

MEDICINAL PLANTS AND THEIR CORRELATE USE BY THE INHABITANTS OF IKEDURU LGA OF IMO STATE NIGERIA

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ABSTRACT

Over the years, man has been faced with the challenges of preventing and eliminating diseases in the body. The discovery of the efficacy of certain plant species in herbal remedies by man may have come as a result of trial and error. This however, has created some gap in common believe on the treatment of ailments among some related and unrelated human societies of the world. Phytochemical analysis on certain plant species by some modern practitioners have shown some corresponding results with already existing tradomedical information while in some cases have differed completely thereby causing doubt in herbal treatment. This research was conducted in Ikeduru Local Government Area of Imo State to determine the level of such discrepancy. The result shows that only (27.8%) responses of the studied population correlated with the already existing herbal information while (72.2%) disagreed. Therefore, this research is a new frontier to the inhabitants of Ikeduru L.G.A in particular and the society at large because it gives further information 'on the efficacy of more plant species used in herbal treatment.

Keywords: *Medicinal plants, Correlate, Ailment, Disease, Ikeduru LGA.*

1. INTRODUCTION

Plants are living things that are seen growing on the surface of the earth and usually have root, stem, leaves and produce fruits and seeds. Their importance as well as roles in nature cannot be over emphasized. Most plants are edible and contain different amount of vitamins, protein or carbohydrates etc, these helps the body to replace worn out cells or tissues, digest food and combat ailments among other health related problems.

Since the dawn of history, man has been faced with the challenges of eliminating ailments completely, which inheritance has not been met, therefore different ages have been adopting different measures to help check ailments but from creation to date, plants have always been among the most effective primary measures for this check (Proter 1997). Plants have an inert ability to combat ailment and maintain one's state of good health, since it provides the body with vital nutrients. Plants have been proved scientifically to have the ability to cure ailments by providing some necessary nutrients which may be lacking in the body or by attacking the causative organisms themselves. On the other hand, different plant species perform varied roles (ecological niche) which has been harnessed by the ancient and correspondingly used to combat human pathology.

Mbagwu (2009) stated that man has used plants from the earliest times to cure disease and relieve physical suffering. He maintained that the medicinal value of drug plant is due to the presence of some chemical substances (active ingredients) that produce a definite physiological action in the human body.

Cowley (2002) reported that the most important drug obtained from tropical plants is quinine and is used as a cure for malaria. It is obtained from the bark of several species of the Genus *Cincona*.

Nwachukwu et al (2010) maintained that the role of food crop in human nutrition is based on the primary products of photosynthesis, the carbohydrates, protein and triglycerides (fats and oil). In the case of most drugs, herbs produce essential oils and cosmetics are derived from the secondary products of plant metabolism such as alkaloids, terpenoids and flavenoids.

It is therefore worthy of note that ethnomedicine is not the modern conventional way of checking ailments but it exists along side with the orthodox or conventional form of medicine and complements it is an alternative form.

2. MATERIALS AND METHOD

This research work is aimed at investigating the correlate use of some medicinal plants by the inhabitants of Ikeduru L.G.A and already existing practical information on herbal medicinal literature. The researcher adopted a descriptive survey method. Questionnaire was designed and administered to rural dwellers especially those that have indebt knowledge of medicinal plants. Herbal information on fifteen (15) medicinal plants were collected from already existing literature on medicinal plants. The same plant species were used to determine people's perception and level of discrepancy in their use in this area.

Oral interviews were conducted on knowledgeable stakeholders where necessary and relevant information were needed by the researchers.

The data was analyzed using simple percentage. Percentage correspondence was obtained by dividing the sum of level of correspondence by the sample size, multiplied by the total number of respondents.

$$\text{i.e} = \text{PC} = \frac{\text{SC}}{\text{SS} \times \text{TNR}} \times 100$$

Where PC = Percentage Correspondence
 SC = Sum of Correspondence
 SS = Sample size
 TNR = Total Number of Respondents

Results

Table 1 shows medicinal information on fifteen species of plants obtained from already existing literature on herbal medicine.

S/N	PLANTS USED	COMMON NAMES	PART USED	METHOD OF PREPARATION	AILMENT USED
1	<i>Newboudia laevis</i>	Fertility plant/ Ogirish	Leaf	Infusion/ boiling	Malaria
2	<i>Vernonia amygdalina</i>	Bitter leaf/ Olugbu	Leaf	Squeezing	Stomach ache, pile & blood clothing
3	<i>Azadirachta indica</i>	Neem/dogoyaro	Leaf	Infusion/Boiling	Malaria
4	<i>Garcinia kola</i>	Bitter cola (Oji Igbo)	Leaf/bark	Boiling/infusion	Pile & malaria
5	<i>Percea americana</i>	Avocado pear/Ube Bekee	Leaf & seed	Boiling/infusion	Pile & malaria
6	<i>Spondias mombi</i>	Hug plum/ Ijikara	Leaf	Chewing (goat)	Relieving goat of hard labour
7	<i>Saccharium officinarum</i>	Sugar cane	Stem	Chewing	Diabetes and measles
8	<i>Citrus Limon</i>	Lemon	Fruit	Liquid obtained by squeezing the fruit	itching
9	<i>Cymbopogon citratus</i>	Lemon grass/ Achara tea	Leaf	Boiling/infusion	Typhoide
10	<i>Psidium guajava</i>	Guava	Seed, fruit & leaf	Chewing and Boiling respectively	Low sperm count in men & malaria
11	<i>Carica papaya (Asmina triloba)</i>	Paw paw	Seed & leaf	Chewing / boiling respectively	Malaria ulcer and itching
12	<i>Mangifera indica</i>	Mango	Bark & leaf	Decoction / infusion respectively	Malaria
13	<i>Uvaria chamae</i>	Mmimuohia	Leaf	Chewing	Vomiting
14	<i>Baphia nitida</i>	Cam wood/ Abosi	Leaf	Boiling/ infusion	Pile & blood clothing
15	<i>Indigofera tinctoria</i>	Indigo tree/ uri	Fruit	Liquid extracted by squeezing	Measles and joint ach

Sources: Kafaru E N (1980), Nwachukwu et al (2010) and Ibe H N (2007).

Over the years, pharmacognosists have tested and confirmed the efficacy of some medicinal plants. The use of such herbs in eliminating certain health disorders is now a common practice in many local communities especially in the developing countries. In some places however, this assertion may vary as a result of lack of adequate information or complete knowledge about these medicinal plants by members of such localities.

Table II of this work shows the result obtained from the responses by some inhabitants of Ikeduru L.G.A of Imo State based on their knowledge on the efficacy of these medicinal plants in the treatment of various health disorders.

3. RESULTS

S/n	Plants Used	Part Used	Ailment Used	Level of Correspondence % Yes%	No%
1	<i>Newboudia laevis ogirish</i>	Leaf	Malaria, convulsion	50%	50%
2	<i>Vernonia amygdalina</i>	Leaf	Stomach ache, pile & blood clothing	33.3%	66.7%
3	<i>Azadirachta indica</i>	Leaf	Malaria	100%	0%
4	<i>Garcinia kola</i>	Leaf/bark	High B.P, Vomiting	0%	100%
5	<i>Percea americana</i>	Leaf / seed	Pile & malaria	0%	100%
6	<i>Spondias mombin</i>	leaf	Relieving goat of hard labour	0%	100%
7	<i>Saccharium officinarum</i>	Stem	Diabetes and measles	0%	100%
8	<i>Citrus limon</i>	Fruit	Itching	0%	100%
9	<i>Cymbopogon citratus</i>	Leaf	Typhoid	0%	100%
10	<i>Psidium guajava</i>	Seed fruit & leaf	Low sperm count in men & malaria	50%	50%
11	<i>Carica papaya (Asmina triloba)</i>	Seed & leaf	Malaria ulcer and itching	33.3%	66.7%
12	<i>Mangifera indica</i>	Bark & leaf	Malaria	100%	0%
13	<i>Uvaria chamae</i>	Leaf	Vomiting	0%	100%
14	<i>Baphia nitida</i>	Leaf	Pile & blood clotting	0%	100%
15	<i>Indigofera tinctoria</i>	Fruit	Measles and joint ache	50%	50%

Percentage correspondence = $\frac{\text{Sum of correspondence\%}}{\text{Sample Size} \times \text{Total Number of Respondents}} \times 100$

$$\therefore \frac{50 + 33.3 + 100 + 50 + 33.3 + 100 + 50}{15 \times 100} \times 100$$

$$= \frac{416.6}{1500} \times 100 = 27.773\% \text{ (percentage correspondence)}$$

Therefore, the overall level of variation = $100 - 27.775 = 72.227\%$ (level of variation)

4. DISCUSSION

From the result above, it was observed that irrespective of the modern shift to cultural diffusion as well as socialization with their great influence on tradomedicine, so many traditions and culture of some places in Nigeria, especially, the Ikeduru local dwellers stick so greatly to their ancient tradition on the use of herbs for the treatment of certain disease. This could be observed from the overall degree of correlated response by the respondents, which shows that only 27.75 agreed with information on the already existing herbal literature regarded as a conventional herbal medicinal practice. While the 72.2% disagreed. This however shows low awareness, level on the efficacy of these plant species in herbal treatment among the people.

According to the New Encyclopedia Britannica (1998) "human discovered by process of trial and error which plants might be used for food and which of them were poisonous" therefore from the result of this research, it could be inferred that the Ikeduru local dwellers, did not acquire their own indigenous knowledge and method of herbal treatment but might have known this through the process of trial and error. As a result of this they have been able to proffer solution to some common maladies to their environment by using indigenous herbs. This could account for the reason why there is a great difference in their stock of knowledge of medicinal plants when compared to the already existing information on the efficacy of those plants species.

Based on the information obtained by the researchers, dispensing of drugs in form of herbs in Ikeduru L.G.A is very efficacious and therefore has gained credibility and acceptance by the people.

5. SUMMARY AND CONCLUSION

The people of Ikeduru have developed strong believe on the use of various herbs in the treatment of wounds, preparation of food and drugs including the use of herbs to depicting certain things. This could be as a result of rich inherited values which have been handed over from one generation to another and therefore show a great deal of keenness in preserving and sustaining herbal information.

To this end although relevant information about the efficacy of some herbs have gained credibility and the herb used by the Ikeduru people has been reported to be very dependable as regards to their efficacy. The researchers therefore conclude that a lot of medicinal plants are yet to be discovered by scientists which confirms that man is blessed by nature with inexhaustible and overwhelming resources which can neither be estimated nor known at a time, but if not properly managed could go into extinction as a result of indiscriminate exploitation.

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