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Ethno-Medicinal plants used in women health of Bishnupur District, Manipur, North Eastern India

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Abstract

This paper deals with the ethno-medicinal information about the indigenous traditional uses of 32 medicinal plants belonging to 31 genera representing 24 families used in the treatment of various ailments of women health among the *Meitei* communities of Bishnupur District, Manipur. Among the plant species 26 plant species were belong to Dicotyledonous and 12 species were in Monocotyledonous plants. Because of urbanization, modernization, the traditional knowledge for women health has been declining and some of the useful medicinal plants are under serious threat due to human interferences and lack of knowledge of the people. So, from the above-mentioned facts, an ethno-medicinal study was carried out for proper documentation and validation of the traditional knowledge for the proper conservation of these rare and threatened medicinal plants.

Keywords: Ethno-medicinal, traditional knowledge, women health, conservation

Introduction

Herbalism or otherwise folk medicine constitute the most common methods of treating diseases since time immemorial. This is one of the cheapest and readily available methods of disease treatment. The use of medicinal plants, to cure diseases is an age-old practice, that has been developed in recent years (Jaaden *et al.*, 2020) [14]. Medicinal plants are widely used for pre- and post-natal care in many parts of the world (Zumsteg and Wecherle, 2007) [27]. Thus, various studies have been documented many medicinal plants used to treat obstetrics and gynaecological conditions, such as; birth control, complication during pregnancy and child birth and problems associated with infertility (Singh *et al.*, 1984; Browner, 1985; Bourdy and Walter, 1992; Verga and Veale, 1997; Tickin and Dalle, 2005; Attah, *et al.*, 2012; Nordeng, *et al.*, 2013; Borakini, *et al.*, 2013; Abdillahi and Van Staden, 2013, Al-Ramahi, *et al.*, 2013, Bora and Kumar, 2003) [24, 9, 8, 26, 25, 5, 21, 7, 1, 4, 6]. Indigenous people world-wide have used oral traditions and empirical means to compile detailed knowledge regarding the use of medicinal plants and the information is disseminated from generation to generation (Abel *et al.*, 2005 and Abe and Ohtani, 2013) [3, 2].

Traditional medicinal practice is an integral part of culture of people of Manipur. The people of Bishnupur district practices folk-medicine to take care of women health and related problems from the plant sources available within the vicinity of their environment. It is observed that elderly and poor people of Bishnupur district were still depend on medicinal plants, because of their belief in traditional medicine and inability to meet the expenses of modern well-equipped hospitals. The traditional healers are decreasing in number because modern medicinal practices are replacing their traditional treatment methods. The younger generations are also not interested because of their modern behaviour and busy lifestyles.

Manipur State in Indian Subcontinent is known for its richness in biodiversity including endemic flora and fauna, varied topographical and climatic conditions, etc., Manipur which is the State of hotspots of biodiversity which lies in the north-eastern part of India. Bishnupur (Bishenpur) district is one of the five valley districts of Manipur. It lies in the South western corner of the Imphal valley between 24.180 N and 24.440 N latitude and 93.430 E and 93.530 E longitude approximately. As per the 2011 Census, the total population of the district is 2,40,363. The population density is 485 person per km². Bishnupur has a sex ratio of 1000 females for every 1000 males and a literacy rate of 6.35% (District Census, 2011) [11]. The district is rich in vegetation, which is varied in character. Keibul Lamjao National Park, Loktak Lake and Loukoipat Ecological Park are tourist attraction and they are located in the Bishnupur District.

Roads and transportation facilities are not adequate. The people of this district still find it difficulties to travel and lack of medicinal facilities, they still depends on the available natural biodiversity for their daily need to cure ailments. They still practice herbal medicines to cure ailments and based on the transfer of knowledge orally from their forefathers from generation to generation. Therefore, these people will be helpful for getting knowledge of the uses of medicinal plants in the treatment of women ailments of the Meitei community of Bishnupur district.

Materials and Methods

An ethnobotanical survey, documentation and identification of the used plants, especially for women health care, was conducted in Bishnupur district, during 2019 to 2022. A wide survey of medicinal plants at Bishnupur District was conducted at 14 (fourteen) study sites: (1.Nambol, 2.Ngaikhong, 3.Ngaikhongsiphai, 4.Kwasiphai, 5.Nachou, 6. Potsangbam, 7.Upokpi, 8.Toupokpi, 9.Ningthoukhong, 10.Thinungei, 11.Phubala, 12.Sunusiphai, 13. Naranseina and 14.Thamnapokpi), covering the entire district (Fig. 1), where *Meitei* communities are the dominant community of the area. Voucher specimens including medicinal uses, procedure, composition, dose, etc., were collected following the standard

field and ethnobotanical methods of Jain (1985, 1987, 1991) and Sinha (1996) [23]. Further, detailed information whenever, contradiction comes was rectified through distinguished traditional healers. Voucher specimens were collected and preserved according to the conventional herbarium techniques as suggested by Jain and Rao (1977) [18]. The authentic identification of the plants was done with the help of the available floristic literatures, such as Flora of British India vol.1-7 Hooker, (1872-1897); Flora of Assam, vol. 1-4 Kanjilal *et al.* (1934-1940) [19], Flora of India, vol. 12-13, Hajra *et al.* (1995) [12], Floristic diversity of Assam Bora *et al.* (2003) [6].

Ethnobotanical data were collected by interviewing of 50 respondents on the traditional knowledge of medicinal plants, with help of questionnaires. These informants consisting of 28malesand22femaleswereselectedusingthepurposivesamplimgmethods.The informants were women herbal practitioners and elderly people. Besides these floras, in order to match the specimens for further confirmation and to identify the plants up to species level, the herbarium sheets were taken to the Botanical Survey of India, Eastern Circle, Shillong for consultation and conformation of the identification. The voucher specimen will be deposited in the Botany Department of CMJ University, Meghalaya in due course of time.

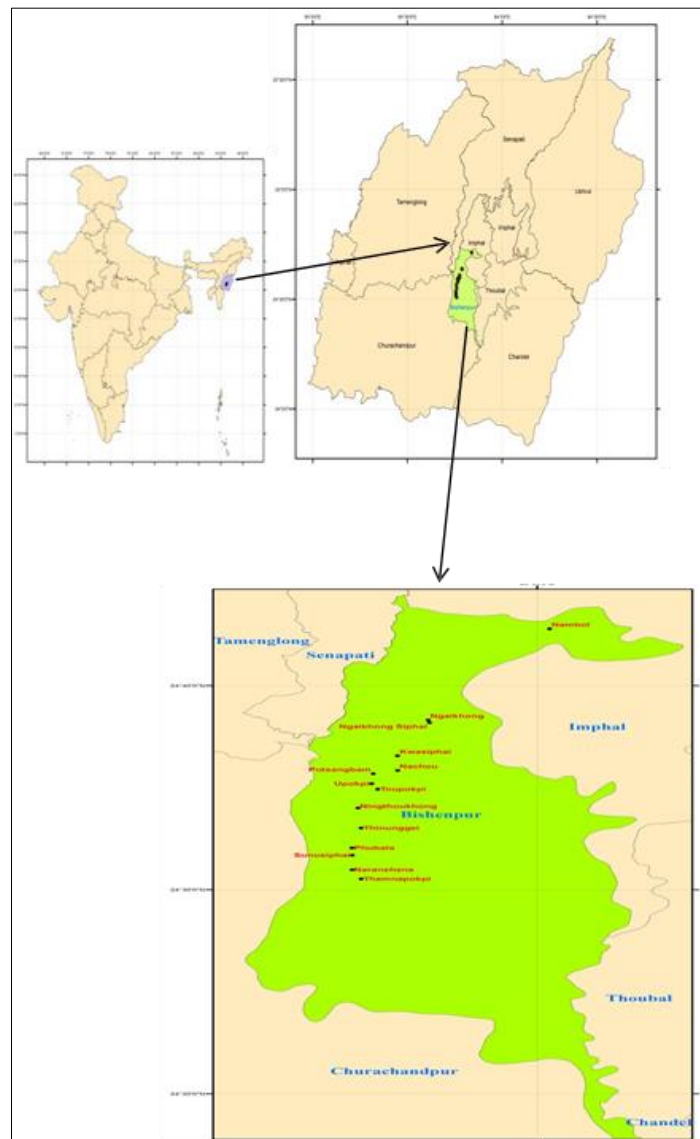


Fig 1: Maps showing the investigating site, A. Map of India showing Manipur State, B. Map of Manipur State showing Bishenpur District, C. Map of Bisenpur District showing study sites.

3. Results and Discussion

From the present investigation, a total of 32 plant species were reported to be used in the treatment of women ailments

by the local *Meitei* community of Bishnupur district and presented in Table 1 as follows:

Table 1: Medicinal plants used for the treatment of women health in Bishnupur District, Manipur

SI No	Plant Name	Family	Local Name	Plant Parts	Medicinal Uses
1.	<i>Achyranthes aspera</i> L.	Amaranthaceae	<i>Khujumpere</i>	Root	Timely delivery of child by pregnant women
2.	<i>Allium ascolanicum</i> L.	Liliaceae	<i>Meitei tilhoumacha</i>	Bulb	Boosting immunity during pregnancy and after delivery
3.	<i>Azadiracta indica</i> A. Jus	Melaceae	<i>Neem</i>	Leaves	Abortion
4.	<i>Blumia aromatica</i> DC	Asteraceae	<i>Leikham-man</i>	Leaves	White discharge
5.	<i>Bombax ceiba</i> L.	Bombacaceae	<i>Tera</i>	Bark and Fruit	Female diseases
6.	<i>Cannabis sativa</i> L.	Canabinaceae	<i>Ganja</i>	Leaves	Leucorrhoea
7.	<i>Chenopodium album</i> L.	Chenopodiaceae	<i>Monsaobi</i>	Twig	Leucorrhoea
8.	<i>Cinnamomum tamala</i> (Buch.-Ham.) T. Nees & Nees	Lauraceae	<i>Tejpata</i>	Leaf	Excessive menstruation
9.	<i>Clerodendrum indicum</i> (L.) Kuntze	Lamiaceae	<i>Charoi-utong</i>	Whole plants	Menstrual disorder
10.	<i>Coix lacryma-jobi</i> L.	Poaceae	<i>Chaning</i>	Root	Menstrual disorder
11.	<i>Colocasia esculenta</i> L.	Araceae	<i>Pan</i>	Petiole	Conceived
12.	<i>Colocasia gigantea</i> (Blume) Hook. f.	Araceae	<i>Yendem</i>	Ptirole	Forrejuvenating women after giving birth
13.	<i>Dioscorea alata</i> L.	Dioscoreaceae	<i>Haa</i>	Tuber	Gonorrhoea
14.	<i>Eupatorium odoratum</i> L.	Asteraceae	<i>Kambirei</i>	Leaves	Gonorrhoea
15.	<i>Foeniculum vulgare</i> Mill	Apiaceae	<i>Hop</i>	Seeds and Fruit	Menstrual pain, Infertility
16.	<i>Hedychium marginatum</i> C.B. Clarke	Zingiberaceae	<i>Takhelei-angangba</i>	Rhizome	Leucorrhoea
17.	<i>Imperata cylindrica</i> L.	Racush	<i>Nakuppi</i>	Leaves an Root	Gonorrhoea
18.	<i>Ipomoea aquatica</i> Forssk	Convolvulaceae	<i>Kolamni</i>	Whole Plant	White discharge
19.	<i>Ipomoea batatas</i> L.	Convolvulaceae	<i>Mangra</i>	Twig	Promoting Location
20.	<i>Lagenaria siceraria</i> (Molina) Standl	Cucurbitaceae	<i>Tumba</i>	Fruits	Lucorrhoea
21.	<i>Mimosa pudica</i> L.	Mimosaceae	<i>Kangphal ikaithabi</i>	Leaves	White discharge delivery urinary pain
22.	<i>Nymphaea stellata</i> Wild	Nympheaceae	<i>Thariktha</i>	Leaf petiole	Excessivemenstrual discharge
23.	<i>Osbeskia stellata</i> Wall	Melastemataceae	<i>Nura khongjomba</i>	Twig	Menstrual complaints
24.	<i>Plumbago zeynica</i> L.	Plumbaginaceae	<i>Tellidak</i>	Twig	Menstrual disorder
25.	<i>Quercus serrata</i> Thunb.	Fagaceae	<i>Uyung</i>	Leaf	White discharge
26.	<i>Rhododendron arboretum</i> Sm.	Eriacaceae	<i>Ching leihao</i>	Twig	Easy delivery
27.	<i>Ricinus communis</i> L.	Euphorbiaceae	<i>Kege</i>	Roots	Complaints during pregnancy
28.	<i>Scutellaria discolor</i> Coliber	Lameaceae	<i>Yenakat</i>	Leaves	Menstrual Pain
29.	<i>Sida rhombifolia</i> L.	Malvaceae	<i>Uhan</i>	Roots	Pregnancy
30.	<i>Tinosporacodifolia</i> (Wild) Hook. f.	Menispermaceae	<i>Ningthou Khonglei</i>	Leaf	Menstrual Disorder
31.	<i>Vitex negundo</i> L.	Verbenaceae	<i>Uriksibi</i>	Leaf	Post partum
32.	<i>Zingiber officinale</i> Roscoe	Zingiberaceae	<i>Sing</i>	Rhizome	Menstrual disorder

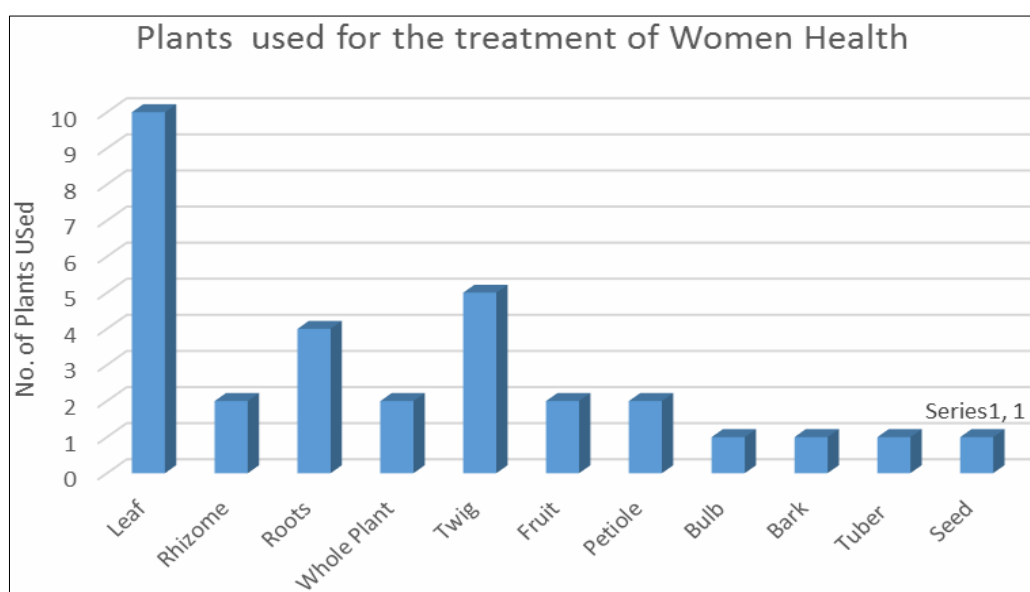


Fig 2: Frequency of plant parts used for the treatment of different women ailments.

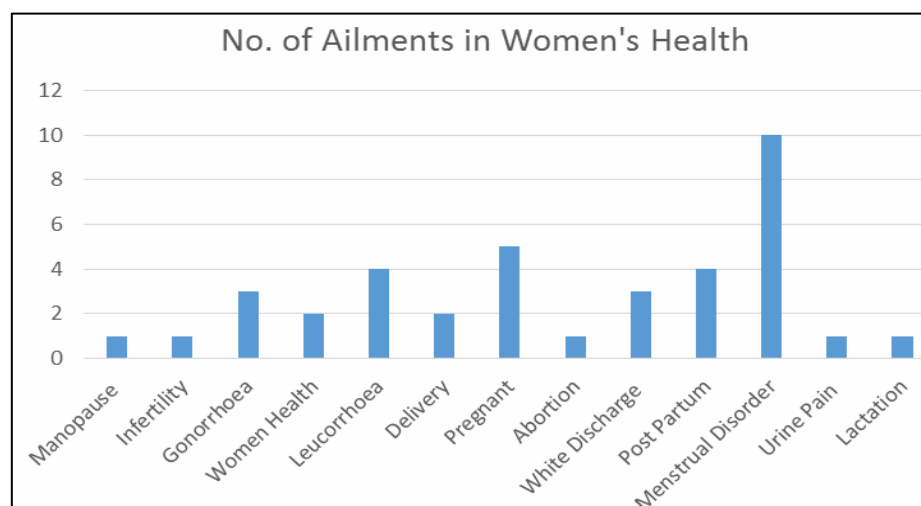


Fig 3: Ailments versus number of medicinal plants for women health.

From the above, it is observed that the medicinal plants part used for the treatment of different women ailments were found to be different for instance, leaves were found to be mostly used plants parts with 11 species, followed by roots and twig with 5 species, followed by fruits and petiole with six species respectively (Fig. 2). It was also observed that the most common women ailment among the *Meitei* community includes excessive menstruation, menstrual disorder, menopause symptoms and these are treated 12 plants species by white discharge (Leucorrhoea) with 8 plants species and Gonorrhoea with 3 plants species (Fig. 3).

The Medicinal preparation was given by the traditional healers in the form of decoration, raw, infusion, paste and there is no side effects using these herbal medicines. Plant and plant-based medicaments are the basis of many modern pharmaceuticals which we use in day today life for various ailments (Mali *et al.*, 2006) [20]. Shah *et al.* (2009) [22] presents the first-hand information gathered on 36 medicinal plants belonging to 23 families traditionally used by the tribal and rural women of northern areas of North West Frontier Province (NWFP), Pakistan for birth control.

4. Conclusion

Meiteis have a rich ethnobotanical and ethnotherapeutic knowledge, which was practiced by the Folk Healers commonly known as *Maibas* (Man-folk) and *Maibeas* (Female-folk) for curing various types of ailments by administering the wild medicinal herbs. *Maibeas*, are also midwives, who are engaged during delivery of child commonly called (*Mayoknabee*) and elderly women are the main practitioners for womenfolk's ailments (Devi, *et al.*, 2015) [10]. They talked freely about disorders, in the matter of fertility, leucorrhoea, gonorrhoea, etc. The importance of traditional medicines has been realized worldwide as many of them proved to be very effective. This work also gives scope for appropriate scientific studies on the phytochemical and pharmacological activities of the recorded plants for drug design Devi, *et al.* (2015) [10]. The traditional healers of Manipur used various traditional medicinal plants for treating various women ailments, however, with the introduction and use of allopathic medicinal practices, the traditional knowledge for health treatment of women has been gradually declining day by day. This study provides comprehensive information about the traditional knowledge of medicinal plants used in the various women ailments. So, in order to

preserve the indigenous knowledge and usefulness of these medicinal plants, there is an urgent need to explore, document these medicinal plants for future research and help in importing knowledge to the local people for the need to conserved for future generation.

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