

## The Qualitative Uses Of Some Medicinal Plants In Ikeduru L.G.A Of Imo State, Nigeria

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**ABSTRACT:** The study examined twenty plants of medicinal value in Ikeduru Local Government Area of Imo State. The study was carried out through fieldwork, specimen collection, preservation and botanical identification of plant specimens by a curator. Information on the constituents, use and preparation of the plants was got from oral interview of some traditional herbal practitioners as well as from literature on herbal practice. Preparations and subsequent tests show that these plant species contained alkaloid, fixed oil, essential oil, calcium, phosphate ion, tannins, quinine, resins among others. It was also discovered that these plants in combination were used in the treatment of ailments such as diabetes, malaria, high blood pressure, Asthma, Arthritis, Epilepsy, convulsion, pile, diarrhoea etc. Since these plants are of medicinal value and used to treat various ailments it becomes imperative to conserve them. To this end, the conservation of plant species of medicinal importance should be pursued vigorously by both government and individuals through establishment of park, botanical gardens and horticultural centers in order to safe guard them from indiscriminate use, over exploitation and destruction.

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**Key Words:** Medicinal Plants, Arthritis, tannins, Ikeduru, curator

### INTRODUCTION

Medicinal plants are those plants which contain substances used for the treatment or prevention of diseases or infections and other health disorders human body. In other words, they are those plants whose chemical contents have some physiological effect on the body chemistry. From the earliest times, mankind has used plants in an attempt to cure diseases and relieve physical suffering. The medicinal value of medicinal plants is due to substances found in the plant tissues that produce a definite physiological action on the human body. The most important of these substances are the alkaloid, fixed oil, essential oil, tannins, resins, etc. It is obvious that some negative results obtained in the use of local plants as sources of medicine or drugs are basically due to over-dosage and lack of adequate knowledge of other detrimental by-products (poisons) contained in some plants. This is so because, any medicinal agent which in relatively large dose destroys activity will in relatively small quantities stimulate it. Sharma, 1986.

Traditional medicine has been practiced in Ikeduru Local Government Area for decades and is still widely practiced even today. The knowledge of medicinal plants is passed on based on indigenous knowledge system (IKS) and orally by the traditional herbal practitioners from one generation to the next. The skill of healing with herbs in the study area though acquired informally are improved upon with practice. The use of medicinal plants varies from species to species as diseases vary from one form to another in various places. Most places are endowed with special medicinal plants as in Ikeduru where popular herbalists made use of medicinal plants under review. In fact, the use of medicinal plants and their extracts for healing by traditional herbal practitioners was the main method of treating various illnesses before the advent of western medicine. The thriving of the practice of herbal medicine in Ikeduru L.G.A is as a result of the high cost of obtaining orthodox medicine. According to World Health Organization (WHO) survey (1983), developing nations are more interested than ever in making use of traditional indigenous resources in implementing their primary

health care (PHC) programmes. Thus, these traditional indigenous resource (plants) should be accurately identified, taxonomically classified and botanically conserved in order to document and enhance the suitable contribution of traditional medicine to the primary health care.

The medicinal plants are extracted from trees and shrubs. The common practice is the use of the bark, roots and sometimes both. The less commonly used in this regard are the leaves while flowers or fruits including seeds are rarely used. The herbaceous and succulent plants are uprooted and used holistically. Kafaru (1985) described herbs as being distributed all over the surface of the earth in different zones according to the needs of the people living there in. There are several methods by which the medicinal plants or their parts are preserved before they are given to a patient as drug. During an oral interview with herbal practitioners Nze Uzodinma Barnabas, Nze Opalaku Azuanuka and Nze Amadigwe Godwin, revealed the following as the best method for preparing herbal medicine.

- a. Boiling the plant parts-roots, barks and the resulting infusion used orally or externally.
- b. Pounding and soaking leaves of plant into cold or warm water and the infusion used internally or externally.
- c. Drying and burning the whole plant or its useful parts. The resultant ash maybe applied to the affected body in several ways as will be described under method of administration.

The external ailments which medicinal plants could treat are chest pain, skin and joint disorders, while the internal ailments are stomach aches, diabetes, Asthma, diarrhoea, pregnancy promotion, etc.

According to Sofowora (1982), many plants have been discovered to be of medicinal value for example *senna* leaves are used as anti-malaria drugs, *Vitex doniana* (Uda) are used for stomach ache, and as stimulant, etc. Olapode, (2002); blamed Nigeria for not making use of nature's bountiful gift such as leaves, roots and bark for the prevention and cure of ailments. He stated that all health problems are treatable with natural resources such as plants and herbs. He further pointed out that the case of two

many diseases and ailments in Africa today is as a result of negligible use of medicinal plants. This negligence is as a result of lack of knowledge of efficacy of plants and their proper identifications. Njoku (1989), stated that efforts has been made by professionals who study the relationships between man and plants (Ecologists) to put an end to forest wastage and save the greenery. These medicinal plants are needed for the enhancement of people's health especially in the face of various threats to human health and the existence of incurable ailments. UNESCO (1976), reported that medicinal plants are more accessible to most of the population in the third world. About 60-65 percent of the population in countries of the developing world to rely on medicinal plants due to their importance to eliminate ailments and maintain health.

## MATERIALS AND METHODS

Plant collection was carried out within the 24 autonomous communities that make-up Ikeduru Local Government Area. Plants were randomly collected from the communities in the morning from 8.00am-12.00noon. Whole plant or parts of the plant were cut and collected with sharp knife. The collected plant materials were put in polytene bag to prevent excessive evaporation and loss of moisture. The plants were properly identified by a curator and confirmed by a taxonomist. The collected plants were taken to three traditional herbal practitioners who identified the medicinal values and their efficacy in treating diseases, Made of preparation and administration of the plants and plant extracts for treatment and the ailments for which the plants are used.

## METHOD OF PREPARATION AND ADMINISTRATION

Several methods of administering the prepared medicine to the patient exist, these depend largely on the particular ailment to be treated. However, emphasis has been placed on cheap method of preparation and procurement of materials. The table below presents an annotated list of twenty ailments and treatments based on plant and other materials used.

Table 1. PLANT PARTS

S/N	AILMENTS	PLANT PARTS AND OTHER MATERIALS USED	PREPARATION AND APPLICATION
1.	Diabetes	(a) Leaves of <i>viscum album</i> (mistletoe)  (b) Leaves of <i>Vernonia amygdalina</i> (Bitter leaf)  (c) Leave of <i>Momordi cacharantia</i> (Bitter gard)	The leaves are dried, stired leaves soaked in a quarter litre of cold water for eight hours and warmed (Do not boil) & sieved into a flask.  Dosage: Drink three times daily using a tea cup for three weeks.  Squeeze the leaves in water.  Squeeze the leaves in water  Dosage: Drink one glass cup 3 times daily for 3 weeks.
2	Stomach pain	Leaves of <i>Gongronema laffolium</i> (Utazi)  Leaves of <i>Occimum gratissimum</i> (scent leaf/Nchuanuwu)	Squeeze leaves in water  Dosage: Take half glass cup of the extract once a day until symptom stops.  Squeeze in water add little salt and drink 2 times daily until symptoms stop.
3	High blood pressure	(a) Leaves of <i>Persea americana</i> (Avocado pear) with Garlic, Onion, Lime and Honey.	Boil the leaves and drink extract 1 tea cup thrice daily or crush 6 bulbs of garlic, one(1) white onion, add to one bottle of honey and i/2 bottle of lime (where there is an ulcer)  Dosage: Drink two shots daily.
4	Pile	Bark of <i>Nauclea didirechii</i> (uvunuhu)	Cut inner bark into pieces and soak in water for some time. Boil with 4 tablets of confara.  Dosage: ½ glass cup twice daily for one month.
5	Arthritis	Leaves of <i>Cassia tora</i> (Chakoor)	Squeeze and rub the leaves on the affected part as often as needed with relief is obtained
6	Cough	Leaves of <i>Gongronema latifolia</i> (Utazi), shea butter, seeds of <i>Garcina kola</i> (Bitter kola)	Squeeze <i>Gongronema latifolia</i> leaves and crush garlic, ginger and honey  Dosage: Drink two spoons thrice daily for 5 days until symptoms stop.
7	Poor erection of penis	Pericarp of <i>Cola accuminata</i> (Oji Igbo) Honey, Clay and lime juice.  Roots of <i>Sphenocentrum Jollyanum</i>  Roots of <i>Landolphia dulcis</i>	Mix 2-4 pericarps of <i>Cola accuminata</i> with ½ bottle of Honey and add 3 shorts of lime juice. Take 1 spoon 3 x daily.  Dosage: ½ glass cup 2 times daily  Same as above
8	Pregnancy promotion	Stem of <i>Combretum paniculatum</i> .  Leaves of <i>Diodia scandens</i>	Boil with water to get its extract  Dosage: ½ glass cup twice daily.for two weeks (14days)  Cook the leaves with yam, add oil and sliced oil bean seed. To be eaten by both husband and wife for two weeks. (14 days).
9.	Stoppage of bleeding	Leaves of <i>Combretum Spp</i>	Squeeze leaves in water add salt to the extract.  Dosage: Drink 1 glass cup every four hrs. until symptoms

			vanishes
		<i>Aspilia africana</i> (uranjila)	Squeeze the leaf and place on a fresh wound for some minutes.
10	Epilepsy & Convulsion	<i>Allium sativum</i> (Garlic) Bark & Root of <i>Newbouldia leavis</i> (Ogirishi)	crush one bulb, add small water and allow to settle for 12hrs then add hot water.  Dosage: Sip gradually before going to bed every night for 20days.  Extract by boiling with water.  Dosage: 1 shot twice daily until symptoms stop
11	Asthma	<i>Asystasia gangetica</i>  Castor oil & Honey	Chew seven (7) fresh leaves. Daily for 21 days  One bottle of castor oil plus 5 equal bottles of honey mix thoroughly  Dosage: 1 tea spoonful twice daily until symptoms stop for children (Not to be used by pregnant women)
12	Gonorrhea	The root of <i>Ricinus Communis</i> (Castor oil)  <i>Eupatorium odorata</i> (Compost) Root extract	A decoction from boiled root.  Dosage: Drink 60ml of the extract twice daily for 3 weeks.  Chop the root into pieces then wash & boil with potash for some minutes and take 3 daily for 2 weeks.
13	Biharzia or Schistosomiasis	Root of <i>Dioscorea dumentorum</i> (3 leaved Yam)	Dry the root of the plant and grind into powder. One teaspoonful of the powder is put into one cup of water and taken daily for 2-3 weeks.
14.	Poison Antidote	<i>Ageratum conyzoides</i> (Goat Weed) & alligator pepper.	Chew the leaves of <i>Ageratum conyzoides</i> (alligator pepper) and swallow it to antidote poison.
15	Malaria	Leaves of <i>Morinda luicida</i> (brimstone tree) <i>Azadirachta indica</i> (Neem)  -, Honey and Lime Juice.	Crush small bundles of leaves extract with a bottle of water add juice from 7 limes fruits & 2 shots of honey.  Dosage: 1 glass cup twice daily for five days.
16	Infertility in women & Low sperm count in men	<i>Piper guineense</i> (Uziza) <i>Xylopia</i> Spp (Uda) <i>Congronema latifolium</i> (utazi) <i>Capsicum</i> Sp) pepper  Lime juice & Honey	Boil together in 1 lit. of water.  Dosage: The extract is taken, 1 glass cup daily only during menstruation (for women)  Add ½ bottle of lime juice to one bottle of honey.  Dosage: 1 shot twice daily for men.
17	Cataract	Leaves of <i>Aspilia africana</i> salt and lime	Squeeze in water add salt and lime  Dosage: use as eye drop 2-3 times daily.
18.	Conjunctivitis	Leaves of <i>occimum gratissimum</i> and juice from fruit of <i>jatropha curcas</i>	Squeeze leaves with small water and apply as eye-drop  Dosage: two drops 2-3 times daily.

19	Skin problems eg (Eczema)	Borreria ocymoides and Cassia tora leaves  Leaves of Eupatorium odorata (compost)	Squeeze and rub on the affected body part time daily until symptoms stop.  Squeeze leaves and rub on the affected part of the body for treatment. Twice daily until symptoms stops.
20	Enlarged prostrate gland	Dried corn silk	Put 2 heaped spoonful in hot water and allow for 5-10 minutes to settle.  Dosage: take regularly as tea.

## DISCUSSION

The importance of plants cannot be over-emphasized. In recent time it is very obvious that the plant diversity has been highly exploited in the production of medicine. However, the medicinal importance of these plants has been shown on the table as well as their preparation and administration. The therapeutic values of plants vary from plants to plant and how they are prepared. Some plants are boiled, others are chewed, pounded, squeezed or burnt before they would serve as medicine. The degree of use vary among various plants. There are many methods of applying the prepared medicine from plants, to the patient. These depend largely on the particular disease to be treated. Some of the medicinal plants are used for external purpose, example the leaves of *Borreria ocymoides* and *Cassia tora* when squeezed together, the infusion is placed on the affected area of the body for the treatment of Eczema. Also *Aspilia africana* is used for treating fresh wound and aid blood clotting. On the other hand, some leaves are used for internal purposes eg. *Gongronema lafolium* (utazi) and *Occimum gratissimum*, when prepared serve as medicine for the treatment of stomach pain and epigastric discomfort. The research shows that these plants have different medicinal values and utilities. It is found that different plants often contain substances which are useful in curing similar ailments. In this case variations occur in the choice of treating different and similar pathogens. Also, it was found that related plants contain similar photochemical substances which are usually effective in the treatment of a particular ailment. Hence the research on medicinal plants should be carried out in a systematic manner so that related plants, especially those in the same genus could be sourced for the presence of a particular medicinal components which are known to occur in related species.

## CONCLUSION

The use of medicinal plants to cure various ailments in modern societies is very necessary especially in developing countries like Nigeria. From earliest times, knowledge of plant remedy is passed over generation to an indigenous population using indigenous knowledge system. (I.K.S). In the past and present traditional herbal practitioners succeeded in treating certain diseases using plant species before the advent western medicine.

Medicinal plants have been credited with many therapeutic properties as shown above, some are used to help the body fight infections such as Gonorrhoea, Eczema, rashes, cough, while others are said to aid pregnancy promotion, cure pile, Arthritis, Diabetes, poor erection of penis and erection deformity, epilepsy, convulsion, Asthma, Antidote poison, etc. These medicinal plants do not only cure but also serve as preventive remedies. Finally, study shows that certain ailments respond effectively when treated with medicinal plants. Therefore all efforts should be made by practitioners and government at all levels to promote the use of medicinal plants in curing various types of ailments. This should be achieved through the introduction of Drug Research Laboratories for investigation into some traditional herbs and roots in order to authenticate their efficacy and prescribed measures for their administration, while determining drug interactions, susceptibility and contra indications.

**REFERENCE**

Herbal remedies: Awake: Dec 22 2003 Pg. 12 -14

Kafaru E. (1985) Herbal Remedies: "The Guardian"  
Guardian Newspaper Ltd, Rutan House,  
Isolo, Lagos Oct 26.P.13

Njoku C. (1989) Prevention and cure of various  
tropical infections vol. 2

Unesco (1976) Thursday Vol.3. No 966. The  
Saturday Newspaper, Dec.13, 1997 Pg12.

Sharma, C. 1986 Materia medica and medicine New  
Delli, India

Sofoworo, A. (1982) Medicinal plant and traditional  
medicine in Africa. John Wiley and Sons  
Ltd., New York pp256

Olapode E. O. (2002): The herbs for good health  
Narl specialist clinic, Ibadan, Nigeria

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