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Full Length Research

Ethnobotanical Survey of Commonly Used Indigenous Medicinal Plants by the Oka-Akoko People of Akoko South West L.G.A., Ondo State, Nigeria

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Abstract

A survey of some indigenous medicinal plants used by the Oka-Akoko people of Ondo state was conducted through oral interviews using questionnaires administered to respondents. Plants were collected with the help of different informants (traditional herbalists, farmers, traders and herb sellers). Fifty plants species belonging to twenty-seven families were recorded. They were described using their botanical, common names, family and medicinal uses. The families Euphorbiaceae (12%), Asteraceae (10%) and Fabaceae (10%) recorded the highest number of plant species used in the study. The plants studied are used for a variety of remedies for different ailments. With respect to common ailments/diseases treated with the plants, headache/fever accounted for 20%, diarrhea (18%) malaria (14%), and venereal diseases (10%). From the study, the leaves had the highest percentage of plant parts used (70%) followed by barks (26%) and roots (10%). These medicinal plants cater for most of the health care needs of humans, especially the Oka-Akoko people and should therefore be conserved to ensure its sustainability to serve the people of the community in general and the world at large.

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INTRODUCTION

Since prehistoric times, humans have used natural products, such as plants, animals, microorganisms, and marine organisms, in medicines to alleviate and treat diseases. According to fossil records, the human use of plants as medicines may be traced back at least 60,000 years (Shi *et al.*, 2010; Fabricant and Farnsworth, 2001). Each society has its own medical style or medical culture, beliefs about the body and illness causation, together with societal norms concerning when, why and who to seek for medical help comprise of one's "culture of medicine" or ethnomedicine (Maneenoon *et al.*, 2015; Nichter, 1992). Medicinal plants are priceless sources of bioactive compounds, and despite the contemporary progresses in pharmaceuticals and drug developments they remain a major

source of medicine for a large proportion of our world (Ali *et al.*, 2014). Throughout the world, several thousands of plants are being used for medicinal purposes. Many of these plants are known and utilized only by savage people, herb doctors and primitive dwellers that are forced to depend on the native plants of the vicinity which they dwell. Several diseases are being treated using medicinal plants as remedies.

Ethnomedicine is concerned with the cultural interpretation of health, diseases and illness and also addresses the health care seeking process and healing practice (Pieroni *et al.*, 2005). Ethnomedicine is the area of anthropology that studies different societies' notions of health and illness, including how people think and how people act about well-being and healing

(Quinlan, 2011). The components of ethnomedicine have long been ignored by many biomedical practitioners for various reasons. For example, the chemical composition, dosages and toxicity of the plants used in ethnomedicine are not clearly defined (Lowe *et al.*, 2000). However, it is interesting to note that the ethnomedicinal uses of plants is one of the most successful criteria used by the pharmaceutical industry in finding new therapeutic agents for the various fields of biomedicine (Cox and Balick, 1994).

According to data released by the World Health Organization (WHO), ethnomedicine has maintained its popularity in all regions of the developing world and its use is rapidly expanding in the industrialized countries (W.H.O, 2003), for example, in China traditional herbal preparation account for 30–50% of the total medicinal consumption. In Ghana, Mali, Nigeria and Zambia, the first line treatment for 60% of children with malaria is the use of herbal medicine. In developing countries, 25% of the medicinal drugs are based on plant and their derivatives (Okwu and Ekeke, 2003). The W.H.O has a keen interest in documenting the use of medicinal plants by indigenous people from different parts of the world (Buragohain, 2011).

Nigeria is richly endowed with indigenous plants which are used in herbal medicine to cure diseases and heal injuries. Use of herbal medicine in Nigeria arose as a result of interaction of human with the environment. These medicinal plants exhibits wide ranges of biological and pharmacological activities such as anticancer, anti-inflammatory, diuretic, laxative, antispasmodic, antihypertensive, anti-diabetic and antimicrobial functions. It is assumed that the active medicinal constituents contributing to these healing and protective effects are the phytochemicals, vitamins, and minerals (Okwu, 2004). In Nigeria, herbal healings is still widely practiced in rural as well as urban areas due to shortages of drugs and insufficient means to visit established medical centres (Adodo, 2005). It is interesting to note that ethnomedicinal uses of plants is one of the most successful criteria used by the pharmaceutical industries in finding new therapeutic agents for the various field of bio medicine (Veeramuthu *et al.*, 2006).

Today with increasing science education together with critical study of the herbal practices in Nigeria villages, it is becoming undisputable that many of the native herbs provide sound and effective healing power for numerous diseases (Olapade, 2002). The objective of this study was to evaluate some plants used as herbal remedies/medicines by the people of Oka-Akoko and encourage utilization of the plants with health benefits occurring in the study area. It is also important to stimulate interests to conduct further research on ethnomedicinal plants with the view to discovering new plants which can be used as natural remedy/treatment of ailments.

MATERIALS AND METHODS

Description of the Study Area

Oka-Akoko is a sub-urban town in Akoko south West Local Government Area of Ondo State, Nigeria. It is located on

latitude 7.22°N and 5.48°E of the Nigeria map (Figure 1). It is bounded in the East by Epinmi and Ipe-Akoko, in the West by Akungba and Supare-Akoko, in the North by Ise, Iboropa and Ugbe-Akoko and in the South by Oba and Ikun-Akoko. Oka-Akoko is a conglomerate of several towns and villages such as Oke Oka, Iwaro, Ayepe, Ayegunle, Okia, Simerin and Uba Oka.

Predominantly, the vegetation is of the derived savanna with scattered forest all over the area. Notable geological features of Oka-Akoko region are the steep sided, dome-shaped mountains that dominate the landscape. Oka people are mainly farmers who engage in mere subsistence farming. They produce food crops like yam, maize and cassava. Some combine the production of cash crops like cocoa, coffee and rubber. Some of Oka people are also involved in commercial activities while some are engaged in tertiary occupation such as carpentry and bricklaying.

Plant Collection

Information regarding this research was collected from traditional herbalist, herb sellers and other villagers by giving out questionnaires. Information was gathered from twenty persons between the ages of thirty five (35) to eighty (80) in the study area. Amongst them were traditional herbalists, farmers, traders and herb sellers. The authenticity of these plants was confirmed after three to four persons confirmed their names, usage and dosage without error. Plants were collected in Simerin, Oka Akoko and handled with care before being taken to the Ambrose Alli University Herbarium where the plants were identified, pressed using plant press, poisoned and finally mounted on plain mounting sheets and then stored.

Identification of Plants

Plants species were first identified by the informants using their local names (Yoruba names). These were later matched with their respective common and scientific names and identified in the Ambrose Alli University Herbarium, Ekpoma.

RESULTS

The result of the ethnomedicinal survey of the Akoko people is presented in the inventory of indigenous medicinal plants of Akoko South West and their uses (Table 1). Figure 2 shows the plant parts used mainly divided into the different plant parts with the leaves being the most used out of the whole plant followed by the bark (26%). The flower part recorded the least (2%). Figure 3 shows the distribution of species into their various families. The families with the highest number of plants distributed are Euphorbiaceae (12%), Asteraceae (10%) and Fabaceae (10%). Majority of the other species belonging to Papavaraceae and the host of others recorded 2% as shown in Figure 3. The percentage proportion of the various ailments treated with the studied plants is presented in Table 2 with

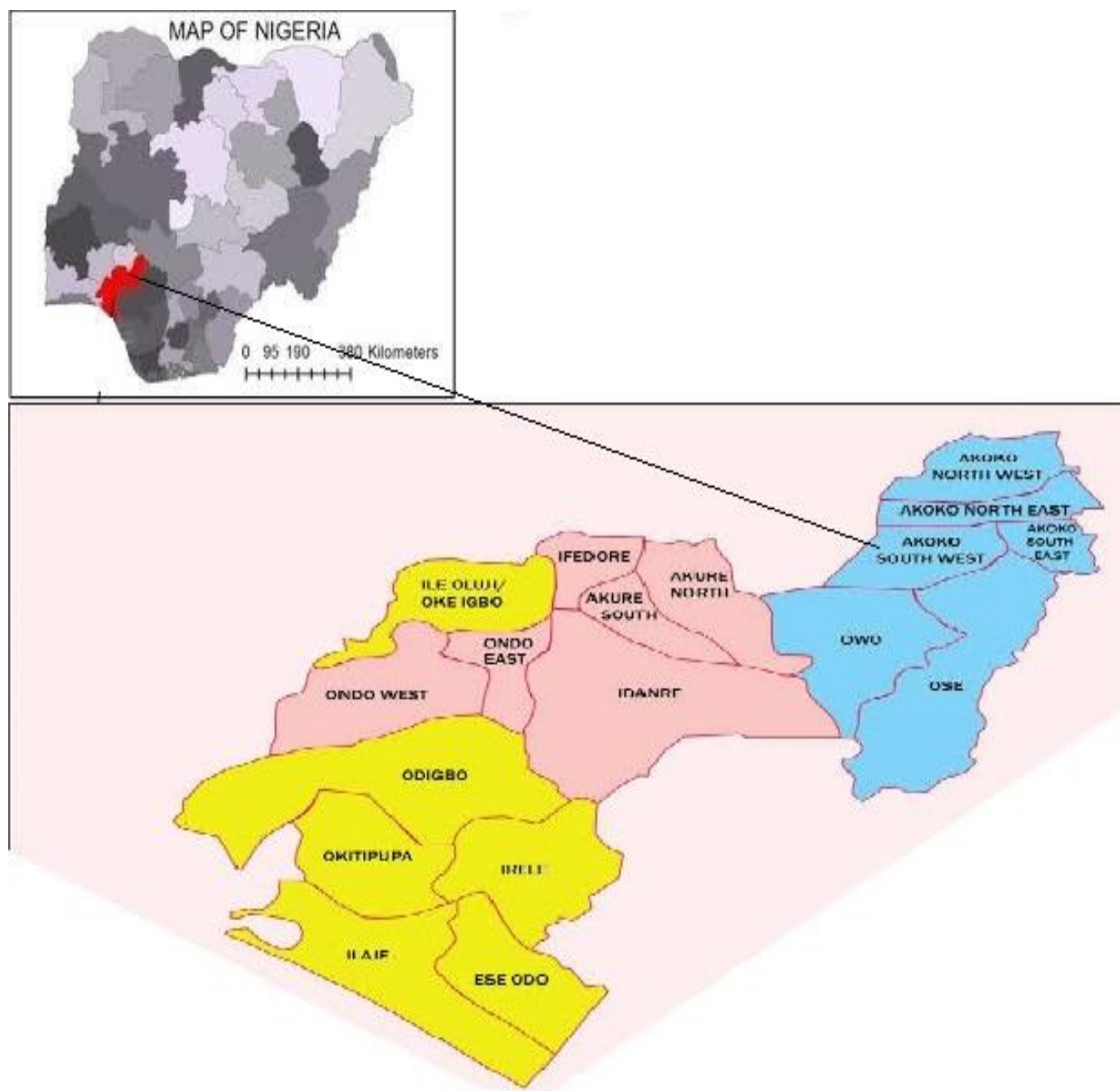


Figure 1. Map showing local government area study site.

fever, dysentery and malaria having the highest proportions followed by skin infection, cough and cold while others recorded the least.

DISCUSSION

The ethnomedicinal knowledge of the people being passed down from one generation to another has formed a part of the people culture. The components of ethnomedicine have long

been ignored by many biomedical practitioners for various reasons which include: little interest shown by the present generation to the art of traditional healing using medical plant. Usage of medicinal plants to cure diseases has been influenced by religious practices (Trease and Evans, 2009; Wambebe, 1999). Traditional healing using plants is rapidly declining among the present generation of local people as a consequence of modernization (Cox, 2005).

Genetic biodiversity of traditional medicinal herbs and plants are continually under threat of extinction because of growth

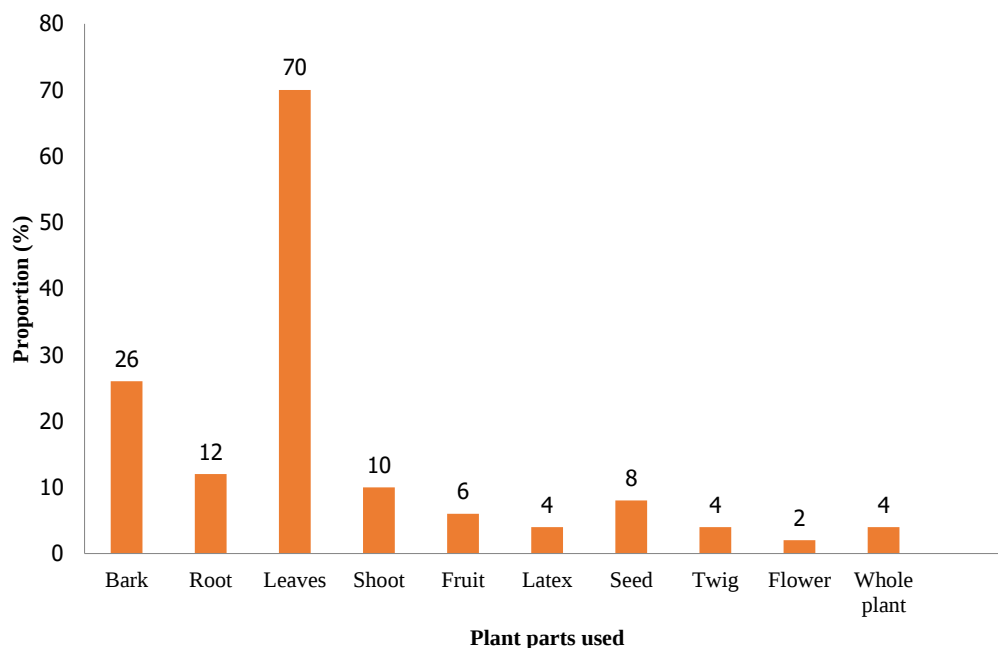


Figure 2. Percentage of studied plant parts used as herbal remedy.

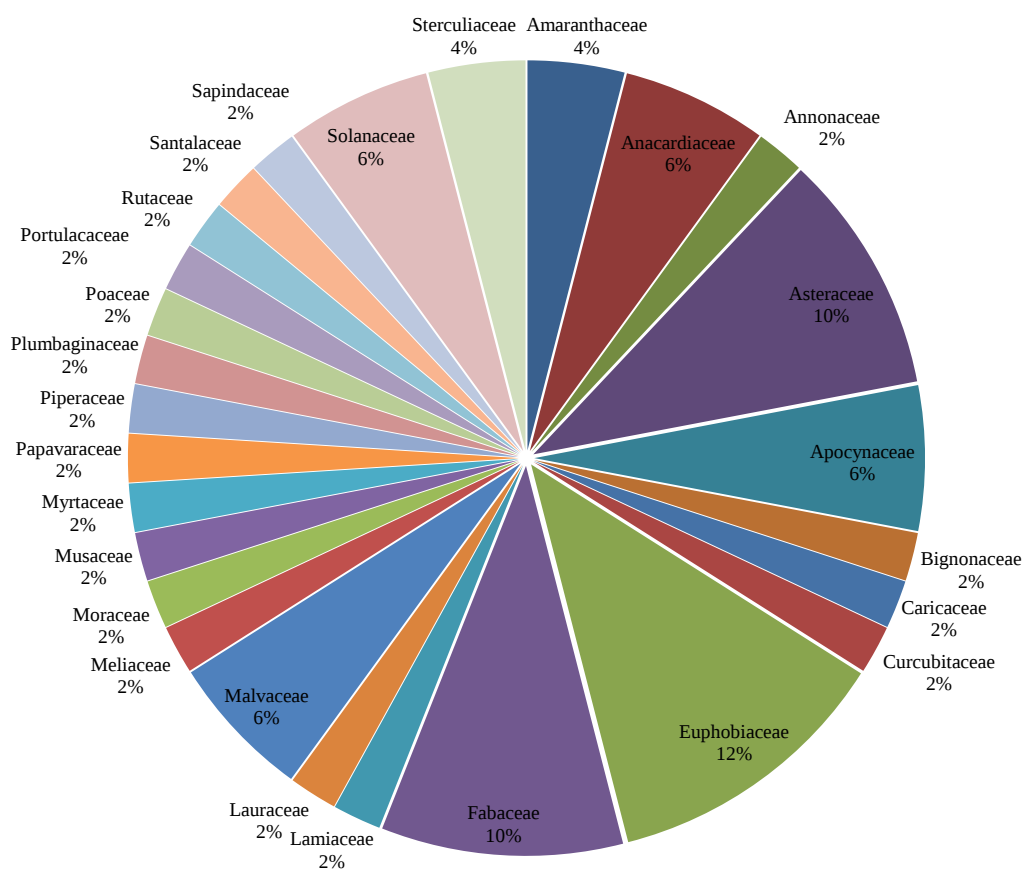


Figure 3. Pie chart showing the distribution of identified species into families.

Table 1. Inventory of indigenous medicinal plants of Akoko South West and their uses.

Botanical name	Family	Common name	Native name	Part used	Uses	Preparation and administration
<i>Abrus precatorius</i>	Fabaceae	Jumble bead	Ojuolongbo	Root and leaves.	Cough, convulsion	Boil in water and drink 2 cupful daily or soak in local dry gin and drink 2 glassful daily.
<i>Ageratum conyzoides</i>	Asteraceae	Scent leaf	Efinrin	Leaves	Fever, cough and stomach upset	Crush the leaves and add water to extract the juice. Drink 2 glassful of the juice daily for the treatment of fever. Add salt to the juice and drink 2 cupful daily for cough and stomach upset.
<i>Amaranthus spinosus</i>	Amaranthaceae	Prickly amaranth	Tetelegun	Shoot	Gonorrhea	The shoot is boiled in water. Drink 2 cupful daily.
<i>Anacardium occidentale</i> .	Anacardiaceae	Cashew	Kashu	Leaves, bark and fruits	Malaria and black tongue	Boil the leaves, bark and fruit in water. Drink 2 cupful daily.
<i>Argemone exicana</i> .	Papaveraceae	Prickly poppy	Orisaorere	Latex and seed	Constipation, fresh wound	Pluck the leaves and apply the latex on the wounded part. Grind the dried seeds and boil in water. Drink 2 cupful daily to treat constipation.
<i>Aspillia africana</i> .	Asteraceae	Daisy	Yunyun	Leaves	Rheumatism, fresh wound.	Crush the leaves and apply directly on the wound to stop bleeding. Make infusion of the leaves, drink 2 cupful daily to treat rheumatism.
<i>Astonia booneii</i> .	Apocynaceae	Stool wood	Ahun	Bark	Malaria	Boil in water. Drink 2 tumbler cupful daily.
<i>Azadirachta indica</i>	Meliaceae	Neem	Dongoyaro	Bark and leaves	Malaria	Boil the bark and leaves in water and lime juice. Drink 3 cupful daily.
<i>Bambusa vulgaris</i>	Poaceae	Bamboo	Oparun	Leaves	High blood pressure	The leaves are boiled in water till it becomes tender. Drink this 2 time daily.
<i>Blighia sapida</i>	Sapindaceae	Ackee apple	Ishin	Bark and leaves	Fibroid	Grind the bark and leaves to paste. Cook without oil and seasoning. Eat ordinarily.
<i>Calotropis procera</i>	Apocynaceae	Sodom apple	Bomubomu	Leaves	Measles and asthma	Make infusion with local dry gin. Drink 2 glassful daily, also rub on the body to treat measles. Grind the leaves with tobacco leaves. Cook as soup without seasoning, eat ordinarily for the treatment of asthma.
<i>Carica papaya</i> .	Caricaceae	Pawpaw	Ibepe	Fruit, leaves and root	Fever and gonorrhea	Boil the leaves and unripe fruits in water. Drink 3 cupful daily to treat fever. Boil the root with plain water, drink a cupful daily to treat gonorrhea.

Table 1. Continue

Botanical name	Family	Common name	Native name	Part used	Uses	Preparation and administration
<i>Chenopodium ambrosoides</i>	Amaranthaceae	Worm weed	Arunpale	Leaves	Skin rashes	Grind the leaves into paste and apply directly on the affected part 2 times daily.
<i>Chromoleana odorata</i>	Asteraceae	Siam weed	Akintola	Shoot and leaves	Malaria and fresh wound.	Boil the juice in water. Drink 2 cupful daily for the treatment of malaria. Crush the leaves and apply directly on the affected areas to treat wound. Repeat this process 3-4 times daily.
<i>Citrus paradisi</i>	Rutaceae	Grape orange	Iganyinganyi	Fruits	Typhoid	Cut the fruits into bits and soak in local dry gin. Drink 3 tumbler glassful daily.
<i>Cola acuminata</i>	Sterculiaceae	Kola nut	Obi abata	Leaves	Malaria	Boil the leaves in fermented pap water. Drink 2 cupful daily.
<i>Crassocelphalum crepidioides</i>	Asteraceae	Thick head	Ebolo	Whole plant	Malaria	Make cold infusion of the plant. Drink 2 cupful daily.
<i>Datura stramonium</i>	Solanaceae	Jimson weed	Gegemu	Leaves	Insomnia	Boil in water. Drink 1 cupful daily.
<i>Ficus exasperata</i>	Moraceae	Sand paper leaf	Ipin	Leaves, young twigs and bark.	Fever	Boil the leaves, young twigs and bark until it becomes tender. Drink 2 times daily, preferably morning and night also bath with the concoction.
<i>Gliricida sepium</i>	Fabaceae	Quick stick	Agunmaniye	Leaf and twigs	Typhoid fever and dysentery.	The young twigs and leaves are boiled with fermented pap water till it becomes tender. Drink 2 cupful daily for dysentery and 3 cupful for typhoid.
<i>Gossypium hirsutum</i>	Malvaceae	Cotton	Owu	Seed and leaves	Headache, dysentery and gonorrhea.	Grind the seeds and leaves into paste and apply directly on the forehead to treat severe headache. Crush the leaves and add water to extract the juice. Drink 1 cupful morning and night for the treatment of dysentery and gonorrhea.
<i>Jatropha curcas</i>	Euphorbiaceae	Jatropha	Lapalapa	Latex	Snake bite and coated tongue.	Pluck the leaves or young twigs and apply the latex on the affected part for snake bite. The latex is used to wash the tongue for treatment of coated tongue.

Table 1. Continue

Botanical name	Family	Common name	Native name	Part used	Uses	Preparation and administration
<i>Mallotus oppositifolius</i>	Euphorbiaceae	Mallotus	Ipa	Leaf and shoot	Headache and diarrhoea	Boil the stem in water. Bath with the concoction twice daily to treat headache. The leaves and shoot are infused in water. Drink the infusion twice daily to treat gonorrhea.
<i>Mangifera indica</i>	Anacardiaceae	Mango	Mangoro	Bark and leaves	Malaria and typhoid fever.	Boil the bark and leaves in water. Drink 1cupful twice daily as malaria treatment. To treat typhoid fever, <i>Citrus aurantifolia</i> is boiled together with the leaves and bark. Drink 3 cupful daily
<i>Musa paradisiaca</i>	Musaceae	Plantain	Ogedeagbagba	Flowers	Spinning eye sensation and diabetic.	Boil the flowers in water. Drink 2 glassful daily also wash the eyes with the concoction. Drink 3 cupful daily for diabetic.
<i>Newbouldia laevis</i>	Bignoniaceae	Fertillity tree	Ewe akoko	Leaves and bark.	Diarrhoea and infertility.	Boil the leaves and bark in water. Drink 2 cupful daily to treat diarrhea. Crush the leaves and add water to extract the juice. The juice is taken to treat infertility in women.
<i>Nicotiana tobacum</i>	Solanaceae	Tobacco	Taba	Leaves	Poison	Boil the leaves in water. Drink 2 cupful after ingesting poison.
<i>Occimum gratisimum</i>	Lamiaceae	Scent leaf	Efinrin	Leaves	Fever and stomach upset.	Crush the leaves and add water to get the juice. Drink 2 glassful daily for fever. Add salt to the juice, drink 2 cupful of the salted juice for stomach upset.
<i>Parkia biglobosa</i>	Fabaceae	Locust beans	Iru	Bark	Back ache	Boil the bark in water. Drink 2 cupful daily.
<i>Peperomia pellucida</i>	Piperaceae	Cow foot	Ewe ita	Leaves	Boil and bumps	Grind the leaves to paste and apply directly on the affected parts.
<i>Persea americana</i>	Lauraceae	Avocado pear	Pia	Leaves and bark	Dysentery and dysentery.	Boil the bark and leaves in water. Drink 2 cupful daily for dysentery. Gargle with the concoction to treat toothache.
<i>Phyllanthus amarus</i>	Euphorbiaceae	Stone breaker	Oyinolobe	Whole plant	Malaria fever	Boil in plain water. Drink 3 cupful daily.
<i>Phyllanthus muellerianus.</i>	Euphorbiaceae	Stone breaker	Egunguneja	Leaves and bark	Malaria fever	Boil the leaves and bark. Drink 2 cupful daily.

Table 1. Continue

Botanical name	Family	Common name	Native name	Part used	Uses	Preparation and administration
<i>Plumbago zeylanica</i>	Plumbaginaceae	Doctor bush	Inagburu	Root and leaves.	Diarrhoea, rheumatism and gonorrhea	Boil the root in water and drink 2 cupful daily to treat diarrhea. Crush the root and add a little palm oil, apply on the joints to treat rheumatism. Dry the leaves, bark and root. Grind to powder, boil in water and drink 2 cupful daily to treat gonorrhea.
<i>Polyalthia longifolia</i>	Annonaceae	Masquerade tree	Sheru, agudugbu.	Bark and leaves	Stomach ache and gonorrhea	Boil the bark and leaves in water. Drink 2 cupful daily.
<i>Psidium guajava</i>	Myrtaceae	Guava		Leaves and root	Stomach upset.	The leaves are crushed and water added to extract juice. Drink 2 glassful daily to treat stomach upset.
<i>Rauwolfia vomitoria</i>	Apocynaceae	Devil's pepper	Asofeyeje	Root, leaves and bark.	Yellow fever.	Grind all part to paste. Cook with only palm oil. Eat the prepared soup ordinarily.
<i>Ricinus communis</i>	Euphorbiaceae	Castor plant	Lara	Seed oil and root	Veneral diseases and skin rashes.	Extract the seed oil and apply on the rash. Boil the root in water and drink 2 cupful daily to treat venereal diseases.
<i>Securinega virosa</i>	Euphorbiaceae	White berry bush	Pasin	Leaves	Fever	Boil the leaves in water. Drink 2 cupful daily preferably morning and night.
<i>Senna alata</i>	Fabaceae	Cassia	Ewe nla	Leaves and bark	Fever and ringworm.	Boil the leaves, drink 2 cupful daily to treat fever. Crush leaves and apply directly on the affected parts to treat ringworm.
<i>Sida acuta</i>	Malvaceae	Wire weed	Iseketu	Leaves	Tuberculosis	Crush the leaves, add water to squeeze out the juice. Drink 2 cupful daily.
<i>Solanum lycopersicum</i>	Solanaceae	Tomatoes	Tomati	Shoot	Cholera	Boil in fermented pap water. Let the mixture settle and sieve. Drink 2 cupful daily.
<i>Spondia mombin</i>	Anacardiaceae	Hog plum	Iyeye	Leaves, root and bark	Delayed labour and constipation.	Boil the leaves in water. Drink 2 cupful for delayed labour. Boil the bark and root in water, drink 2 cupful to treat constipation.
<i>Talinum triangulare</i>	Portulacaceae	Water leaf	Gbure	Leaves	Fever	Crush and add water to get the juice. Rub all over the body to treat fever.

Table 1. Continue

Botanical name	Family	Common name	Native name	Part used	Uses	Preparation and administration
<i>Telferia occidentalis</i>	Cucurbitaceae	Pumpkin	Ugu	Leaves	Blood supplement	Crush the leaves and add water. Drink a cupful daily.
<i>Tetrapleura tetraptera</i>	Fabaceae	Aidan	Oridan	Fruits and bark	Stomach disorder.	Grind the fruits and bark, cook as soup and eat ordinarily to stop stomach disorder.
<i>Theobroma cacao</i>	Sterculiaceae	Cocoa	Kooko	Bark	Blood supplement	Boil the bark in water and drink 3 cups full daily.
<i>Vernonia amygdalina</i>	Asteraceae	Bitter leaf	Ewuro	Leaves	Fever and stomach disorder.	Crush the leaves and add water to get juice. Drink 3 cupful daily for fever and 2 cupful for stomach disorder.
<i>Viscum album</i>	Santalaceae	Mistletoe	Afomo	Leaves	Rheumatism	Boil the leaves in water. Drink 3 cupful daily.
<i>Waltheria indica</i>	Malvaceae	Sleepy morning	Ewe epo	Root and stem	Cold, fever, cough and diarrhoea.	Boil the leafy stem in water, drink 2cupful daily for the treatment of cold, fever and cough. To treat diarrhoea, boil the root and drink 2cupful daily.

Table 2. Percentage proportion of ailments/diseases treated with studied plants species.

Sn	Uses	Species Used	Proportion (%)
1	Gonorrhea/veneral diseases.	<i>A. spinosum</i> , <i>C. papaya</i> , <i>G. hirsutum</i> , <i>G. suaveolens</i> , <i>P. zeylanica</i> , <i>R. cummunis</i> .	12
2.	Malaria	<i>M. indica</i> , <i>C. odorata</i> , <i>A. indica</i> , <i>A. occidentalis</i> , <i>C. crepidioides</i> , <i>A. booneii</i> , <i>P. amarus</i> .	14
3.	Typhoidfever	<i>M. indica</i> , <i>G. sepium</i> , <i>C. paradisii</i>	6
4.	Yellowfever	<i>R. vomitoria</i> .	2
5.	Fever/headache	<i>O. gratissimum</i> , <i>C. papaya</i> , <i>V. amygladina</i> , <i>F. exasperata</i> , <i>S. alata</i> , <i>G. sepium</i> , <i>P. muellerianus</i> , <i>S. virosa</i> , <i>T. triangulare</i> , <i>G. hirsutum</i> .	20
6.	Wounds/Cuts	<i>C. odorata</i> , <i>A. africana</i> , <i>A. mexicana</i> .	6
7.	Diarrhea/dysentery	<i>A. conyzoides</i> , <i>W. indica</i> , <i>S. mombin</i> , <i>N. laevis</i> , <i>M. oppositifolius</i> , <i>P. zeylanica</i> , <i>G. hirsutum</i> , <i>P. americana</i> , <i>G. sepium</i> .	18
8.	Stomach upset	<i>O. gratissimum</i> , <i>V. amygladina</i> , <i>G. suaveolens</i> , <i>P. guajava</i> , <i>T. tetrapleura</i> .	10
9.	Tuberculosis	<i>S. acuta</i> .	2
10.	Fibroid	<i>B. sapida</i> .	2
11.	Blood supplement.	<i>T. occidentalis</i> , <i>T. cacao</i> .	4

Table 2. Continue.

Sn	Uses	Species Used	Proportion (%)
12.	Constipation	<i>A. mexicana</i> , <i>S. mombin</i> .	4
13.	Snakebite	<i>J. curcas</i> .	2
14.	Skin diseases/infection	<i>S. alata</i> , <i>C. ambrosoides</i> , <i>P. pellucida</i> , <i>R. comunis</i> .	8
15.	Rheumatism	<i>A. africana</i> , <i>V. album</i> , <i>P. zeylanica</i> .	6
16.	Backache	<i>P. biglobosa</i> .	2
17.	Cough/cold	<i>W. indica</i> , <i>N. laevis</i> , <i>A. precatouris</i> .	6
18.	Asthma	<i>C. procera</i> .	2
19.	Convulsion	<i>A. precatouris</i> .	2
20.	High blood pressure	<i>B. vulgaris</i> .	2
21.	Insomnia	<i>D. stramonium</i> .	2
22.	Diabetes	<i>M. paradisiaca</i> .	2
23.	Measles	<i>C. procera</i> .	2
24.	Cholera	<i>S. lycopersicum</i> .	2
25.	Coated/black tongue	<i>A. occidentalis</i> , <i>J. curcas</i> .	4
26.	Infertility	<i>N. laevis</i> .	2
27.	Delayed labour	<i>S. mombin</i> .	2
28.	Anti-poison	<i>N. tobacum</i> .	2

exploitation, environmental unfriendly techniques of harvesting and unauthorized trade of medicinal plants (Green *et al.*, 2005). The increasing demand of medical plants both locally and internationally has posed a risk of continuous exploitation of these plants from their natural habitat.

According to World Health Organization (W.H.O, 2003), the promotion of traditional medicine in health care service should be intensified by the application of appropriate traditional technology to health care improvement based on simplicity, safety, efficacy, availability of low cost and selection of essential traditional remedies particularly herbs.

According to Lewis (2005), research on medicinal and other useful plants used in indigenous society has been driven by two complementary interests: the use of such information for research in the field of natural science especially with regards to 'new' bioactive natural product derived from plants and the use of plant extracts in primary health care.

The list of plants used by the Oka-Akoko people are in similar to findings of earlier studies by (Okoli *et al.*, 2007; Adekunle, 2001), who reported extensively on the use of plants by the Yorubas' as a group. The treatment of diabetes using *Musa paradisiaca* agrees with studies by (Adeneye and Adeyemi, 2004) who reported that decoction of the flowers is highly valued in local management of diabetes mellitus. The leaves, twigs and bark of *Ficus exasperata* are effective in the treatment of fever which corresponds to studies (Sharma *et al.*, 2007).

Several researchers (Fongod *et al.*, 2014; Kafaru, 2000) have conducted similar works in line with this study's report as regards the treatment of female infertility, delayed labour in pregnant women and malaria. From the various plant parts used, the most utilized parts were leaves, bark and root, while the least utilized part is the flowers. Leaves are mostly used because they contain more phytochemicals that help hasten

treatment of some ailment mentioned. The species studied are essentially rich in natural products, all of which are relatively free of side effects. In some cases, different plant parts may be combined for effective treatment of a particular ailment. In others, different parts of plants may be used to cure different ailments and different plants employed by different herbal practitioners in the treatment of the same ailment. Biodiversity conservation can be enhanced when information about plants that are harvested and utilized in the management of ailments within particular areas are available (Mshana *et al.*, 2000).

Conclusion

Ethnomedicine is very important as it explore the medicinal uses of plants by different ethnic groups. Many people in Oka Akoko, Ondo state still depend on the plants around them for their primary health care needs. Though the younger inhabitants of the village are interested in western medicine, the indigenous knowledge of plants as herbal remedy still remains. The use and cultivation of medicinal plants should be encouraged in regions with less medicinal plants species. They should be conserved so that those found in the study area do not go into extinction due to human activities in our natural environment.

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