RESEARCH ARTICLE

DOCUMENTATION OF ETHNOMEDICINAL PLANTS USED FOR MATERNITY CARE BY THE PAITE TRIBE OF MANIPUR, NORTH-EAST INDIA.

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Abstract

This paper aims to study about the ethnobotanically important plants used by the Paite tribe of Manipur, India. The present work is an effort to document and explore various therapeutic applications of plants used during pregnancy, parturition and postpartum recovery among the Paite tribe of Churachandpur district of Manipur. Data pertinent to the objective was collected from mainly women, herbal practitioners and elder persons. Interview based survey along with informal discussions and field visits were used to procure the information pertaining to local names of ingredients, medicinal uses and detailed mode of administration. From the present investigation, a total of 21 medicinal plant species were reported to be commonly used by the local people in traditional maternal health care system of the study area. The parts of the plant species are being used according to the nature of the ailment. Plant parts like leaf, seed and roots in the form of paste, decoction, massaging are used. Proper documentation and awareness about the uses of the medicinal plants should be taken up at the earliest because these valuable plants are in threat due to urbanization, deforestation, etc.

Introduction:

The history of human association with their surrounding plants perhaps dates back to the human civilization. Now-a-days, rapid civilization and urbanization of human race leads to destruction of forests which induce threat to valuable plants (Laloo et al. 2000). However, some communities are still associated with plants in and around them. Tribal people are naturally the forest dwellers which they are highly acquainted with traditional knowledge about various uses in curing different ailments. A large number of medicines are still being used for the relief of various ailments. The practices and basic principles survive through ages, handed orally over generation to generation, and may be with or without modifications.

Manipur lies in the north-eastern tip of India. It lies in between latitudes of 23°.50’ N to 25°.41’ N and longitudes of 93°.03’ E to 94°.47’ E. Paite tribe is one of the scheduled tribe of Manipur with 44,861 population according to 2011 census. They are mainly confined to Churachandpur district of Manipur.

Documentation of traditional knowledge on ethno-medicinal use of plants has been considered as a high priority to preserve the traditional way of curing ailments which in turn support drug discovery (Khandel et al. 2012). It is
again acknowledged in the literature (Fransworth et al. 1985; Kritikar & Basu, B.D. 2001). Some researchers also documented the ethno-medicinal plants like Wole & Ayanbode (2009) and Ene and Atawodi (2012) of the Nigerian rural community. Maroy & Cheikhhyoussef (2015) carried out a comparative study of the medicinal plants used in rural areas of Namibia and Zimbabwe.

The study aims to identify the culturally important traditional herbal remedies practiced for pregnancy, childbirth and postpartum recovery that prevail in the study areas.

**Materials and methods:**
Generally the indigenous knowledge of curing different ailments regarding the women problems lies in the deep mind of the women of the rural areas. From the study area, the respondents were mainly the elder womenfolk conducting child birth. Information about the collected plants were recorded with their vernacular names, plant parts used, detailed information on the mode of administration with ingredients. Following the interviews, field visits were conducted in order to identify plant species of medicinal importance.

**Results:**
From the present investigation, a total of 21 plant species were reported to be used by the local people in traditional maternal health care system of the area. These are illustrated in the Table 1, arranged the plants in alphabetical order of the scientific name, followed by family, vernacular name, parts used, purpose of use and mode of administration. From this investigation, the plants to be used during pregnancy common problems like morning sickness, abdominal pain, blemishes on face, cold and cough, constipation; child birth; and for postpartum recovery. The families incorporated in this survey are of Amaranthaceae, Annonaceae, Apiaceae, Caesalpinaceae, Caricaceae, Convolvulaceae, Euphorbiaceae, Fabaceae, Lamiaceae, Lauraceae, Leguminosae, Liliaceae, Lythraceae, Malvaceae, Menispermaceae, Mimosaceae, Musaceae, Plumbaginaceae, Rhamnaceae, Verbenaceae and Zingiberaceae. Stem, seed, leaf, root are the most widely used plant parts accounting for 5,5,4,4 respectively which is followed by bark and fruit with 2 plant species, bulb, pod and rhizome (1 species each).

The method of administration is applied accordingly to the nature of ailment. The medicine was made from one plant or in combination with other plants. More plants are used during pregnancy. The plants use during delivery and post natal complications are found to be less common. In post-partum, women are treated with herbal decoctions, infusion and extracts for physical recovery, augment lactation. Abortion may be birth control or unwanted pregnancy, for this matter, methods of decoctions of certain plant parts is used.

**Discussion:**
The Paite people have a strong belief in the values of medicinal plants. They use indigenous medicines to a considerable extent for maternal care. From the present observation, it has been observed that they use locally available and readily accessible resources. Plant sources form the major resources and it may be of easy available, non-narcotic, no side effects and sometimes it may be the only source available to the poor (Walker, 1966). The medicines are prepared by different methods of boiling, heating, grinding or extraction with water and honey. The herbal medicines are used externally in the form of paste or taken orally.

**Table 1:** Valuable medicinal plants used for maternity care by the Paite tribe of Manipur

| Name of the plant species | Family                | Vernacular name | Part used | Purpose of use         | Mode of administration                                                                 |
|--------------------------|-----------------------|-----------------|-----------|------------------------|---------------------------------------------------------------------------------------|
| *Acacia nilotica* (L.) Willd. ex Delile | Leguminosae           | Naulokshing     | Bark      | To prevent uterus prolapse | Sittings are done in water boiled with barks of equal amount of *Acacia nilotica* (L.) Willd. ex Delile and *Ficus religiosa* L. |
| *Achyranthes aspera* L. | Amaranthaceae         | Vottul          | Root      | Easy delivery          | Roots of the plant are tied around the waist of women for easy delivery.              |
| *Allium cepa* L.        | Liliaceae             | Phulunsan       | Bulb      | Morning sickness       | Mixture of the bulb with few leaves of *Mentha spicata* L. with a pinch of              |
| Plant                        | Family         | Part           | Condition               | Treatment                                                                 |
|------------------------------|----------------|----------------|-------------------------|---------------------------------------------------------------------------|
| Annona reticulata L.         | Anonaceae      | Seed           | Abortion                | Grounded powder of seeds with those of *Piper nigrum* L. in equal quantities is given up to first trimester of pregnancy. |
| Carica papaya L.             | Caricaceae     | Fruit          | Abortion                | Young fruits are given daily for a week.                                  |
| Cassia fistula L.             | Caesalpinaceae | Pod            | Constipation during pregnancy | Decoction of pods with a teaspoonful of grounded *Foeniculum vulgare* Mill. in a glass of water is given 2-3 times a day for a week. |
| Cinnamomum tamala Buch.-Ham. | Lauraceae      | Leaf           | Cold & cough during pregnancy | A half glass of decoction of leaves with *Elletaria cardamomum* L. and *Piper nigrum* L. is taken orally after mixing with sugar till the ailment persists. |
| Cinnamomum verum J. Presl.   | Lauraceae      | Bark           | Constipation            | Bark powder mixed with boiled water is given to empty stomach early in the morning. |
| Coriandrum sativum L.        | Apiaceae       | Leaf           | Morning sickness        | Decoction of 14 gms of leaves is administered orally twice a day.          |
| Colocasia gigantea(Blume)    | Araceae        | Stem           | To promote lactation    | Stems are cooked and taken as curry.                                      |
| Plumbago zeylanica L.        | Plumbaginaceae | Stem           | Abortion                | Crushed stem with lime is given once a day in the morning.                |
| Jatropha curcas L.           | Euphorbiaceae  | Root           | Abortion                | Partly crushed roots are kept in vagina overnight for 3-4 days and the result is beneficial. |
| Mucuna nigricans (Lour.) Steud. | Fabaceae     | Seed           | To increase fertility   | Grounded powder of seeds mixed with equal amount of honey is given orally in the morning. |
| Musa paradisiaca L.          | Musaceae       | Stem           | To promote lactation    | Stems are cooked and taken as curry.                                      |
| Ocimum gratissium L.         | Lamiaceae      | Leaf           | Abdominal pain during pregnancy | Decoction of leaves with few leaves of *Mentha spicata* L.                |
| Plumbago zeylanica L.        | Plumbaginaceae | Root           | Abortion                | Root powder is taken in the early morning.                                |
| Sesamum orientale L.         | Pedaliaceae    | Seed           | Dizziness               | Seeds are taken orally in the morning.                                    |
| Tinospora cordifolia         | Menispermaceae | Stem           | Easy delivery           | Juice of stem is given at the time of delivery.                          |
| Vitex negundo                | Verbenaceae    | Leaf           | Post partum             | Leaves are boiled with                                                     |
L. care water is used for bathing for both mother and infants.

| Plant                        | Family       | Part       | Use            |
|------------------------------|--------------|------------|----------------|
| *Zingiber officinale* Rosc.  | Zingiberaceae| Shing      | Rhizome        | Backache       | Grounded paste of rhizome is applied daily. |
| *Zizyphus mauritiana* Lam.  | Rhamnaceae   | *Burol*    | Fruits         | Abdominal pain | Fruits are taken orally to get relief from abdominal pain during pregnancy. |

It was also observed that some medicines are made by using single plant or with other ingredients. Therefore, efforts should be made to explore more about the medicinal plants in the region. They also cultivate the medicinal plants in their home gardens for immediate purposes and conservation.

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