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Ethnobotancial and Phytochemical studies of some blood-cleansing Herbs in Oyo and Ogun States, Southwestern Nigeria

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ABSTRACT

Medicinal plants contain physiologically active components which over the years have been exploited in the traditional medical practices for the treatment of various ailments which play an important role in healing. Medicinal plants used for blood-cleansing were documented through questionnaire administered to tradomedical practitioners. Eight blood-cleansing herbs were tested for the presence of phytochemical which enhances blood-cleansing purposes. The presence or absence of Tannin, Saponin, Flavonoid, Alkaloid, Anthraquinones and Cardiac glycosides were investigated in the herbal samples. The result showed that Alkaloid and anthraquinone were absent in all the samples, cardiac glycoside was present in five samples while all the samples tested positive to the presence of Tannin, Saponin and Flavonoid.

Keyword: *Ethnobotanical, Medicinal Plants, Herbs, Blood-cleansing, Phytochemical.*

INTRODUCTION

The use of medicinal plants for blood cleansing has been found to be a more beneficial way of purifying blood as it is safe with little or no side effect [1]. The medicinal plants are useful for healing as well as for curing of human diseases because of the presence of phytochemical constituents [2]. Phytochemical are non-nutritive plant chemicals that have protective or disease preventive properties. They are naturally occurring in the medicinal plants, leaves, vegetables and roots that have defense mechanism and protect from various diseases, they also contribute to colour. Their therapeutic values to human health and disease prevention have been reported [3]. Phytochemicals are primary and secondary compounds. Chlorophyll, proteins and common sugars are included in primary constituents and secondary compounds have terpenoid, alkaloids and phenolic compounds [4]. Herbal saponins were considered as potentially toxic in past years, because of their capability to hemolyse red blood cells; however, these phytochemicals have recently raised considerable interest for their health-promoting effects including antitumor, anti-inflammatory, cardiovascular, hepatoprotective, cholesterol-lowering and prebiotic-like effects on gut microbiota [5,6,7,8]. Meanwhile, flavonoids comprise the most common group of plant polyphenols and have been widely studied for their health benefits such as antioxidant, antiproliferative, hepatoprotective, and cardiovascular among others [9,10,11,12].Alkaloids are used as anaesthetic agents and are found in medicinal plants. The phytonutrients in the herbs support the immune system by binding with pathogens and toxins to neutralize them and remove them from the body [13]. Medicinal plants remain the nature reservatory of biological active compounds with biochemical and therapeutic properties. These properties include antimicrobial and antioxidant compounds that are increasingly harnessed for human benefit [14]. The majority of people, especially those living in rural communities, depend heavily on folklore medicine for their primary healthcare owing to their ready availability, relative safety and affordability over modern medicine [14]. Therefore, this study investigated the bioactive compounds present in herbs that are recorded to be useful for the purpose of blood-cleansing.

MATERIALS AND METHODS

Study Site

The study was conducted in selected Local Government Areas of Oyo and Ogun States, Southwestern Nigeria (Figure 1). Oyo State is approximately located between latitudes 7^0N and 9^0N and longitude 2.5^0E and 5^0E. It covers an area of approximately 28,454 km^2 approximately 4.08% of Nigeria's total area. Ogun State is located between latitudes 6^oN and 8^oN and longitudes 2.5^oE and 5^oE [15]. It covers a total land area of 16,409.26 km^2.

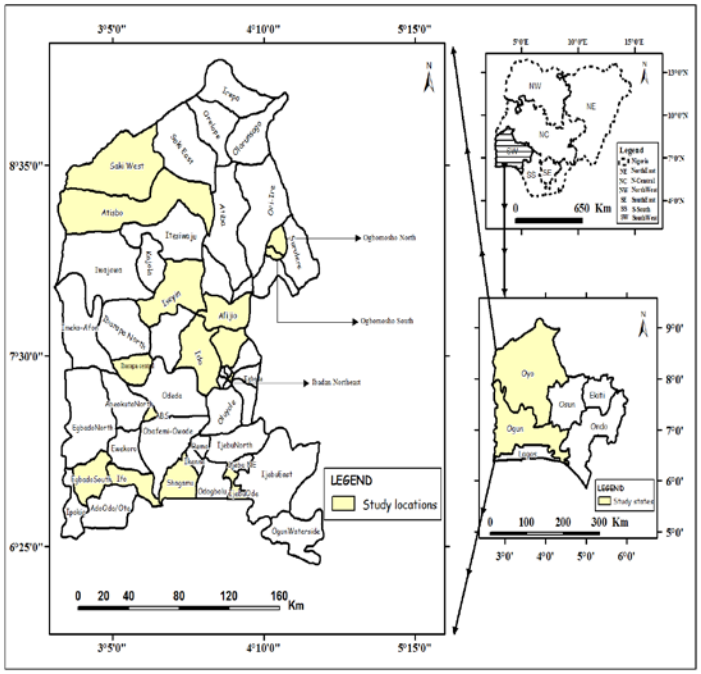

Figure 1: Map of Oyo and Ogun States, showing the study area.

DATA COLLECTION

The method of data collection was primary with the use of questionnaires administered to the Tradomedical practitioners mainly Herbalists and Herb sellers documenting the Ethnobotanical use of plants used for blood cleansing.

Plant samples

From the list of the recipes documented from the study, eight recipes were purposively selected based on the forms of the plants combined. The Plants used for this study were obtained from the wild while some were purchased from the tradomedical practitioners.

Sample 1 contained; Bark of *Khaya grandifoliola* (Welw) CDC, bark of *Theobroma cacao*, leaves of *Phyllantus reticulatus* (Poir), seed/pods of *Xylopia aethiopica* (Dunal) A. Rich., Leaves of *Carica papaya* Linn.

Sample 2 contained; Leaves of *Parquetina nigrescens* (Afzel.) Bullock, bark of *Azadirachta indica* A. Juss. and *Daniella oliverii* (Rolfe) Hutch. & Dalziel.

Sample 3 contained; Bark of *Khaya grandifoliola* (Welw) CDC., bark of *Daniella oliverii* (Rolfe) Hutch. & Dalziel. root of *Psorospermum febrifugum* Spach., bark of *Anogeissus leiocarpus* (DC) Guill.& Perr., seed/pods of *Xylopia aethiopica* (Dunal) A. Rich. Seeds of *Piper guineense* Schumach. & Thonn.

Sample 4 contained; Bark of *Celtis integrifolia* Lam., bark of *Annona senegalensis* Pers., bark of *Khaya grandifoliola* (Welw) CDC., seed/pods of *Xylopia aethiopica* (Dunal) A. Rich., and rhizome of *Zingiber officinale* Rosc.

Sample 5 contained; Bark of *Tetracera alnifolia* Willd., root of *Securidaca longepedunculata* Fres., seed/pods of *Xylopia aethiopica* (Dunal) A. Rich., bark of *Pseudosedrela kotschyi* (Schweinf) Harms., and root of *Sarcocephalus latifolius* (Sm.) Bruce.

Sample 6 contained; Root of *Anthocleista djalonensis* A. Chev., seedpods of *Acacia nilotica* (L.) Willd.ex Delile., bark of *Khaya grandifoliola* (Welw) CDC, leaves of *Lawsonia inermis* Linn and leaves of *Sorghum bicolor* (Linn.) Moench.

Sample 7 contained; Leaves of *Lawsonia inermis* Linn. bulb of *Allium cepa* Linn., bulb of *Allium sativum* Linn., rhizome of *Zingiber officinale* Rosc., and leaves of *Azadirachta indica* A. Juss.

Sample 8 contained; Bark of *Terminalia glaucescens* Planch. ex Benth, bark of *Khaya grandifoliola* (Welw) CDC., bark of *Magnifera indica* Linn and leaves of *Sorghum bicolor* (Linn.) Moench.

Preparation of the samples

Decoction method was used for the preparation of the samples as prescribed by the tradomedical practitioners. Each of the eight samples was subjected to the tests. The compounds tested are: Alkaloids, Saponin, Tannin, Flavonoid, cardiac glycoside and Anthraquinones.

Test for Phytochemical Constituents (Qualitative)

Saponins

One gram of aqueous plant extract was boiled with 10 mL of distilled water for 10 minutes, the mixture was filtered while hot, cooled and the following tests were performed:

a. **Frothing Test**: 2.5 mL of the filtrate was diluted to 10 mL with distilled water and shaken vigorously for 20 minutes. The formation of persistent foam was an evidence of presence of saponins [16]

b. **Emulsifying Property**: 2 drops of olive oil were added to 2.5 mL of the filtrate and shaken vigorously for 30 minutes. Observation was made for the formation of stable emulsion.

Alkaloids

One gram of aqueous plant extract was stirred in 10 mL of 10% (v/v) HCl on a steam bath followed by filtration. 1 mL of the filtrate was mixed with few drops of Meyer's reagent. To another 1 mL of the filtrate was added few drops of Wagner's reagent. Few drops of Dragendorff reagent was added to another 1 mL of the filtrate. The mixtures were observed for turbidity or formation of precipitate [16].

Tannins

One gram of aqueous plant extract was boiled in 10 mL distilled water, filtered when hot and cooled.

The filtrate was adjusted to 10 mL with distilled water. Then, a few drops of 1% ferric chloride reagent were added to 1 mL of the filtrate. The mixture was observed for the formation of blue, dark brown, blue black, green or green-black colouration or precipitate.

Flavonoids

One gram of aqueous plant extract was boiled with 10 mL of ethanol

a. To 5 mL of the extract was added 2 drops of ferric chloride. A dusty green colour was considered positive.

b. To 5 mL of the extract, a small quantity of dilute NaOH was added and drops of Conc. HCl were run down the side of the tube. A reddish colouration indicated the presence of flavonoids.

Borntrager's Test

a. Free Anthraquinones

Aqueous plant extract (0.5 g) was shaken with 5 mL of Chloroform for 10 minutes, filtered and 5 mL of 10% ammonia solution was added to filtrate. The mixture was shaken and the presence of a pink, red or violet colour in the ammonia phase indicated the presence of free anthraquinones.

b. Combined Anthraquinones

Aqueous plant extract (1 g) was boiled with 5 mL of 10% HCl for 5 minutes and filtered while hot. The cooled filtrate was partitioned against equal volumes of Chloroform (2 vols.) avoiding vigorous shaking. A clean pipette was then used to transfer the chloroform layer to a clean tube taking care not to include the aqueous layer. An equal volume of 10% ammonia was added to the chloroform extract. A pink, red or violet colour in the aqueous layer was considered positive.

Cardiac Glycosides

Aqueous plant extract (1 g) was extracted with 10 mL of 80% ethanol for 5 minutes on a water bath.

The extract was filtered and diluted with equal volume of distilled water. A few drops of lead acetate solution were added, shaken and filtered after standing for few minutes. The filtrate was then extracted with aliquots of chloroform; the extract was divided into two portions in evaporating dish and evaporated to dryness on a steam bath.

a. Keller-Killiani Test

One portion from above was dissolved in 2 mL of glacial acetic acid containing one drop of FeCl3 solution in a clean test tube. 2 mL of concentrated sulphuric acid was then poured down the side of the tube so as to form a layer below the acetic acid. The formation of a purple or reddish-brown or brown ring at the interface and a green interface and a green colour in the acetic layer was taken for a positive result [16].

b. Kedde Test

The second portion was mixed with 1 mL of 2% 3, 5-dinitrobenzoic acid in ethanol. The solution was made alkaline with 5% NaOH after mixing. The formation of a transient purple colour, which turned brown on standing, was considered positive [17].

Quantitative Phytochemical screening

Quantitative phytochemical screening was conducted for flavonoids which is heavily present in most of the samples and saponins which is moderately present in nearly all the samples..

Flavonoids

Ten gram (10g) of aqueous plant extract was repeatedly extracted with 100ml of 80% aqueous methanol at room temperature. The whole solution was then filtered through filter paper and the filtrate was later on transferred into a water bath and solution was

evaporated into dryness. The sample was weighed until a constant weight obtained.

Saponins

Twenty gram (20g) of aqueous plant extract was put into a conical flask and 100ml of 20% ethanol (C2H5OH) was added to the plant sample. The sample was heated over a hot water bath for four hours with constant stirring at 55°C. The mixture was then filtered and the residue re-extracted with another 200ml of ethyl alcohol. The combined extracts are reduced to 40ml over a water bath at 90°C. The concentrated was then transferred into a 250ml separating funnel and 20ml of diethyl ether (CH3CH2) was added to the extract and vigorously shaken.

The aqueous layer was recovered and while the diethyl ether layer was discarded and the purification process repeated. 60ml of (n-C4H9OH) n-butanol was added and the combined n-butanol extracts was washed twice with 10ml of 5% sodium chloride (NaCl). The remaining solution was then heated in a water bath and after evaporation the sample was dried in the oven to a constant weight.

RESULT AND DISCUSSION

A total of forty-nine (49) plants, belonging to 32 families were documented to be useful in the preparation of blood-cleansing herbs (Table 1). Family Fabaceae has the highest number of species (6), followed by the family Meliaceae with four (4) species. Other families contained between one and three species respectively this follow a similar trend with the study of Md. Salah Uddin *et al.* [11]. According to life-form, the plant species were 26 trees, 9 shrubs, 6 herbs, 3 bulbous, 4 climbers and 1 grass respectively (Table 2). Table 3 shows the recipes and method of preparation of the blood-cleansing herbs. A total of fifteen different recipes were documented. From the result, different parts of plants are used for the preparation such as the leaves, bark, root, fruit which is also in agreement with Md. Salah Uddin *et al.* [11], Oladunmoye and Kehinde [12]. The method of preparation is mostly decoction and grinding. The prescriptions by the respondents are either preparation based on single plant part or a combination of several plant parts. The use of more than two species is however common. This is in agreement with the findings of Sofidiya , *et. al.* [13]. The results reveal the presence of medicinally active constituents in the eight herbs studied (Table 4). Tannin is present in the herbal samples except for sample 7 which is there is moderate presence of tannin.

Saponin is moderately present in the herbal samples except for sample 3 in which there is excess presence of saponin.

Alkaloids and Anthraquinones are absent in all the samples. The absence of alkaloids further explained the safety of the herbal samples as large numbers of alkaloids are dangerous to health, though some are beneficial.

Flavonoids is present in excess (+++) in samples 1,2,3,5 and 8 while other samples showed that it is present (++) in the normal amount. Also, cardiac glycoside is moderately present (+) in sample 1, samples 2, 4, 6 and 8 revealed the presence (++) while it is absent in other three samples.

Quantitative assessment of saponin and flavonoids are presented in Table 5. Quantity of saponin ranged between 0.04 - 0.24g. Sample 1 has the highest quantity (0.24g) followed by Sample 8 (0.16g) and the least was sample 7 (0.04g). Flavonoid ranged from 0.02-0.34g. Sample 1 has the highest quantity (0.34g) followed by sample 8 (0.17g) and the least was sample 7 (0.02g). Flavonoid quantity was generally higher in all the samples. This could be explained by the variation in composition of plants and plant parts for each sample. The implication is that the plants would achieve the same purpose but the quantity and duration of usage in order to accomplish the purpose of blood-cleansing will differ.

Table 1: Plants used for blood-cleansing in the study area

SN	Scientific Name	Local Name	Life-form	Family
1	*Acacia nilotica* (L.) Willd. ex Delile	Boòní	Tree	Fabaceae
2	*Aframomum melegueta* (Roscoe) K. Schum	Ataare	Herb	Zingeberaceae
3	*Allium ascalonicum* Linn	Àlùbósà eléwé	Bulbous	Alliaceae
4	*Allium cepa* Linn.	Alubosa	Bulbous	Alliaceae
5	*Allium sativum* Linn.	Ayuu	Bulbous	Alliaceae
6	*Annona senegalensis* Pers	Àbo	Tree	Annonaceae
7	*Anogeissus leiocarpus* (DC.) Guill. & Perr	Ayin	Tree	Combretaceae
8	*Aristolochia albida*	Paran funfun	Climber	Apocynaceae
9	*Aristolochia repens* Mill	Akogùn	Herb	Aristolochiaceae
10	*Asparagus flagellaris (*Kunth) Baker	Ègún-òódè	Climber	Asparagaceae
11	*Azadirachta indica* A. Juss	Dóngóyárò	Tree	Meliaceae
12	*Baphia pubescens* Hook.f.	Uto	Shrub	Fabaceae
13	*Bridelia micrantha* (Hochst.) Baill	Asaa	Tree	Euphorbiaceae
14	*Calliandra haematocephala* Hassk.	Tude	Shrub	Fabaceae
15	*Capsicum annuum* Linn.	Ata-ìjòsì	Herb	Solanaceae
16	*Carica papaya* Linn	Ibepe	Tree	Caricaceae
17	*Celtis integrifolia* Lam.	Aápe	Tree	Asteraceae
18	*Citrus aurantifolia (Christm.) Swingle*	Osàn-wéwé	Tree	Rutaceae

19	*Combretum micranthum* G.Don.	Okan	Shrub	Combretaceae
20	*Cryptolepis sanguinolenta*	Paran pupa	Climber	Apocynaceae
21	*Daniella oliverii* (Rolfe) Hutch.&Dalziel	Iyá	Tree	Fabaceae
22	*Entandrophragma utile* (Dave & Sprague) Sprague	Jebo	Tree	Meliaceae
23	*Garcinia kola* Heckel	Orógbó	Shrub	Clusiaceae
24	*Heliotropium indicum* Linn.	Atapariobuko	Shrub	Boraginaceae
25	*Khaya grandifoliola* (Welw) CDC	Òganwó	Tree	Meliaceae
26	*Kigelia africana* (Lam.) Benth	Pándòrò	Tree	Bignoniaceae
27	*Lawsonia inermis* Linn.	Laali	Shrub	Lythraceae
28	*Magnifera indica* Linn.	Mongoro	Tree	Anacardiaceae
29	*Musa nana* Lour.	Ogede-omini	Herb	Musaceae
30	*Olax subscorpioidea* Oliv.	Ifon	Tree	Olacaceae
31	*Parkia biglobosa* (Jacq.) Willd	Ìgbá	Tree	Fabaceae
32	*Parquetina nigrescens* (Afzel.)Bullock.	Ogbó	Shrub	Ascelpiadaceae
33	*Petivera allicea* Linn.	Awogbarun	Tree	Phytolaccaceae
34	*Phyllantus reticulatus* (Poir.)	Iranje	Shrub	Euphorbiaceae
35	*Piper guineense* Schumach. & Thonn.	Ìyèré	Herb	Piperaceae
36	*Prosopis africana* (Guill.,Perr.&A. Rich.) Taubert.	Àáyán	Tree	Fabaceae
37	*Pseudosedrela kotschyi* (Schweinf) Harms	Emigbegi	Tree	Meliaceae
38	*Psorospermum febrifugum* Spach.	Légúnlóko	Shrub	Hypericaceae
39	*Sarcosephalus latifolius* (Sm.) Bruce	Egbesi	Tree	Rubiaceae
40	*Securidaca longepedunculata* Fres.	Ipeta	Tree	Polygalaceae
41	*Sorghum bicolor* (Linn.) Moench	Poroporo	Grass	Poaceae
42	*Strophanthus gratus* (Hook.) Franch	Isa	Climber	Apocynaceae
43	*Syzygium aromaticum* (L.) Merr. & L.M.Perry.	Kànnáfùrú	Tree	Myrtaceae
44	*Terminalia glaucescens* Planch. ex Benth.	Idin	Tree	Combretaceae
45	*Tetracera alnifolia* Willd	Opon	Tree	Dilleniaceae
46	*Theobroma cacao* Linn.	Koko	Tree	Sterculiaceae
47	*Vitellaria paradoxa* C.F.Gaertn.	Emi	Tree	Verbenaceae
48	*Xylopia aethiopica* (Dunal) A. Rich.	Èérù	Tree	Annonaceae
49	*Zingiber officinale* Rosc.	Ata-ilè	Herb	Zingeberaceae

Source: Field survey, 2016

Table 2: Life forms of the plants used for blood cleansing in the study area

Life form	Frequency	Percentage
Bulbous	3	6.1
Climber	4	8.2
Grass	1	2.0
Herb	6	12.2
Shrub	9	18.4
Tree	26	53.1
Total	49	100.0

Source : Field survey, 2016

Table 3: Recipes and Methods of Preparation of Some Blood-Cleansing Herbs recorded in the study Area

SN	Plants	Yoruba name	Part used	Methods of preparation	Dosage
1	*Kigelia africana* (Lam.) Benth *Prosopis africana* *Piper guineense* Schumach. & Thonn. *Syzygium aromaticum* (L.) Merr. & L.M.Perry.	Pándòrò Àáyán Ìyèré Kànnáfùrú	Root Root Fruit Fruit	The materials are cut into pieces and boil.	One tea cup, three times daily.
2	*Parquetina nigrescens* (Afzel.)Bullock. *Daniella oliverii* (Rolfe) Hutch.&Dalziel *Azadirachta indica* A. Juss	Ogbó Iyá Dóngóyárò	Leaves Bark Bark	Cut the plant materials into pieces, rinse and cook thoroughly	One shot, twice daily.
3	*Khaya grandifoliola* (Welw) CDC *Parkia biglobosa* (Jacq.) Willd *Daniella oliverii* (Rolfe) Hutch.&Dalziel *Psorospermum febrifugum* Spach. *Vitellaria paradoxa* C.F.Gaertn. *Xylopia aethiopica* (Dunal) A. Rich. *Allium ascalonicum* Linn *Piper guineense* Schumach. & Thonn. *Acacia nilotica* (L.) Willd. ex Delile *Garcinia kola* Heckel *Aframomum melegueta* (Roscoe) K. Schum *Capsicum annuum* Linn.	Òganwó Ìgbá Iyá Légúnlóko Emi Èérù Àlùbósà eléwé Ìyèré Boòní Orógbó Ataare Ata-ìjòsì	Bark Bark Bark Root Bark Fruit Leaves Fruit Fruit Seed/pod Fruit Fruit	Peel off the chaff of *Aframomum melegueta* , add all the plant materials and grind to powder	One tsp. with hot pap daily.
4	*Celtis integrifolia* Lam. *Annona senegalensis* Pers *Khaya grandifoliola* (Welw) CDC *Xylopia aethiopica* (Dunal) A. Rich. *Zingiber officinale* Rosc.	Aápe Àbo Òganwó Èérù Ata-ilè	Bark Bark Bark Fruit Rhizome	Cut the barks into smaller pieces, add water then boiled for about one hour, allow to cool and decant	One shot daily.
5	*Khaya grandifoliola* (Welw) CDC *Sarcosephalus latifolius* (Sm.) Bruce *Strophanthus gratus* (Hook.) Franch *Parquetina nigrescens* (Afzel.)Bullock. *Pseudosedrela kotschyi* (Schweinf) Harms *Bridelia micrantha* (Hochst.) Baill *Xylopia aethiopica* (Dunal) A. Rich.	Òganwó Egbesi Isa Ogbo Emigbègì Asaa Eeru	Bark Bark Root Root Bark Bark Fruit	The plant materials are cooked thoroughly	One shot daily.
6	*Phyllantus reticulatus* (Poir.) *Xylopia aethiopica* (Dunal) A. Rich. *Theobroma cacao* Linn. *Khaya grandifoliola* (Welw) CDC *Carica papaya* Linn	Iranje Eeru Koko Òganwó Ibepe	Leaves Fruit Bark Bark Leaves	The plant materials are cooked together.	One teacup daily.
7	*Tetracera alnifolia* Willd *Securidaca longepedunculata* Fres. *Xylopia aethiopica* (Dunal) A. Rich. *Pseudosedrela kotschyi* (Schweinf) Harms *Sarcosephalus latifolius* (Sm.) Bruce	Opon Ipeta Eeru Emigbègì Egbesi	Bark Root Fruit Bark Root	The plant materials are cooked for about an hour.	One shot, twice daily.
8	*Lawsonia inermis* Linn. *Allium cepa* Linn. *Allium sativum* Linn. *Zingiber officinale* Rosc. *Azadirachta indica* A. Juss	Laali Alubosa Ayuu Ataile Dóngóyárò	Leaves Bulb Bulb Rhizome Leaves	Cut *Allium cepa, Allium sativum* and *Zingiber officinale* into pieces, then add the leaves and cooked with fermented maize water for about an hour.	One shot daily.

9	*Terminalia glaucescens* Planch. ex Benth. *Khaya grandifoliola* (Welw) CDC *Magnifera indica* Linn. *Sorghum bicolor* (Linn.) Moench *Tetracera alnifolia* Willd *Combretum micranthum* G.Don.	Idin Òganwó Mongoro Poroporo Opon Okan	Bark Bark Bark Leaves Root Root	The plant materials are cooked thoroughly.	One shot daily.
10	*Petivera allicea* Linn. *Khaya grandifoliola* (Welw) CDC *Entandrophragma utile* (Dave & Sprague) Sprague *Olax subscorpioidea* Oliv. *Heliotropium indicum* Linn. *Aristolochia albida* *Cryptolepis sanguinolenta* *Calliandra haematocephala* Hassk. *Xylopia aethiopica* (Dunal) A. Rich.	Awogbarun Òganwó Jebo Ifon Atapariobuko Paran funfun Paran pupa Tude Eeru	Bark Bark Bark Bark Root Root Root Root Fruit	Add small quantity of potash to the plant materials and cooked thoroughly.	One shot daily.
11	*Khaya grandifoliola* (Welw) CDC *Daniella oliverii* (Rolfe) Hutch.&Dalziel *Psorospermum febrifugum* Spach. *Anogeissus leiocarpus* (DC.) Guill. & Perr *Xylopia aethiopica* (Dunal) A. Rich. *Piper guineense* Schumach. & Thonn.	Òganwó Iyà Légúnlóko Àyin Èérù Ìyèré	Bark Bark Root Bark Fruit Fruit	The fresh plant materials are cut into smaller pieces, rinsed and boiled for one hour, allow to cool and decant.	One tea cup daily.
12	*Asparagus flagellaris (*Kunth) Baker	Èqún-òódè	Fresh Root	The plant material is cut into pieces and put inside a bottle, add alcohol and leave for two days before the extract is drink.	One shot daily.
13	*Aristolochia repens* Mill *Citrus aurantifolia (Christm.) Swingle*	Akogùn Osàn-wéwé	Root Juice	The air dried root is pounded and poured in a bottle, then the juice of *Citrus aurantifolia* is added	One teaspoonful, twice daily.
14	*Baphia pubescens* Hook.f.	Uto	Leaves	The plant leaves is cooked thoroughly and sieved, the remnant is mixed with locally made soap and will be used for bathing while the filtrate for drinking	One shot daily.
15	*Musa nana* *Xylopia aethiopica* (Dunal) A. Rich.	Ogede omini Eeru alamo	Peel Fruit	The materials are pounded separately, and then mixed together, milled and sieved. The mixture is then divided into two. One part is mixed with locally made black soap which would be used for bathing; three teaspoonful of the second half is mixed with 4 bottles of 7up carbonated soft drink.	One shot daily.

Tsp- Teaspoonful, Shot – Four tablespoonfuls, Source : Field survey, 2016

Table 4: Qualitative phytochemical screening

Recipes	**Tannin**	**Saponin**	**Alkaloids**	**Anthraquinones**	**Flavonoids**	**Cardiac Glycosides**
Sample 1	++	+	-	-	+++	+

Sample 2	++	+	-	-	+++	++
Sample 3	++	+++	-	-	+++	-
Sample 4	++	+	-	-	++	++
Sample 5	++	+	-	-	+++	-
Sample 6	++	+	-	-	++	++
Sample 7	+	+	-	-	++	-
Sample 8	++	+	-	-	+++	++

Key: +++ Highly Present, ++ Present, + moderately present - Absent
Source: Laboratory Analysis, 2017.

Table 5: Quantitative Phytochemical screening Results

Recipes	Flavonoids weight (g)	Saponin weight (g)
Sample 1	0.34	0.24
Sample 2	0.08	0.06
Sample 3	0.08	0.07
Sample 4	0.16	0.12
Sample 5	0.15	0.11
Sample 6	0.10	0.10
Sample 7	0.02	0.04
Sample 8	0.17	0.16

Source: Laboratory Analysis, 2017.

CONCLUSION

This study showed that there are different medicinal plants species which are used for blood –cleansing and this is made possible as a result of the anti-oxidant phytochemical constituents which binds with toxins in the blood and flushes the impurities out of the body thereby promoting proper functioning of the body systems. There is need for sustainable utilizations of the plants to avoid degradation and extinction.

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