

Full Length Research Paper

Medicinal plants and animals sold by the “Yan-Shimfidas” of Sabo Wuse in Niger State, Nigeria

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Accepted 12 May, 2010

Sabo Wuse, a resettlement in Tafa Local Government Area of Niger State inhabits the original inhabitants of Wuse in Abuja, the Federal Capital of Nigeria. Despite the close proximity of about 65km to the urban settlement of Abuja, Sabo Wuse is still a relatively remote settlement; their lifestyle remained more or less unchanged and therefore, relied on their traditional knowledge for health care delivery. Recent ethnobotanical survey in Sabo Wuse has documented plants not indigenous to the area. In view of this, a survey was carried out to identify and document plants and animal materials sold by the Yan- shimfidas in the local settlement and to study their uses in treatment of ailments and other socio-cultural problems. The result shows that most of the herb sellers of Sabo Wuse were immigrants from the northern part of the country who had stayed in the village of Sabo Wuse for over twenty years. Thirty-four different plant species in twenty-one different families were documented. These were in the form of stem barks, leaves, roots, fruits, seeds, flower buds and fruit juices. Six different animal fats and skin, dung or other parts of animal of twenty two different species were also documented. All the materials documented were used for the treatment of various diseases and ailments ranging from the physical to the metaphysical. The study uncovered the remains of ancient medical practices which still exist in traditional societies in Nigeria. Therefore, the documentation of these practices can conserve the culture and traditional knowledge of this community.

Key words: Indigenous knowledge, ‘Yan-Shimfida’, Sabo-Wuse, Nigeria.

INTRODUCTION

Physical evidence of use of herbal remedies goes back some 60,000 years to a burial site of a Neanderthal man uncovered in 1960 (Solecki, 1975). The earliest written evidence of medicinal uses of herbs by the Chinese was recovered from a burial site which was dated 168BC. Most of the medicinal substances documented in that text were derived from herbs and wood plants e.g. grains, legumes, fruits, vegetables. Animal parts were also inclusive (Bensky and Gamble, 1993; Skidmore-Roth, 2003). Also included in the recovered text of the written evidence of uses of medicinal herbs by the Chinese was the view that disease is the manifestation of evil spirits, ghosts, and demons that must be repelled by incantation, rituals, and spells in addition to herbal remedies (Bensky and Gamble, 1993; Skidmore-Roth, 2003). In Nigeria,

several authors have made efforts in documenting traditional medicines in different parts of the country (Sofowora, 1986; Jinju, 1990; Ajibesin et al., 2008). According to Esho (2005), traditional medicine falls broadly into two divisions in Africa especially Nigeria, namely the physical and the metaphysical. The physical division uses vegetable, animal and mineral substances. The vegetable substances can be plant parts such as root, stem, leaves, flowers, bark or combinations of any of these. The animals used include snails, chameleon, snakes, tortoises, rats, lizards and many others. Among the mineral substances used are crude antimony, sulphur and chalk. The metaphysical division is concerned with the invisible world where prayers, invocations or incantations are offered to some mysterious being (Esho, 2005).

Ethnobotanical surveys have been carried out in Nigeria (Gill and Akinwunmi, 1986; Odugbemi et al., 2007). These studies were usually focused on a community sector and addressed the recording of the uses of

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medicinal materials and the traditional healing practices of the rural population. But very little is known about the traditional medicinal substances on sale in the present day community markets, although, Current estimates suggest that, in many developing countries, a large proportion of the population relies heavily on traditional practitioners and medicinal plants to meet primary health care needs (Cunningham, 1993). This was the first time that the medicinal materials sold by Yan-shimfidas in Sabo-Wuse were documented.

The 'Yan-shimfida'

Yan-shimfida is a Hausa word that cuts across most tribes in Nigeria including the Gwandara tribe of Sabo Wuse. Yan-shimfida is a general term for herbalists who sell medicinal plants and animal parts either by hawking or by displaying his items in stalls or on mats.

Study site

Sabo Wuse is a resettlement town in Tafa LGA in Niger State, Nigeria. It is about 65km from the urban settlement of Abuja, the Federal Capital of Nigeria. The inhabitants of Sabo Wuse are the original inhabitants of Wuse, in Abuja Municipal Area Council in the Federal Capital Territory. Their main language is Gwandara. Sabo Wuse still remains a relatively remote settlement and the lifestyle of the inhabitants is more or less unchanged despite their proximity to the urban settlement of Abuja. Their main economic base is intensive subsistence agriculture which is exclusively non-mechanized and human labour-based. Although, the village has electricity, it does not have pipe-borne water or a good road network. Despite the presence of a village health center, the people still depend to a large extent on their traditional knowledge of medicinal plants to treat ailments. An ethnobiological survey carried out in the area found that these plants are not found or cultivated in the area (Ibrahim et al., 2007). This gave rise to the question to find out and study how the traditional healers source for their medicinal materials, which lead to the Yan-Shimfidas, the local herb sellers. Thus, one of the significant actors of their health care delivery system is the Yan-shimfida who plays an important role in bringing accessible and affordable healthcare to the local populace. The declining number of traditional healers in Sabo Wuse has also been established (Ibrahim et al., 2007).

AIMS AND OBJECTIVES

Due to increasing awareness and use of traditional medicine as a source of health care delivery system and the declining number of traditional healers, it has become imperative to look at the Yan-shimfida who is directly or indirectly involved in sourcing, and preparing the medicinal plants and remedies which they in turn sell to the Traditional Medicine Practitioners or their patients. Therefore, the aims of this work were: - to identify the Yan-Shimfida in Sabo Wuse; to identify and document the material they display and to document the uses of these materials in treatment of ailments and other socio-cultural problems.

METHODS

The data presented here is drawn from an ethnobiological survey using questionnaire and oral interview conducted at Sabo Wuse.

Participatory approach was used in which the local herb sellers contributed their knowledge acquired over time on the uses of plants and animals they sell as medicine and for other socio-cultural problems. Prior informed consent was used in this survey.

Preliminary visits were done to familiarize with the place. An introduction letter from the sponsoring Institute (National Institute for Pharmaceutical Research and Development, Abuja) was submitted at the Local Government (LG) Secretariat. The team was introduced by the Director of the Primary Health Care in the LG to the Chairman and Secretary of the Herbal Healers Association of Tafa LGA. The Secretary of the Association in turn provided a list of the traditional healers and herb sellers in the area. A pre-survey was done first to identify the herbersellers based on the list provided by the secretary of the Herbal healers Association. And also based on the information gotten from other herbersellers, the market places, mosques and some specified locations were visited to identify them. A total number of 15 Yan-Shimfida were identified. Subsequently, appointments were booked with the herb sellers individually for the proper interviews after their consent was obtained to participate in the study. The interview was conducted in Hausa language, the dialect of all the herb sellers interviewed. The survey was carried out over a period of 6 months (September 2005 to February 2006).

Relevant information on the type of materials displayed, their uses, those who consult them and the origin of the herb sellers were obtained through the use of oral interview. Plant specimens were authenticated at the herbarium of National Institute for Pharmaceutical Research and Development, Abuja. Voucher specimens of some of the plants samples were also deposited at the same herbarium. Local names of all animal parts displayed were obtained.

To avoid wrong identification, the investigators requested for the fresh plants where the dry ones could not be revived for preparation of herbarium specimens. Published work on vernacular names of Nigerian plants were consulted for guidance (Gbile, 1980). For the animals, Microsoft Encarta (2006) was consulted for guidance. Materials that could not be identified satisfactorily were not included in the compilation.

RESULTS

Fifteen 'Yan-shimfidas' were documented. These people were all immigrants from the Northern part of Nigeria and they could be classified into two groups.

1. The first group hawks their wares around the market places and in the village. They were mostly females from the northern state of Bauchi who came to Sabo Wuse during the dry season of every year, when farming was at its lowest ebb, to sell their wares and move back home during the raining season to resume farming. The wares of these hawkers were mostly already-prepared remedies which they dispensed to people or patients on request.
2. The second group displayed their wares on mats or stalls in the market or mosques. They were mostly males who had also immigrated from the Northern part of the country but had stayed in the village for over twenty years. The demographic statistics of Yan-Shimfidas is shown in Table 1. Out of the 15 Yan-Shimfidas interviewed, the total number of female hawkers was 5 while only one male was found hawking. The number of Yan-Shimfidas who displayed their wares in the market was 9, all of them being male.

Table 1. Percentage of men and women Yan-Shimfidas who hawk or displayed medicinal materials in Sabo Wuse.

Sex	Number of Yan-Shimfidas that hawks	Number of Yan-Shimfidas that display their wares in one place	Percentage (%)
Women	5	-	33.3
Men	1	9	66.7

**Figure 1.** The wares of the Yan-shimfida spread at the market place.

Those who consult the Yan-Shimfidas

It was discovered that the Yan-Shimfida were highly sought after by herbalists, traditional healers and individuals from within and outside their locality. Below are the groups of people that consult or send patients to the Yan-Shimfida.

- A. Herbalists
- B. Fortune tellers
- C. Bone setters
- D. Traditional psychiatrists/psychotherapists
- E. Traditional pediatricians
- F. Traditional birth attendants
- G. Occult practitioners/sorcerers
- H. Patients suffering from various ailments

Functions of the Yan-Shimfida

The Yan-Shimfida of Sabo Wuse performs the following duties as revealed from the survey.

1. They source for medicinal materials which can be in

form of plants and plant parts; animals and animal parts or naturally-occurring minerals.

2. They prepare the medicinal material in a form that will be acceptable to those who buy them.
3. They prepare some remedies for treatment of some ailments ready to be dispensed to patients.
4. They often give advice to individuals and Traditional Healers on herbal remedies and alternatives to certain remedies.

Materials displayed by Yan-Shimfidas and their uses

The Yan-shimfidas displayed a wide variety of materials or substances ranging from plants to animals, animal parts, and some minerals (Figures 1, 2 and 3). The lists of the plant materials displayed are shown in Table 2. These comprises of thirty-four different plant species of twenty-one different families. Highest number of species was observed to be under the family Fabaceae (Figure 4). The plants are either in form of stem barks, leaves, roots, fruits, seeds, flower buds or juices. These plant parts were found to be used for various ailments like



Figure 2. Heads of different animals displayed for sale by the Yan-Shimfida.



Figure 3. Different animal parts displayed at the market place by the Yan-shimfidas.

malaria, pile, stomach ache, dysentery, menstrual pain and spirit-related illnesses. Others were used as aphrodisiac, charm for erring wives and for protection purposes. Six animal fats were documented for use against different diseases (Table 3).

Twenty two different types of animal product in forms of dung, skin or parts of their body were displayed and used by the Yan-shimfida (Table 4). Generally, the materials displayed by the Yan-shimfida were mostly in crude or unprocessed form. In some cases, the plants or other materials were semi-processed into powder and mixed

with other additives, and ready to be dispensed to their clients. All the remedies documented were used in various ways e.g. as infusion, decoction, as ointment, to fumigate and various other forms which were not disclosed.

DISCUSSION

From the survey, the Yan-shimfidas were found to be mostly immigrants from the Northern part of Nigeria. This

Table 2. Plant materials sold by the Yan-Shimfidias of Sabo-Wuse and their uses.

Family	Name of plants/Voucher No.	Local name	Plant parts used	Medicinal uses
Amaranthaceae	<i>Cyathula prostrata</i> (L.) BL (NIPRD/H/6282)	Manna mata		To keep a wayward wife at home.
Amaryllidaceae	<i>Allium sativum</i> L (NIPRD/H/6276)	Tafarnuwa	Bulb	In combination with <i>Zingiber officinale</i> , <i>Eugenia aromatica</i> , <i>Piper guineense</i> , <i>Parkia biglobosa</i> , <i>Solanum sp</i> to make a spicy preparation called 'yaji', used in soup as an aphrodisiac.
Amaryllidaceae	<i>Allium cepa</i> L (NIPRD/H/6285)	Alibasa	Bulb	For treatment of malaria and cough in children.
Annonaceae	<i>Xylopiya aethiopica</i> (Dunal) A.Rich. (NIPRD/H/6275)	Kimbar	Fruits	As preservative in infusion and decoction.
Apocynaceae	<i>Caralluma dalzielii</i> N.E.Br (NIPRD/H/	Karan masallachi	Whole plant	As aphrodisiac
Apocynaceae	<i>Carissa edulis</i> Vahl. (NIPRD/H/6288)	Gizaki	Stem / root	For fumigation for spirit related illness.
Asclepiadiaceae	<i>Leptadenia hastata</i> (Pers) Decne (NIPRD/H/6111)	Alin-zindir, Yaadiyaa.	Stem	Chewing stick for toothache and good oral hygiene.
Asteraceae	<i>Artemisia marciverae</i> Hutch. and Dalz. (NIPRD/H/5931)	Tazargade	Whole plant	The semi-powdered form infused in water; used for 'Danshi' in children. 'Danshi' is a kind of fever which occurs in children only during raining season.
Combretaceae	<i>Terminalia avicennioides</i> Guill. and Perr. (NIPRD/H/5763)	Baushe	Stembark, root	In combination with the following plants <i>Annona senegalensis</i> Pers., <i>Detarium senegalensis</i> Gmelin., <i>Hymenocardia acida</i> Tul, and <i>Peudocedrela kotchyi</i> (Schweinf)Harms, a decoction is prepared with addition of red potash and used for the treatment of Pile.
Combretaceae	<i>Guiera senegalensis</i> Lam. (NIPRD/H/6286)	Sabara	Leaves, Root	Used for treating dysentery and teething problems in children.
Euphobiaceae	<i>Hymenocardia acida</i> Tul. (NIPRD/H/5775)	Janyaro, Kwakwaraki	Stembark, leaves	For treatment of pile
Euphobiaceae	<i>Ricinus communis</i> L. (NIPRD/H/6078)	Zurma	Seeds	Seeds used as contraceptive and the oil is used for treatment of fungi infections.
Fabaceae.	<i>Detarium senegalensis</i> Gmelin. (NIPRD/H/6280)	Taura	Stembark, Root	For treatment of pile.
Fabaceae.	<i>Crotalaria arenaria</i> Benth. (NIPRD/H/6283)	Manta uwa (means forget mother)	Whole plant	Charm to stop a wayward wife from going out.
Fabaceae.	<i>Desmodium velutinum</i> (Wild)DC (NIPRD/H/6284)	Dan mannau		To keep a wayward wife at home.
Fabaceae	<i>Acacia albida</i> Del. (NIPRD/H/6151)	Gawo	Stmbark, Fruits	Infusion of the stem is used to treat spirit related illness. While the fruits are used as charm to drive away evil spirits.
Fabaceae	<i>Parkia biglobosa</i> Benth. (NIPRD/H/6096)	Doorowa	Seeds	Part of spicy preparation called 'yagi' used in soup preparation and also as aphrodisiac.
Fabaceae	<i>Tamarindus indica</i> Linn. (NIPRD/H/5922)	Tsaamiya	Fruits	Treatment of stomach-ache

Table 2. cont.

Fabaceae	<i>Acacia nilotica</i> (L.) Wild. ex Delile (NIPRD/H/6279)		Gabaaruwa	Fruits	Treatment of toothache and also for healing circumcision wound.
Fabaceae	<i>Tetrapleura tetraptera</i> (Schum. and Thonn.) Taub. (NIPRD/H/5881)		Kalango Fruits	dagi. Fruits	Used as preservative in medicinal preparation.
Meliaceae	<i>Pseudocedrela kotchyi</i> (Schweinf) Hams. (NIPRD/H/6281)		Tuna	Stembark, leaves	For treatment of pile. Red potash is added to the decoction when boiling.
Myrtaceae	<i>Eugenia aromatica</i> (L.) Baill (NIPRD/H/6277)		Kanunfarii	Flower buds	For making spicy 'yagi' used in soup preparation and also use as an aphrodisiac.
Olacaceae	<i>Olax subscorpoideae</i> Oliv. (NIPRD/H/5925)		Gwano	Stem, Root	For treatment of spirit related ailments. Used as a fumigant
Palmaceae	<i>Elaeis guineensis</i> Jacq. (NIPRD/H/6287)		Alay'ddii	Kernel oil	As a base for skin infection remedies and also for stomachache.
Piperaceae	<i>Piper guineense</i> Schum. and Thonn. (NIPRD/H/6278)		Masoro	Seeds	For making spicy 'yagi' used in soup preparation and also use as an aphrodisiac.
Poaceae	<i>Sorghum bicolor</i> (L.) Baill (NIPRD/H/5961)		Karan dafi	Leaves	The decoction with fruit of <i>Capsicum annum</i> is given to women who lost a lot of blood during delivery.
Poaceae	<i>Loudetia phragmitoides</i> (A. Peter) C.E Hubb		Tsinsiyar maza	Whole plant, Root	It is used with 'yagi' as an aphrodisiac.
Polygalaceae	<i>Securidaca longepedunculata</i> Fres. (NIPRD/H/5920)		Sanya	Root	For treatment of spirit related illness, for arthritis,
Rhamnaceae	<i>Zizyphus abyssiniaca</i> Hochst ex. A Rich		Magarya	Root, Leaves	Leaves are used for the preservation of meat. The root is for stomach pains especially in women during Menses.
Rhamnaceae	<i>Zizyphus mauritiana</i> Lam		Magarya	Root, Leaves	Leaves are used for the preservation of meat. The root is used for stomach pains especially in women during Menses.
Rubiaceae	<i>Gardenia erubescens</i> Stapf and Hutch (NIPRD/H/5768)		Gaude	Root, Fruits	It is used as an aphrodisiac.
Sapotaceae	<i>Vitellaria paradoxa</i> Gaertn.f. (NIPRD/H/5772)		Kadai	Oil from seeds	Taken for cough and used as base for skin infections remedies.
Solanaceae	<i>Solanum sp</i>			Fruits	For making 'yagi' as an aphrodisiac
Zingiberaceae	<i>Zingiber officinale</i> Roscoe (NIPRD/H/6274)		Cittar	Rhizome	As an aphrodisiac, part of the ingredient for 'yagi'
-			Mallaka	Whole plant	It is used in charming women.

could be attributed to the fact that since the indigenes of Sabo Wuse were mostly farmers including the traditional healers and as trading in herbal materials was not part of their culture, the healers sourced their medicinal materials them-

selves from the surroundings of their farms. However, due to the problem of over exploitation of lands either for farmlands or infrastructures (Roads, houses etc.), gradually making medicinal plants unavailable, the traditional healers and indi-

genes of Sabo Wuse became dependent on the immigrant Yan-shimfididas to some extent. This is also evident from the type of plant species displayed by the Yan-shimfida, most of which were either forest species or dry land species that were

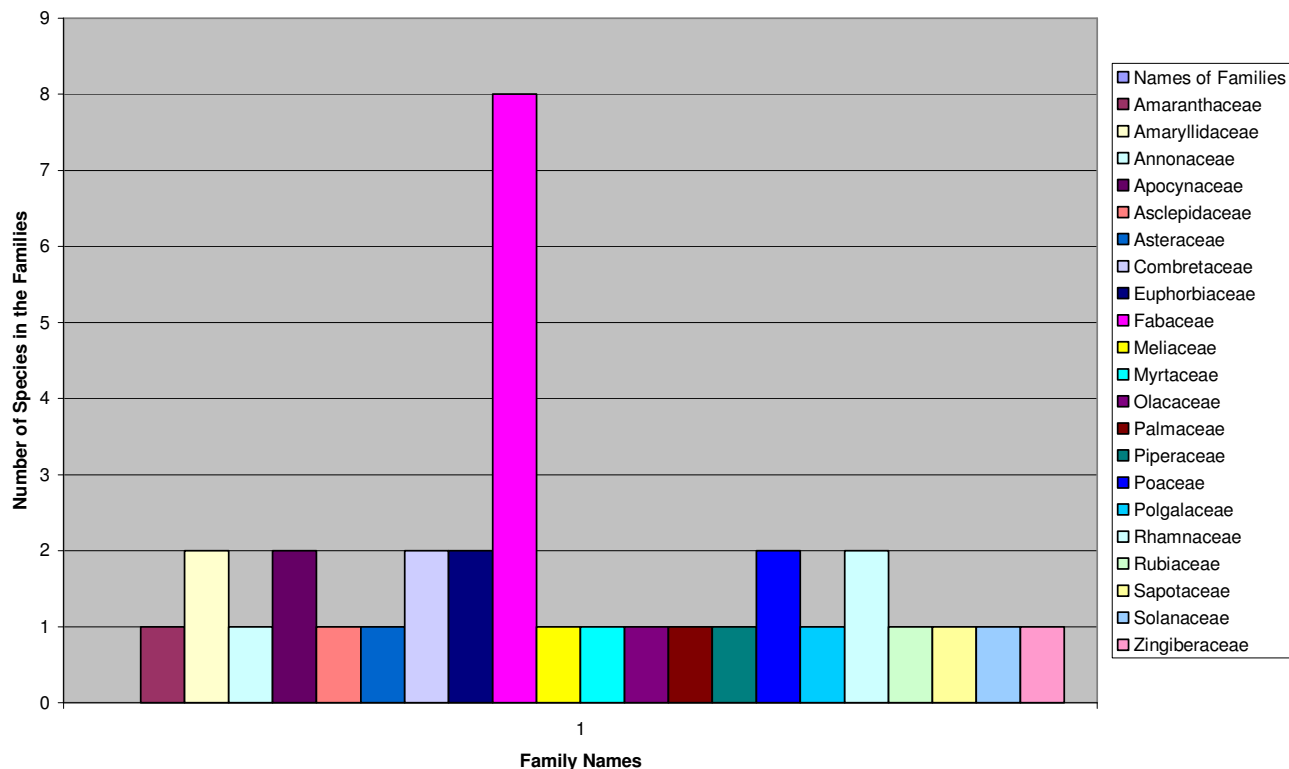


Figure 4. Distribution of Plant Species under Different Families as sold by the Yan-Shimfidias of Sabo Wuse.

Table 3. Types of animal fat displayed by Yan-Shimfida of Sabo-Wuse and their uses.

Name of animals	Scientific Name	Local name	Uses of the fat
Black Snake's fat	Unknown	Baki minchigi	Rub on the back for treatment of backache.
Python 's fat	<i>Python sebae</i>	Mesa	Treatment of backache and fire burns.
Hyena 's fat	<i>Crocuta crocuta</i>	Kura	Fumigation for protection against spirits and witches.
Wild cow or Buffalo's fat	<i>Syncerus caffer</i>	Bauna	Fumigation against spirits.
Monitor lizard's fat	<i>Varanus sp</i>	Damo	Treatment of breast pains
Lion's fat	<i>Panthero leo</i>	Zaki	Bone setting.

not easily seen around their farm. Again, some of them were seasonal plants. This could account for the observation that the local names of all the materials documented were in Hausa language and not in Gwandara, the native tongue of the people of Sabo Wuse. Also, in examining the plants listed in Table 2, the absence of common plants that are known to be used in folk medicine today, as they were used in the past is an indication that the healers or their patients still source for these plants themselves in open spaces and surroundings of their farms and that these are not regularly sold in the markets or hawked by the Yan-Shimfidias.

The animal parts were mostly used in preparation of remedy against evil intentions. They were also used for protection of the body, homes, and farms against evil intentions by either humans or spirits. They could also be used to treat certain ailments e.g. the use of camel dung

for the treatment of ear pain and cataract (Table 4). This study has opened a window to a whole and usually hidden world of medicine, traditions and customs, which still persist in today's Nigeria. The study has also added to the lists of such surveys that have been carried out in other parts of the world (Efrain and Zohar, 2000; Lev, 1999; Lev, 2003). For example, in Traditional Chinese Medicine (TCM), more than 1500 animal species have been recorded to be of some medicinal use (China National Corporation of Traditional and Herbal Medicine, 1995). In India nearly 15 – 20% of the Ayurvedic medicine is based on animal-derived substances (Unnikrishnan, 1998). In Bahia State, in the Northeast of Brazil, over 180 medicinal animals have been recorded (Costa-Neto, 2004). Wild and domestic animals and their by-products (e.g., hooves, skins, bones, feathers and tusks) as important ingredients in the preparation of

Table 4. List of animals and animal parts displayed by Yan-Shimfida of Sabo-Wuse and their uses.

Names of animals	Scientific name	Local name	Uses
Camel's dung	<i>Camelus dromedarius</i>	Kashin rakumi	The infusion in water is used for ear ache and removal of cataract from the eyes.
Elephant skin	<i>Loxodonta africanus</i>	Giwa	
Tiger ,,	<i>Panthera tigris</i>	Damisa	
Hyena ,,	<i>Crocuta crocuta</i>	Kura	
Buffalo ,,	<i>Syncerus caffer</i>	Bauna	All these are used to make charms for the protection of the body against sorcery, spirits and witchcraft.
Lion ,,	<i>Panthero leo</i>	Zaki	
Camel ,,	<i>Camelus dromedarius</i>	Rakumi	
Crocodile ,,	<i>Crocodylus sp.</i>	Kada	
Python ,,	<i>Python sebae</i>	Mesa	
Mice (dead and smelly)	<i>Mus musculus</i>	Jaba	
Owl's head		Kan mujiya	They are used to make bad charm of either separating two intimate people or to cause confusion.
Black dog's dung	<i>Canis familiaris</i>	Kashin Bakin kare	
Monkey's dung	<i>Colobus sp</i>	Kashin biri	
Cowries shells		Wuri	Fortune tellers used it with old coins for divination.
Ram's horns	<i>Ovis aries</i>	Rago	Used for the protection of houses against thieves and evil spirits.
Wild Goat's horn	<i>Capra aegagus</i>	Gada	
Wild Sheep's horn	<i>Ovis sp</i>	Maraya	
Antelope's horn	<i>Tragelaphus sp</i>	Barewa	They are used to make charms for the protection of body, houses or farms against thieves, wild animals or evil spirits.
A kind of Reptile		Mazo	
Buffalo's horns	<i>Syncerus caffer</i>	Bauna	
Crocodile's head	<i>Crocodylus sp.</i>	Kada	
Python's head	<i>Python sebae</i>	Mesa	
Monitor lizard's head	<i>Varanus sp</i>	Damo	
Vulture's head	<i>Necrosyrtus monachus</i>	Ungulu	The heads of all these animals are used to make charms generally for protection against evil spirits, witches etc.
Monkey's head	<i>Colobus sp</i>	Biri	
Wild Guinea Fowl's head	<i>Numida sp</i>	Zaboan Dagi	
Chameleon's head	<i>Chamaeleo sp</i>	Hawainiya	
Unidentified		Hankaka	This two coloured bird(black and white) is used for sorcery -"Sammu"

curative, protective and preventive medicine were also documented (Adeola, 1992; Anageletti et al., 1992), and also pharmaceutical companies have methodically tested them as sources of drugs for modern medical science (Kunin and Lawton, 1996; World Resource Institute, 2000). Although, the use of animals and its parts in treatment of ailments is well documented, it should be noted that infectious diseases like zoonoses can be transmitted from animals to human and this should be considered seriously in the use of animals in the treatment ailments (Still, 2003). Despite these shortcomings, studies on the therapeutic uses of animals and their body parts should not be neglected.

The Yan-Shimfida who are very versed in the knowledge

of medicinal plants, are highly sought after by herbalists, traditional healers and individuals from within and outside their locality. They can therefore be referred to as the traditional 'Pharmacist', in that, they prepare and dispense remedies made from plants, animals and minerals. In addition, they often give advice to individuals and Traditional Healers on herbal remedies and alternatives to certain remedies.

Conclusions

The study of the medicinal materials sold by the Yan-Shimfida of Sabo Wuse uncovered the remains of ancient

medical practices which still exist in traditional societies of Nigeria. In the modern age, it is very important to document and restore the remains of the ancient medical culture and traditional knowledge of human communities, as the majority of such communities are rapidly losing their socioeconomic and cultural characteristics.

It is suggested that similar studies should also be conducted in other local communities in Nigeria to document this very important group of people who are part of the health care delivery system in terms of traditional medicine practice. Further research work may be conducted to confirm some of the therapeutic claims of the plants and animals listed.

ACKNOWLEDGEMENTS

The authors are grateful to the Management of NIPRD for the award of a Research Grant to conduct this survey. The authors are also grateful to the traditional healers and all the Yan-Shimfida for their cooperation and support.

REFERENCES

- Adeola MO (1992). Importance of wild animals and their parts in the culture, religious. Festivals, and traditional medicine, *Nig. Environ. Conservat.*, 19(2): 125-134.
- Ajibesin KK, Ekpoa BA, Bala DN, Essien EE, Adesanya SA (2008). Ethnobotanical survey of Akwa Ibom State of Nigeria. *J. Ethnopharmacol.*, 115: 387-408.
- Anageletti LR, Agrimi U, Curia C, French D, Mariani-Costantini R (1992). Healing rituals and sacred serpents. *Lancet.*, 340: 223-225.
- Bensky D, Gamble A (1993). *Chinese Herbal Medicine: Materia Medica* (revised edition). Eastland Press Inc., Seattle.
- China National Corporation of Traditional, Herbal Medicine (1995). *Materia Medica Commonly Used in China*. Science Press. Beijing., 1995.
- Costa-Neto EM (2004). Implications and applications of folk zootherapy in the State of Bahia, Northeastern Brazil. *Sust. Dev.*, 12: 161-174.
- Cunningham AB (1993). *Africa Medicinal Plants: Setting priorities at the interface between conservation and primary health care*. People and plant working paper UNESCO.
- Efraim L, Zohar A (2000). Ethnopharmacological survey of traditional drugs sold in Israel at the end of the 20th century. *J. Ethnopharmacol.*, 72: 191-205.
- Esho O Felix (2005). *Traditional Concepts of Health and Ill-Health, Aetiology, Diagnosis, Treatment and Disease Prevention*. Conference Paper. National Workshop on Intellectual Property and Traditional Medicine Knowledge and Practice. Abuja, Nigeria.
- Gill LS, Akinwunmi C (1986). Nigerian Medicine Practice and Beliefs of the Ondo People. *J. Ethnopharmacol.*, 18: 257-266.
- Gbile ZO (1980). *Vernacular Names of Nigerian plants (Hausa)*. Lagos: federal Department of Forestry. p. 63.
- Ibrahim JA, Muazzam I, Jegede IA, Kunle OF, Okogun JI (2007). Ethno-medicinal plants and methods used by Gwandara tribe of Sabo Wuse in Niger state, Nigeria to treat mental illness. *African Journal of Traditional., Complem. Alternat. Med.*, 4(2): 211-218.
- Junju MH (1990). *African Traditional Medicine: A Case Study of Hausa Medicinal Plants and Therapy*. Gaskiya Cooperation Limited, Zaria. Nig., p. 237.
- Kunin WE, Lawton JH (1996). Does biodiversity matter? Evaluating the case for conserving species. In *Biodiversity: a biology of numbers and differences*. Edited by: Gaston KJ. Oxford: Blackwell Sci., p. 283-308.
- Lev E (1999). *Medical materials and their use during the medieval era in Israel and Syria*. Ph.D. thesis, Bar-Ilan. University, Israel (in Hebrew).
- Lev E (2003). *Traditional Healing with Animals (Zootherapy): Medieval to Present – day Levantine Practice*. *J. Ethnopharmacol.*, 86: 107-118.
- Microsoft® Encarta® (2006). [DVD]. Microsoft Corporation.
- Odugbemi TO, Akinsulire OR, Aibinu, I.E Fabeku, PO (2007). Medicinal Plants Useful for Malaria Therapy in Okeigbo, Ondo State, Southwest Nigeria. *Afr. J. Trad. CAM.*, 4(2): 191-198
- Skidmore – Roth L (2003) *Handbook of Herbs and Natural Supplements 2nd ed.* St. Louis: Mosby
- Sofowora A (1986). *Medicinal Plants and Traditional Medicine in Africa*. Chichester: John Wiley and Sons LTD. New York.
- Solecki RS (1975). Shanidar IV, a Neanderthal flower burial of northern Iraq. *Sci.*, 190: 880.
- Still J (2003). Use of animal products in traditional Chinese medicine: environmental impact and health hazards. *Complement. Ther. Med.*, 11: 118-122.
- Unnikrishnan PM (1998). *Animals in Ayurveda*. Amruth, (Suppl 1):1-15.
- World Resources Institute (2000). *World Resources Report 2000-2001. People and ecosystems the fraying web of life*. Washington D.C.: World Resources Institute., pp. 389.