Scientia Africana, Vol. 20 (No. 3), December, 2021. Pp 221-230 *https://dx.doi.org/10.4314/sa.v20i3.18*
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ETHNO MEDICINE "THE USES OF 'AJU-MBAISE' IN POST PARTUM CARE

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Received: 23-09-2021
Accepted: 13-11-2021

ABSTRACT

A survey of the plants used in post partum care in Mbaise and its environs popularly known as Aju Mbaise was carried out. A series of unstructured interview was used to elicit information from about 36 participants made up of the old women and herbalists who dispense the wraps especially that are used in post-partum treatment. This work aimed at unraveling and documenting the plants that are found within the wrap for post-partum care and on the claim for its potency for treatment in parturition. The wrap is prepared from different plant parts which include leaves, flowers, fruits, twigs, barks, roots and even buds and administered as a decoction. At the end it was found that the wraps had plants drawn from 13 different families. These families include Acanthaceae, Menispermataceae, Ceasalpinoideae, Commelinaceae, Annonaceae, Convulvulaceae, Leguminosae, Euphorbiaceae, Sapotaceae, Asparagaceae and Myrtaceae. The range of treatments include high blood pressure, detoxification, oedema, erectile dysfunction and most especially in post-partum treatment. The plants from these families are wrapped together in one pad. In conclusion ethno-botanical survey revealed that decoction of 'Aju Mbaise', enhances quick recovery after child birth.

Keywords: Aju-Mbaise, ethno-medicine, post partum, potency.

INTRODUCTION

The use of plant extracts in parturition in the developing world cannot be over emphasized. Herbal medicine is a reality of many cultures especially in Africa particularly in Nigeria (Torr-anyiin *et al*., 2003; Orabueze *et al*., 2017; Madara *et al*., 2018) such that despite the advancement of orthordox medicine it is still well entrenched and practiced because of better cultural acceptability, better compatibility (Orabueze *et al*., 2017; Madara *et al*., 2018) with the human physiology and least side effects. The knowledge is handed down through generations by oral traditions, experience, observations, spiritual encounters and stories (Mokgobi, 2014).

The period following child birth (the post-partum) is a critical phase in the life of mothers and new born babies because most maternal and infant mortalities occur within this time, especially in developing countries (WHO, 2013). The health of mother and child is determined by the kind of maternal health care given both at pre and post-delivery (Sidth *et al*., 2007). In many developing countries, complications during pregnancy and childbirth are the leading causes of death among women of reproductive age (UNICEF, 2018). Maternal health and reduction of maternal mortality have been topics of concern worldwide since the late 1980's. Improving maternal health is one of the seventeen

sustainable Development Goals (SDGs); the international community is committed to reduce maternal mortality rate by 75% before 2030. However, between 1990 and 2015, maternal mortality worldwide dropped by about 44%. It is expected that between 2016 and 2030, as part of the sustainable development agenda, the global maternal mortality must reach less than 70 per 100000 live births (WHO, 2017). Thus, proper care of the mother during this period is a priority. One way of achieving this is by controlling the diet of the mother, immunity-boosting diet must be given to the mother at this period to ensure proper blood flow, supply of essential nutrients, prevention of infections and enhanced lactation (Ogueke *et al*., 2016). In some localities in Nigeria like, Ahiazu, Aboh, Ezinihitte, Awka and Umuahia in the South Eastern part, special leaves, barks and plants are concocted and the liquid extracts used to prepare dishes (soups and yam pepper soup) for lactating mothers (participatory observation). This concoction is believed to contain bioactive compounds from the leaves, barks and the roots as well as anti-oxidants (orally passed down). Extracts from these leaves and roots are known to counter a lot of health issues ranging from stopping arthritic pains, correction of erectile dysfunction, enhance fertility to restoration of health in post-partum stage. Healing of wounds, prevention of infections, easing pains and improving lactation (Abdillahi *et al*.,2013, Salihu *et al*.,2018) is also included. One way of achieving this is by controlling the diet of the mother; any diet given to the mother at this period should be that which boost immunity, ensure proper blood flow, supply essential nutrients, prevent infection and encourage lactation Ogueke *et al*. (2016).

'Aju Mbaise' comprises different plants wrapped together and used as a whole in one entity. Approximately one quarter of prescribed drugs contain plant extracts or active ingredients obtained from or modeled on plant substances like Aspirin, atropine, artemesinin, colchicine, digoxin, ephedrine, morphine, physostigmine, pilocarpine, quinine, quinidine, reserpine, taxol, tubocurarine, vincristine and vinblastine *(*Ansiri *et al.,* 2010, Oladeji, 2016).

Therefore, this study examines the content of the 'Aju Mbaise' as well as the uses of the plants found in individual components. The results will validate the authenticity of the claim of healing in parturition, increase the awareness and curative information of this herb and emphasize the need to recognize traditional and orthodox medicine practices and adopt them as formal alternatives to curative needs.

MATERIALS AND METHODS

Study area: Aju Mbaise originates from Mbaise (a place in Imo State) South Eastern Nigeria, a clan related by inter marriage. Mbaise actually is made up of 5 clans namely Agbaja, Ahiara, Ekwereazu, Ezinihitte and Okeuvuru, covering 3 Local Government Areas viz Aboh Mbaise, Ahiazu and Ezinihitte Mbaise.

Aju Mbaise formulation: Aju Mbaise is a combination of plants from different families made of their twigs, barks, seeds, leaves, flowers and roots for the treatment of ailments like high blood pressure, erectile dysfunction and infertility, but the bias will be on post-partum treatment after child birth. The twigs, leaves, roots, barks, fruits

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and seeds of these plants are used in the preparation of the concoction. All the contents are wrapped together and used as a whole in one entity.

Interviews: The most important data collection tools used in this study were resource persons such as herbalists, elderly men and women and other individuals who have the knowledge of medicinal plants and their efficacy. Series of interviews were conducted with 36 participants recruited based on their verbal consent.

Plant identification: Plant samples not readily identified were taken to the curator of the Department of Plant Science and Biotechnology in the University of Port Harcourt for accurate identification in relation to type specimens and established keys.

Preparing the wraps: Participatory observation was used to ascertain how wraps are produced amongst herbalists. The broad leaves are used to wrap the smaller particles like the twigs and flowers and seeds. This is then secured with a twig tightly bound in a circular form just like the pad used for carrying load in that area, from which the name is coined.

Preparation of the decoction: To prepare the decoction the wrap is dropped into a big pot of about 5L of water, the pot is then covered to avoid losing the volatile components and brought to boil for about 30 minutes after which it is brought down; sieved and about 400ml of the extract drank hot by the patient at a time. It is either prepared alone as drug and taken directly. It can also be prepared in combination with fish and stock fish but never with meat and taken as pepper soup for which ever cure is intended.

RESULTS

A total of about 49 people were approached to answer some questions from their knowledge and work with herbs. Out of this number, 36 persons participated and 95% (34) gave information generously while 5% were not forthcoming. Information obtained included names of plants per wrap, plant parts, number of ailments treated and method of administration. The plants and plant parts used are presented in the Table 1.

Table 1 Lists of plants for post-partum treatment with 'Aju Mbaise'

S/N	Botanical	Family	Common	Local/Native	Plant parts used	Habit	Ailment treated as confirmed by the herbalists
1	*Justicia carnea*Lindl.	Acanthaceae	Flamingo/Brazillian plume	Ogwu obara	Twigs,/ leaves	Shrub	Used to increase/improve blood flow.
2	*Triclisia subcordeta*(oliv.)	Menispermataceae		Ogbanelu	Twigs, leaves and stem	Shrub	Treatment of oedema, anaemia, diarrhea and stomach pain.
3	*Dialium guineense*(willd.)	Ceasalpinoideae	Velvet tamarind	Icheku	Twigs,leaves, bark	Tree	Treatment of cough, stomatitis and toothache.
4	*Palisota hirsuta*(thumb.)K. Schum	Commelinaceae		Ikpere aturu	Roots twigs and leaves	Perennial herb	General analgesic and antiseptic properties, improves milk,production,. Treatment of urethral discharge
5	*Uvaria chamae*(P.Beauv.)	Annonaceae	Finger root, Bush banana	Mmimi ohia	Bark, twig and leaves	Shrub	Treatment of abdominal pain, treats amenorrhea and to prevent miscarriage
6	*Ipomea maurifiana* (Jacq.)	Convulvulaceae	Morning glory	Mgbanala	Root,twig	Perennial herb/ Climber	Stimulates lactation, boosts fertility and as ornamentals .
7	*Pterocarpus soyauxii* (Taub.)	Leguminosae	African coral wood	Uhie ocha	Twig and leaves	Shrub	Dysmenorrhea ,uterine hemorrhage and checks excess bleeding
8	Macaranga hurifolia (Beille.)	Euphorbiaceae		Owariwa	Root and twig	Shrub	Diuretic, relieves oedema in pregnancy
9	*Chrysophyllum albidium*(G.don)	Sapotaceae	White star apple	Udara	Leaves, twig and bark	Tree	Regulates blood pressure, treats malaria,and anaemia. sterility and sexual asthenia.
10	*Dracaena manni* (Baker)	Asparagaceae	Asparagus tree	Ike mkpodu	Root, twig, leaves	Tree	Treats stomache ache,chest pain and acts as ornamentals with edible leaves
11	Psidium guajava L.	Myrtaceae	Guava	Gova	Leaves,twig and bark	Shrub	Treats ulcer, diarrhea and diabetes. Edible fruit high in vitamin C, A and Pectin
12	*Calichilia barteri*(Hook.F)	Apocynaceae		Utunkita, Amunkita	Twigs and leaves	Shrub	Treats dizziness, used as laxative and as ornamentals,

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13	*Xylopia aethiopica*(Dunal) A.Rich	Annonaceae	Ethiopian pepper	Uda	Leaves, twig, seeds	Tree	Rheumatism, improves fertility, mouth wash for toothache. Cures constipation, regulates menstrual flow and contains abortifacient properties.

A total of five wraps were identified in the area used in the treatment of different ailments. These wraps contain a combination of 8 – 12 plants and are used to cure about 3 – 7 ailments each (Fig. 1).

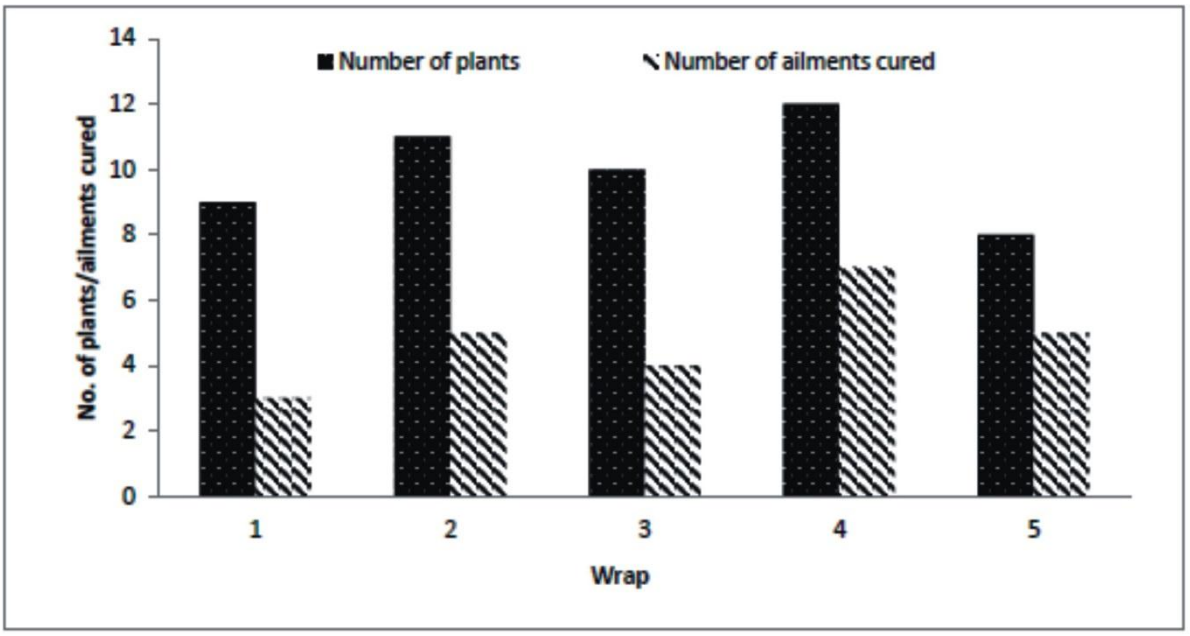

Fig.1: Number of plants and the number of ailments cured as claimed by the respondents.

DISCUSSION

The investigation on the (uses) of Aju Mbaise in post-partum treatment revealed that medicinal plants serve multiple purposes in terms of healing as one plant can be used in the cure of different ailments. The different plant species found in the wraps are also involved in the treatment of other ailments. There is no limit to the kind of ailment that can be treated with medicinal plants from topical issues like eczema, skin rashes to common headache, cold, stomach upset and then to the more complicated issues like arthritis, edema, diarrhea, diabetes, heart palpitations, gynecological issues and cancer (Erhenhi, 2016, Ribeiro *et al*., 2018, Salihu *et al*., 2018, Orabueze *et al*., 2018). The wraps investigated were the ones used for the after birth to help the womb contract and return to normal size after delivery, improve lactation, and enhance the woman to look radiant in the process. The different plants found in Aju Mbaise wraps are also used for the cure of arthritic pains, malaria, edema and improves blood flow (Ribeiro *et al*., 2018, Orabueze *et al*., 2017 Alhaji *et al*., 2018, Kaur *et al*., 2012 Madara *et al*., 2018).

Captured within its efficacy in treatment includes weight loss and the arrest of any anemic condition. Our findings showed that Aju Mbaise is said to quicken the expulsion of liquids accumulated during pregnancy both in the womb and in the body, thus allowing the womb to return to its normal size. It also detoxifies and enhances fertility as well as stimulates the hormone prolactin, responsible for the flow of breast milk in lactating mothers including nourishing the skin which results in a glittering complexion as agreed by 100% of the respondents.

Among the myriads of things indicated as its properties is the content of anti-oxidants, anti-inflammatory and anti-aging agents. It is used in correcting both irregularities in the menstrual cycle and easing of cramps during menstruation, healing of wounds was also mentioned by 95% of the traditional healers.

Different parts of the plant which include twigs, leaves, roots, barks, fruits and seeds of these plants are used in the preparation of the concoction. The most common part of the plant used is the leaf. This may be due to the presence of active metabolites present in the leaf (Buwa-Komoren *et al.*, 2019). The leaf is the center of biosynthesis of different metabolites which may contain many bioactive principles with good medicinal properties (Sadat-Hosseini *et al.*, 2017; Mwangi *et al.*,2017). A plant may contain several compounds that may be active against a wide range of diseases, a good example is the use of the fruit seed of *Xylopia aethiopica* commonly known as Ethiopian pepper or uda in the local parlance, an aromatic spice in the preparation of soup to aid new mothers in breast feeding is mentioned for healing of asthma, tuberculosis, and wounds (Buwa-Komoreng *et al.*, 2019). According to the local women it has the power to abort young fetus so it is contra indicated for pregnancy. Aguoru *et al.* (2016) have Phytochemically, quantified *X. aethiopica* to contain Saponins (8.33%), alkaloid (5.67%), flavonoids (5.24%). Some alkaloids are considered poisonous but some are used medicinally (Ivan 2003, Asekun and Adeniyi (2014). Alkaloids are also used in orthodox medicine given immediately after child birth to facilitate delivery of the placenta and to prevent bleeding after child birth. An example of this type of alkaloid is ergometrine. Researchers have also confirmed it as having anti-inflammatory and anti-pyretic properties, (Karawya *et al.*, 1979, Fleischer, 2003). It is also said to enhance fertility as well as aid delivery (Asekun and Adeniyi, 2004, Mike *et al*., 2014). The twigs and leaves of *Pterocarpus soyauxii* commonly called African coral wood or Uhie ocha is added to effect uterine contraction and check hemorrhage, in young girls and ladies it is used to treat dysmenorrhea, uterine hemorrhage and excessive menstruation. The Convulvulaceae, *Ipomea maurifiana* (mgbanala) commonly known as morning glory is specifically added to stimulate lactation and used to boost fertility in non-post-partum treatment. The fruit of the Sapotaceae *Chrysophyllum albidium* (Udara) is well known and loved by all and well craved in pregnancy but little is known about the leaves in the treatment of anemia, as part of it is used in the wrap of Aju to check anemia, malaria and also helps to regulate blood pressure, 85% of the respondents agreed to this. Treatment of sterility and sexual asthenia was also mentioned by 25%. Keeping the new

Scientia Africana, Vol. 20 (No. 3), December, 2021. Pp 221-230 https://dx.doi.org/10.4314/sa.v20i3.18
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mother healthy to look after the infant is also part of the care, this may justify the inclusion of the leaves, twigs and bark of *Psidium guajava*, well known for its anti-fever properties and large store of vitamins A, C and pectin. The twigs and roots of Owariwa *(Macaranga hurifolia)* of the family Euphorbiaceae are extremely diuretic and even beyond post-partum are used to treat edema in pregnancy.

It is important to note that all the plants knotted in Aju Mbaise must have at one time been used individually for one treatment or the other and the discovery of the combination must have sprung from instinct. The combinations of these different herbs have their roles and functions. Interactions with native medical practitioners and consumers showed that the plants must have been first explored as sources of food from where they were observed to possess some beneficial health properties. Nnadiukwu *et al. (*2019) stated that the bioactive compounds are not known but other researchers like Aguoru *et al*. (2016) have quantified the bioactive compounds of some of the plants. Ogueke *et al.* (2016) reported that the decoction from Aju Mbaise contains bioactive compounds believed to be responsible for observed anti-bacterial activities and if taken in adequate amount can contribute to micro and macro minerals requirements. Supply of mineral elements is important during lactation because women are more likely to suffer from micro nutrient deficiencies than from a shortage of energy or protein. Allen (1994) opined that micro nutrient deficiencies are more likely to affect breast milk composition, as well as the development and nutritional statutes of the infant. Secretion of calcium, iron, copper and zinc in breast milk is not dependent on intake rather on maternal reserves therefore lactating mothers are required to consume adequate quantities of these nutrients to avoid deficiencies (Allen 2005). Consumption of Aju Mbaise decoction can therefore contribute to the mineral intake and consequently increase the secretion of these mineral nutrients in breast milk and improve infant nutrition as well as prevent maternal deficiencies.

CONCLUSION

Even in the light of increased sophistication of modern health care as enriched by science and technology, the use of herbal medicine will continue to thrive in both poor and rich societies for many and probably for different reasons. It could also be said that the use of medicinal herbs to cure common ailment will continue to be a major part of the health care delivery system in many societies.

The study has shown that consumption of the decoction of "Aju Mbaise" especially during the post-partum can improve the health status of its consumer and equally solve a lot of gynecological issues in women as well as other health issues. It also showed that one plant can be involved in different cures. Decoction of Aju Mbaise is most popularly used and leaves are more predominant in the preparation.

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