nigrum L.                        | Goli morich            | piperaceae        | Seed, Fruit      | Chest and joint pain, hair loss, diuretics |
| Piper betle L.                         | Paan pata              | piperaceae        | leaf             | Brest and prostate cancer, stomach disorder |
| Psidium guajava Linn.                  | Piyara                 | Myrtaceae         | leaves           | Scarby, menstrual problem, diarrhoea      |
| Punica granatum L.                     | Dalim                  | Punicaceae        | Bark             | Anaemia, anthelmintics                    |
Table 1: Ethnomedicinal uses of medicinal plants in Lalmohan Thana, Bhola district.

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

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).
(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, Gonorrhea, 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: $FC = \left( \frac{\text{Number of times a particular species was mentioned}}{\text{Total number of times that all species were mentioned}} \right) \times 100$ [18] (Figure 2).

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.

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

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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