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RESEARCH ARTICLE

USE OF PLANTS IN TRADITIONAL HEALTH CARE PRACTICE: AN ETHNOMEDICINAL SURVEY AT SUJANAGAR UPAZILA IN PABNA DISTRICT OF BANGLADESH.

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Abstract

Medicinal plants are the main component in traditional medicine system and most rural people of Bangladesh still depend on folk medicine practitioners (Kavirajes) for their primary health care needs and medicinal plants used by folk medicine practitioners actually differ from region to region. The present study was designed to record the use of medicinal plants in different health ailments by the folk medicine practitioners of Sujanagar upazila(subdistrict) of Pabna district of Bangladesh. A structured survey questionnaire was prepared to obtain all the information, informed consent was obtained from the interviewer and the interview was taken in local language (Bangla) so that kavirajes could easily understand and provide necessary information. In our present study, we recorded total 63 plant species from 45 different families used by folk medicine practitioners of Sujanagar upazila in different illness. Liliaceae and Solanaceae appears the most prominent family in this study each having 3 plant species followed by Fabaceae and Acanthaceae having 2 species. Folk medicine practitioners use different parts of the plants including whole plant, leaves, fruits, barks, and rhizome. In this study, we found that leaves along with other parts of the plant had highest percentage of use (36.507%, 23 species) and only leaf holds the second position in its usage percentage (17.46%, 11 species). This study revealed that kavirajes of Sujanagar upazila preferred oral route (60.32%) of administration for their different medicinal formulations. There were also some formulations for topical application (11.11%) and found some plant based formulations were also for both oral and topical application (28.57%). This study represents many medicinal plants used by folk medicine practitioners of study area could be important source to isolate new bioactive compounds and novel drugs through extensive research in future.

Introduction:-

Human being experienced to diseases and ailments frequently during their whole life span and the nature blessed them to provide remedy to utilize plants and such type plants which are extensively used to treat health ailments are called medicinal plants. Medicinal plants are the best natural resources of traditional medicine system (Tumapa et al., 2014). Still in this modern world, 80% of people in developing countries extremely relies on traditional system

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of medicine as medicinal plants are easily accessible and cheap (Dey et al., 2014). Today plant based traditional knowledge is a recognized tool in search for new source of drug (Sahu et al., 2014). Ethnomedicinal survey which deals with ethnobotany and traditional knowledge of uses of plants is the most effective method identifying new medicinal plant and bioactive compounds, thus further study on these plants can easily lead to discovery of new therapeutic entity.

Bangladesh has a rich history of practicing traditional medicine among which unani, ayurvedic and folk medicine are quite popular in this country. Folk medicine practitioners commonly known as Kavirajes are primary health care provider to significant rural areas of the country (Salahuddin et al., 2015, Rahmatullah et al., 2010). Such traditional knowledge of uses of plants in different health ailments can be useful for planning of effective use of natural resources and conservation of biodiversity and cultural knowledge. Therefore, the main objective of this study was to document the use of plants in traditional health care practice at Sujanagar upazila (Subdistrict) in Pabna district of Bangladesh.

Methods:-

Study area:-

This study was conducted at Sujanagar upazila (subdistrict) of Pabna district. Pabna is a district having an area of 2372.5 square kilometers falls within Rajshahi division of Bangladesh. The district is roughly located between 88°55' -89°42' E and 23°48' - 24°22' N and Sujanagar sub-district (Upazila) with an area of 334.4 square kilometers is a part of Pabna district and is located between about 89°23' - 89°38' E and 23°48' - 24°00' N. The main occupation is agriculture and the major crops are paddy, jute, wheat, sugarcane, oil seeds, onion, garlic, betel leaf and pulses. The climate of Pabna is moderate and yearly temperature falls within a minimum of 9.6°C to a maximum of 33.9°C; the average rainfall is 1872 mm (District Statistics: Pabna District, 2011).

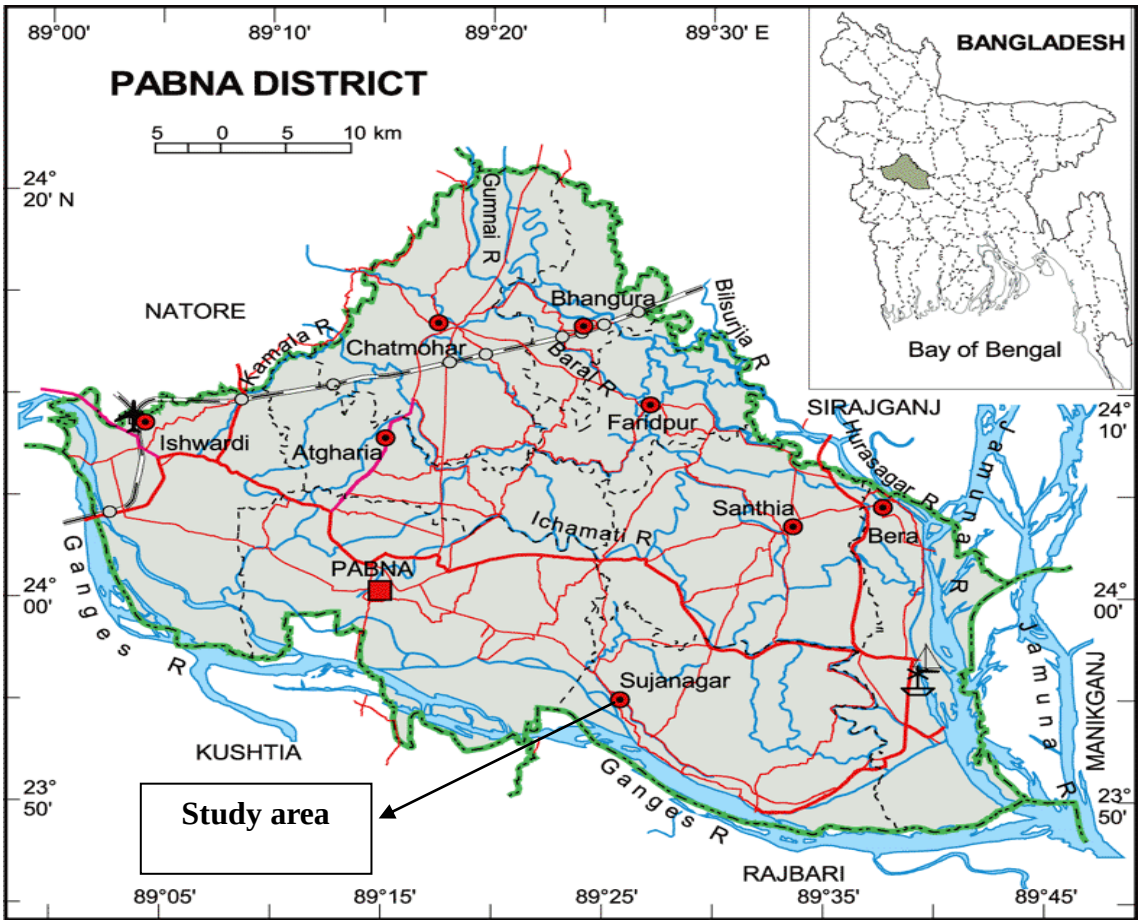

Figure 1:- Location map of Pabna district showing the study area.

Data Collection:-

A questionnaire was prepared to collect the required data on various aspects of the study. The questions were arranged systematically and presented clearly to be easily understood by the respondents. Data on age, sex, level of education, human diseases treated, local names of plants used, parts used, methods of remedy preparations, routes of administration, noticeable adverse effects of remedies, use of antidotes for adverse effects, indigenous knowledge transfer and other uses of the ethnomedicinal plant species were gathered during the interviews. The survey was conducted in Bangla language, which was spoken both by the folk medicine practitioners (Kavirajes) as well as the surveyor and is the national language of Bangladesh. Prior to the study, informed consents were obtained from the Kavirajes that the information may be disseminated both nationally and internationally and all the information obtained was cross checked. Total 15 kavirajes were participated in this study and data were collected from 17th August, 2016 to 24th August, 2016.

Data analysis:-

Responses of the completed questionnaires were numerically coded and analyzed. Microsoft Office Excel 2007 program was used to process all collected information. Descriptive statistics such as frequency and percentage distribution were used to analyze data. In addition, graphs and tables were used to interpret the findings.

Results:-

Distribution of plants into families:-

In this study, total 63 plant species including herb, shrub, and tree distributed into 45 different families were recorded that is used by folk medicine practitioners (Kavirajes) of Sujanagar upazila (subdistrict) of Pabna district of Bangladesh. Liliaceae and Solanaceae appears the most prominent family in this study, each having 3 plant species followed by Fabaceae and Acanthaceae having 2 species.

Plant species and families recorded in this study are illustrated in following table along with their usage parts and dispensing procedure to people.

Table 1:- Scientific name, local name, family, parts used and indications.

Scientific Name	Local name	Family	Part used	Consumption/dispensing procedure	Route	Use
Abroma augusta	Ulotkombol	Sterculiaceae	Stem	Crushed stems are taken with sugar	Oral	Debility, Infertility in women due to problems in uterus
Achyranthes paniculata	Apang	Amaranthaceae	Root, Bark, Leaf	Paste of root bark and juice of roots are used, paste of leaves are applied to the affected area	Oral, Topical	Abortion, Eczema, Wound
Aegle marmelos	Bel	Rutaceace	Leaf, Fruit	Juice of young leaves, decoction of immature fruits and ripe fruits are taken.	Oral	Fever, Abscess, Indigestion, Dysentery
Allium cepa	Piaj	Liliaceae	Bulb	Juice of bulb/scales is used	Oral, Topical	Cough, Headache
Allium sativum	Roshun	Liliaceae	Bulb	Juice obtained from crushed bulb is taken orally.	Oral	Pain in the chest area- usually external muscle pain, Piles, Rheumatism
Aloe barbadensis Mill	Ghritokumari	Asphodelaceae	Leaf	Juice of leaves is applied to the affected area and leaf mucilage	Topical	Sexually transmitted diseases in men, Skin disorders,

				is used		Piles, Menstrual disease, Sexual problems
Ananus comosus	Anarosh	Bromeliaceae	Fruit, Leaf	Juice of unripe fruit, ripe fruit and leaves is used	Oral	Abortion, Cough, Diuretic, Fever, Helminthiasis.
Andrographis paniculata Nees.	Kalomegh	Acanthaceae	Leaf, Stem, Root	Root paste is taken with sugar for liver disorders. Leaf paste mixed with sugar is taken for helminthiasis. Stem is taken with sugar to reduce acidity.	Oral	Liver disorders, Helminthiasis, Gastric acidity
Aristolochia indica L.	Ishwarmul	Aristolochiaceae	Root	Crushed roots are used	Topical	Snake bite
Artocarpus heterophyllus Lamk.	Kathal	Moraceae	Bark, Leaf, Root	Juice made from young leaves , young roots and juice made from bark is also taken	Oral	Asthma, Itches Diarrhea, Excessive menstrual discharge
Asparagus racemosus	Satamuli	Liliaceae	Whole plant, roots	An amulet containing whole plant is tied around the waist, Root paste mixed with sugar is taken for constipation	Oral, Topical	Constipation, Impotency in men.
Averrhoa carambola	Kamranga	Oxalidaceae	Fruits	Fruits are eaten	Oral	Jaundice, Fever, Piles
Azadirachta indica	Neem	Meliaceae	Leaf , Bark	Paste of the leaves is applied to the affected area and powder of bark is taken.	Oral, Topical	Rheumatic fever, Itches, Ring worm, Helminthiasis, Chicken pox.
Blumea membranacea DC.	Ukra, Uhra	Asteraceae	Leaf, stem	Juice from stem and leaves are applied to the scalp	Topical	Fever with mucus
Cajanus cajan(L).Huth	Aral	Fabaceae	Leaf	Young leaf juice is taken.	Oral	Jaundice, Diabetes
Calotropis gigantea	Akondo	Apocynaceae	Root, Leaf, Bark	Leaves are taken during pneumonia. Leaves are warmed in oil and applied to painful areas	Oral , Topical	Ulcer, Tooth pain, Chronic dysentery, Cold, Asthma, Pain
Carica papaya L.	Pepe	Caricaceae	Fruit, Latex	Fruit juice ,Ripe fruits are taken and latex is used	Oral, Topical	Constipation, Itches, Indigestion, Liver disease, Diarrhea
Cassia sophera L.	Kolkashundia	Fabaceae	Whole plants	Paste of whole plant is applied to affected area	Topical	Eczema.
Centella asiatica	Chaka thankuni	Apiaceae	Leaf , Stem	Juice obtained from crushed leaves and stems is	Oral	Stomach disorders

				used.		
Cissus quadrangularis L.	Harjora	Vitaceae	Leaf, Stem	Paste of leaf and stem is applied to fractures	Topical	Bone fracture
Coccinia grandis (L.) Voigt	Telakucha	Cucurbitaceae	Leaf	Vegetables made from young leaves are eaten	Oral	Diabetes, Fever
Curcuma longa L.	Holud	Zingiberaceae	Rhizome	Raw rhizome is taken orally, paste of rhizome is applied to the affected area	Oral, topical	Wet dream, Scabies, Eczema
Cuscuta reflexa	Aloklata	Convolvulaceae	Leaf	Juice of the leaves is taken	Oral	Dysentery
Cynodon dactylon	Durva Ghash	Poaceae	Whole plant	Juice of the plant is taken with milk and applied to wound	Oral, Topical	Wounds, Acne.
Datura metel L	Kalodhutura	Solanaceae	Leaf, Juice from stalk of fruits	Macerated leaves are taken with juice from stalk of fruits	Oral	Antidote to poisoning
Eclipta prostrata	Kalokeshi	Asteraceae	Leaf, Fruit, Flower	Paste made from leaves is used in affected area. Juice made from whole plants are used	Oral	Jaundice, Asthma, Gallbladder stone, Wounds, Itches, Skin diseases, Constipation.
Ficus racemosa L.	Dumur, Joggodumur	Moraceae	Fruits	Paste of fruit is taken with milk	Oral	Diabetes
Garcinia cowa Raxb.	Kaufol	Clusiaceae	Fruits	Fruits are eaten	Oral	Cold, Coughs
Heliotropium indicum	Hatishur	Boraginaceae	Root	Paste of root is mixed with sugar or honey	Oral	Wet dreams, STDs, Swelling of knees, Joint pain
Hibiscus rosasinensis	Joba	Malvaceae	Flower, Leaf	Paste of flower is applied on fresh cut and extract of flower is taken	Oral, Topical	Wound, Irregular menstruation.
Ipomoea mauritiana Jacq.	Bhuikumra	Convolvulaceae	Root	Root paste is applied to hair & penis	Topical	Blackening of hair in men and women, Erectile dysfunction
Justicia adhatoda L.	Basok	Acanthaceae	Leaf	Tablets made from paste are taken	Oral	Whooping cough
Kalanchoe pinnata (Lam.) Pers.	Patharkuchi	Crassulaceae	Leaf	Leaves are chewed with salt to dissolve gall bladder stones, Leaf paste is applied topically.	Oral, Topical	Remove gallbladder stones, Stomach pain, Headache
Lawsonia inermis L.	Mehedi	Lythraceae	Leaf	Juice from leaves is taken and paste from leaves are applied to the affected area	Oral, Topical	Cuts and wounds, Cracked skin, Diabetes, Burning sensations during urination.
Leucas aspera	Dondo kolosh	Lamiaceae	Stem	Crushed stems is	Oral	Diarrhea, Blood

				taken usually with parts of other medicinal Plants (Azadirachta indica ,Coccinia cordifolia)		purifier, Loss of appetite, Indigestion, Skin disease
Mangifera indica	Aam	Anacardiaceae	Young leaves, Buds	Sap of young leaves is applied to the eyes, a syrup made from the buds along with Musa sapientum and ghee is taken orally	Oral, Topical	Conjunctivitis, Passing of sperm with urine.
Mentha viridis	Pudina	Lebiatae	Whole plant	Juice of the plants is taken	Oral	Metabolic disorder, Gastritis
Mimosa pudica L.	Lojjaboti	Mimosaceae	Leaf, Root, Fruit	Leaf juice are used externally and root and fruit juices are taken with honey	Oral, Topical	Piles, Boils, Dysentery, Bone injuries as painkiller, Tumor for early burst
Moringa oleifera Lam.	Sogina	Moringaceae	Leaf, Stem, Root	Juice obtained from crushed leaves and stems is taken.	Oral	Jaundice, Chickenpox, Paralysis, Fever
Mormordica charantea L.	Korola	Cucurbitaceae	Leaf, Fruit	Juice made from leaves is used. Curry made from unripe fruit are eaten	Oral	Chickenpox, Rheumatism, Diabetes
Nigella sativa	Kalojira	Ranunculaceae	Seed	Paste of seeds or seeds are taken along with water or honey and oil obtained from seeds are applied externally.	Oral, Topical	Rheumatic fever, Hypertension, Skin disease
Nyctanthes arbortristis L.	Sheuli	Verbenaceae	Leaf	Boiled and macerated leaves are taken	Oral	Fever due to metabolic imbalances in the body.
Ocimum sanctum	Tulsi	Lamiaceae	Leaf, Root	Juice of leaves are taken with honey	Oral	Rheumatic pain, Coughs, Constipation, Snake bite
Ocimum tenuiflorum L.	Kalo tulsi	Lamiaceae	Leaf	Juice of leaves is mixed with sugar and eaten	Oral	Coughs, Dysentery, Diuretics, Diabetes
Paedaria foetida	Gondho vadule	Rubiaceae	Leaf	Leaf juice is taken	Oral	Dysentery, Metabolic disorder, Cold, Arthritis
Phyllanthus emblica L.	Amlaki	Euphorbiaceae	Fruit	Ripe fruits and dried fruits are taken	Oral	Fatigue, Thirst, Burning sensation during urination, Biliary problem,

						Diabetes
Plumbago zeylanica L.	Kalpanath	Plumbaginaceae	Leaf	Paste of leaves is taken in empty stomach	Oral	Infertility in women
Psidium guajava L.	Piyara	Myrtaceae	Leaf, Fruit, Bark	Fruits and juice from leaves and stem barks are taken and decoction of leaves is taken.	Oral	Diarrhea, Debility, Bloody dysentery, Toothache, Worm
Punica granatum	Dalim	Lythraceae	Fruit, Leaf	Fruit and leaf juice is taken	Oral	Anemia, Erectile dysfunction, Osteoarthritis, Dysentery
Rauwolfia canescens L.	Boro chanda	Apocynaceae	Root	Paste of roots is applied to the affected areas and crushed roots taken.	Topical, Oral	Snake bite
Rauwolfia serpentina (L.) Benth. ex Kurz	Chotochanda	Apocynaceae	Root	Paste of roots is applied to the affected areas and crushed roots taken.	Topical , oral	Snake bite
Solanum surattenseBurm. f.	Choroibaegun	Solanaceae	Fruits	Macerated fruits are taken	Oral	Tumor in humans, Swelling of throat in cattle.
Syzygium cumini	Jam	Myrtaceae	Bark ,seed	Paste made from the bark is used externally, dry seed dust mixed with normal water taken	Oral, Topical	Dysentery, Wound, Diabetes
Syzygium malaccense	Jamrul	Myrtaceae	Roots	Macerated roots are taken	Oral	Helminthiasis.
Terminalia arjuna	Arjun	Combretaceae	Bark	Bark boiled in water is taken and paste of bark is applied	Oral, Topical	Chest pain due to heart disorders, Burning sensations during urination, Bone fracture.
Terminalia bellirica (Gaertn.)	Bohera	Combretaceae	Fruit, Seed	Fruits are eaten, oil extracted from the seeds and used	Oral, Topical	Loss of appetite, Headache, Rheumatic fever
Terminalia chebula Retz.	Haritaki	Combretaceae	Fruit	Ripe fruits and unripe fruits are used	Oral	Constipation, Indigestion Rheumatism and Urinary disease.
Tinospora cordifolia	Pipolti	Menispermaceae	Stem	Plant juice and stem juice are taken	Oral	Swelling, Gastric trouble and ulcers
Vitex negundo	Nishinda	Lamiaceae	Root, Leaf	Tablets made from leaves are taken	Oral	To increase memory, Bloating, Rheumatism, Edema, Helminthiasis, Throat infections, Piles, Loss of

						appetite, Fever
Vitis pentagona	Sonatola	Vitaceae	Flower, Leaf	Paste of flower is taken and leaf paste is taken with salt	Oral	Rheumatic fever
Withania somnifera (L.) Dunal	Ashwagandha	Solanaceae	Fruits	Mixture of fruit, leaf and stem is taken	Oral	Sex stimulant
Zingiber officinale Roscoe	Ada	Zingiberaceae	Rhizome	Juice from rhizome is applied to the scalp daily.	Topical	Depression, Cough & cold
Ziziphus jujuba Mill	Boroi	Rhamnaceae	Leaf, fruits	Leaves and fruits are taken	Oral	Hypertension

A report described the wide therapeutic use of different plant families throughout the world and many of these plants from different families are also used in the study area (Joy et al,. 1998).

Used plant parts:-

The various plant parts were used included whole plants, leafs, roots, barks, stems, seeds, fruits, and rhizome. The Kavirajes used different modes of preparation for using a particular plant or plant parts. Leaves along with other parts are most commonly used in different methods had highest percentage of use (36.507%, 23 species) and only leaf holds the second position in its usage percentage (17.46%, 11 species). The following table summarizes percent of curative plant parts used in different health ailments by kavirajes.

Table 2:- Number of the medicinal plants with their curative parts and percentage.

Serial No.	Curative plant parts	No. of species	Percentage (%)
1.	Leaf only	11	17.46
2.	Fruit	07	11.11
3.	Seed	01	1.59
4.	Root	06	9.52
5.	Whole plant	04	6.35
6.	Leaf with other parts	23	36.51
7.	Flower	00	0
8.	Bark	01	1.59
9.	Wood	00	0
10.	Rhizome	02	3.17
11.	Stem	03	4.76
12.	Bulb	02	3.17
13.	Bark & Seed	01	1.59
14.	Fruit & Seed	01	1.59
15.	Fruit & Latex	01	1.59

Percent of plant use in different Ailments:-

In this study, we recorded 63 different plant species from different plant family which are used by folk medicine practitioners in their regular practice. We calculated the percent of different plant used in different health ailments and summarized in the following table. (Table: 3).

Table 3: Board categories of the ailments and percentage of plants used in each category

Serial No.	Board categories of ailments	No of species	Percentage (%) of plant used
1.	Gastrointestinal disorders	33	52.38
2.	Cold and Flu related ailments	18	28.57
3.	Pain, Inflammation and Burning sensation	22	34.92
4.	Sexual problems	15	23.81
5.	Skin diseases	12	19.05
6.	Respiratory tract disorders	4	6.35

7.	Cardiovascular diseases	6	9.52
8.	Nerve disorders	4	6.35
9.	Oral and larynx health diseases	4	6.35
10	Hepatic problems	8	12.70
11.	Antiseptic purposes	10	15.87
12.	Wound and Blood disorders	11	17.46
13.	Bone related ailments	15	23.81
14.	Renal diseases	3	4.76
15.	Miscellaneous	15	23.80

In this study, we revealed that most plant species were used in the treatment of different gastrointestinal tract disorders (33 species, 52.38%) followed by pain, inflammation and burning sensation (22 species, 34.92%), cold and flu related ailments (18 species, 28.57%). We also found that a single plant species or its different parts is being used in the treatment of many diseases. As a medicinal plant contains lots of chemical species, so a single medicinal plant or its different parts may have many therapeutic potential and that's why the total percentage of plants used in different diseases is more than 100 percent. Usages of plants to treat some diseases by kavirajes in our study area were also interesting.

Percent of administration routes of plant species:-

Folk medicine practitioners preferred oral routes of administration. In our study we found that, 60.32% (38 species) of their medicinal formulations were for oral route. Some of their formulations were for topical application (11.11%, 7 species). We also found some plant species formulations were for both oral and topical application (18 species, 28.57%).

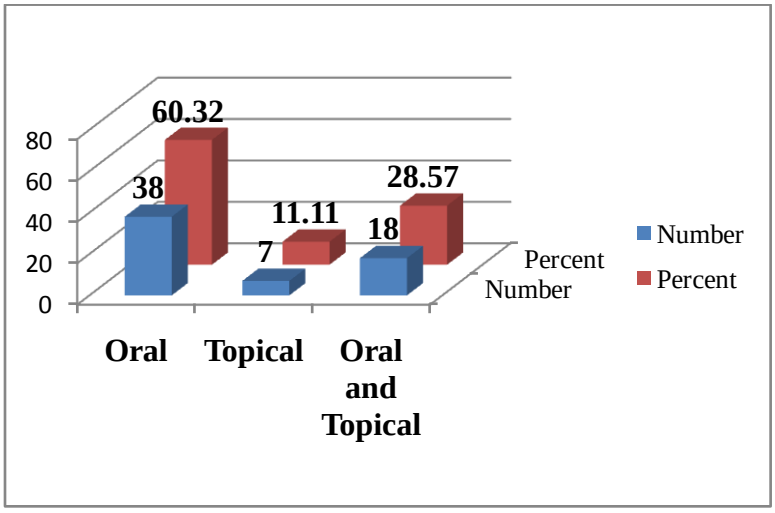

Figure 2:- Percent of routes of administration of different medicinal plant formulations.

Discussion:-

Plants have played a significant role in maintaining human health and in the treatment of different diseases. In our study, we recorded many medicinal plants used by the folk medicinal practitioners many of which have widely established medicinal value reported in many scientific journals and interestingly we found similar pattern of usage of medicinal plants in our study area.

Kavirajes of Sujanagar upazila of Pabna district frequently use *Justicia adhatoda* L.(Basok) in the treatment of cough and *Calotropis gigantean* (Akonda), *Eclipta prostrate* (Kalokeshi) in the treatment of asthma. It is reported in a review that the whole plant of *Justicia adhatoda* L is an ingredient of different cough formulation used in combination with Ginger (*Zingiber officinale*) and Tulsi (*Ocimum sanctum*) where it exerts its action as an expectorant and antispasmodic. The fluid extract and tincture were used in European medicine practitioners as an antispasmodic, expectorant and febrifuge (Dhankhar et al., 2011). Another study also reported broad spectrum antimicrobial activity of methanolic leaf extract of *Justicia adhatoda* L (Pa and Mathew, 2012).

Many review articles published authentic information regarding the medicinal properties of different parts of *Calotropis gigantean.* Various phytoconstituents like Calotropin, Calotoxin, Choline, D-arabinose, D-glucosamine, ß-Sitosterol are isolated from different parts of this plant which may be responsible for its different pharmacological activity. It is reported that different parts of this plant have antimicrobial, anti-cancer, anti-pyretic/analgesic and anti-asthmatic potential (Quazi et al, 2013, Sharma et al, 2012, Parvin et al, 2014). Folk medicine practitioners of Sujanagar upazila of Pabna district use various plant species in the treatment of gastrointestinal disorder. In our study, we found indigestion is treated with *Leucas aspera*(Dondokolosh), *Terminalia chebula Retz.*(Horitoki), *Aegle marmelos* (Bel), *Carica papaya* L.(Pepe). Such activities of these plants are recorded in many ethnomedicinal system and folk medicine practitioners of Tripura of India also uses *Aegle marmelos* in the treatment of indigestion, dysentery, constipation (Das et al., 2012). We also found the use of *Carica papaya L* both in the treatment of indigestion and constipation by the folk medicine practitioners.

There are many literatures published about the main phytoconstituents curcumin isolated from *Curcuma longa* L which mainly responsible for its different medicinal property like anti-inflammatory and anticancer activity (Zari and Zari, 2015, Araujo and Leon, 2001). In this study we found that kavirajes frequently use this plant mainly in the treatment of eczema and scabies.

Rural people suffering from STD frequently visit to folk medicine practitioners for their treatment and in our study we found that kavirajes of our study area use *Ipomoea mauritiana* Jacq.(Bhuikumra), *Aloe barbadensis Miller*(Ghritokumari), *Heliotropium indicum* (Hatisur) in the treatment of STD. Researchers found antimicrobial activity of different crude extracts of these plant that may be responsible for this therapeutic potential and they becomes a promising source of new antimicrobial agents (Devi et al., 2012, Osungunna and Adedeji, 2011). *Abroma augusta* have many therapeutic potential like root and root barks are used as uterine tonic, used in the treatment of amenorrhea, dysmenorrhea, extracts of different parts of plant are reported to have anti diabetic, anti-inflammatory, wound healing, hypolipidemic, antifungal, antibacterial and insecticidal activity (Gupta et al., 2011). In our study, we found the use of this plant in the treatment of infertility. Kavirajes also use *Asparagus racemosus* (satamuli) in the treatment of impotency of men.

Kavirajes provide wide range to treatment option as primary health care practitioners and rural people frequently visit to them for their many health ailments. In our study we found the use of many medicinal plants dispensed to different health disorder and formulated in different way by the kavirajes. Medicinal properties of these plants are well established and we found the use of same medicinal plants in different health disorders. Plants contain wide range of phytoconstituents and such phytoconstituents are mainly responsible for their various medicinal properties.

Conclusion:-

Knowledge about the medicinal properties of plants is usually transferred from generation to generation through informal educational system. Folk medicine practitioners are still playing a vital role in providing necessary remedy in this modern world and use of such plants in different health ailments are well established today. In our current study we recorded many plant species from different family which are also used by folk medicine practitioners of other parts of this country or even in other countries as well. Such documentation is very much necessary for preserving the knowledge and treatment pattern of different health ailments by folk medicine practitioners and such ethnomedicinal knowledge may lead to discovery of new drug compounds.

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