

**ETHNOMEDICAL STUDIES OF PLANTS USED FOR
TREATMENT OF DISEASES IN EASTERN PART OF
NIGERIA.**

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ABSTRACT

- An investigation into the ethnomedical studies on plants used for the treatment of certain diseases in Eastern Nigeria was carried out. The results showed that different plant species belonging to different families of flowering plants were used for the treatment of one ailment or the other. The plants were made up of cultivated, wild and protected species. Species of plant such as *Cocos nucifera*, *Newbouldia laevis*, *Asmina triloba*, *Ipomoea trichantha*, *Azadirachta indica*, *Musa paradisica* etc were implicated in the treatment of more than one disease. Different diseases including such serious cases as madness, fibroid, diabetes, gonorrhoea etc were reported curable by the plants. Aspects of ingredients such as the maintenance of standard quality by the use of specific quantities of plant extracts and a tendency towards specialization by the practitioners were apparent in this study. The fear of lack of government approval due to lack of medical certificate was reportedly hindering the growth of the practice. Based on this investigation, the researcher recommended among other things, that the Federal Government of Nigeria should as a matter of urgency consider publishing the National Policy on ethnomedical research.
- **Keywords:** Ethnobotany, Diseases, treatment, medicinal plants, Eastern Nigeria.

INTRODUCTION

Ethnomedicine is that branch of cultural medicine that produces and administers drugs by the use of plants and plant products while a herb in cultural medicine is a plant or plant material which can be used for therapeutic purposes. It could well be that the initial selection of plant materials for medicinal purposes was influenced by religious thoughts and, its collection and administration was accompanied by a magic ritual. It has also been proposed that knowledge of medicinal plants was gained by accident, although this theory has been refuted by a number of traditional medical practitioners who claimed that information on such plants was communicated to their ancestors in various ways (**Akpata, 1979: Lambo, 1979**).

The uncertainty of its modes of acquisition notwithstanding, *ethnomedicine* have been in use in various parts of the world at every period of human history. Abayomi (1982) reported the use of species of *Hydnocarpus* in the treatment of leprosy in China between 3000 and 2730 BC. He further indicated that the excavation of *Papaver somniferum* and *Ricinus communis* from tombs in Egypt revealed the use of phytomedicine in that part of Africa as far back as 1500 BC.

With the invention of writing, the Greeks became the earliest groups of Europeans to produce plant documents based initially on folk or cultural practices, and later on investigations into plants and plant products. They established physic gardens for the training of physicians and generated considerable impetus in the description, naming and classification of plants.

Knowledge of the state of ethnomedicine in the new world is dependent on the starting point of literacy in each area.

It is therefore not surprising that the earliest records of ethnomedicine in Nigeria were by expatriates working on the flora of Nigeria. As the accounts of these authors were not, in most cases, based on first hand information, the authenticity of their records cannot therefore be asserted.

- Recent years have witnessed a turn of events in the practice throughout the world owing to:

- The preference of many consumers for products of natural origin
- The efficacy of plant medicines especially in certain cases like diabetes, hepatitis and sickle cell where modern medicines have little or no effect,
- The fact that ethnomedicine is now scientific in approach, especially since the active ingredients in the plant have been identified and categorized in most cases, while the production methods have been standardized.
- Following the new trend, many countries have either co-recognized cultural medicine or have integrated it into their healthcare programmes . In Nigeria, the decree on the National Policy on Cultural Medicine is ready for promulgation (Anonymous, 1979). This is sequel to the achievements of the new trend (*Abayomi, 1986; Kafaru, 1994; Ilonze, 1995; Nwagwu, 1997*). Apart from moving the nation forward in the health sector, these practitioners have made gigantic landmarks in inventorising of the medicinal plants of Nigeria.

- A checklist of medicinal plants is very important to any nation, especially in Eastern Nigeria where majority depend on plant remedies. It forms a database for medicinal plants research and constitutes a conservatory of the rich culture of phytomedicine. It is an important tool for the establishment of botanical gardens and a permanent record of the botanical resources of any nation. It provides a justification for the protection or conservation of some of the species in the list under the threat of extinction. In Nigeria where majority of the practitioners are illiterate, the onus of recording their plants lies on the plant taxonomists.
- This work therefore is the study of plants used for the treatment of diseases in Eastern part of Nigeria. It is aimed at providing the scientific names of the plants, their families, common names, parts used, disease cured, quantity used and their vernacular names in such a way that someone without the knowledge of the plant can

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MATERIALS AND METHODS

- The investigation was designed into three component parts-oral interviews, field identifications and laboratory identification. For the oral interviews, ethnomedical practitioners were visited in their homes, each on an appointed day. During the interviews, each practitioner was asked a set of pre-documented questions (Appendix 1) covering his personal data, the plants he used and the diseases cured by the plants. The responses were recorded. The interview component of the survey was made oral because most of the practitioners were illiterate. Also on appointed days, each practitioner took me to the field to familiarize me with some of the plants mentioned during the oral interviews. Specimens of the plants were collected and carefully numbered. Attempts were made

- at this stage to ascertain from them, the local names of the plants. Photograph of some of the plants were taken plate 1. Back to the preparation room of the herbarium, the scientific names of the plants were determined using *Hutchinson and Dalziel (1954 and 1968): Keay, et al.(1964): Stanfield (1970):* Lowe & Stanfield (1974) and Burkill (1985). The specimens were finally dried, numbered, pressed, mounted and deposited at the herbarium of Imo State University, Owerri, Nigeria.
- Finally all the accruing data were processed and arranged in a table showing an inventory of the plants they put into use, a checklist of the diseases cured by the plants, the parts used, quantity, common names, vernacular names and families. Table 1.

RESULTS

- The results of this investigation were organized and arranged as shown in table 1. indicating the scientific names and families of the plants, the common and vernacular names of the plants, the parts used, the growth methods, the quantities and the diseases cured by the plants.
- The results showed that a total of 23 different species of plants belonging to 23 families of plants were used to cure one disease or the other. (Table 1). Out of the above number of species, 11 are cultivated, 9 are wild, 2 are protected, 3 are wild and cultivated and only 1 is wild & protected. Although the recorded number of plant species as observed in this work is 23 but in some cases, the same species were used to cure more than one disease.
- About 22 different diseases including such more serious cases as ulcer, madness, fibroid, gonorrhoea etc were cured by the plants. The result also indicated that just as the same plant could be used for the treatment of different diseases, so could a combination of plants be used to treat one disease. Details of the diseases and the drugs, including their quantities, preparation methods and dosage are as shown in table 1.

TABLE 1: CHECKLIST OF PLANT SPECIES AND THE DISEASES CURED BY THEM

S/N	SPECIE	FAMILY	COMMON NAME	VENACULAR NAME	PART(S) USED	QUANTIT Y	PREPARATION METHOD	DOSAGE	GROWTH METHOD	DISEASE(S) CURED
1	<i>Cocos nucifera linn</i>	Araceae	Cocunt palm	Akioyibo	Endosperm	32.41g	Extracted	-	cultivated	Antidote
2	<i>Chrysophyllum albidum G. Don</i>	Sapotaceae	-	Udara	Roots	41.60g	Ground and extracted with water	1-shot twice daily for 2 days	Wild and Cultivated	Antidote
3	<i>Canarium Schweinfurthii Engl.</i>	Burseraceae	Wild pear	Ubemgba	Stem bark	25.61	Cut into pieces and extracted with water	1-glass daily for 7 days	wild	Arthritis
4	<i>Napoleona imperalis P. Beauv</i>	Rubiaceae	-	Ikennemereoché	Roots and Fruits	221.66g	Macearted and extracted with water	1 glass daily for 6 days	Wild	Fibroid. Arthritis
5	<i>Newbouldia Laevis (P.Beaur) Bureau</i>	Bignoniaceae	-	Ogirishi	Leavers and Root	204.40g	Crushed and extracted with water	1 shot twice daily for 7 days	Wild and Cultivated	Bleeding in Woman, Migrane
6	<i>Citrus Parachisi Linn</i>	Rutaceae	Grape	Grape	Juice	-	Made into paste with horney	Rubbed once daily for 7 days	Cultivated	Body aches
7	<i>Citrus aurantifolia Swingle</i>	Rutaceae	Lime	Oroma-nkirisi	Juice	-	Made into paste with shear-butter	Rubbed at the affected part once daily for 7 days	Cultivated	Dermatitis
8	<i>Cymbopogon Citratus (DC) Staff</i>	Poaceae	Lemon grass	Achara tii	Stems and Leaves	180.32g	Boiled with water	Inhale the vapour regularly for 4 days	Wild	Catarrh

S/N	SPECIE	FAMILY	COMMON NAME	VENACULAR NAME	PART(S) USED	QUAN-TITY	PREPARATION METHOD	DOSAGE	GROWTH METHOD	DISEASE(S) CURED
9	<i>Dacryodes edulis Vahl</i>	Burseraceae	Native pear	Uba	Leaves and Stembark	36,56g	Extracted with water	½ glass twice daily for 7 days	Cultivated	Chest pain
10	<i>Chromolaena odorata (Linn) King & Rob</i>	Asteraceae	Siam Weed	Awolowo	Leaves & Roots	26.67g	Marceratea	Applied at the affected part	Wild	Wounds
11	<i>Raphia hookeri Mann. & Wendl</i>	Aracaceae	Raphia palm	Ngwo	Roots	46.16g	Extracted with little water	One tablespoon twice daily for 3 days	cultivated	Convulsion
12	<i>Ivingia gabonensis (O'Rorke) Baill</i>	Invingiaceae	-	Agbadu	Roots	34.66g	Extracted with water	1 shot daily for 6 days	Cultivated	Gonorrhoea
13	<i>Baphia nitida Lodd</i>	Fabaceae	-	Abosi	Leaves & Stembark	60.10g	Extracted with water	1 shot daily for 1 month	Wild	Diabetes & Fibroid
14	<i>Ceiba pentandra (Linn) Geartn</i>	Bonbacaceae	Silkcottontree	Apu	leaves	80.20g	Extracted with water	½ glass daily for 7 days	Protected	High blood pressure
15	<i>Icacina trichantha Oliv</i>	Icacinaceae	-	Ehi-ala	Tuber	33.61	Macerated and cooked with water	1 shot daily for 12 days	Wild	Fibroid
16	<i>Uvaria cheame P.Beauv</i>	Annonaceae	-	Mmimi-ohia	Roots	28.60g	Ground & extracted with water	1 shot twice daily for 8 days	Wild	Fibroid
17	<i>Dialium guinieensis Willd</i>	Leguminosae	Velvet lamarind	Icheku	Roots	32.63g	Ground & dissolved in water	1 glass daily for 7 days	Wild & Protected	Infertility in women
18	<i>Rauwolfia vomitoria Alzel</i>	Apocynaceae	-	Akata	Roots	66.24g	Ground and dissolved in water	1 glass daily for 7 days	Wild	Madness and Reduction of labour pain.
S/N	SPECIE	FAMILY	COMMON NAME	VENACULAR NAME	PART(S) USED	QUANTITY	PREPARATION METHOD	DOSAGE	GROWTH METHOD	DISEASE(S) CURED
19	<i>Azadirachta indica A.Juss</i> <i>Psidium guajava Linn</i> <i>Asmina triloba</i> <i>Anacardium occidentale Linn</i>	Meliaceae Myrtaceae Caricaceae Anacardiaceae	Neem Guava Pawpaw Cashew	Dogwojaro Gova Okworobeke Kashu	Leaves Leaves Leaves & Seeds Leaves & Stem	104.00g 106.11g 100.61g 96.21g	All cooked with water together	1-glass 3-times daily for 3 days	Cultivated Cultivated Cultivated Cultivated	Malaria
20	<i>Xylopia aethiopica (Dunal)A.Rich</i>	Annonaceae	-	Uda	Leaves	34.30g	Extracted with water	½ glass daily for 7 days	Wild	Obesity
21	<i>Persea americana Mill</i>	Lauraceae	Avocado Pear	Uba-beke	Leaves	34.97g	Macerated and extracted with water	1 glass Daily for 7 days	Cultivated	Rheumatism
22	<i>Moringa Oleifera</i>	Moringaceae	-	-	Seeds	26.56g	Ground and used in food	2 to 3 spoons at each mean	Wild & cultivated	Strength and healthiness
23	<i>Alstonia boonei De. Wild</i>	Apocynaceae	-	Egbu	Roots	39.16g	Extracted with water	1 glass daily for 8 days	protected	Ulcer

PLATE 1: PHOTOGRAPHS OF SOME OF THE PLANTS USED.



A

A = *Napoleonaea imperialis*

P. Beauv



C

C = *Colocassia esculenta* (Linn.)
Schott



B

B = *Telfaira occidentalis* Hook. f.



D

D = *Icacinia trichantha* Oliv.

- **DISCUSSION**

- This survey is important in many aspects. It represents one of the pioneer efforts to document the folk medicinal plants of Eastern Nigeria as most of the available medical plants (eg. Ilonze, 1995; Kafaru, 1994; Nwagwu, 1997) were devoted to the plants which the authors themselves had put into use. The survey offers some insight to the range of diseases treated ethnomedically. It further attempts to preserve for generations yet unborn, aspects of this rich culture. This great number of recorded medical plants could be taken as an index of two factors:
- (a). Considerable patronage by patients and the efficacy of plant drugs. The great number of diseases cured by the plants tend to support the view of Kafaru (1994) that there is a plant for every disease. There is the need, therefore, to explore more into the medicinal values of all the plants around us to enable us make the best use of them. Consequently, the fear that the present

- generation has lost total heritage of the plants of folk medicine may not be absolutely true.
- One interesting aspect of the results is the way distantly related species of plants can produce drugs for treating the same disease. Many evidences from the study reflected a primitive state of ethnomedical research in Nigeria. These include the fetish ingredients associated with some of the practices, collection of herbs from the bush instead of cultivating them in botanical garden, considerable secrecy associated with the practices, reservation of the practice for the aging population and the apparent domination of illiterates in the practice. On the other hand, evidences of modern research were also tenable in the practice. These include the standardization of drug quality reflected by the specific quantities of material for the preparation of the drugs, specific dosage and a trend toward specialization by the practitioners. These modern attributes conform to the W.H.O. (1991) guidelines for

- traditional medicine. The above facts indicated that ethnomedical research in Nigeria is growing, and that the elimination of its primitive features is but a matter of time.
- The total number of medical plants 23 recorded by this survey constitutes enough raw data for medicinal plants research. There is the need to confirm the efficiency of the plants put into use as observed in this study. Although the safety of the drugs seems to have been assumed by the users, there is also the need to confirm these claims in the interest of the masses that use herbal drugs. The validation of these claims is important as it is the only way to appreciate the contributions of ethnomedicine to the healthcare delivery services of the study area. Another significant result of this investigation is that some of the recorded species grow in the wild and therefore belong to group constantly and indiscriminately destroyed during farming and developmental projects because they are thought to be valueless. Some of them like *Rauwolfia vomitoria*.

Afzel, *Uvaria chamea* P. Beauv and *Baphia nitida* Lodd are involved respectively in the treatment of such serious diseases as madness, fibroid and diabetes. That was why Ayensu (1985), lamenting the continuous indiscriminate destruction of medical plants in West Africa, observed that the rural African inhabitants are sitting on a goldmine and does not know it. On the same issue, Forsberg (1973) warned that since tropical plant species have not been fully investigated, the destruction of any one of them before its value becomes ascertained is calamity because it might have suffered extinction by the time we want to put it into use. On these grounds therefore, efforts should be made to conserve these species now facing the threat of extinction so that we can reap the benefits that abound in them.

- **RECOMMENDATIONS.**

- On the basis of some issues arising from this study, the following measures likely to promote the growth and progress of ethnomedical research in Nigeria and beyond are recommended.
- The National Policy on cultural/traditional Medicine should be published without further delay so that the practitioners will practice without fears and at the same time abide by the ethics of the profession.
- The conservation of species which is more or less a neglected issue in Nigeria today should now be pursued vigorously before the species disappear completely and thus impede proper functioning of ethnomedical research.
- All the Institutions in the country concerned with medicinal plants research are requested to undertake studies to confirm the claims made in this study as a way of generating more confidence in this type of research.
- Finally, this type of study should be extended to other parts of Nigeria to enable the achievement of full compilation of the inventory of the medicinal plants as part of the measures to preserve aspects of phytomedicine.

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APPENDIX 1

Questions Prepared for the Oral Interviews

1. What is your name?
2. From which of the Autonomous Communities are you?
3. How old are you?
4. What are your academic qualifications?
5. How did you acquire your herbal knowledge?
6. How long have you been in herbal practice?
7. What diseases are cured by you?
8. What are the names of the herbs used by you?
9. What are the methods of the preparation of your drugs?
10. What is the dosage of each drug to be taken and for how long?
11. Does herbal practice sustain your family adequately?
12. What other businesses do you engage in apart from herbalism?
13. What constraints do you face in your practice?