

NISEB 2010009/11206

Health implications of common herbs in Osan Ekiti Local Government Area of Nigeria

O. A. Morenikeji¹, S. O. Oladejo² and O. J. Olawuyi³

¹Zoology Department, University of Ibadan, Ibadan, Oyo State, Nigeria.
E-mail- jumokemorenikeji@yahoo.co.uk Tel. No: 0855275915

²Osun State College of Education, Ila-Orangun, Osun State, Nigeria
E-mail- sundayoladejo001@yahoo.com Tel. No: 08037711211

³Department of Biosciences and Biotechnology, Babcock University, Ilishan-Remo, P.M.B 21244, Ikeja, Lagos, Nigeria
E-mail: olawuyiodunayo@yahoo.com

(Received October 2, 2010; Accepted December 12, 2010)

ABSTRACT: A survey of plants of medicinal value was undertaken in the major market (Oja Odi) in Osan Ekiti, Ekiti State between June-August 2008. Five major herb sellers were visited and each of the sellers exhaustively gave the names, parts used and their uses. The respondents were randomly selected. The findings of this study revealed a total of 24 plants singly or combined for treatment of Malaria, Gonorrhea, Blood loss, Low sperm count and Skin disease. Recommendations were made on the conservation strategies of the medicinal plants and a participatory approach between the herbal and orthodox clinics thus paving way for healthy rivalry in the health care delivery. This result of this study therefore forms a base line total for other researchers.

Introduction

Our environment was well perfectly in place. Man has been part of this network of complex cultural, natural and anthropogenical components which make up the planetary ecosystem. Man therefore has to depend on this environment for his use especially for medicinal purpose. The use of local plants for various medicinal purposes has been the oldest form of healthcare in the history of mankind, herbs have been used by all races throughout history.

It has been estimated by the World Health Organisation that approximately (75-80)% of the world population make use of plants of medicinal values as alternative to modern medicine. Mostly this occurs out of necessity since many cannot afford the high cost of pharmaceutical drugs.

Medicinal plants are wild or cultivated, for its drug value take care of man and animal health (Sofowora, 1982). A medicinal plant is any plant, which contains a substance that can be used for therapeutic purposes or which is a precursor for synthesis of useful drugs. Farnsworth and Soejarto (1991), defined medicinal properties i.e effect that related to health or which prove to be useful as drugs by western standards, or which contain constituents that are used as drugs. Oladejo (2006), plants of medicinal values are those that are consumed by both man and animal in one form or the other.

Traditionally, we have found those plants useful where there is little or no access to modern health care. During emergency it provides sustainable health care because these plants are put into therapeutic use e.g *Artocarpus altilis*

(Bread fruit), “Perebutu in Yoruba and Ukwa in Igbo, its root when cut into pieces and soaked in dry-gin for three days after which a spoonful is taken twice daily is good for improving sperm count. The leaves and bark of “akoko” in Yoruba, *Newbouldia leavis* (Bignoniaceae) “ogilisi” in Igbo and “Aduruku” in Hausa is used to cure asthma and migraine. The stick of bitter leaf i.e. *Vernonia amygdalina* (Asteraceae) “Onigbu/Olubu” in Igbo and “shiwale” in Hausa and “Ewuro” in Yoruba is a good source of chewing stick for sick people because it enhances good appetite. While the infusion from the leaves lowers the sugar contents of the body and cures pile.

Therefore, it is equivocally important that such traditional knowledge can easily be embraced by any community in emergency situations. Although this claim of traditional healers have been called to question by Western Medicine Practitioners but the important thing is the ability of the traditional healers been able to provide solution to these health problems with the opportunities around them through the ecological settings as provided by these wild and cultivated plants. The efficacy of *Chromolaena odorata* (Akintola in Yoruba) siam weed in the blood clotting ability.

Statement of Problem

Oladejo (2006), in one of his papers said that it is equivocally clear that plants of medicinal values have been threatened with extinction as a result of over exploitation and degradation of the forests. Allan and Lanly, (1991) reported that tropical forests are disappearing at the rate 11-17 million hectares per annum. Nevertheless, both the increasingly use of medicinal plants in many countries and with the accelerating destruction of natural forests in the tropics, it is now clear that the exploitation of medicinal plants conservation measures to ensure sustainability for such a project to start, there must be basic information or documentation on the taxonomy and ecology of medicinal plant species in Nigeria. As at now such information/documentation is scanty or not even available in some cases.

Limitations

The sample chosen is rather small, but inspite of this, the findings shed light on the pattern of utilization of medicinal plants in health services in Ekiti State. Another limitation is lack of baseline data. However the findings will serve as basis of reference for other researchers.

Materials and Method

Five respondents were interviewed from June-August 2008. The respondents were selected using random sampling method. The main objective was to identify the various plants both wild and cultivated used singly or combined for one ointment or the other. The herbal sellers were asked to reconstruct the circumstances and contexts of the plant uses so that method of administration of the plants could be identified. Identification of the plants was done at the Obafemi Awolowo University Herbarium.

Results

A total of 24 plants singly or combined for treatment of malaria, gonorrhea, blood loss, low sperm count, skin disease were identified by five herbal sellers. The result of the encounter with the herbal sellers showing the family, botanical name, common name, Igbo, Yoruba and Hausa names and the importance of the part used are shown in the tables below.

Table 1: Plants commonly used in herbal medicine.

FAMILY	BOTANICAL	YORUBA	ENGLISH	HAUSA	IGBO
Anacardiaceae	<i>Magnifera indica</i>	Mangoro	Mango	Margwaro	Mangolo
Anacardiaceae	<i>Anacardium occidentale</i>	Kaju	Cashew	Kanju	Kansun
Anacardiaceae	<i>Celosia trigyna</i>	Ata rodo	Pepper	Borokonu	Oso
Anacardiaceae	<i>Catotropis procera</i>	Bomubomu	Sodom apple	Tumfafiya	Otokwuru
Bixceae	<i>Bixa torellana</i>	Aje, Osun Elede	Shallow wort	Aiton	Vila
Caricaceae	<i>Carica papaya</i>	Ibepe	Pawpaw	Gwanda	Ojo
Compositae	<i>Agerantum conyzoides</i>	Imi esu	Goat weed	Pokasunga	Akwukwronwosi naka
Compositae	<i>Chrommolaena oderata</i>	Akintola	Siam weed	Ohumi	Asi-igwulube
Compositae	<i>Vernonia amygdalina</i>	Ewuro	Bitter leaf	Shiwale	Olungbu
Cucurbitaceae	<i>Momordica charantia</i>	Ejirin wewe	African cucumber	Ahu-mmuo	Alo ose
Euphorbiceae	<i>Jatropha gossypitolia</i>	Lapa pupa	Physical nut	Baigaba	Olulu-idu
Laibiatea Laminacea	<i>Ocimum basilicum</i>	Efinrin nla	Basil plant	Nandababuli	Nihu-anwu
Melianceae	<i>Azadirachta indica</i>	Dongoyaro	Neem tree	Dongoyaro	Nimu
Malvaceae	<i>Gossypium hirsutum</i>	Owu	Cotton plant	Kwali	Offo
Musaceae	<i>Musa paradisiaca</i>	Ogede – agbagba	Plantain	Ayaba, kwandan	Ogadejioke
Dioscoreaceae	<i>Dioscorea alata</i>	Isu	Yam	Doyar	Ji-ocha
Poaceae Graminae	<i>Zea mays</i>	Agbado	Maize	Masara	Jinga
Zingiberaceae	<i>Zingiber officinale</i>	Ata ile	Ginger	Kakandoro	Jinga
Solanaceae	<i>Nicotiana tobercum</i>	Taaba	Tobacco	Taba	Anworo/otaba
Rutaceae	<i>Citrus aurantifolia</i>	Orombo/osan wewe	Lime	Lemu	Oroma nkirisi
Myrtaceae	<i>Psidium guajava</i>	Girofa	Guava	Gwaabaa	Ugova/ugwoba
Clusiaceae	<i>Gardinia kola</i>	Orogbo	Bitter kola	Narniji goro	Adu/Aku-inu
Sterculiaceae	<i>Cola accuminata /nitida</i>	Obi	Cola	Goro	Oji
Malvaceae	<i>Abelmoschus esculentus</i>	Ewe ila	Okro	Kubewa	Okwuru

Table 2: Herbal ingredients, preparation and dosage for selected diseases

Disease	Herbal ingredients and preparation	Dosage
Ulcer (Ogbe Inu)	<i>Agerantum conyzoides</i> (goat weed) squeeze the leaves of 8 medium plants in four glass cups of water.	A glassful, thrice daily for 5 days
Belibeli	Five pieces of ginger, plus 5 pieces of galic (<i>Allium sativum</i>) plus a whole fruit of Alligator pepper. Grind the three separately put together in a bottle of brandy, whisky or any hot drink (alcohol) in a bottle of beer. Allow to ferment for 3 days, before starting to use it.	Adult:- 1 desert spoon, for 1-7 days. Children:- 1 teaspoon, for 1-7 days.
Cholera	A handful of <i>Phyllathus amarus</i> (Eyin Olobe). Plus a spoonful of lime. Boil the <i>Phyllathus amarus</i> , Add a spoonful of lime. OR Alcohol or Ogogoro, Whisky, Gordon Gin, Brandy, Native Chalk, Lime. Grind the piece of Chalk and mix ½ bottle of gin, with lemon juice. OR Red Oil.	Adult:- A desert spoon thrice daily. Children:- 1 table spoon thrice daily. OR 1-2 desert spoon 3 times daily OR 1 Spoonful or Red Oil, 3 times daily.
Chest and Waist Pain	Bark of <i>Adansonia digitata</i> (Igi Ose in Yoruba), Kuka in Hausa and Usi in Bini. Water. Fill a medium sized pot with the bark of “Ose”, then with water. Boil properly, allow it to stand for 24 hours.	½ Glass Cup, twice daily for 9 days.

Treatment

After the collection, the list of the medicinal plants were subjected to a form of rearrangement in terms of proper identification for botanical, Igbo, Yoruba and Hausa names. Some were taken to Obafemi Awolowo Univeristy Ile-Ife, for proper identification.

Discussion

The efficacy of African wild and cultivated plants in traditional health delivery is virtually gaining ground, the herbal sellers actually proved that all plants have their uses but it is pertinent that they cannot know everything. With experience, plants are very important but in the recent times, some are easily found, while some are disappearing due to deforestation because they are only used when fresh. The wide acknowledgement of trado-medicine as alternative to western medicine corroborates the survey by International Trade Centre in (1982), which states that trade in western medicine in many industrialized countries has declined while medicinal plants are receiving increasing attention (Moddy,1999). They were identified for treatment of malaria, migraine, pile, mouth wash, blood tonic, skin disease and other diseases. Adjanohoun (1991), revealed that diabetes had been tried with the use of root, stem and bark of other recipe with *Citrullus loranthus* (New name) *Colocynthis citrillus* old name; ‘Eili’. (Igbo) and ‘Guna’ in Hausa.

Conclusion

From the results, many species of plants have their medicinal values but many of them are threatened with extinction. It could be inferred that ethnobotanical use of plant species has rekindled the interest of man especially researchers to move nearer to the nature (phytomedicines). The study also showed that people preferred naturally-manufactured drugs to the synthetic ones. Therefore, endeavour to domesticate some of the wild indigenous species. Sincerely, it has become evident that the return to medicinal herbs and to many ancient methods of natural healing are the necessary response to the extremes of orthodox medicine. Thus, this is a preliminary survey of plants for their medicinal values hence the result has proved a reasonable baseline data in the study area and the country at large.

Recommendations

A participatory approach is recommended where herb-sellers and herb-collectors are to be used for conservation in order to supplement the existing knowledge (Moody 1999; Oladejo 2006). Collaborative efforts for phytomedicine should be geared towards establishment of gardens maintained by botanists, zoologists, plant scientists and herb sellers, herbaria scattered all over the country. Sofowora (1997), noted that to overcome the obstacle in organizing grassroot conservation of medicinal plants, planting and regeneration of plants should be encouraged. Based on this findings,

- People should be trained in plant propagation through workshops.
- Incentives should be given to people who show proven special ability in this area.
- The study of phytomedicine should be included in the curriculum of tertiary institutions.
- Communities should be encouraged to protect the role of medicinal plants (Forest) otherwise, the powerful administration imposed on them could destroy the environment without notice.
- A systematic study and chemical analysis of the native drugs must be redoubled and the potency of such drugs should be ascertained for utilization in the modern health care.
- A reciprocal referral should be encouraged between the herbal and orthodox clinics to demonstrate the true beginning of division of labour and team work.
- Finally inter disciplinary research must be encouraged.

References

- Ademuwagun, Z. A. (1974), "Problem and Prospect of Legitimizing and integrating Aspects of traditional Health Care Systems and methods with Modern Medical Therapy: The Igbo-Ora experience." *J. Soc Hith (Nigeria)* 9-11.
- Adjanohoun A. (1991): Ethnobotanical studies on Diabetes in Lagos and Oyo State (Alimi O. 1998) B. Sc Project in the Department of Botany and Microbiology, University of Ibadan Pp1.
- Adetunji O. A. (2001) Ethnobotanical survey of Commonly used medicinal plant in Ibadan September 2001 page 1-22.
- Allah T. and J.P. Lanly (1991): Overview of status and Trends of World's Forestry Management. Bangkok, April, 1991.
- Bruneton J. (1995) Pharmacognosy, phytochemistry Medicinal plants Paris Lavoisier 1995 400-404.
- China Manila (1989) Medicinal Plants in World Health Organisation 1989 (WHO Regional Publications Western Pacific Series No 21.
- Farnsworth, N. and D. Seojarto (1991): Potential consequence of plant extinction in the United States on the current and future availability of prescription drugs. *Economic Botany* 39; 231-240.
- Geneva (1998) Quality control methods of Medicinal Plant Materials World Health Organization.
- Hikin O.H. (1985) Oriental medicinal plants in Wagner H. Hikinoh Farnsworth Mr. Eds Economics and Medicinal Plant Research vol. 1 London, Academic Press.
- Isibor Kingsley (1993) the Medicinal uses of Plants Osogbo Igbalaye press.
- Isichei A. O. (1995): Omo Biosphere Reserve current status. Utilization of Biological resources and sustainable management. Working paper No 11 in South-south cooperation programme on Environmentally sound socio-economic development in the Humid tropics. Pub, UNESCO, Paris.
- Keys I.D. Chinese (1976) Herbs, their botany, chemistry and pharmacodynamic Rutland, VT, CE Tuttle.
- Mitchell Charlottee, (1991), Plan Medicine a guide to home us Christchurch Amberwood Publishing Ltd.
- Moody J. D. (1999): Rational Utilization of Nigerian Medical Plants. *The Nigerian Field*: 174 (1999).

- Oladejo, S. O. (2006), Implication of Biology Education as a form of Sustainable Training for Youths:- Ethnobotanical uses of plant – paper presented of the 4th Annual Conference of School of Science Osun State College of Education, Ilesa – April 2005.
- Sofowora Abayomi, (1982), Medicinal Plant and traditional medicine in africa Ibadan Spectrum book 1982.
- Sofowora, (1997), Cultivation, conservation and processing of medicinal and aromatic Plants. National Institute for Pharmaceutical Research and Development (DIPRD), Abuja, Nigeria 18th -20th Mar, 1997
- Wang H. F, (1991), Radiation Protective and Platelet aggregation inhibitory acid following high dose gamma irradiation. *Journal of Ethnopharmacology* 34:215-219.