

Comparative study of some medicinal plants in Nimo, Anambra State, Nigeria

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Abstract

A survey of some medicinal plants used in traditional medicine by Nimo people of Anambra State in Nigeria was undertaken with the aim to scientifically identify and document the plants against their applications by traditional medicine practitioners of the area. Knowledge and information was extracted and recorded from 40 traditional medical practitioners (TMPs) and community elders by means of semi-structured interviews. Sixty (60) medicinal plant species in 43 plant families were recorded. The most represented plant families recorded are of the Asteraceae (3), Arecaceae (3), Euphorbiaceae (3), Fabaceae (3), leguminosae (3), Anacardiaceae (3), Anonaaceae (3), Malvaceae (2), Burseraceae (2) and Bignoniaceae (2). The most common categories of human ailments treated were dermal, digestive problems and fever/malaria. The most used plant parts are leaves, while decoction was the main method of drug preparation. The medicinal plants found in this survey may provide a source for drug discovery and may also be incorporated into the healthcare delivery system of the country.

Keywords: Comparative study; Diseases; Drug discovery; Medicinal Plants; Traditional; Nigeria

1. Introduction

The erosion of knowledge about medicinal plant use is increasingly recognised as a serious concern in Africa. This valuable indigenous knowledge is predominantly transmitted orally from the older generation to the younger, with much of it remaining undocumented (Oketch-Rabah and Kantere, 2025). This is worsened by the spread of the Western lifestyle among communities. The younger generation's lack of interest in continuing the tradition leads to a decline in the number of traditional healers (Bussmann *et al.*, 2018). According to Christian (2009) notes that, to protect our ancestral knowledge of medicinal plants from being completely lost, we need to record it. One of the best modern and surest ways to preserve traditional knowledge is by documentation and digitisation. This preserves delicate knowledge and enables wider dissemination. It will also result in the codification of best practices, which can be transmitted across communities in developing countries. (Abiolu, 2018)

Medicinal herbs have formed the basis of alternative medicine and are leading the way in the development of new drugs (Newman *et al.*, 2000). Consumers in industrialised nations are increasingly adopting herbal supplements, essential oils, and nutraceuticals to manage chronic ailments and enhance overall well-being (Ekor, 2014). Plants produce many secondary metabolites, such as phenolics, flavonoids, quinones, tannins, saponins, essential oils, and steroids, which can help cure diseases and strengthen the immune system. (Kisiriko *et al.*, 2021) Greater use of medicinal plants in treating diseases comes from their derivatives being considered safe, effective, and low-cost drugs, with fewer side effects (Odhav *et al.*, 2013). Plants also contain miraculous compounds that can cure diseases and strengthen immunity. (Alhazmi *et al.*, 2021) Xiaomeng *et al.* (2018) found that alkaloids may have therapeutic effects on neurodegenerative diseases. Flavonoids are important antioxidants that promote health and have anticancer, antiviral, anti-inflammatory, and anti-allergy effects. According to a WHO fact sheet from 2008, about 80% of people in Asia and Africa depend on

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traditional plant medicine. Researchers are exploring traditional plant-based medicines to find new antiviral agents. Most of these plants or plant-derived phytochemicals reportedly have anti-inflammatory, antioxidant, antipyretic, anti-helminthic, antifungal, antibacterial, and antiviral activities (Chattopadhyay *et al.*, 2009a, b; Aliyu and Isa, 2023). The drug-like activities of plants or plant products, including antiviral actions, have been linked to their secondary metabolites, mainly alkaloids, flavonoids, saponins, quinones, terpenes, lignans, and tannins. The aim of this research is to document the treasured medicinal plants used by the Nimo people to cure certain ailments in Njikoka Local Government Area, Anambra State, Nigeria. It also aims to identify locally used plant species for treating and preventing diseases and to document traditional decoctions, including preparation methods, dosage, and administration.

2. Materials and method

The ethnomedicinal survey lasted 8 weeks and was conducted between February and March 2021 at the Nimo clan in the Njikoka Local Government Area of Anambra State, Nigeria. Nimo is a densely populated village. Its geographical coordinates are latitude 6°59' 25" N and longitude 6° 59'21"E. There are four quarters in Nimo: Etiti-Nimo, Ifite-enu, Ifite-ani, and Egbengwu Ojideleke. These quarters total 27 villages.

Information such as local names, plant parts used, therapeutic effects, diseases treated, methods of preparation and administration, doses, and duration of treatment was gathered through semi-structured questionnaires and informal conversations (Huntington, 2000). Interviews were conducted individually with traditional medical practitioners (TMPs), herbalists, farmers, and community elders in Nimo, Njikoka LGA. All interviewed TMPs were available in the community. Community elders were selected based on recommendations from the respective community heads. The guided field interview was the basic method used (Maundu, 1995). Informants were interviewed during daytime field trips to locations where they often collected plants. Survey interviews, which included questions like which plant species treated which ailments, were conducted simultaneously. Information obtained in the field was noted and later cross-checked with informants at evening meetings. These meetings usually included the TMP, community elders, and other interested persons. Informed consent was obtained from every informant prior to the interview. Medicinal plants mentioned were collected, identified, and preserved in the herbarium of the Department of Plant Science and Biotechnology, Faculty of Science, University of Port Harcourt.

3. Result

At the end of this survey in Nimo, Anambra State, sixty (60) important ethnomedicinal plant species belonging to forty-two (42) families were documented. The plants are listed in alphabetical order by family (Table 3.1). Local names are provided in Igbo. The ten most important plant families by number of taxa were: Asteraceae (3), Arecaceae (3), Euphorbiaceae (3), Fabaceae (3), Leguminosae (3), Anacardiaceae (3), Anonaceae (3), Malvaceae (2), Burseraceae (2), and Bignoniaceae (2). Leaves were the most frequently used plant parts, followed by roots, bark, whole plants, seeds, fruit, and stems. Other plant parts were rarely mentioned. Remedies were mainly prepared by decoction, then by infusion, juice, and poultice (Table 1). The internal method of administration, mostly oral, was more common than external, which was usually topical or by bathing. Other routes, like eye drops, ear drops, chewing, and gargling, were also used.

Table 1 Plant parts used, methods of preparation and administration

Family	Botanical names	Local/ common name	Plant part used	Method of preparation	Ailments treated
Annonaceae	<i>Uvaria chamae</i>	Mmimiohia /bush banana	Root/root bark, &leaves	Macerated, decoction	Diabetes, fever, dysentery,bronchitis, gornorea
Annonaceae	<i>Annona muricata</i> L.	Sour sop	leaves	decoction	Malaria,diarrhea,dysentery,debility,hypertension, heart failure
Apocynaceae	<i>Rauwolfia vomitaria</i>	Akanta	Root, leaves	Infusion juice, hand maceration	Mental illness,aphrodisiac, skin disease, splenomegaly

Asphodelaceae	<i>Aloe barbadensis</i>	Alovena or Obiinu	Leaves	Gel from the leave	Skin diseases
Astereaceae	<i>Ageratum conyzoides</i> L.	Agadiisiawo	Leaves	Poultice, juice	Skin diseases
Asteraceae	<i>Vernonia amygdalina</i>	Onugbu/bitter leaf	Leaves, Bark	Decoction, infusion, hand maceration	Malaria, typhoid, Diabetes, laxative reumatism, wound healing
Asteraceae	<i>chromolaena odorata</i>	Okooome, Awolowo	Leaves	Decoction	Malaria, typhoid, diabetes, skin disease, cut,
Arecaceae	<i>Raphia hookeri</i>	Akilikongwo/Ivory coast rafia	Fruit, wine	Harvest the sap, allow it turn to wine	Laxative, pains, breast milk enhancement
Araceae	<i>Anchomanes difformis</i>	Ogbuoodado/Forest anchomanes	Leaves	Boil the leaves for 15minutes	Diabetes, infertility, gastrointestinal disorder
Anacardiaceae	<i>Spondia mombin</i> L.	Isikala/Hog plum	Leaves, Bark, fruit	Decoction, juice	Gonorrhea, diarrhea, dysentery, toothache, cough, aphrodisiac, fibroid
Acanthaceae	<i>Acanthus montanus</i>	Agamevu/Bears breech, mountain thistle,	leaves	Poultice (with black soap and snake fish)	Boils, abscess, rheumatism, malaria, stroke
Anacardiaceae	<i>Anacardium occidentale</i>	Cashew	Bark, twigs, leaves	Decoction, chewing sticks, poultice (with mango leave, boiled for 1 hour)	Malaria, toothache, ringworm
Amyridaceae	<i>Alium sativum</i> L.	yabasiAwusa	Clove	Chew, macerated in vinegar & honey, juice mixed with Aloe vera gel and honey	Hypertension, diabetes, asthma, cough,
Anacardiaceae	<i>Mangifera indica</i> L.	Mango	Leaves and Bark	Infusion juice	Malaria, headache, jaundice skin disease
Arecaceae	<i>Elaeis guinensis</i>	Aku-ojukwu/Oil palm	Fruit Mesocarp	Harvest and rub on the skin or add to cream or gbogbonise	Rheumatism, Vitamin A deficiency, arterial thrombosis,
Asclepiadaceae	<i>Gongronema latifolium</i>	Utazi	Leaves and stems	Infusion, decoction with lime	Cough, intestinal worms, dysentery, dyspepsia, anemia, diabetes

				juice and pine juice,	
Arecaceae	<i>Cocos nucifera</i>	Akwu oyibo, coconut	Milk, roots,oil,	Embrocation,	Pyretic, diuresis,laxative, diarrhea, skin and teeth diseases
Annonaceae	<i>Dennettia tripetala</i>	Pepperfruit/ Mmi-mi ose	Fruit, leave	Harvest the riped or unriped; chew	Cough, fever, toothache,diabetes, Nausea
Bignoniaceae	<i>Spathodea campanulata</i>	Imiewu/ African Tulip	Unopened flower buds, seeds, root, Bark	Juice, infusion	Dysentery, burn, convulsion, Skin disease,wound sore, Diarrhea, swollen cheek, constipation, poison antidote, Malaria etc.
Binoniaceae	<i>Newbouldia laevis</i>	Oglisi	Leaves and root; leaves, Bark	Decoction, poultice	Convulsion, epilepsy(upper volta), bleeding; eye infection, skin disease
Burseraceae	<i>Canarium schweinfurthii</i>	Ube osa/Bush candle, African olive	Resin, root, Bark, leaves	Decoction, poultice (root scarpings)	Hypertension, dysentery, wound, gonorrhoea, cough, chest pain,, roundworm infection, pounded bark used against leprosy and ulcers
Burseraceae	<i>Dacryodes edulis</i>	Ube	Leaves	Decoction	Skin disease, hypertension, cough
Bromeliaceae	<i>Ananas comosus</i> L.	Akwuolu/Pinne apple	Leaves, fruit, root	Decoction, Juice infusion,	Anthelmintic, fresh juice taken to treat hiccough, laxative, gastric irritability, jaundice
Caricaceae	<i>Carica papaya</i> L.	Pawpaw	Leaves, fruit, root	Decoction with A. comosus, Chromolaena odorata, V. amygdalina and Pergularia dermia. Decoction with A. comosus, citrus limon C. sinensis infusion	Malaria, typhoid, diabetes, waist pain, Syphilis,tumor,venereal diseases, asthma
Cucurbitaceae	<i>Telfairia occidentalis</i>	Fluted Gourd/ Ugu	Flowers, leaves	Decoction, poultice, juice infusion	Headache, Anaemia, Acne
Connaraceae	<i>Byrsocarpus coccineus</i>	Nniabusi	Leaves, root	Decoction, poultice, juice infusion	Diarrhoea, dysentery, venereal diseases, dropsy, anaemia
Cistaceae	<i>Cistus salvifolius</i>	Olambina/ Sage-leaf	leaves	Hand maceration of the leave	Wound, skin diseases,diarrhoea,

Crassulaceae	<i>Bryophyllum pinnatum</i>	Odaaofue	Leaves	Decoction with onion, juice	Cough, Ear infection, Viral diseases, diarrhoea, diabetes, boil, convulsion
Clusiaceae	<i>Garcinia kola</i>	Akuilu	Seed	Chew with <i>Aframomium melegueta</i> seed	Food poison, cough, stomach upset, liver problem, aphrodisiac
Euphorbiaceae	<i>Euphorbia hirta</i> L.	Ntioke	Whole plant	Decoction	Asthma, cough
Euphorbiaceae	<i>Jatropha curcas</i> L.	Onyilioke	Root, leaves, twigs	Juice, poultice, chewing stick, decoction	Skin disease, Dental Caries, syphilis, gonorrhea infections
Euphorbiaceae	<i>Ricinus communis</i> L.	Ogiri	Seed, leaves	Decoction, juice	Stomach ache, worm, menstrual cramp, skin burn
Fabaceae	<i>Vigna unguiculata</i>	Akidi/ blackeyed pea	Leaves	Poultice	Epilepsy, broken bones,
Fabaceae	<i>Dialium cochinchinense</i>	Mbachelekwu/ Velvet tamarind	Young Leaves	Juice	Stomach upset
Fabaceae	<i>Mucuna pruriens</i>	Akubara/ Velvet bean	Seed, leaves, root	Dried extraction	Male infertility, nervous disorder, aphrodisiac, snake venom poisoning, bone fractures, cough, ringworm, scorpion sting, parkinson's disease
Graminaceae	<i>Cymbopogon citrullus</i>	Ata isi/ Lemon grass	leaves	Decoction with <i>P. guajava</i> ; decoction with <i>A. indica</i>	Malaria, Typhoid, cough, flu, catarrh
Irvingiaceae	<i>Irvingia gabonensis</i>	Uguli/Wild mango	Seed, Bark, leaves	Decoction, infusion, poultice	Lower cholesterol, diabetes, skin diseases
Juglandaceae	<i>Coula edulis</i>	Ukpa/ Wall nut	Leaves, seeds, roots	Decoction, seeds are chewed	Reduce risk of diabetes, promote brain health and bone health, boost fertility
Lauraceae	<i>Persea americana</i>	Avocado pear/ Ube beke	Leaves, fruits	Decoction, infusion	Cough, Dysentery, hypertension, menstrual disorder
Leguminaceae	<i>Desmodium tortuosum</i>	Awelle/ Beggar weed	Leaves	Decoction, infusion	Goodluck charm, rheumatism, cough, antibacterial, anti-inflammation
Leguminaceae	<i>Pentaclethra macrophylla</i>	Ukpaka/ African Oil bean	Leaves, stem bark, fruit pulp, seeds	Decoction (leave and stem for diarrhoea), lotion made	Anti-inflammatory, antihelminthic, sores, convulsion, gonorrhoea, analgesic, dysentery

				from bark for sore	
Loganiaceae	<i>Anthocleista grandiflora</i>	Okenweagu/ Forest fever tree	Leaves, bark, root	Leaf, bark , root decoction, infusion, chewed,	Diabetes, hepatitis, malaria, diarrhoea, fever, typhoid, dysentery, infections
Marantaceae	<i>Thaumatococcus danielli</i>	akwukwoagidij elof	Fruit, leaves and root saps	Decoction , juice	Anti-microbial, lungs pain, laxative, emetic, pulmonary problems, Venom, sting, bite antidote,
Malvaceae	<i>Sida linifolia</i>	Ire agwo	leaves	Infusion, decoction	Asthma, parasitic infection,
Malvaceae	<i>Hibiscus surattensis</i>	Agoghoakabi	Leaf sap, seed, stem	Decoction(r oot), infusion	veneral sores, urethritis, tonic for heart and stomach, cuts, miscarriage prevention, as laxative, gonorrhoea,
Menispermaceae	<i>Tinospora cordifolia</i>	Udeakpuenyi/H eart-leaved moonseed	Leaves, stem	Decoction , infusion	Stomach upset, jaundice, diabetes, gout, peptic ulcer, fever, gonorrhoea
Meliaceae	<i>Azadirachta indica</i>	Neem plant/ Dongoyaro	Leaves and Bark	Decoction with <i>Cymbopogon citratus</i> , infusion	Upset stomach, ulcer, dental disorder, malaria, skin disease
Moraceae	<i>Treulia africana</i>	Ukwa/ African Breadfruit	Bark, root,	Decoction, Decoction: Ground bark mixed with red oil,	Cough, swollen leg, leprosy, as a laxative, antihelminthic
Moringaceae	<i>Moringa oleifera</i>	Moringa/ drumstick tree	Leaves, sap, roots, seeds and flower	Grind into powder, juice, decoction	Ulcer, Malaria, typhoid, asthma, cancer, antioxidant, low cholesterol, diabetes
Musaceae	<i>Musa acuminata</i>	Uneleigbo/ Banana	Fruit, leaves hoot, male flowers	Decoction, juice, dried & made syrup, poultice	Diabetes, ulcer, dysentery, cough, burns, convulsion,
Myrtaceae	<i>Psidium guajava</i> L.	Guava	Leaves,	Decoction with <i>Cymbopogon citratus</i> , infusion, decoction	Malaria, stomachache, typhoid, Diabetes, menstrual pain, Diarrhoea, laxative,
Piperaceae	<i>Peperomia pellucida</i>	Okpaehi/ Shiny bush	Leaves, stems	Hand Maceration, decoction, infusion	Used to treat wounds and athletes' foot, cold, cough
Rubiaceae	<i>Sarcocephalus latifolius</i>	African peach	Root, fruit, bark	Decoction	Skin disease, gastroenteritis, diabetes, fever, cough, gonorrhoea

Rubiaceae	<i>Borreria verticillata</i>	Odudungwele/ Button weed	Leaves	Hand maceration,	Eczema, infectious dermatitis, scabies, sores
Rutaceae	<i>Citrus aurantifolia</i>	OromaNkrisi/ Lime	Leaves, fruit	Juice, juice mixed with <i>Ficus exasperata</i> leaf, juice mixed with <i>Gongronem a latifolium</i> leaf decoction and <i>Pinus caribaea</i> juice	Eye infection, cough, diabetes, hypertension, anaemia, Typhoid, malaria, body fat reduction,
Sapotaceae	<i>Chrysophyllum albidum</i>	Udara	Stem, seed, whole plant	Decoction, powder decoction	Malaria, urinary tract infection, impotence
Sterculiaceae	<i>Cola accuminata</i>	Oji	Bark	Infusion, powder	Stomachache, wound, inflammation, Astringent, stimulant, malaria
Talinaceae	<i>Talinum triangulare</i>	Waterleaf/ Mgbolodi	Leaves	Cooking,	Gastrointestinal disorder, diarrhea, antioxidant, hypertension, lowers cholesterol, cataract
Verbenaceae	<i>Vitex doniana</i>	Mbe-mbe/ Black plum	Leaves, fruit, stem bark, rootbark	Decoction of stem bark; decoction of root, juice, chew	Dysentery, diarrhoea, infertility, gonorrhoea, jaundice, female backaches, fever
Vitaceae	<i>Leea guineensis</i>	Odudunwata	Roots, twigs, leaves	Decoction of roots, twigs and leaves, poultice	Rheumatism, wound, muscular pain, arthritis,

4. Discussion

Thirty informants provided information on the ethnomedicinal usefulness of 60 plants in treating ailments in the Nimo community of Anambra State. Of these, 70% were male, and 30% were female. Their mean age was 65 years. All the healers available for the survey (8 TMPs) were male and reported using both single and multiple medicinal plants to treat diseases. The non-healers (22), a mix of male and female, reported only single medicinal plant remedies. (Ajibesin et al., 2012) A total of 60 important ethnomedicinal plant species were documented, belonging to 42 families. Remedies were mainly prepared by decoction, followed by infusion, juice, and poultice (Table 1). The most common method of administration was oral, with some remedies administered topically or as baths. (Ajibesin et al., 2012)

Medicinal plants are most frequently used to treat diseases of the dermal, digestive, respiratory, and musculoskeletal systems. They were also used for cough, fever/malaria, parasitic, viral, and bacterial diseases, as well as musculoskeletal and articular diseases. Most remedies were used to treat digestive problems, then bacterial/fungal diseases, fever/malaria, the dermal system, and cough. (Akinmoladun et al., 2021) Most plant species used to treat diseases belong to Asteraceae, Arecaceae, Euphorbiaceae, Fabaceae, Leguminosae, Anacardiaceae, Annonaceae, Malvaceae, Burseraceae, and Bignoniaceae (Table 1). This suggests the importance of these families in the community's traditional medicine. (Abiolu, 2018) These families also feature in traditional medicines elsewhere in Nigeria and are reported in the country's flora and pharmacopoeia (Nyananyo, 2006; NNMDA, 2006, 2008; FMH, 2008). Botanists usually consider these families during drug discovery due to their rich content of secondary metabolites, such as steroids, terpenes, and alkaloids (Desmarchelier & Witting-Schaus, 2000). Euphorbiaceae was reported among the most important families in

the Niger Delta Region (Ajibesin et al., 2008). A recent study among the people of Zegie in Ethiopia also found that Euphorbiaceae and Asteraceae were among the most important families (Teklehaymanot & Giday, 2007).

In this study, leaves were the most common plant part used, followed by roots, bark, and seeds. The widespread use of leaves may be due to their ease of obtaining. The abundance of flavonoids in plant leaves indicates their potential antioxidant effects, suggesting that these plants can be eaten as food (Panche *et al.*, 2016) and are very active against live toxins, tumours, viruses, and bacteria. The leaves remain lush and abundant for most of the year since the State receives rainfall for about eight months. (Ezenne et al., 2025) Leaves have been observed to be the most widely used plant part in many ethnobotanical studies (Tabuti et al., 2003; Kala, 2005; Muthu et al., 2006; Giday et al., 2009; Hossan et al., 2010). Harvesting leaves for medicinal use ensures plant survival, unlike roots, which may threaten its continuity (Lulekal et al., 2008; Yin, 2009), unless a sustainable harvesting strategy has been developed (Cunningham, 2001). The most common method of preparation was decoction, followed by infusion and juice. Decoction was also reported as the most prevalent method of preparation in Babungo, Cameroon (Simbo, 2010). Medicines were mainly administered orally. This may be related to the widespread use of decoction, which is usually administered orally. Generally, this result follows the pattern of medicinal plant use in Africa. However, in some other parts of the world, decoction was also indicated as a common method of herbal preparation (Taylor, 2005; Rahmatullah et al., 2010; Sankaranarayanan et al., 2010). The use of a single plant in preparing herbal remedies predominates over multiple-plant preparations in this study. This offers the advantage of a relatively safer potion than a mixture of plants that may be ill-matched and dangerous to the human body. In the traditional medicine of other countries, such as Bangladesh and Peru, single medicinal plants were also observed to treat single or multiple ailments (Hossan et al., 2010; Rahmatullah et al., 2010; Luziatelli et al., 2010). All the remedies in this study were prepared in crude form, thus lacking standardised dosage and quality control (Nanyingi et al., 2008). The most frequent categories of diseases treated with medicinal plants in Nimo, Anambra State, according to medicinal use reports, were dermatological problems, digestive problems, and fever/malaria. These categories were also prevalent in ethno-botanical studies among indigenous peoples of Fiji, Australia, India, Mexico, Kenya, Haiti, Nicaragua, Peru, Saudi Arabia, Thailand, North America, Tonga, and West Africa (Cox, 1994). This implies that the categories of diseases treated in Nimo, Anambra State, with medicinal plants are similar to those encountered by the majority of rural people in developing countries. Ailments affecting the dermal system are, among others, skin diseases, wounds, bleeding and burns. These diseases were diagnosed by visual examination. The skin diseases were the most frequently mentioned ailment and were usually cited as skin rashes, skin spots, and eczema. This category is also reported as the most important in Bajo Quimiriki and Yanesha in Peru (Luziatelli et al., 2010; Valadeau et al., 2010). Problems related to the digestive system include stomachache, diarrhoea, dysentery, and worm infestation. These may be caused by the absence of a sewage system and by the contamination of drinking water with eggs of intestinal parasites. People were aware that malaria was caused by the bite of infected mosquitoes, and diagnosis was based on a febrile condition. However, diagnosing malaria with TMPs can be difficult in some cases. For instance, an herbalist claimed that he diagnosed malaria by going into a trance where he found the patient swimming in a pool of blood. Malaria is widespread in Brazil and is treated with various medicinal plants (Botsaris, 2007).

The scientific literature was surveyed to compare the uses of medicinal plants in Nimo, Anambra State, with those in other parts of the world, to validate the uses reported by informants in this study. This indicates their significance in the traditional medicine of other countries. The widespread use of these plants provides confirmatory evidence of their use in Nigeria, which increases the likelihood of drug discovery, especially when the cultures are totally unrelated.

5. Conclusion

Most of the people in developing countries rely on TMPs and community elders for the treatment of various diseases. Collectively, they possess a vast knowledge of medicinal plant uses. Thus, it is important to collate information on medicinal plants used to treat diseases. This survey, therefore, provides a useful source of information for practitioners of traditional medicine and medicinal plant researchers. A substantial number of medicinal plants used in Nimo to treat ailments are also used in other regions of the world for similar purposes. These plants provide a basis for investigation using modern scientific methods to discover novel drugs that may be incorporated into the country's healthcare system. A comparison of the survey results with published scientific reports indicates that some of the plants have had their traditional medicinal uses scientifically validated.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors declare that there are no conflicts of interest regarding the publication of this study.

Statement of ethical approval

Ethical approval for this study was obtained from the Research Ethics Committee of the University of Port Harcourt, Nigeria and administrative approval was obtained from the community authorities. The research was conducted in accordance with established ethical standards for studies involving human participants and in line with local guidelines governing ethnomedicinal research.

Statement of informed consent

Informed consent was obtained from all participants prior to their inclusion in the study. Participants were adequately informed about the purpose of the research, and their voluntary participation and confidentiality were ensured throughout the study.

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