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REVIEW ARTICLE

CURRENT OFFICIAL STATUS OF TRADITIONAL MEDICINE AND THEIR USED AS IN CHRONIC DISEASES: BANGLADESH

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ABSTRACT

The practice of traditional medicine in Bangladesh has flourished tremendously in the recent years along with that of modern medicine. Different forms of Traditional medicines (TM) have been used in our country as an essential means of treatment of diseases and management of various health problems from time immemorial. In the last few years there has been an exponential growth in the field of herbal medicine and these drugs are gaining popularity both in developing and developed countries because of their natural origin and less side effects. Many traditional medicines in use are derived from medicinal plants, minerals and organic matter. The World Health Organization (WHO) has listed 21,000 plants, which are used for medicinal purposes around the world. Among these 2500 species are in Bangladesh, out of which almost 190 species are used commercially on a fairly large scale. The article focuses on Current official status of traditional medicine, preparations , plants used in the treatment of different chronic diseases in the Bangladesh, also discussed the benefits with use of herbal medicines as chronic disease especially antiulcer, antidiabetic, antihypertensive, antimicrobial activity, a scenario of usage of TM in a small village

KEYWORDS: Bangladesh, Traditional medicine, Chronic diseases- antihypertensive, anti-ulcer, Anti-diabetic,

INTRODUCTION:

TALKING OF THE TRADITIONAL MEDICINE:

In the WHO traditional medicine strategy 2002-2005, WHO defines traditional medicine as "including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or to prevent illness[1].The practice of Traditional medicine is deeply rooted in the cultural heritage of Bangladesh and constitutes an integral part of the culture of the people of this country. Different forms of Traditional medicines have been used in this country as an essential means of treatment of diseases and management of various health problems from time immemorial. The practice of traditional medicine in this country has flourished tremendously in the recent years along with that of modern medicine. As a result, even at this age of highly advanced allopathic medicine, a large majority (75-80%) of the population of this country, particularly in the rural and semi-urban areas, still prefer to use traditional medicine in the treatment of most of their diseases even though modern medical facilities may be available in the neighborhood. However, the concept, practice, type and method of application of traditional medicine vary widely among the different ethnic groups living in different parts of the country according to their culture, living standard, economic status, religious belief and level of education. Thus traditional medicine practice in Bangladesh includes both the most primitive forms of folk medicine (based on cultural habits, superstitions, religious customs and spiritualism) as well as the highly modernized Unani and Ayurvedic systems (based on scientific knowledge and modern pharmaceutical methods and technology). Among the largest ethnic group, the Bangalees on the main land, there are two distinct forms of Traditional medicine practice: One is the old and original form based on old knowledge, experience and belief of the older generations. This includes Folk medicine, which uses mainly plant and animal parts and their products as medicines for treating different diseases and also includes treatments like blood-letting, bone-setting, hot and cold baths, therapeutic fasting and cauterization. Religious medicine, which includes use of verses from religious books written on papers and given as amulets, religious verses recited and blown on the face or on water to drink or on food to eat, sacrifices and offerings in the name of God and gods, etc. and Spiritual medicine, which utilizes methods like communicating with the supernatural beings, spirits or ancestors through human media, torturous treatment of the patient along with incantations to drive away the imaginary evil spirits and other similar methods.

The other is the improved and modified form based on the following two main traditional systems: the Unani-Tibb or Graeco-Arab system which has been developed by the Arab and Muslim scholars from the ancient Greek system,

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and the Ayurvedic system which is the old Indian system based on the *Vedas*, the oldest scriptures of the Hindu saints of the Aryan age[2, 3, 4]. The Government is also planning to incorporate traditional medicine in Primary Health Care (PHC) activities. In order to achieve the goal of providing basic health needs to maximum of the rural people in the shortest possible time with minimum expenditure, the Government is planning to bring traditional medicine into the mainstream of the organized public health services and health care delivery programs of the country. In an attempt to integrate the traditional and modern allopathic medicine practices, the Govt. has already started appointing qualified Hakims and Kavirajes in the rural hospitals and health complexes along with graduate allopathic medical doctors. With the encouragement and practical involvement of the World Health Organization, efforts are now in vogue in Bangladesh to utilize traditional medicine more and more in the health care programs, particularly at the Primary Health Care level. And this is imparting a positive effect on the overall health management of Bangladesh. Both the Unani and Ayurvedic systems of traditional medicine have firm roots in Bangladesh and are widely practiced all over the country. Apparently the recipients of these systems of medicine appear to be the rural people, but practically a good proportion of the urban population still continues to use these traditional medicines, although organized modern health care facilities are available to them. Medicinal preparations, almost all of which are multi-componental, used in these two systems are invariably made from plant materials, sometimes with the addition of some animal products and also some natural or synthetic organic and inorganic chemical substances. Both indigenous and modern technologies are employed in preparing the medicines of these systems. Unani and Ayurvedic systems of medicine were officially recognized by the Government of Bangladesh immediately after independence and at the same time a Board of Unani and Ayurvedic systems of medicine was constituted. After the introduction of a National Drug Policy in 1982, Unani and Ayurvedic drugs have been brought under the control of the Drugs Administration Department of the Ministry of Health and Family Welfare by legislation to control and regulate the commercial manufacturing and marketing of quality Unani and Ayurvedic drugs. Traditional medicine gradually becomes tremendous potential therapy which can be regarded as an alternative to the conventional drugs that attracts the attention of the world within the context of health care provision and health sector[6]. The emergence of thousands clinical trials and experiments on the plant extraction illustrate the reliability of the traditional medicines in curing many chronic diseases is a positive effort toward the healthcare development. As an example, Mohamed et al. (2011) attested that *Orthosiphon Stamineus* Benth Leaves Extract demonstrate an antihyperglycemic activity that can be used to reduce the blood glucose level in the diabetic patient.

CURRENT STATUS:

OFFICIAL STATUS OF HERBAL MEDICINE IN BANGLADESH:

Unani and Ayurvedic systems of medicine were officially recognized by the Government of Bangladesh immediately after independence and at the same time a Board of Unani and Ayurvedic systems of medicine was constituted. After the introduction of a National Drug Policy in 1982, Unani and Ayurvedic drugs have been brought under the control of the Drugs Administration Department of the Ministry of Health and Family Welfare by legislation to control and regulate the commercial manufacturing and marketing of quality Unani and Ayurvedic drugs. The Government is also planning to incorporate traditional medicine in Primary Health Care (PHC) activities. In order to achieve the goal of providing basic health needs to maximum of the rural people in the shortest possible time with minimum expenditure, the Government is planning to bring traditional medicine into the mainstream of the organized public health services and health care delivery programs of the country. In an attempt to integrate the traditional and modern allopathic medicine practices, the Govt. has already started appointing qualified Hakims and Kavirajes in the rural hospitals and health complexes along with graduate allopathic medical doctors. With the encouragement and practical involvement of the World Health Organization, efforts are now in vogue in Bangladesh to utilize traditional medicine more and more in the health care programs, particularly at the Primary Health Care level. And this is imparting a positive effect on the overall health management programs of the country.

EDUCATIONAL INSTITUTION OF HERBAL MEDICINE:

A total of 15 Government recognized and funded educational institutions are currently engaged in the teaching of traditional medicine and training of traditional medicine practitioners in Bangladesh. These institutions are situated in different parts of the country. Of them, 10 institutions are involved in teaching the Unani system and the other 5 in teaching the Ayurvedic system. Each of these institutions has an attached out-patient hospital which imparts internship training to the graduates while giving medical services to the out-door patients. These

institutions offer a four year Diploma course and six month internship training. The curriculum of the courses offered includes anatomy, physiology, hygiene, community medicine, minor surgery and other relevant subjects of the respective systems. At the end of the courses, the Board of Unani and Ayurvedic systems of medicine conducts a qualifying examination centrally. Annual intake of these institutions currently stands at about 400 students. A Government Unani and Ayurvedic Degree College has been established in Dhaka with effect from the 1989-90 academic sessions. This college offers a five years degree course and one year internship training in the attached 100-bed Traditional Medical Hospital. The college is affiliated to the University of Dhaka, Bangladesh.

In addition to the above institutional teaching and training programmes, the Board of Unani and Ayurvedic systems of medicine is now pursuing a crash programme in collaboration with the WHO to impart short-term training to 2000 untrained practitioners of traditional medicine in phases. This is an attempt to give them the minimum level of training and knowledge so that a second tier of manpower in traditional medicine health care services can be raised. They are registered in the category B register. Under a Government Project, entitled "Development of indigenous systems of medicine (Unani and Ayurvedic) in Bangladesh" the Board envisages to set up a National Institute of Research in Unani and Ayurvedic Medicines and a modern traditional medicine production unit in Dhaka. It also envisages to establish more educational institutions in different parts of the country for offering Diploma courses in traditional medicine and to develop and modernize the existing educational institutions of traditional medicines in the country.

PRODUCTION OF HERBAL MEDICINE:

More than four hundred big and small manufacturers in Bangladesh are now engaged in manufacturing traditional medicine preparations in various dosage forms using local and imported raw materials. Some of the important raw materials of plant origin are derived from the rich tropical flora of Bangladesh. Many of them are imported from India and Pakistan. The Unani and Ayurvedic drugs manufactured in Bangladesh not only meet the local requirements but are also exported to the neighboring countries. Although many of these manufacturers are still using the traditional methods of producing these drugs, some of them, like Hamdard Laboratories (Waqf) Bangladesh, have substantially modernized their factories by installing modern equipment and machineries. They use modern methods and technology for the production and quality control of their traditional medicines. Some of these factories can be compared with any modern pharmaceutical factory of this and other countries. The presentation and quality of their products are as good as those of modern allopathic drugs. Many traditional medicine preparations in Bangladesh are now dispensed and sold from most of the modern allopathic drug stores, particularly those in the rural and peri-urban areas, and some of them are even prescribed by the modern allopathic medicine practitioners. Modernization and utilization of modern technology and pharmaceutical knowledge in manufacturing and quality controlling of traditional medicines are now rapidly increasing in Bangladesh [6, 7, 9].

Traditional medicine systems, particularly Unani and Ayurvedic systems are now recognized and well accepted as good alternative systems of medicine in both rural and urban areas of Bangladesh. Considerable research is now going on in this country both privately and institutionally to improve the quality of these drugs. Establishment of a separate Research & Development laboratory by the Hamdard Laboratories of Bangladesh, a manufacturer of Unani medicines, in order to undertake research programs to improve the quality of its current products and to develop new drugs from indigenous natural sources, bears clear testimony to that[5].

TRADITIONAL MEDICINE USED IN DIFFERENT DISEASES

ANTI-DIABETIC ACTIVITY:

Diabetes mellitus is a clinical syndrome characterized by inappropriate hyperglycemia caused by a relative or absolute deficiency of insulin or by a resistance to the action of insulin at the cellular level. Plant materials which are being used as traditional medicine for the treatment of diabetes are considered one of the good sources for a new drug or a lead to make a new drug. Plant extract or different folk plant preparations are being prescribed by the traditional practioners and also accepted by the users for diabetes like for any other diseases in many countries.

Table-1: List of plants having Anti-diabetic activity [11-21, 31]

Sr. No.	Common name	Botanical Name	Parts	Family	Uses
1	Methi	Trigonellafoenum-gracecum	Seeds	Fabaceae	Antidiabetic

2	Fern	Nephoelepsis tuberosa	Bulb	Oleandraceae	Antidiabetic
3	Keukand	Costus specious	Rhizome	Costaceae	Antidiabetic
4	Indian wheat	Plantago ovata	Husk	Plantaginaceae	Antidiabetic
5	Garlic	Allium sativum	Bulb	Alliaceae	Antidiabetic
6	Indian Sarsaparilla	Hemidesmus indicus	Root	Asclepiadacea	Antidiabetic
7	Onion	Allium cepa	Bulb	Liliaceae	Antidiabetic
8	Pinyn	Acontium carmichaeii	Root	Ranunculaceae	Antidiabetic
9	Chilli pepper	Capsicum annum	Fruit	Solanaceae	Antidiabetic
10	Goat's rue	Galega officinalis	Seed	Fabaceae	Antidiabetic
11	Lingzhimushroom	Gandoderma lucidium	Fruit	Ganodermataceae	Antidiabetic
12	Sea pea	Lathyrus japonica	Seed	LathyrusFabaceae	Antidiabetic
13	Rice	Oriza sativum	Root	Poaceae	Antidiabetic
14	Green tea	Camellia sinens	Leaf	Theaceae	Antidiabetic
15	Mango	Mangifera indica	Leaf	Anacardiacea	Antidiabetic
16	Tanner'sCassia	Cassia auriculata	Flower	Leguminosae	Antidiabetic
17	Neem	Azadirachta indica	Plant	Meliaceae	Antidiabetic
18	Sugar apple	Annona squamosa	Leaf	Annonaceae	Antidiabetic
19	Ginger	Zingiber officinale	Rhizome	Zingiberaceae	Antidiabetic
20	Indian blackberry	Eugenia jambolana	Pulp	Myrtaceae	Antidiabetic

ANTI -ULCER ACTIVITY:

Peptic ulcer encompassing gastric and duodenal ulcer is the most prevalent gastrointestinal disorders. The pathophysiology of peptic ulcer dieses involves an imbalance between offensive (acid, pepsin, and *H. pylori)* and defensive factors (Mucin, Prostaglandin, Bicarbonate, Nitric oxide and growth factors). Bangladeshi Medicinal plants and their derivatives have been a valuable source of therapeutic agents to treat various disorders including Antiulcer diseases.

Table 2: List of plants having anti-ulcer activity [22-30, 46, 48]

Sr. No.	Common name	Botanical Name	Part Used	Family	Uses
1	Tulsi	*Ocimum sanctum*	All parts	*Labiatae*	Antiulcer, Antibacterial
2	Tippani	*Allophylus serratus*	Leaves	*Sapindaceae*	Antiulcer, elephantiasis
3	Shaparni	*Desmodium gangeticum*	Root Extract	Leguminosae	Typhoid, piles, asthma, Antiulcer etc
4	Neem	*Azadirachta indica*	Dried bark extract	Meliaceae	Gastrointestinal dieses leprosy, respiratory disorders
5	Indian Sarsaparilla	*Hemidesmus indicus*	Leaf extract	Asclepiadaceae	Antidiarrhoeal, mucoprotective, Antiulcer
6	Satavari	*Asparagus racemosus*	Extract of fresh root	*Liliaceae*	Anti-diarrhoeal,Antibacterial , Antiulcer
7	Triphala	Terminalia pallid	Plant Extract	Combretaceae	Antiulcer
8	Aamla	*Emblica officinalis*	Fruit Extract	Euphorbiacae	Antiulcer
9	Gotu Kola	*Centella asiatica*	Fresh Juice	Apiaceae	Antiulcer
10	Brahmi	*Bacopa monniera*	Fresh Juice	Scrophulariaceae	Antiulcer
11	Apple bananas	*Musa sapientum*	Fruit	Scitaminaceae	Antiulcer
12	Papeeta	*Carica papaya*	Seeds	Caricaceae	Anti-hermitic,antiamebic,

					Antiulcer
13	Pausanto	*Kielmeyera coriacea*	Stem	guttiferae	Anxiolytic, Antiulcer
14	Brindleberry	*Garcinia cambogia*	Fruit extract	clusiaceae	Antiulcer
15	Winter melon	*Benincasa hispida*	Fruit	cucurbitaceae	Antiulcer, epilepsy
16	Wild pipal	*Ficus arnottiana*	Fruit	Moraceae	Antiulcer, demulcent
17	Indian devil tree	*Alstonia Scholaris*	Whole plant	Apocynaceae	Antiulcer
18	Indian mulberry	*Morinda citrifolia*	Fruit	rubiaceae	Antiulcer, Antidiabetic
19	Indian borage	*Plectranthus amboinicus*	Whole plant	Lamiaceae	Diuretic, Antiulcer

ANTI-HYPERTENSIVE ACTIVITY:

Lifestyle changes, including diet, exercise, and stress management, may contribute significantly to lowering of blood pressure. Supplements such as potassium, magnesium, CoQ10, omega- 3 fatty acids, amino acids Aarginine and taurine, and vitamins C and E have been effectively used in the treatment of cardiovascular disease, including hypertension. They have proven effective in lowering blood pressure and improving heart functions. Among the most researched and frequently utilized for hypertension are Hawthorne, *Arjuna*, Olive leaf, European mistletoe, Yarrow, Black cumin seeds, Forskolin, Indian snakeroot, and Garlic[9]. Hypertension means your muscles have increased tension with a decrease in their ability to stretch. This abnormal muscle tension is caused by problem with the information pathways in your central nervous system that control posture, muscle tone and reflexes. Because of this health problem you may also experience rapid muscle contractions, muscle spasms and fixed joints. Hypertonia may be caused by or associated with: stroke, dystonia, spasticity, parkinsonism, cerebral palsy, spinal cord injury, multiple sclerosis, injury, phenylketonuria etc, The selected (Table 3) and careful use of these plants may definitely in anti-hypertensive therapy and thus in hypertensive management.

PHARMACOLOGICAL CLASSIFICATION OF ANTIHYPERTENS -IVE HERBS:[10]

1. Centrally acting-Withania (CNS acting), Rauwolfia (catecholamine depeleters), Hypericum (dopamine and nor epinephrine reuptake inhibitors), Black cumin seed (CNS acting and antioxidant).
2. Vasodilators-Garlic (hyperpolarization through H_2S), Ginseng (direct smooth muscle relaxant), Hawthorn, Vitis, Yarrow, Olive leaf (endothelium dependent vasodilatation), Forskolin (Adenyl cyclase pathway).
3. Diuretic- Punarnava
4. Ace Inhibitors -Garlic (by allicin)
5. Cholesterol Synthesis Inhibitors Cat's claw, African mistletoe

Table 3: List of plants having anti-hypertensive activity [10, 42, 43, 45, 50-80]

Sr. No.	Common name	Botanical name	Family name	Parts name	Others use
1	Mistletoe	*Viscum album*	Loranthaceae	Leaves	Cardio tonic, vasodilators,
2	Stinging nettie	*Urtica dioica*	*Urticaceae.*	Leaves, rootlets, rhizomes and cortex	Diuretic,
3	Jalbrahmi	*Centella ascitica*	Apiaceae	Whole plant	Used in insomnia,anxity,scleroderma and varicose vein disease
4	Black Cumin Seeds	*Nigella sativa*	Ranunculaceae	Seed	Hypertensive action - due to its volatile oils Diuretic agent
5	Arjuna	*Termenalia arjuna*	Combretaceae.	Bark	Bark—used as a cardio protective and cardio tonic in angina
8	Ashwagandha	*Withania somnifera*	Solanaceae.	Whole plant	Diuretic

7	Bhingaraj	*Eclipta prostrata /Eclipta alba*	Asteraceae	Leaves	Rheumatism, hair fall, fever, hepatitis, edema possessing potent antihepatotoxic properties
8	Punarnava (Hogweed)	*Boerhavia diffusa,*	Nyctaginaceae	Whole plant	Diuretic,
9	Arjuna	Termenalia arjuna	Combretaceae.	Bark	Bark-used as a cardio protective and cardio tonic in angina and poor coronary circulation; as a diuretic in cirrhosis of liver and externally in skin diseases, herpes and leukoderma
10	Garlic	Alium sativum	Liliacae	Bulbils	Antibacterial,insecticidal,used in digestive disorder, causes lowering of cholesterol level
11	Scotch broom	Cystisus scoparius	Papilionaceae	Seeds	Diuretic and cathartic. Emetic in large doses The herb is used chiefly in the form of sulphate in tachycardia and functional palpitation
12	Lotus	Nelumbo nucifera	Nelumbo-naceae	Arial parts	Tranquilizer, cardiotonic and in kidney and skin diseases
13	Hawthorn	Crataegus laevi gata/ Crataegus oxycantha	Rosaceae	Dried flowers, Fruits, leaves	Angina pectoris , hypertension
14	Mistletoe	Viscum album	Loranthaceae	Leaves	Cardiotonic, vasodilatory, antispasmodic, tumor inhibiting, and thymus stimulating
15	Stinging nettie	Urtica dioica	Urticaceae.	Leaves, rootlets, rhizomes and cortex	Diuretic, astringent, antihaemorrhagic; eliminates uricacid from the body, detoxifies the blood. Externally, astringent and haemostatic.Used internally for the treatment of nephritis, haemoptysis and other haemorrhages
16	Black Cumin Seeds	Nigella sativa	Ranunculaceae	Seed	Hypertensive action due to its volatile oils Diuretic agent
17	Alpinia	Alpinia zerumbe	Zingibaraeceae	Whole plant	Diuretic and antiulcerogenic
18	Yarrow	Achillea wilhelmsii	Asteraceae	Dried arial parts with flowe	Antihyper lipidemic, diaphoretic and antipyretic intestinal colic diuretic and urinary antiseptic for urinary retention or cystitis, vulnerary and topical antiinflammatory

ANTI-TUMOR ACTIVITY:

Cancer is an abnormal malignant growth of body tissue or cell. A cancerous growth is called a malignant tumor or malignancy. A non-cancerous growth is called benign tumor. The process of cancer metastasis is consisting of series of sequential interrelated steps, each of which is rate limiting. Plants with loaded with chemical with chemo protective activities of some of them are undergoing clinical trial. Inhibition of angiogenesis is a novel process of cancer therapy. The selected and careful use of these plants may definitely turnout to be helpful in anti-tumor therapy (Table 4) and thus in cancer management.

Table 4: List of Plants having Anti-tumor activity [32-41, 44, 46]

Sr. No.	Common name	Botanical name	Family	Parts used
1	Garlic	*Allium sativum*	*Liliaceae*	Leaf
2	China gooseberry,	*Actinidia chinensis*	*Actinidiaceae*	Plant
3	Aloe vera	*Aloe ferox,Aloe barbadenis*	*Liliaceae*	Plant
4	Pine apple, Ananas	*Ananas comosus*	*Bromeliaceae*	Dried fruit
5	Angelica	*Angelica sinensis*	*Umbelliferae*	Plants
6	Monkey species	*Annona species*	*Annonaceae*	leaf
7	Burdock	*Arctium lappa,*	*Compositae*	plants
8	Bhojpatra	*Betula utilis*	*Betulaceae*	root
9	Tea plant	*Camellia sinensis*	*Theaceae*	Leaf
10	Vinca	*Catharanthus roseus*	*Apocynaceae*	Plant
11	Colchicum	*Colchicum luteum*	*Liliaceae*	Plant
12	Turmeric	*Curcuma longa Linn.*	*Zinziberaceae*	Rhysome
13	Black sampson	*Echinacea angustifolia*	*Asteraceae*	Leaf
14	Kew tree	*Ginkgo biloba*	*Ginkoaceae*	Plant
15	Soyabean	*Glycine max*	*Leguminosae*	Seed
16	Liquorice	*Glycyrrhiza glabra*	*Leguminosae*	Rhysome
17	Raw cotton	*Gossypium barbadense*	*Malvaceae*	Seed
18	Mushroom	*Gyrophora esculenta*	*Umbilicariaceae*	Leaf
19	Flax seed, Linseed	*Linum usitatissimum*	*Linaceae*	Seed
20	Pudina	*Mentha species*	*Labiateae*	Leaf
21	Ginseng	*Panax ginseng*	*Aralaceae*	rhysome
22	Ginger	*Zingiber officinale*	*Zingiberaceae*	Rhysome

ANTI-MICROBIAL ACTIVITY:

Identification of traditional remedies for the skin is an important activity for the preservation of traditional knowledge and for the search of novel antimicrobial treatment against skin and soft tissue infections. Bacteria are everywhere and most of the time they're harmless (some are even beneficial to human health, such as the Lactobacillus, “friendly” bacteria, in yogurt). But whenever there's a break in the structural integrity of the skin whether it's a burn, a superficial scrape, or a deep puncture, opening the door to bacteria, which lead to have an infection.

WOUNDS AND FOLLICULITIS:

Although any wound is open to bacterial invasion, open wounds (ulcers), large or severe burns, and bites are the most likely to become infected. Signs of infection include acute pain (it hurts more than you think it should), pus, and swelling that extends past the immediate area and feels hot. Many bacterial infections in humans can be traced to two kinds of bugs: Staphylococcus (staph) and Streptococcus (strep) bacteria. Staph infections typically involve the skin but can also affect the internal organs. Strep bacteria cause strep throat as well as several skin infections. Both are producing increasing numbers of drug-resistant strains. This inflammation of the hair follicles can occur anywhere there's hair. In most cases, the problem starts when the follicles are damaged by friction or abrasion (as in shaving), or blockage (wearing tight clothing), then invaded by Staphylococcus bacteria. Impetigo is a superficial skin infection caused by staph or strep bacteria. It produces small blisters or scabs that generally start on the face and may move to other parts of the body. Cellulitis is an infection of the deep layers of the skin caused by bacteria most often strepto.that enters through a cut, burn, or other skin injury. Left untreated, it can spread to the lymph nodes and become life threatening. The selected and careful use of these medicinal plants (Table 5) may definitely be successful against microbes.

Table 5: List of plants having antimicrobial activity [47-49.34.35, 23]

Sr. No.	Common name	Botanical name	Family name	Parts of used	Others use
1	Chhagalbati	Cryptolepis buchanani Roem & Sc.hult	Periplocaceae	Stem and root	Antimicrobial, antiamphetaminic.
2	Talamuli	*Curculigo orchioides* Gaertn	Amaryllidaceae	Root	Antifungal,antibacterial.
3	Deshi Gab	*Diospyros peregrine* Gurke	Ebenaceae	Stem bark	Antiprotozoal, antiviral, hypoglycaemic
4	Tulsi	*Ocimum sanctum*	*Labiatae*	All parts	Antiulcer, Antibacterial
5	Shatamuli	*Asparagus racemosus* Willd.	*Liliaceae*	Extract of fresh root	Antidiarrhoeal,Antibacterial, Antiulcer
6	Basak	Adhatoda zeylanica Linn.	*Acanthaceae*	Essential oil of leaves	Antimicrobial, Respiratory stimulant,in glandular tumors
7	Kunch	*Abrus precatorius* Linn.	*Papilionaceae*	Seeds	Antimicrobial, anticancer,abortifacient,emetic.
8	Apang	*Achyranthes aspera* Linn.	*Amaranthaceae*	Whole plant	Antibacterial, antifungal, hypoglycaemic.
9	Mankachu	*Alocasia indica* Roxb.	*Araceae*	Seeds	Antibacterial, antifungal.
10	Elcha	*Alternanthera sessilis* Linn.	*Amaranthaceae*	Whole plant	Antibacterial, febrifuge, cholagogue,galactagogue.
11	Luban	*Boswellia serrata* Roxb.	*Burseraceae*	Essential oil of leaves	Antifungal, antibacterial, rubefacient.
12	Tur	*Cajanus cajan*	*Papilionaceae*	Leave extracts	Antibacterial
13	Bohera	*Terminalia bellirica* Roxb.	*Combretaceae*	Fruits	Antimicrobial, antimutagenic
14	Methi shak	*Trigonella foenum-graecum* Linn.	*Papilionaceae*	Whole plant	Antibacterial, antifungal, antitumor
15	Chichinga	*Trichosanthes auguina* Linn.	*Curcurbitaceae*	seed	Antibacterial

USE OF TRADITIONAL MEDICINE IN A VILLAGE:

Bangladesh is a developing country. But still major portion of the citizen lives in the villages of our country traditionally use traditional medicine than modern ones. The probable causes behind this are that it is easily available, cheaper and dependable. It is not only used in above mentioned chronic diseases but also in many illnesses. For examples we had focused a scenario of usage of TM in a small village named 'Modupur', a tribal area near the district of Nator where more than 50 different

medicinal plants were being used .These are used in various lesions, antacid, itching, for dysentery, skin disease, cold/cough, headache, fever, appetizer, paralysis, burning during urination and burning of palm and foot soles, mouth wash, dental plaque, rheumatic pain, pain killer, conjunctivitis, vomiting, fairness, blindness, bronchitis etc.The knowledge of using herbal medicine was disseminated to them by local *kabiraj*. The newly formed *krisak samity* also plays a good role to disseminating knowledge about cultivated medicinal plants among the farmers. Herbal medicines could be prepared from a variety of plant parts like roots, bark, leaves, flowers and fruits. The locally produced medicinal plants are randomly being used by the villagers for some of the following problems.

Table 6: List of plants having miscellaneous Activity[8]

Sr. No.	List of traditional medicines	Purposes of use in various disease condition
1	Gritakumari Pulp of Ghritakumari	Keeps the stomach cool and helps in mitigating constipation, it also control burning of hand and feet. Erase spots and to brighten the skin
2	Misridana (root)	Control gastric
3	Nilkantha leaves	Reduce gastric pain
4	Simul root	In the treatment of constipation and piles, suppress weakness and also used in arthritis.
5	Lazzaboti plant	For the treatment of piles
6	Rajkantha, nilkantha	Body and teeth pain
7	Daudmoni, Raktachandal	For treatment of ringworms or Daud
8	Anantamul	For itching, scabies, and eczema.`
9	Kalomegh and Misridana	Treating jaundice in the study area, Misridana is used to control high blood pressure
10	Arjun bark	Used for heart problems, for the treatment of piles.
11	Arshagandha	Vitamin or blood purifier
12	Saktibindu, sankhamul, hastipalash, bhaichandal /guruchandal/kalichandal/lahuchandal and simul root	Increase sexual power.
13	Sotomuli and talamuli	For reproductive disease control, to treat Urinary infection and diabetes
14	Bhuikumra	the lactating mother to increase breast milk
15	Uatkambal	Increase delivery pain and sometimes applied in the hair for louse killing
16	Ishwarmul plant	Treating snake bite

CONCLUSION:

In order to achieve the goal of providing basic health needs to maximum of the rural people in the shortest possible time with minimum expenditure, the Government is planning to bring traditional medicine into the mainstream of the organized public health services and health care delivery programs of the country. From this study, it is clear that the medicinal plants play a vital role against various diseases. Various herbal plants and plants' extracts have significant antiulcer, antihypertensive, anti-diabetic, anti- tumor and anti-microorganism properties. Our above tables show that these medicinal plants could prevent problems like ulcer, diabetes, hypertension, infections with the principle on dose-dependent. A variety of botanical products have been reported to possess these activities. Hence the article concludes that herbal drugs possess antiulcer, antihypertensive, anti-diabetic and anti-microbial properties.

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The author(s) declare that have no competing interests

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