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Research Article

Ethnobotanical Studies of Port Harcourt Metropolis, Nigeria

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The objective of this study was to show the different ways medicinal herbs are used by the indigenous people in Port Harcourt metropolis (07° 3′ E, 04° 51′ N) in the Niger Delta region, Nigeria. One hundred and fifty structured questionnaires were administered, including oral interviews to herbal practitioners and users located at different parts of the city. Also, three popularly known herbal companies—Emiola naturalist care, Yem-Kem international herbal center, and Abiola medical herbal center—were included as they are healthcare providers, especially the medium income group. The results showed that a total of 83 plant species were recorded and classified according to their family, botanical, common, and local names. Also, the plant part used, mode of preparation, and type of ailment cured were included. The most frequently used plant parts were leaves followed by barks, roots, and fruits and with malaria fever as the most treated ailment. Deforestation, agricultural expansion, and fire were noted as the most important factors threatening the availability of these plants. The authors are of the opinion that paying special attention to the medicinal plants found in the area through conservation may help to amplify their role in the healthcare system, poverty alleviation, and environmental protection.

1. Introduction

Herbal or traditional medicine has been a major aspect of the sociocultural heritage in Africa for hundreds of years even before the advent of conventional medicine. It was once believed to be primitive and wrongly challenged by foreign religions dating back during the colonial rule in Africa and subsequently by the conventional or orthodox medical practitioners [1]. Plant-derived medicines have been part of traditional health care in most parts of the world for thousands of years and there is increasing interest in them as sources in the treatment of diseases [2–4]. The majority of people in developing countries depend on herbalists for their medical care. This is so in Port Harcourt metropolis, which is the hub of oil and gas activities in the Niger Delta region of Nigeria. The city comprises of people from different social and economic strata, ranging from the oil company executive to the water vendor. All these categories of people seek medical care and other social services in the city. Therefore, most of the people especially the poor resort to herbal medicine because of its affordability, accessibility, and acceptability. The treatment and control of diseases by the use of available medicinal plants in a locality will continue to play significant roles in medical health care implementation in the developing countries of the world [5]. The objective of this survey was to document the herbal plants used by the people in Port Harcourt metropolis, the part used, how they are used, and the type of ailment they cure. Also, the need for the integration of herbal medicine into the formal health care system, complementary relationship amongst health care practitioners and delivery of health services, especially to the low income group in both rural and urban areas is discussed.

2. Materials and Method

2.1. Study Area and Data Collection. Port Harcourt, the capital of the oil rich Rivers State (Figure 1), is located in Southeastern Nigeria (07° 3′ E, 04° 51′ N, and 10 m altitude above sea level) in the humid forest zone of the Niger

Figure 1: Map of Rivers State (Nigeria) showing Port Harcourt metropolis.

Delta region, Nigeria. It is densely populated and home to multinational oil and gas companies and as such witnesses the influx of people in search of better living. This population increase often stretches public facilities, including hospitals (which are few) leading to alternative sources like herbal medicine. This makes the ethnobotanical studies of the area very imperative. Therefore, a structured questionnaire was administered to different herbal medicine dealers and users of herbal medicine located at different points in the city—mile 1 market, mile 3 market, flyover area, and three popularly known herbal companies: Emiola naturalist care, Yem-Kem international herbal center, and Abiola medical herbal center, all situated in Port Harcourt metropolis. The herbal companies selected in this study have been in practice for many years in the metropolis and serve as healthcare providers to many people in the city and partner with government during trade fair exhibitions. They did not sponsor this work research or influence the report.

The data in this study were derived from the questionnaires that were administered and oral interviews granted by the individual herbal dealers and the companies. The respondents were both men and women from ages 40 years and above, representing the age group with good knowledge of herbal remedies. The indigenous plants collected during the oral interviews were identified with the aid of floras of the area using [6, 7] and authenticated by Dr. B. O Green (Taxonomist), Department of Applied and Environmental Biology, Rivers State University of Science and Technology, Port Harcourt, Nigeria, where the specimen vouchers were deposited. Ethnomedical confirmations were carried out using [8] and a total of 150 questionnaires were administered and a total of 83 plants species were identified in the study.

3. Results

Table 1 shows the individual plant species, their botanical, common, and local (Yoruba, Igbo, and Hausa) names as well as their families, the use of each plant, and which part(s) of the plant that is being used. Our study shows that the plants have different ethnomedical applications by the people as antiseptic, laxatives, purgative, anticonvulsant, expectorants, anthelmintic, and sedatives in the treatment of malaria, rheumatism, diarrhea, infertility, jaundice, dysentery, gonorrhea, fever, pains, respiratory problem and poultice, and so forth.

3.1. Ailment, Mode of Preparation Dosage, and Administration of Some of the Common Herbs

3.1.1. Skin Diseases, Malaria Fever, Anaemia, Diabetes, and Bronchitis. Fresh leaves and bark of *Mangifera indica* are boiled together with the leaves of Papaya and neem. A glassful of the mixture is taken thrice daily to treat fever, anaemia, and diabetes. It is also used for bathing early in the morning to treat malarial fever.

3.1.2. Stomach Ache, Skin Infection, Diabetes, Loss of Memory, and Prostate Cancer. The tender part of the stem of *Vernonia amygdalina* is used as chewing stick and the bitter water is swallowed daily as remedy for stomach ache. Alternatively, fresh leaves are pounded in a mortar and the juice is pressed out, and a pinch of salt is added to 3 tablespoons of the undiluted juice and taken as a drink 3 times daily to bring immediate relief to stomach ache. For skin infection such as ringworm, itching, rashes, and eczema, the pure undiluted extract of bitter leaf is applied to the affected part daily. For diabetes, 10 handfuls of the fresh leaves are squeezed into 10 liters of water; a glassful is taken 4 times daily for 1 month to reduce sugar level drastically and it also repairs the pancreas. In the case of memory loss, take 1 glass twice daily for at least 2 months, while application of the solution soothes inflamed joints arthritis and eradicates pains.

3.1.3. Malaria Fever, Diabetes, Stomach Ulcer, and Convulsion. The leaves of Papaya are squeezed into one liter of water and a glassful is taken 3 times daily for 7 days to serve as a good treatment for malaria fever and jaundice. Similarly, the green leaves are squeezed into 1 liter of water; one glassful is taken three times daily to treat diabetes and constipation. For intestinal ulcer, unripe Papaya fruit is cut into pieces and the peel and seeds are removed and soaked in five liters of water for 4 days. It is sieved and 1/2 glass is taken 3 times daily for two weeks. The white milky sap of unripe Papaya contains a high percentage of papain which is used for chronic wounds or ulcers. The dry fallen Papaya leaves are washed and ground into powder. Two tablespoonfuls of the ground powder are added into 1/2 glass of palm kernel oil, stirred properly, and rubbed over the body to arrest high fever and convulsion.

3.1.4. Anaemia, Intestinal Ulcer, and Heart Problem. The dried peels of *Musa paradisiaca* are ground into powder; one

Table 1: Ethnobotany of some common plant species in Port Harcourt city, Nigeria.

S/no.	Common name	Botanical name	Family name	Local names Yoruba	Ibo	Hausa	Use(s)	Part(s) used
1	Ginger	*Zingiber officinale* (Rose)	Zingiberaceae	Jinga	Chita	Ata-ile	Detoxify liver, bronchitis	corm
2	Edible-stemmed vine	*Cissus quadrangularis* (L.)	Vitaceae	Ogbakiiki	—	Daddor	Caries, dysmenorrhoea, urinary disorders	Tuber, stem
3	Hibiscus	*Hibiscus acetosella*	Malvaceae			Akese	Dysentery	Leaves
4	Chinese pur/Burweed	*Triumfetta rhomboidea* (Jacaq.)	Tilaceae	Odo	Yanka-dafi	Molanganrsn/ako bolobolo	Gonorrhea	Leaf, Flower Fruit
5	Bush okra/Jew fiber telteria/Jews Mallow	*Corchorus olitorius*	Titiaceae	Ewedu	Ariraa/ulogburu	Lalo	Vegetable, blood purifier	Leaf
6	African star apple	*Chrysophyllum albidum* (G. Don)	Sapotaceae	Odara/udala	Agbalumo	Agwaliba	Delicacy, antinausea	Fruit
7	Fruited gourd	*Coccinia barteri*	Cucurbitaceae			Ewe-oju	Venereal diseases, skin infections, earache	Whole plant
8	Tomatoes	*Solanum lycopersicum*	Solanaceae	Tomati	Tomato	Tomati	Vegetable, Vitamin C	Fruit
9	Pepper, Chili	*Capsicum annuum* L.	Solanaceae	Ata wewe	Ose	Tatashi	Delicacy, seasoning	Fruit
10	Curry leaf	*Thymus vulgaris*	Lamiaceae	Efinrin wewe	Nch-anwu		Antibiotic, carminative	Leaves
11	Orange, Sweet	*Citrus sinensis* (Linn.)	Rutaceae	Osan	Or-oma	Lmu	Dysentery, fever, headache, antimicrobial agent, anthelmintics, toothache, antiscorbutic	Twigs, stem bark, fruits, peel
12	Brimstone tree	*Morinda lucida* (Benth.)	Rubiaceae	Oruwo	Eze-ogu	—	Fever	Leaves
13	African copaiba, balsam tree, niger-opal, maaje	*Daniellia oliveri*	Leguminosae	Iya,	Kadaura,	Ozabwa, Maje	Dysentery, diarrhoea, toothache, urinary infection, astringent, tooth ache	Gum, bark
14	Water leaf	*Talinum triangulare* (Willd.)	Portulacaceae	Gbure	Nte-oka/inene	Alenyruw-a	Vegetable	Leaf
15	Lemon grass	*Cymbopogon citratus*	Poaceae	Koriko-oba	Nch-anwu	—	Malaria	Leaf
16	Hog plum	*Spondias mombin* L.	Anacardiaceae	Iyeye	Ngu-lung-wu	Isada	Infertility	Fruit
17	Cashew nut	*Anacardium occidentale* L.	Anacardiaceae	Kaju	Sas-hu	Kanju	Cough	Bark, Fruit
18	Mango	*Mangifera indica* L	Anacardiaceae	Mongora		Mango	Malaria	Leaf, bark
19	Cocoyam, Wild taro	*Colocasia esculentum* (L.) Schott	Araceae	Koko, kokof-un, kokoibile,	Ede	Gwamba	Anaemia, wounds, rheumatism, poison antidote	Tuber, leaves

Table 1: Continued.

S/no.	Common name	Botanical name	Family name	Local names Yoruba	Ibo	Hausa	Use(s)	Part(s) used
20	Giant milk weed/sodom apple	*Calotropis procera*	Asclepeceae	Bom-ubomu		Tumifafiya	Measles	Leaf
21	Bitter leaf	*Vernonia amygdalina* (Del.)	Asteraceae	Ewuro	Onu-gbu, olug-bu	Shiwaka	Pile, lower sugar, vegetable	Leaf
22	Goat weed, floss flower	*Ageratum conyzoides* L.	Compositae	Imi-esu	ula ujula,	Ahenhen	Wounds, ulcers, craw-craw, digestive disturbance, diarrhoea, emetic, skin diseases, antipyretic, gonorrhoea, sleeping sickness, eye wash	Whole plant, leaves, root
23	Siam weed	*Chromolaena odorata* (Linn.)	Compositae	Akintola	Awo-lowo,	Obiarakara	Antimicrobial, dysentery, headache, malaria fever, toothache, haemostatic, skin diseases	Leaves, stem-twigs
24	Coconut	*Cocos nucifera*	Arecaceae	Agbon	Aku-beke	Mosara	The water neutralizes poison/drug	Nut
25	Pepper fruit	*Dennettia tripetala*	Annonaceae	Igbere,	Nmi-mi	—	Insect repellant, fever, cough, toothache, stimulant	Fruit, leaves, stem, twigs
	False thistle, leopard's tongue Bear's breech, white's ginger,	*Acanthus montanus*	Acanthaceae	Ahon-ekun, irunmuarugbo,	Nyin-yiog-wu		Syphilis, cough, emetic, urethral discharge, purgative, boils, anaemia, anthelmintics	Stem-twig, leaves, roots
26	Resurrection plant, life plant	*Bryophyllum pinnatum*	Crassulaceae	Eru-odundun,	—	Abomoda	Cough, diarrhoea, dysentery, wounds, fever, sedatives, diuretic, absc-esses, antifungal, epilepsy, antimicrobial, anticancer	Leaves, roots, leaf sap
27	Fertility tree, tree of life	*Newbouldia laevis*	Bignoniaceae	Akoko	Ogirisi	Aduruku	Round worms, elephantiasis, dysentery, malaria, convulsions, migraine, cough, yellow fever, stomachache, hernia, infertility, earache	Bark, leaves, root
28	African tulip	*Spathodea campanulata* (P. Beauv.)	Bignoniaceae	Akoko	Ogili-si, ogirisi	Aduruku	Asthma	Leaves
29	Pineapple	*Ananas comosus*	Bromeliaceae	Ope oyinbo	Nkw-aba	—	Antihypertension constipation	Unripe fruit

Table 1: Continued.

S/no.	Common name	Botanical name	Family name	Local names Yoruba	Ibo	Hausa	Use(s)	Part(s) used
30	Cock's comb, Heliotrope	*Heliotropium indicum* L	Boraginaceae	Agogo-igun, Apari-Igun,	Ogb-eria-kuko	Kalkashin korama	Convulsions, cancer, worms, rectal enema, mouth-wash	Whole plant
31	African cucumber, bitter gourd, balsam pear	*Momordica charantia* L.	Cucurbitaceae	Ejinrinw	Alo-ose	Kakayi	Diabetes, piles, convulsions, jaundice, sore, nervous disorders, diabetic recipe, emetic, night blindness, aphrodisiac, dysmenorrhoea, anthelmintic, antimicrobials	Whole plant, seeds, fruit root
32	Fluted pumpkin	*Telfaria occidentalis* Hook. F.	Cucurbitaceae		Ugu		Antianaemic, blood tonic	Leaf
33	Colocynth, wild gourd.	*Citrullus colocynthis* (L.)	Cucurbitaceae	Egunsi	Elili/egwusi	Egbsi/guna	Laxative digestion	Fruit
34	Paw paw	*Carica papaya* (Linn.)	Caricaceae	Ibepe	Okworo-gbogbo	Gwanda	Boil, purgative	Latex fruit
35	Velvet, black tamarid, tumble tree	*Dialium guineense* (Wild)	Leguminosae	Awin,	Icheku,	Tsamiyar kurmi	Fever, coughs, bronchitis, toothache, astringent, diuretic	Leaves, fruit, bark, twigs
36	White yam	*Dioscoreae cayennensis*	Dioscoreaceae danzaria	Ako isu	Ji-ocha	Doya	Antidiarrhea	Tubers
37	Physic nut	*Jatropha curcas* L.	Euphorbiaceae	Botuje,	Olulu-idu	lapalapa, Zugu, Ol	Ringworm, eczema, scabies, fever, guinea worms, herpes, rectal enema, black tongue, whitlow, impotence, irregular menses, convulsion, smallpox	Seed, leaves, stem, roots, sap
38	Caper bush	*Capparis thonningii*	Capparaceae	Eka-nawodi		ewon ekiri	Fever, headache, mental disorder, aphrodisiac, cough.	Root
39	African Walnut	*Tetracarpidium conophorum*	Euophorbiaceae	Awusa, asal	Ukpa	Hawuusa	Aphrodisiac	Fruit
40	Soya bean	*Glycine max*	Leguminosae	Ewa			Laxative	Seeds
41		*Grewia* sp	Tiliaceae	Ila-oko, lakolako			Religious purpose, mystic, soup with okra-like taste	Fruits
42	African/Native/Bush mango	*Irvingia gabonensis*	Irvingiaceae	Oro mopa	Ogb-ono	Mamujigoro	Condiment	Seed
43	Garlic	*Allium sativum* L.	Alliaceae	Aayu	Ayo-ishi	Tafarunua	Antibiotic antidiabetic Anti-hypertension	Bulb

Table 1: Continued.

S/no.	Common name	Botanical name	Family name	Local names Yoruba	Ibo	Hausa	Use(s)	Part(s) used
44	Onion	*Allium cepa* Alabasa	Alliaceae	Alubosa	Alu-bosa	Yabasi	Antidiabetic	Bulb
45	Aloe, West African aloe	*Aloe barteri*	Liliaceae		Aloe		Ringworm, anthelmintics, aphrodisiac, amenorrhoea, cough, skin infections, astringent, antitumour, pile, fruits for preventing snake bite	Leaves
46	Scent leaf, mint	*Ocimum gratissimum*	Lamiaceae	Efinrin nla	Nchanwu	Dadoya	Stomach ache	Leaf
47	*Azadirachta indica* (A. Juss.)	Neem tree	Meliaceae	Dongoyaro	Og-wu akom	Maina	Boils, antimalaria	Leaf, bark
48	*Moringa oleifera* Lam.	Horse radish tree, Moringa tree, "Never Die," drumstick tree	Moringaceae	Ewe-ile, Eweigbale,	Okweoyeibe,	zogale, Bagaaruwar makka	Inflammatory diseases, asthma, antipyretic, cough, earache, liver and pancreas diseases, venereal diseases, anthelmintic, hysteria, diarrhoea, diuretic diseases	Leaves, roots, stem bark, fruit
49	*Persea americana* (Mill)	Avocado pear	Lauraceae	Igba/apoka	Ube-beke		Antihypertension stomach ulcer	Fruit
50	Plantain	*Musa paradisiaca* L.	Musaceae	Ogede agagba	Abrika/Okirima	Okamu/ayaba	Potent astringent high iron	Unripe fruit
51	Guava	*Psidium guajava* L	Myrtaceae	Gurofa	Gova	Gwaabaa	Malaria	Leaf
52	Groundnut, peanut	*Arachis hypogaea*	Fabaceae	Egpa		Gedda	Oil as solvent, antimicrobials, insomnia	Nuts
53	Crab's eye	*Abrus precatorius*	Papilionaceae	Iwerejeje/ojuologbo	Anya nnunu	Da marzaya	Cough	Leaf
54	Cam wood	*Baphia nitida*	Sterculiaceae		Uri		Decoration	Latex
55	Bamboo	*Bambusa vulgaris* L.	Poaceae	Oparun	Atosi		Gonorrhoea, abortifacient, anthelmintics, emmenagogue, skin rashes of HIV/AIDS	Leaves, young shoots
56	Water willow	*Deinbollia pinnata*	Sapindaceae	Ogiri-egba,		Ekusi-Oloko	Cough, bronchial asthma, aphrodisiac	Leaves, root
57	Lemon grass	*Cymbopogon citratus*	Poaceae	Koriko-oba	Nche awula		Malaria	Leaf
58	Water leaf	*Talinum triangulare*	Portulacaceae	Gbure	Nte-oka/inene	Alenyruwa	Rat poison, vegetable	Root Leaf
59	Pepper, chili	*Capsicum annuum* L.	Solanaceae	Ata wewe	Ose/totashi	Barkono	Stimulant	Fruit
60	Soursop,	*Annona muricata*	Annonaceae		Sawamsop		Relaxing nerves	Leaf
61	Wild Cassava	*Jatropha gossypifolia*	Euphorbiaceae	Botuje pupa, Binidi zugu	Ake mbogho		Ringworm, ascaris, antitumour, malaria, dysentery, dysmenorrhoea	Stem latex

Table 1: Continued.

S/no.	Common name	Botanical name	Family name	Local names Yoruba	Ibo	Hausa	Use(s)	Part(s) used
62	Black Mangrove	*Avicennia africana*	Avicenniaceae	Ogbun,	Ofun		Abortifacient, detergent	Leaves, stem, twigs
63	Baobab	*Adansonia digitata*	Bombacaceae	Ose,	Igiose,	kukaa, kulambali	Malaria, asthma, diarrhoea, kidney and bladder diseases, demulcent, prophylactic, antihistaminic, skin diseases, caries, antimicrobial	Leaves, fruit pulp, bark
64	Morning glory	*Ipomoea mauritiana*	Convolvulaceae	Atewogba, Tanpopo			Rheumatism, asthma, dropsy.	Whole plant
65	Bhadram, cherula	*Aerva lanata*	Amaranthaceae	Aje, Efunile	Eweowo,	Alhaji, Furfurata, fatumi	Ulcers, wounds, snake bite, diuretic, purgative, anthelmintic, sore throat, kidney and bladder stones	Whole plant
66	Acalypha	*Acalypha fimbriata*	Euphorbiaceae	Jinwinini,		kandiri	Syphilis, asthma, anthelmintics, ulcers, rheumatism, antimicrobial and antifungal	Leaves
67	Acalypha	*Acalypha godseffiana*	Euphorbiaceae	Jinwinini			Skin infection, Antimicrobials	Leaves, twigs
68	Hennaplant	*Lawsonia inermis*	Lythraceae	Lali,	Laali.	Lallee	Spermatorrhoea, jaundice, gonorrhoea, leucorrhoea, ulcers, menorrhagia, astringent, skin diseases, malaria	Leaves, flowers, bark
69	Wild lettuce	*Launaea taraxacifolia*	Compositae	Yanrin,		Yamurin, Nonanbarya	Yaws, fracture management	Leaves
70	Stinging bean	*Mucuna sloanei*	Leguminosae	Ewe-ina,	yerepe werepe	Kakara, osese	Haemorrhoids, diuretics, micturition problems in children, skin diseases	Seeds, roots
71	Cow-hage, cow-itch plant, velvet bean	*Mucuna pruriens*	Leguminosae	Esisi,	Werepe	Abbala, Kakara	Intestinal worms, genitourinary diseases.	Hairs on the pods
72	Devil's gut, parasitic vine	*Cassytha filiformis*	Lauraceae	Omoniginigini	omonigelegele,	sulunwahi.	Anthelmintics, antimicrobials, antifungal	Stem twigs
73	Morinda	*Morinda morindoides*	Rubiaceae		Oju-Ologbo		Fever, jaundice, asthma, dysentery, colic, emmenagogue, vermifuge, constipation	Root, bark, leaves, fruit
74	Millet	*Millettia thonningii*	Leguminosae	Ito,	okeokpa	Tuburku, Ajukwu	Fever, cough, respiratory ailment, anthelmintic, ophthalmia	Roots, bark
75	African Linden	*Mitragyna inermis*	Rubiaceae		Okobo,	Giyeya	Dysentery, leprosy, antipyretic, diuretic, gonorrhoea	Bark

Table 1: Continued.

S/no.	Common name	Botanical name	Family name	Local names Yoruba	Ibo	Hausa	Use(s)	Part(s) used
76	Sensitive plant	*Mimosa pudica*	Mimosaceae	aluro		Patanmo,	Guinea worms piles, kidney disease, fistula, boils	Leaves
77	Bullet wood	*Mimusops kummel*	Sapotaceae		Uku	Emido	Antipyretic, astringent, mouth wash, stomachic	Stem bark, seeds
78	Sword bean, horse bean	*Canavalia ensiformis*	Leguminosae		Ponpondo,	sese-nla	Antibiotic, antiseptic	Seed
79	Celosia	*Celosia laxa*	Amaranthaceae	Marugbo sanyantan,	Ajemawofo,	Mannafaa, sanyantan,	Antiscorbutic, purgative	Leaves
80	Indian chrysanthemum	*Chrysanthellum indicum*	Compositae			Abilere, Oyigi	Boils, fever, gonorrhoea, jaundice, heart-trouble, insecticide	Whole plant
81	Rattle box, rattle pea	*Crotalaria retusa*	Leguminosae	Koropo	Akidimuo	saworo, Yara,	Fever, cirrhosis, liver lesions, dysentery, colic, vermifuge	Root, seeds, juice of pods, leaves
82	Melon-pumpkin	*Cucurbita maxima*	Cucurbitaceae	Elegede,	Apala,	Kabeewaa	Tapeworm, diuretic, taenicide, otitis, utensils	Seeds, fruits
83	Flame of the forest	*Delonix regia*	Leguminosae	Seke	seke,	ayin.	Diuretic, anthelmintics, astringent, leucorrhoea	Leaves, bark, seeds, flower

tablespoon of the powder is mixed with four tablespoons of honey and licked three times daily for two weeks for intestinal ulcer. Some quantity of the root and fresh leaves are boiled separately; 1/2 and a full glass is drank daily for 1 week to intestinal ulcer and anaemia, respectively. Eating of unripe fruit either roasted, boiled, pounded, or processed into flour is a good treatment for diabetes.

3.1.5. Cough, Malaria Fever, and Repellant. Decoction from leaves of *Cymbopogon citrate* with onion and honey is used to cure cough, taken 3 times daily for 3 days. The leaf is boiled along with other herbs to treat malaria fever by bathing with it every night for 2 days. The leaf is burnt in homes to serve as repellant for mosquitoes.

3.1.6. Fever and Lactation. The bark, root, and leaf of *Morinda lucida* are used in infusion or decoction for the treatment of yellow fever and other forms of fever to be taken 1/2 glass, 2 times daily, and also bathing, for 3 days. The very bitter leaf decoction is applied to the breast of women at weaning of their infants to improve lactation. Twigs are used as chewing stick.

3.1.7. Malaria, Diabetes, Dysentery, Mouth Thrush, Toothache, and Sore Gums. The twig of *Anacardium occidentale* is used as chewing stick for mouth thrush, tooth ache, and sore gum. Decoction of the bark is a remedy for malaria fever, by drinking 1/2 glass 3 times daily. The bark and leaves are boiled, and a glass is taken twice daily for dysentery.

3.1.8. Fibroids, Cataract, Gonorrhea, Aphrodisiac, Cough, Inflammatory Symptoms, Toothache, and Sore Throat. Seed of *Spondias mombin* is boiled together with immature palmnuts and 1/2 glass is taken thrice daily for 2 months for fibroid. Fresh leaves are ground and the juice is squeezed and mixed with one teaspoonful of lime juice and applied as eye drop twice daily for cataract. Fresh leaves are boiled and one glassful is drank thrice daily for gonorrhea. Decoction of leaves is used as an aphrodisiac. Decoction of the bark is taken for severe cough, toothache, and sore throat.

3.1.9. Abdominal Pains, Ulcers, Skin Disease, Dressing of Wound, and Prophylactic. Decoction of the whole plant of *Ageratum conyzoides* is a remedy for abdominal pains. Leaf juice is used for dressing wounds, ulcers, and other skin diseases. Leaves are used as tonic to aid fertility, because it prevents early miscarriage. It is also used as prophylactic and cure for trachoma in cattle.

3.1.10. Threatened Abortion, Convulsion, Epilepsy, Skin Infections, Conjunctivitis, Migraine, and Earache. A medium size-pot is filled with the fresh bark of *Newbouldia laevis* and boiled water for a long time. The preparation is then used to wash face and head every morning and night; oral taking of 1/2 glass of preparation twice daily for 6 days cures migraine and also stops vaginal bleeding in threatened abortion. Leaves and roots are boiled together and administered for fever, convulsion, and epilepsy. Stem bark is used for treating skin infections. Decoction of leaves is used as an eye wash in conjunctivitis. Boiled leaves extract is used to treat general malaria.

3.1.11. Typhoid Fever, Menstrual Flow, Healthy Skin, Purgative, Diuretic, Anthelmintic, Expectorant, and Abortifacient. The fruit of *Ananas comosus* is cut, cooked, and drank for typhoid fever. The unripe fruit can be used as a purgative, diuretic, antihelmintic, expectorant, and abortifacient and is also taken to regulate and enhance menstrual flow. Fruit peel is used topically for healthy skin. The ripped fruit is taken regularly to recover from typhoid fever.

3.1.12. Sexually Transmitted Diseases, Stomach Troubles, Purgative, and Fungal Infection. Fruits of *Citrullus colocynthis* are recommended for the treatment of stomach troubles and sexually transmitted diseases. Fruit and leaf decoction is used as a purgative in man and animal. Seed shell powdered and mixed with palm oil is rubbed on skin to treat fungal infections.

3.1.13. Ringworm, Scabies, Eczema, Sexually Transmitted Diseases, Thrush Bleeding, Wounds, Toothache, and Skin Disease. The latex of *Jatropha curcas* is used to treat skin disease such as ring worm, scabies, and eczema. Twigs are used as chewing stick to prevent tooth decay, oral thrush, bleeding, wounds, and tooth ache. Roots are used to treat sexually transmitted diseases. Leaves are added to hasten fermentation of cassava. Decoction of leaves is used to sterilize umbilicus of new born babies.

3.1.14. Fibroid Improves Sperm Count, Fertility, and Menstrual Flow. Seed of *Tetracarpidium conophorum* is used in the treatment of fibroid. Boiled seeds are eaten to improve sperm count in men. Leaf juice is used to improve fertility in women and to regulate menstrual flow.

3.1.15. As Food. Leaves of *Telfairia occidentalis* are of highly nutritive value as vegetable for soup and other local dishes. Leaves are washed and the juice squeeze is mixed with milk and taken as a blood tonic. The boiled seeds are eaten as delicacy and source of oil. Some of the plants are used as herbs food and other uses.

The knowledge of the indigenous people about contraceptives was one of the informal innovative discoveries in this work. In this context, *Ageratum conyzoides, Tetracarpidium conophorum, Rhaphiostylis beninensis, Lonchocarpus cyanescens, carpolobia alba,* and *Chrysophyllum albidum* are used to invoke sterility, while *Moranthodoa leucantha* increases sexual vigor and *Mucuna soloanei* and *Senna occidentalis* are used by indigenous ladies as contraceptives. Few plant species known to be "poisonous," for example, *Ricinus communis* and *Scleria verrucosa* were reported to be very potent. We also observed that some tuberous plant species like *Colocasia esculenta* and *Dioscorea rotundata* and *Jatropha gossypifolia* and *Musa paradisiaca* are used to cure sexually transmitted diseases, to regularize menstruation, and to increase fertility. We further discovered that those plants with

high nutritive value like *Colocasia esculenta, Basella alba, Telfairia occidentalis, Glycine soja, Gnetum africana, Arachis hypogea,* and *Solanum lycopersicum* are cultivated mainly for commercial purposes, as they are sold in nearby markets. Others like *Hibiscus senensis, Moringa oleifera* and *Sida acuta* in addition to food and medicinal values, have become beautiful ornamental plants. *Dracaena arborea, Anacardium occidentale, Basella alba, Spathodea campanulata, Allium sativum, Mucuna sloanei, Ocimum basilicum, Sida acuta, Laportea aestuans,* and *Trema orientalis* are used to treat constipation, indigestion, abdominal pain, and dysentery. Our result also shows that the people use *Xanthosoma* spp, *Calotropis procera, Vernonia amygdalina, Ageratum conyzoides, Chromolaena odorata, Newbouldia laevis, Spathodea campanulata,* and *Adenopus breviflorus* for skin diseases like wound, tumor, boils, burns, and cuts. *Dioscorea rotundata, Jatropha curcas, Ricinus communis, Irvingia gabonensis, Aloe barteri, Ocimum basilicum, Azadirachta indica, Baphia nitida, Mitracarpus scabrum, Glyphaea brevis,* and *Trema orientalis* are also used for the above purposes.

Respiratory disorders like cough, cold, tuberculosis, and asthma are cured using single herb or mixture of herbs like *Calotropis procera*, *Dennettia tripetala*, *Carica papaya*, *Allium sativum*, *Cymbopogon citratus*, *Chrysophyllum albidum*, and *Zingiber officinale*. Our study shows that most herbs are known to cure malaria and typhoid fever which are endemic in Port Harcourt metropolis: *Anacardium spondias*, *Dennettia tripetala*, *Ananas comosus*, *Adenopus breviflorus*, *Ipomea involucrate*, *Carica papaya*, *Securinega virosa*, *Hyptis pectinata*, *Sida acuta*, *Azarachta indica*, *Psidium guajava*, *Bambusa vulgaris*, *Cymbopogon citratus*, *Morinda lucida Citrus sinensis*, *Murraya koenigii*, *Capsicum annum Chrysophyllum albidum*, *Glyphaea brevis*, *Corchorus olitorius*, and *Trema orientalis*.

4. Discussion

This is the first ethnobotanical study of Port Harcourt metropolis in the Niger Delta region of Nigeria. Our study shows that the 83 plant species identified were useful as food and in the treatment of different human ailments, showing that traditional medical practice is an important component of our everyday life. Our findings are similar to [9]. Reference [1] suggested the need to institutionalize the traditional medicine in concert with orthodox medicine to achieve an effective national health care system in Nigeria. The authors maintained that an effective health cannot be achieved in Africa by orthodox medicine alone unless it has been complemented with traditional medicine, in support of [10].

The questionnaire and interviews gathered indicate that most people in the Metropolis depend on traditional medicine for their health needs because of their poor economic conditions. This is one of the major reasons why traditional medicine has continued to thrive in both rural and urban areas in Nigeria. The utilization of medicinal plants in traditional medicine was found to be effective, cheap, and practical. References [11, 12] noted the growing interest on the medicinal properties of a number of common plants. The practice is fast developing due to poor economic situation, expensiveness, and inadequate availability of drugs. Reference [13] stated that the use of plants and products in health care is, even much higher particularly in those areas with little or no access to modern health services. These medicinal plants have been underutilized in the orthodox medicine but have now been recognized in ethnomedicinal preparation.

Gender and age influenced the traditional knowledge of our respondents. Males within 45–70 years have medicinal knowledge than females. This may be due to their involvement in trade or personal experience of using these plants for a very long time. In addition, the younger generation does not seem to have much trust in the traditional medicine system which may be attributed to increasing use of allelopathic medicines which are readily available and potent. Our findings also show that the indigenous people value some of these herbs for medicinal purposes than as food condiments. For instance garlic is more useful in treating fever, cough, constipation, asthma, nervous disorder, hypertension, ulcer, and antihelmentic than in mere seasoning of food. The same applies to onion, curry leaf, ginger, and scent leaf.

Traditional medicinal practices are known to still be an important component of everyday life in many regions of the world [14–16]. The use of plants in healthcare is even much higher particularly in areas with little or no access to modern health services [13]. Reference [1] gave a comprehensive treatise on the need to institutionalize traditional medicine into the health scheme according to WHO guidelines [17]. Most of the plants were used to treat malaria fever, underlying the importance of this disease in the region.

Conservation of indigenous plant species of medicinal importance is necessary as they remain source of health and wealth. There is need for closer collaboration between herbal medical practitioners, medical doctors, and other stakeholders in medical practice to bring traditional healers closer by engaging them in laboratory work, training as well as getting information on traditional prescriptions for specific diseases. Both traditional and orthodox medicines should complement each other, and their integration or harmonization is necessary for quality healthcare delivery, especially in the rural communities. The ethnobotany of Port Harcourt metropolis has been documented. Various plants have dual significance first as food, secondly as medicinal plants and can have some active constituents for future pharmaceutical analysis.

Conflict of Interests

There is no conflict of interests, as the information therein is purely for research purposes. The authors do not support self-medication and further suggest getting advice from medical practitioners before taking any of these herbs.

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