AWARENESS, ATTITUDE AND LEVEL OF UTILIZATION OF HERBAL MEDICINES AMONG ADULTS IN AGBOWO COMMUNITY, IBADAN NORTH LOCAL GOVERNMENT AREA, NIGERIA.

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CERTIFICATION

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DEDICATION

This Project is dedicated to; God Almighty, the Elshaddai, for His unfailing love, favor, grace and mercy and for bringing me this far.

My darling Mother whose prayers for me are unceasing, It is her prayers that have sustained me. The work is also dedicated to my Father for always trying his best to make sure that I do not lack any good things of life.

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ABSTRACT

Herbal medicines are medicinal products derived from plants. They are herbal preparations for the treatment or prevention of diseases. Their use is an age long tradition which is passed from one generation to another. In some cases, it is the exclusive preserve of some families. There is an increasing demand for herbal medicines in recent years. However the level of awareness, attitude and pattern of use of herbal medicaments in a metropolitan community has not been adequately explored. The objectives of the study were therefore to determine the level of awareness relating to herbal medicines among adult resident in Agbowo community, assess their attitude towards herbal medicines and identify their practices relating to use of herbal medicine.

A descriptive cross -sectional study design was used and the study was carried out among adults in Agbowo community. The EPI cluster sampling technique was adapted and used to conduct the study. A semi-structured interviewer-administered questionnaire was used for data collection. The questionnaire was divided into four sections: Social–demographic characteristics; awareness and sources of information on herbal medicine; attitudes towards herbal medicines and practices relating to the use of herbal medicines. The questionnaire was reviewed for quality and consistency and pre-tested among adults in Iwo road in Ibadan North East LGA with similar characteristics to ensure validity of the results. The Cronbach's Alpha model technique was employed to measure the reliability of the survey instrument using the SPSS computer software. Data was analyzed using the IBM SPSS version 20.0 and Microsoft Excel 2007 software. Statistics and chi square were used to analyze the data at P= 0.05.

The survey revealed that; respondents aged 30-39years (42.0%) topped the list followed by those aged 20-29 years (32.0%). The commonest source of information on herbal medicines among the respondent's was radio (79.7%) followed by television (68.2%). It was observed that 45.75% of the respondents were of the opinion that herbal medicines are safer than orthodox medicines. However, 28.4% of the respondents' were of the view that herbal medicines should only be used when

orthodox medicine fails. Furthermore, 54.6% of males and 45.4% of females use herbal medicines, Majority of males (62.1) % and 37.9% of the females combine the use of herbal and orthodox medicines.

The prevalence of use of herbal medicine among respondents in Agbowo community was high and most respondents had positive attitude to the use of herbal medicines. It is recommended that community enlightenment programs on the positive dangers associated with combined use of herbal and orthodox medicines be implemented in the study population.

Key words: Herbal medicine, orthodox medicines, Herbal medicines related attitude, Awareness of herbal medicines.

Word count: 437

LIST OF ACRONYMS

Abbreviation	Meaning
DSHEA:	Dietary Supplement Health Education Acts
EU:	European Union
FDA:	Food and Drug Administration
GACP:	Good Agricultural, and Collection Practices
GMP:	Good Manufacturing Practices
HIV:	Human Immune Deficiency virus
NIH:	National Institute of Health
PHC:	Primary Health Care
SARS:	Severe Acute Respiratory Syndrome
TMK:	Traditional Medical Knowledge
THM:	Traditional Herbal Medicine
THR:	Traditional Herbal Registration
TMP:	Traditional Medical Practices
W.H.O	World Health Organization.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Herbal medicines are medicinal products derived from plants or herbs for the treatment or prevention of diseases (Firenzuoli and Gori, 2007). Such medicines includes herbs, herbal preparations, and finished products that contain parts of plants or active ingredients derived from plants (Mahomoodally, 2013). The use of herbal medicines continues to expand rapidly across the world with many people resorting to their use for the treatment of various health challenges in different settings (WHO, 2004).

A recent study carried out by the World Agro-Nene forestry centre (ICRAF,2015) in kenya, shows that herbal medicines is practiced in many rural areas in the world. This past decade has witnessed a tremendous upsurge in public interest and adoption of which involve use of herbal products natural both in developing and developed Countries. Herbal products could be found not only in drug stores, but also in food stores and supermarkets. It is estimated that up to four billion people (representing 80% of the world's population) in the developing world rely on herbal medicinal products for addressing their primary healthcare needs. In most developing countries, use of herbal medicines is an integral part of the people's culture (Mukherjee, 2002; Bodeker et al., 2005; Bandaranayake, 2006). Herbal medicines are an important part of healthcare throughout the world. In many countries including the U.S, herbal medicines are not regulated as extensively as conventional drug therapies. (Rivera, Loya and Ceballos, 2013).

In Nigeria, most rural communities lack or have limited access to orthodox health care facilities and adequate orthodox health care providers. It has been reported that; over 90% of Nigerians in rural areas thus depend wholly or partially on traditional medicines (Oladele and Adewunmi, 2008). This situation has led to a call for the formal involvement of Traditional medical practitioners in the delivery of primary health care

services (Alves and Rosa, 2007; Elujoba, Odeleye and Oguyemi, 2005). Medicinal products from plants or other natural sources have also taken a very large share of the primary healthcare within rural communities in India (Sumanta, Nonigopal, Avijit and Anupam 2013).

Traditional Medical Knowledge (TMK) which is an aspect of Indigenous Knowledge (IK), is passed from one person to another generation (Osemene, Elujoba and Ilori 2011). Elders are considered to be legitimate custodians of TMK. It is handed down to them by their ancestors, and they are in turn expected to pass it to their descendants. (Owuor, 2007).Use of Herbal medicines has become a popular form of health care. Several differences exist between herbal and conventional pharmacological treatments.

Across the world, there is a great awareness of the importance of medicines and healing, based on natural ingredients rather than on chemical ingredients. Herbal medicines are very common in Europe, Germany and France (Okosun and Iyang, 2002). Herbs and plants can be taken in different ways and forms; they include use of whole herbs, use as teas, and use of essential oils, ointment, rubs, capsules or tablets that contain powdered forms of a raw herbs or its herbal extracts. They could also be taken orally or used to bath.

Herbal Medicines are widely available in practically all communities in Nigeria including Ibadan, one of the major indigenous community in Africa. Herbal medicines has been acknowledged by users to be highly effective (Jegede, 2012). Nevertheless, herbal medicines do carry risks and it has been observed that the public is often misled to believe that natural treatments involving herbal products are inherently safe (Fabio Firenzuoli et al 2007).Many herbal products that are sold as "Medicinal" contains a variety of chemical ingredients, several of which may have medicinal effects (Gavura, 2013). In most Nigeria communities, including Ibadan, herbal medicines serve as viable alternatives to the use of orthodox Medicines. A perceived advantage of herbal medicine is that they are relatively cheap (Sofowora, 1993). The increasing use of herbal medicines has contributed largely to the quest for professionalism of herbal medicinal practice.

Sofowora, (1993) has stated that, herbal drugs, although relatively un-standardized, are cheap, accessible, and enjoy a wider acceptability among the people in developing countries compared to orthodox medicines. According to World Health Organization survey about 70-80% of the world population particularly in the developing countries rely on non-conventional medicine mainly of herbal sources for meeting their primary health care needs, it has been reported that the global market for herbal medicines stood at over 60 billion dollars annually and it is growing steadily (WHO, 2005). The patronage of herbal medicines continues to increase in many developing countries including Nigeria.

The need to access cheap drugs such as herbal medicines often outweighs other considerations such as sources, standard and the possible health hazards. This situation exposes users to adverse effects of herbal medications in many parts of Africa including the study area. Many people are not aware of the possible adverse effects of herbal medicaments. In Nigeria, it has been reported that not less than 70% of the population patronize herbal medicines (Maiwada, 2004). Herbal medicines is accessible, affordable and culturally acceptable form of healthcare trusted by large numbers of people, which stands out as a way of coping with the relentless rise of chronic non-communicable diseases in the midst of soaring health-care costs and nearly universal austerity(WHO, 2013). The quality of herbal medicines used in the country is of great concern. It should be noted that studies have confirmed the presence of potential contaminants such as pathogens and fungi that can cause serious health hazards in herbal medicinal preparations (Martins et al 2001). Several cases of adverse effects of herbal medicinal preparation have been reported worldwide during the last few years which were allegedly caused by taking herbal medicinal products prescribed by practitioners of indigenous medicine (Vartike and Shanti, 2005). Many plant secondary metabolites have been associated with specific beneficial effects in diabetes, which might account for the therapeutic effect of the herbal drug (Singh et al., 2013).

Casual observation and/or anecdotal reports have revealed that the use of herbal medicines is common in Agbowo, an urban community in Ibadan. However, a systematic approach to the determination of the level of awareness and pattern of use of

herbal medicines in the community is yet to be adequately conducted. It is this challenge that constitutes the focus of this study.

1.2 Statement of the problem

In recent times more and more Ibadan residents are consulting herbalists or practitioners of herbal medicines especially in the predominantly Yoruba dominated Agbowo community. Consequently, the Yoruba ethno- medicine that was once on the threshold of extinction, following its clash with Western health care system, has started to regain its lost popularity (Temitope et al, 2014). There are numerous advertisements of herbal products in the local print and electronic media and through other forms of information dissemination. There is hardly any major newspaper in Nigeria that does not have a column on herbal remedies at least once in a week.

The yearly herbal medicine trade fair in Nigeria and the increasing publicity and patronage that this attracts, are indicative of acceptance of herbal medical practice. There is however a strong criticism of the use of herbs by some people; the use of herbal medicines is perceived by some people to be primitive. Herbal medicines is often criticized for its lack scientific verification. There are, however, some people who cannot do without herbal medicines in the treatment of ailment irrespective of the criticism by other people.

Anecdotal reports and field work experiences by the investigator in the community have revealed that use of herbal medicinal products is a common practice in Agbowo communities. However, the level of awareness, attitudes towards and pattern of utilization of herbal medicines in the community (Agbowo) has not been adequately explored. This study was therefore designed to investigate the awareness, attitudes towards and pattern of utilization of herbal medicines among adult residents in Agbowo community, Ibadan North Local Government Area, Local Government Are, Oyo State Nigeria.

1.3 Justification

The results of the study could be used as baseline information for formulating health policies relating to the use of herbal medicines in the study area. In addition, the results are potentially useful for designing educational interventions aimed at promoting rational use of herbal medicaments in the study area as well as other communities where use of herbal medicines is common.

1.4 Research Question

The questions framed to guide the study were as follows**:**

1. What is the level of awareness of herbal medicines among adults in Agbowo Community, Ibadan?
2. What is the attitude of adults in Agbowo community to herbal medicines?
3. What is the pattern of utilization of herbal medicines among adults in Agbowo Community, Ibadan?

1.5 Broad Objectives

The broad objectives of the study was to determine the level of awareness, attitude to and utilization of herbal medicines among adults in Agbowo community.

1.6 Specific Objectives:

The specific objectives were to:

1 .Assess the level of awareness and sources of information of herbal medicines among adult's resident in Agbowo community.

2. Assess adult's community resident's attitude towards herbal medicine.
3. Identify the pattern of use of herbal medicines among the respondents.

CHAPTER TWO

LITERATURE REVIEW

2.0 Conceptual clarifications relating to herbal medicines.

In Nigeria, two distinct types of medicines are known and extensively used namely, herbal and orthodox medicine. The former is defined as the drug made from herbs or plants and it has several be said to possess several synonyms all of which refer to plant based medicines. Plants constitute the main raw materials with which it is made; examples of such synonyms are phyto-medicines, plant medicine, green medicines, traditional medicine, traditional remedies, plant drugs and forest health products among others (Elujoba, 1998).

The World Health Organization, (1996) defined herbal medicines as "finished labelled medicinal products that contain an active ingredients aerial or underground parts of plants or other plant materials or combinations thereof whether in the crude state or as a plant preparations". Plant materials include juices, gums, fatty oils and any other substances of this nature. Herbal medicines may contain standard excipients in addition n to the substances inactive ingredients. Medicines containing plant material combine with chemically defined active substance including chemically defined isolated constituents of plant material combined with chemically defined substances including medicine may also contain by tradition, natural organic or inorganic active ingredients which are not of plant origin (Mukherjee, 2015).

Orthodox medicine may be defined as any substance of vegetable, animal or mineral origin or any preparation or admixture there of chemical compounds which are used for internal or external application to the human body in the treatment of disease (Moody, 2007). According to Moody (2007), herbal medicine has remained part of the history of the people despite the fact that orthodox medicines which came with the advent of colonization appears to have occupied the center stage in the treatment of diseases states especially in modern practices Meanwhile, the present unprecedented global upsurge of interest in herbal medicines is perhaps a measure of a more realistic

perception of the limitation of orthodox medicines in terms of cost, accessibility, effectiveness and safety (Moody, 2007). Even in developed countries, resurgence of interest in herbal medicine has been due to the preference of many consumers for products of natural origin (Wambebe, 1998).

Disease may be eliminated in a process that is usually slow in orthodox medicine, requiring the patients to be very patient. Herbal medicine are perceived to be by far less concentrated, less toxic and are used in less severe diseases unlike orthodox medicine which in its concentrated drug formulating are designed to target and reverse specific pathologies in the minimum time (Ohuabunno, 1998; Moody, 2007). The plants used in herbal medicine carry their in–built safety mechanisms. Furthermore, they are ideal tools for restoring damaged physiological processes and they consists of a multiplicity of chemical components which act synergistically to make active constituents bio available or to buffer the otherwise potentially powerful active principles thus preventing harmful side effects (Moody, 2007).

2.1 Prevalence and pattern of use of herbal medicines.

African traditional medicines remain vital as much as 67%-70% of modern medicines are derived from natural products. Nearly 80% of the world population rely on traditional medicines for primary health care, most of which involve the use of plant extracts (WHO, 2005). Ancient ethnic communities around the world had learnt to utilize their neighborhood herbal flora for various curative as well as offensive purposes. Due to illiteracy, their knowledge on plants development is often at the cost of their dear lives throughout the ages.

In china, traditional medicine accounts for around 40% of all health care delivered and more than 90% of general hospitals in China have units for traditional medicines (WHO, 2005). However, use of traditional medicine is not limited to developing countries. During the past two decades public interest in natural therapies has increased greatly in industrialized countries with the use of ethno- botanicals. In the United States in 2007, about 38% of adults and 12% children were using some forms of traditional medicine (Ernst, Schmitz and wider 2005; Barnes, Bloom and Nahim, 2008).

Essentially, herbal remedies consist of portions of plants or unpurified plant extracts containing several constituents which are often generally believed to work together synergistically.

Hughes (2013) studied the prevalence of traditional herbal medicines use among hypertensive living in South African communities. Traditional Herbal Medicines (THM) are used for the management of hypertension, in South African. However the prevalence of its use among patients in South African was not sufficiently known. The study revealed that there were 135 THM users; of this 21% used THM to treat hypertension. Majority (82.1%) of the hypertensive THM users were females; only 29% were married or co-habilitating and virtually all (96%) were unemployed. More than half (56%) of the respondents were aged between 55 and 64 years. Traditional Herbal medicine was occasionally used (51.9%) as a combination of tea and other mixtures (63%) and prescribed by family/friends/self-administered. There was a significant difference in the age, marital and employment status, as well as the form and frequency of THM use among hypertensive THM users compared to other THM users. The study gave an insight into the prevalence of THM use by hypertensive patients in selected South African communities.

Herbal therapy or the usage of natural product other than vitamins and minerals is a common practice (Bako et al, 2005). The most common reason for using traditional medicine is that it is affordable (Sofowora,1993), more closely correspond to the patient's ideology, allays concern about the adverse effect of chemicals (synthetic) medicine , satisfy a desire for more personalized health care(Firenzuoli et al, 2007) and allows greater public access to primary health care(Baedeker et al 2005) . The major use of herbal medicine is for health promotion and therapy for chronic diseases. Furthermore, traditional medicines are widely perceived as natural and safe that is not toxic (Oreagba et al 2011). This is not necessarily true especially when herbs are taking with prescription drugs over- the- counter medications or other herbs as it is very common (Canter and Ernst, 2004; Cohen and Ernst, 2010; Loya, Gonzales and Rivera, 2009).

In 1990, expenditure associated with alternative medicines in the United States was estimated to be US$13.7 billion. This doubled by the year 1997, with herbal medicine growing faster than any other alternative therapy (Eisenberg et.al, 1998). Currently, herbs are applied to the treatment of chronic and acute conditions and various ailments and problems which include cardiovascular diseases, prostrate problems, depression, inflammation, and the boosting of the immune system. In the year 2003 in China, traditional medicines played a prominent role in the strategy to contain and treat Severe Acute Respiratory Syndrome (SARS) in China.

In Africa, a traditional herbal medicine, the African flowers have been used for decades to treat wasting symptoms associated with HIV (Desmet, 2008; Tilburl and Kaptchuk, 2002).

2.2 Phytochemical Properties and safety-related issues associated with herbal medicines

Herbs and plants can be taking in different ways and forms, which include whole herbs, shrubs essential oils, ointment, rubs, capsules and tablets that contains powder forms of raw herb or its due extracts (Fakeyi, 2009). Plants and herb extracts vary in solvent used for extraction, temperature and extraction time which include alcoholic extracts (Tinctures), Vine guards (Acetic acid and extracts), hot water extract(Tisales), long term billed extracts, usually roots of bark(Decoctions) and cold infusion of plants(Macerates) (Hertmamn, 2007 et al,), Plants are rich in variety of compounds. Many of the compounds are secondary metabolites which include aromatic substances most of which are phenols oxygen-substituted derivatives such as tannins (Hertmamn, 2007; Jemke; Kodama, Mullin and Dittman, 2008). Many of these compounds have anti-oxidant properties. Plants have their ability to synthesis a wide variety of chemical compounds that are used to perform important biological functions and to defend against attack from predictors such as insects, fungi and herbivorous mammals. Many of these phytochemicals have beneficial health effect in long time when consumed by humans as they used to effectively treat some human disease.

Phytochemicals are divided into two primary metabolites such as sugar, fats and secondary metabolites compound which are found in a smaller range of plants serving a more specific function; for example, some secondary metabolites are toxins used to detect predators and others are pheromones used to attract insects for pollinations. It is these secondary metabolites and pigments that can have therapeutic actions in humans and which can be refined to produce drugs; examples are; 'Inuni' from roots of Dahlias," Quinine" from the Cinchona, Morphine and Codeine from the opium poppy and Digozin from foxglove (Titilayo et al, 2009). Chemical compounds in plants mediate there effect in the human body.

Herbal medicines do not defers greatly from conventional drugs (Jemke et al, 2008). These enables herbs to be as effective as conventional medicines but also give them some potentials to cause harmful side effects. Modern medicines now tend to use the active ingredients in plants other than the whole plants. The Phytochemicals may be synthesized compounded or otherwise transformed to make pharmaceuticals. Examples of such derivatives includes Dioxin, from digitalis: capsaicin from chili and Aspirin which is chemically related to the Salicylic acid found in white willow. The Opium poppy continues to be a major industrial source of opiates, including morphine. Few traditional remedies however, have been translated into modern drugs, although there is continuous research into the efficacy and possible adaptation of traditional herbal treatments.

In most countries, herbal medicines and related products are introduced into the market without any mandatory safety or toxicological evaluation. Many of these countries also lack effective machinery to regulate manufacturing practices and quality standards. These herbal products are continuously made available to consumers without prescription in most cases and the potential hazards in an inferior product are hardly recognized (Bandaranayke, 2006). It is important to reiterate the staggering rate at which interest and use of herbal medicines is expanding (Venherweghem and Degante, 1998).

In spite of the positive perception of patients on the use of herbal medicines and alleged satisfaction with therapeutic outcomes coupled with their disappointment with

conventional allopathic or orthodox medicines in terms of effectiveness and/or safety (Huxtable, 1990; Abbot and Ernst, 1997) the problem of safety of herbal remedies continues to remain a major issue of concern. The general perception that herbal remedies or drugs are very safe and devoid of adverse effects is not only untrue but also misleading (Vanherweghem and Degaute, 1998; Cosynsetal., 1999; Ernst, 2002).

Herbs have been shown to be capable of producing a wide range of undesirable or adverse reactions some of which are capable of causing serious injuries, life-threatening conditions, and even death. Numerous and irrefutable cases of poisoning have been reported in the literature (Vanherweghem et al, 2002). The toxicity evaluation of the poly herbal formula, Yoyo"Cleanser"Bitters, conducted in a laboratory by Ekoretal, (2010), was prompted by an unpublished case report of a young male adult who had been on self-medication with this herbal product and was subsequently admitted to the hospital on account of liver failure. Yoyo"Cleanser"Bitters is one of the herbal remedies that is widely advertised in the various Nigerian media and as such has gained so much public acceptance over time and continues to enjoy increased patronage. According to Ekorental, (2010) the herbal constituents were obtained (*Entandrophragmautile* and *Anacardiumocci- dentalis*), individual plant extracts as well as the herbal tonics made from them. All the extracts and tonics proved safe during acute toxicity study, chronic toxicity testing revealed splenicenlargementin, 10% of mice that received *E. utile* or either of the two tonics and one case of lung tumor (Johnetal. 1997).

Auerbachetal (2012) has reported an association between traditional herbal medicine use and the development of liver fibrosis among study participants in Uganda. A number of Chinese herbal medicines and other herbal medicines from different parts of the world have also been implicated in cases of poisoning. Many of them have been shown to contain toxic compounds which are capable of reacting with cellular macro molecules including DNA, causing cellular toxicity, and/organ toxicity (Rietjens, et al., 2005). The adverse reactions of a few commonly used herbal medicines have been commonly used in south western Nigeria have been described. The study revealed that Yoyo 'Cleanser' Bitters formula was capable of elevating plasma levels of the liver.

2.3 Factors that influence the use of herbal medicines with special reference to Nigeria.

The recent resurgence of public interest in herbal remedies has been attributed to several factors some of which according to Bandaranayke, (2006) include the following; (i)various claims of the efficacy or effectiveness of plant medicines ,(ii) preference of consumers for natural therapies and a greater interest in alternative medicines, (iii) erroneous belief that herbal products are superior to manufactured products,(iv) dissatisfaction with the results from orthodox pharmaceuticals and the belief that herbal medicines might be effective in the treatment of certain diseases where conventional therapies and medicines have proven to be in effective or inadequate,(v) high cost and side effects of most modern drugs, (vi) improvements in the quality, efficacy, and safety of herbal medicines with the development of science and technology, (vii) patients 'belief that their physicians have not properly identified the problem; hence the feeling that herbal remedies are another option, and (viii) a movement towards self-medication.

The increasing utilization of herbs for self-medication by patients is also attributed to a number of other reasons such as (i) patients being uncomfortable about discussing their medical problems and fear of lack of confidentiality in handling their health information, (ii) Perceived fear of possible misdiagnosis and wrong treatment by patients, and (iii) lack of time to see a physician; this is usually a reason where prior visit did not yield any positive experience (Studdertetal., 1998). Furthermore, patients' freedom of choice of a practitioner is encouraging their utilization of alternative treatments and herbal remedies; many select herbal medicines from a deductive approach based on anecdotal information, such as "it worked for my friend or relative" (Parle and Bansal, 2006).

Also, because of the influence of religion and greater level of spiritual consciousness, many individuals tend to be increasingly disposed to accepting therapeutic value of a treatment based on faith or intuition rather than scientific reasoning (Austin, 1998; Zeil,

1999). Herbal medicines, therefore, become particularly alluring when the body's natural capacity for self-repair, given appropriate conditions, is emphasized (Parle and Bansal, 2006). In addition to all the aforementioned factors, the marketing strategies and efforts by various manufacturers of herbal medicine and their sales representatives have seriously projected these products into greater limelight (Brevort, 1998; Parle and Bansal, 2006).). Various advertisements in the mass media such as television and radio programs have significantly increased consumers' awareness and given herbal products undue respectability and credibility (Brevort et al, 2006). These advertisements are carefully presented to attract the different age groups of people that exist in the society. Children are encouraged to use herbs for their nutritional values to facilitate normal or healthy growth and development, young persons for their euphoric effects, supply essential ingredients to help them cope with daily stress and to prevent or slow the onset of aging; older persons for their anti-aging or rejuvenating effects and women for slimming and beauty enhancing effects (Parle and Bansal, 2006).

Ayantunji, (2002) has stated that: 'The patronage of traditional medicines has increased due to a number of factors, such as poor or non- effectiveness of synthetic drugs which are either fake and adulterated or expired. An example according to Ayantunji (2002) is Chloroquine which as antidote to malaria is becoming less effective as a result of the fake ones now available and the resistance of malaria parasite to it.

2.4 Traditional Medicine in Contemporary Nigeria

Health is the most precious of all things and it is the foundation of all happiness. (Adefolaju, 2002). Traditional medicine has developed in various communities in Nigeria in response to the health needs of the people (Adesina, 2012). Many communities have, therefore, since creation, developed various traditional systems using locally-available resources for the alleviation of their health problems. As once noted some 13 years ago, traditional medicine is as old as the hills in Nigeria (Tella, 1986). The development of traditional medicine in Nigeria has led to various categories of healers, the various healing methods, strategies and medicines or remedies. The British colonial masters brought in orthodox medicine and, today, both systems of

medicine co-exist in the country; both have the primary objective to cure, manage or prevent diseases and maintain good health. It is important to stress the relevance of traditional medicine to the majority of Nigerians.

Most Nigerians, especially those living in rural communities do not have access to orthodox medicine and it is estimated that about 75 percent of the populace still prefer to solve their health problems by consulting traditional healers (Tella, 1980). Many rural communities have great faith in traditional medicine, particularly the inexplicable aspects as they believe that it is the wisdom of their fore-fathers which also recognize their socio-cultural and religious background which orthodox medicine seems to neglect. Traditional medical practice, in spite of its popularity has been challenged on many grounds (Erinosho, 1998). One of such is that its popularity is based on anecdotal experiences of patients.

According to Erinosho (1998), there are several arguments against traditional medicines for instance; Traditional medical practitioners lack the skills required for correct diagnosis of serious disorder. It is argued, according to Erinosho. Traditional medical practitioners are always unwilling to accept the limitations of their knowledge, skills and medicines particularly in complicated organic disorder. Traditional medicine in addition lacks standard dosage and have not been subjected to scientific verifications. Furthermore, Erinosho states that; although the educated are convinced that healers have supernatural knowledge and that this knowledge is medically useful, they have found them to be unscrupulous and dubious; they are perceived to lack the equipment required to conduct physical examination.

2.5 Policy issues relating to herbal medicines.

It has been observed that most of the problems associated with the use of traditional and/ or herbal medicines arise mainly from the classification of many of these products as foods or dietary supplements in some countries (Kasilo and Trapsida, 2011). As such, evidence of quality, efficacy, and safety of the herbal medicines is not required before marketing. In the same vein, quality tests and production standards tend to be

less rigorous or controlled and in some cases, traditional health practitioners may not be certified or licensed. In the UK, the safety of traditional and/or herbal medicines has, therefore, become a major concern to both national health authorities and the general public (Kasilo, et al 2011). Until 2011, there were three possible regulatory routes by which an herbal product could reach a consumer in the UK. The unlicensed herbal remedy is the commonest route which does not have to meet specific standards of safety and quality neither is it required to be accompanied by safety information for the consumer (Raynoretal, 2011).

The European Union (EU) has implemented a directive after a 7-year transition period to harmonize the regulation of traditional herbal medicines products across the EU and establish amplified licensing system in order to help the public make informed choices about the use of herbal products. This requires that all manufactured herbal products either gain a product license of the type needed to manufacture "conventional" products or become registered as a "traditional herbal medicinal product"(Routledge,2008; Raynoretal, et al.,2011).

Like conventional medicines, licensed herbal medicines hold a product license based on safety, quality, and efficacy. Hence, it is compulsory that they are accompanied by comprehensive information such as, precautions, how to use the product, side effects, how to store the product and regulatory information, for safe use. This information is usually provided on a leaflet inserted into the product package (Raynoretal, et al., 2011).

On the other hand, due to insufficient evidence of reproducible efficacy to meet regulatory standards, license cannot be obtained for some herbal medicines practitioners to sell these products. This has led to the creation of a new category of traditional herbal registration (THR) with a transition period of seven years. In line with this, the Traditional Herbal Medicines Registration Scheme, which is a "simplified registration scheme," was introduced in the UK. In this scheme, herbal medicinal product are required to meet specific standards of safety and quality, agree upon indications for use based on the traditional use and also provide information in a leaflet to promote safe use of the product by the purchaser (Raynor, et al., 2011). However,

this is not the case in many other parts of the world, especially in the developing countries where many unregistered and poorly regulated herbal products are sold freely in the markets with little or no restraint (Routledge, 2008) .Furthermore, the common misconception that natural products are not toxic and are devoid of adverse effects often lead to improper use and unrestrained intake and this has also resulted in severe poisoning and acute health problems (Zhou, 2013).

2.6 Use of Herbal Medicine for Primary Treatment

The use of herbal medicine as primary treatment is certainly feasible, and even recommended, if its risk- benefit ratio compares favorably to conventional alternatives. This does not depend only on the herbal medicine being more effective. Herbal therapy may be the preferred choice if it is less harmful than its conventional counterpart. The degree to which a clinician might feel comfortable to support the use of herbal medicine depends on the seriousness of the situation (Adams et al. 2002). For mild or self- limiting illness, a clinician might be more willing to tolerate herbal medicine as primary treatment. This is more so it if is believed to be safe and it is consistently preferred by patients, even in the absence of compelling efficacy data. The patient must be informed if the herb is not well studied because the benefit of treating a minor illness may not be worth the potential harm of an unstudied therapy (Adams et al. 2002). Risk must be evaluated in a relative fashion, in light of the known safety profile of the herbal medicine and its conventional counterpart, so that the patient can make an informed choice. In cases of moderately severe illness, a clinician might be willing to promote the use of herbals as primary treatment (i.e, as the sole therapy rather than as an adjunct) if conventional treatment was not working as anticipated or if the patient had experienced side effect that limited its use.

In contrast, if a patient had a serious or life threatening illness, the use of herbal medicine as primary treatment would be limited to conditions for which there were no known effective conventional therapies or for which herbal medicines had compelling

efficacy data. In each instance, evidence suggests that the herbal medicine may be effective and without harm, then it is reasonable for the clinicians to discuss this

Species Name	Local Names	Parts used	Traditional uses	Preparation and Administration
1.Azadirachta indica	Dogoyaro	Leaf Bark	Malaria Malaria	Decoction is taken orally/ used to bath

therapeutic approach with patients (Cohen and Eisenberg).

Table 2.0: Medicinal plants /herbs used in managing common ailments.

Source: Okoli et al (2011)

2.Anacardium Occidentale	Kandju	Bark	For dysentery For tooth ache For sore gum	Decoction is taken orally. Bark is chewed.
3.Carica papaya	Okodu	Dry leaf Seed Unripe fruit	For asthma Tuberculosis For stomach ulcer	The smoke of burn leaf is inhaled. Seed is chewed. Decoction is taken orally.
4. Manihot Utillissima	Egu	Tuber	For bleeding during pregnancy	Taken orally
5. Saccharum Officinarum	Uriekhue	Matured stem	For typhoid fever	Juice extracted from matured stem is taken.
6.Terminalia catappa	Belebo	Leaf	For diabetes	Decoction is taken orally.
7.Sida acuta	Ubane alimi	Leaf	For gonorrhea	Leaf extract is taken
8.Dichapetalium heudebtii	Ureaja	Leaf	For hypertension	Decoction is taken orally

2.7 Side effects of Herbal medicine.

The side effects of herbal medicines depend upon the herbal remedy, the dosage, and any pharmaceutical medications taken by the patient (Jeanne, 2006). Herbal medicines, just like conventional medicines, will have an effect on the body and can be potentially harmful if not used correctly.

Potential issues with herbal medicines includes; they may cause problems if you are taking other medicines; they could result in reduced or enhanced effects of the medicine(s), including potential side effects, not all herbal medicines are regulated; Remedies specially prepared for individual do not need a license and also Evidence for effectiveness of herbal medicines is generally very limited; In many cases their uses tends to be based on traditional use rather than scientific research (NHS, 2014)

2.8 Promotion of traditional medicines practice in Nigeria.

Nigeria is formulating a new health policy to integrate traditional medicine practice into orthodox medicines practice as part of strategies to scale up healthcare delivery in the country. Chukwu, (2001) has said that: "traditional practitioners should make their practices evidence- based." This according to him was an imperative if the sector would meet up with their counterparts in other part of the world. He urged that the practitioners be schooled in a number of sciences including anatomy, physiology,

pathology and therapeutics.' Chukwu' solicited for the cooperation of traditional medical practitioners especially the herbal medical practitioners on the need to partner with government. He note the importance of traditional medicine in promoting primary health care, a view he said was corroborated by the World Health Organization's (WHO) report that 80 Percent of people worldwide rely on herbal medicines for some aspects of their primary health care.

Furthermore, it was recognized in the Alma Ata Declaration relating to Primary Health Care that it is a practical approach that can make essential health care universally accessible to individuals and families in the community in an acceptable and affordable way and with their full participation (WHO, 1978).The World Health Organization also issued a call for the promotion and development of herbal medicine.

2.9 Theoretical framework: PRECEDE framework

The theoretical framework adapted to facilitate the design of the study is the PRECEDE framework.

The PRECEDE (predisposing, reinforcing, and enabling causes in Educational Diagnosis and Evaluation) model is a standard systematic approach to planning programs in health Education. This planning and diagnostic framework was first presented by Green, krenter, Patridge in 1980. It is made up of a series of sequential steps for diagnosis the causes of a problem. It involves identifying behavioural and non-behavioural causes of a problem. With much emphases laid on the behavioural aspects of the model with these diagnosing, appropriate intervention can be planned for any recognized problem.

Predisposing factors: these refer to antecedent factors to behaviour that provide the rationale or motivation to behaviour. It includes knowledge, beliefs, attitude and perception of herbal use. The knowledge, perception and belief of people on herbal use influence their attitude towards orthodox medicine and herbal medicines.

Reinforcing factors: these are factors subsequent to a behaviour that provides continuing reward of incentives for the behaviour and contributes to its persistence and perpetuation. It includes the behaviour of friends, peers, family members, association of group members, opinion leaders (e.g. religious, political, and social) towards herbal

use. The effectiveness of herbal medicine policies should bring about a positive attitudes towards the utilization.

Enabling factors: these are antecedents that enable a motivation to be rewarded for example access to resources and policies. These include educational or literacy programmes that should be put in place to educate the traditional healers association in the regulation of herbal medicines.

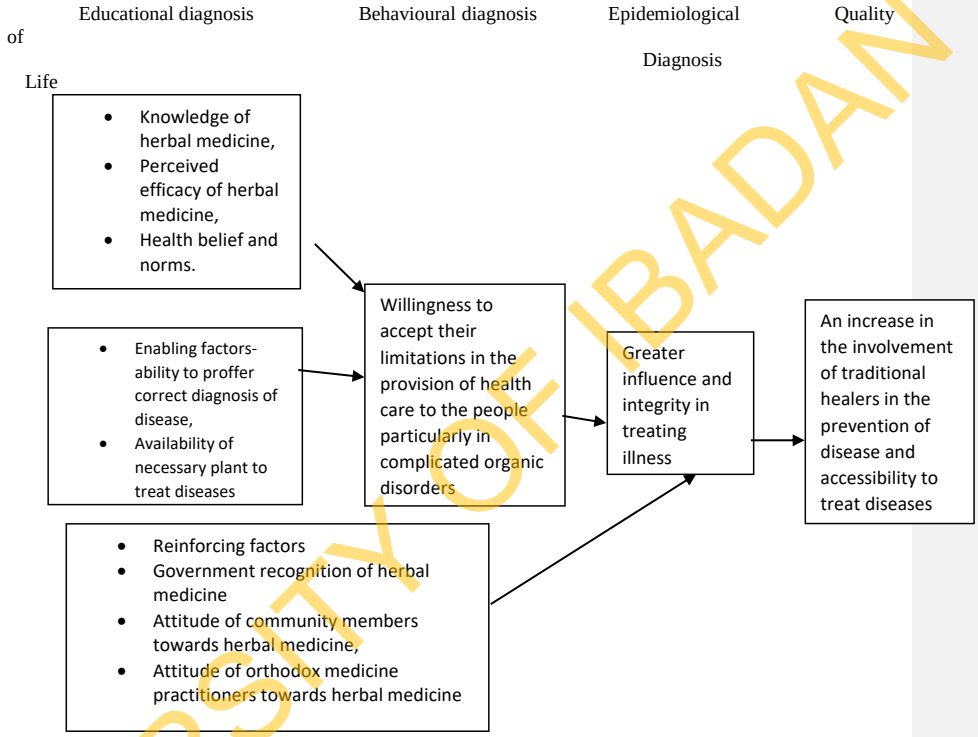

Fig 2.1 – The PRECEDE Framework applied to the Study

CHAPTER THREE

METHODOLOGY

This chapter focuses on the research design, study location, study population, sampling procedure, validity and reliability of data collection instrument as well as the statistical tools used for data analysis.

3.1 Study design and scope

A descriptive cross- sectional study design was used and the study was carried out among adults in Agbowo community, Ibadan North Local Government Area to determine their level of awareness, attitude to and utilization of herbal medicines.

3. 2 Description of study setting

The study site is Agbowo, a community in Ibadan North Local Government Area. (See Sketch Map in figure 3.1) Agbowo is located towards the North East of the Ibadan North Government Area in ward twelve (12). The community is bounded by other communities which include Ojoo and Bodija.

3.3 Study Area

The origin of Agbowo community can be traced back to over a century ago. A historical account has it that the community was formally an outskirt of Ibadan and it used to serve as a point for toll fee collection from merchants who travel from outside Ibadan. The fee collector was called "*Agbowo*" in Yoruba (i.e "money collector"). The community derived its name from the toll fee collection exercise. The community is made up of fourteen Zones including Ilupeju; Ifedore; Okeayo, Apata, Agbegba; Ojokondo, Ajekunle; Ifelodun /kajola; Ajetumobi; ifeoluwa; Barika; Okeola; Jalesannmi; Aanuoluwapo.

Trading along the road is common in the community, It is a common place to find herbal products on sale in the street markets in the community. It is also common to find hawkers hawking herbal Medicines in the community. The University of Ibadan, the oldest tertiary educational institution in Nigeria is located opposite Agbowo. The community is blessed with private clinics, primary health care facilities, patent medicine stores and herbalists.

3.4 Study population

The study population consisted of adult male and female residents in Agbowo community. For the purpose of the study all married persons were regarded as adults even if they were less than 25years. The population consisted of persons of varied levels of education and other socio-demographic characteristics. It consists of Yoruba, Ibo and Hausa and various ethnic minorities. A large majority of the respondents are however, Yoruba.

3.5 Inclusion and Exclusion criteria;

The major inclusion criterion was being an adult resident in Agbowo community who was willing to participate in the study. Persons who were below 25years of age but were married were also eligible, to participate in the study. All residents of the community who were unmarried and were aged <25years were excluded from the study. Eligible persons who were declined to participate in the study were also excluded from the study.

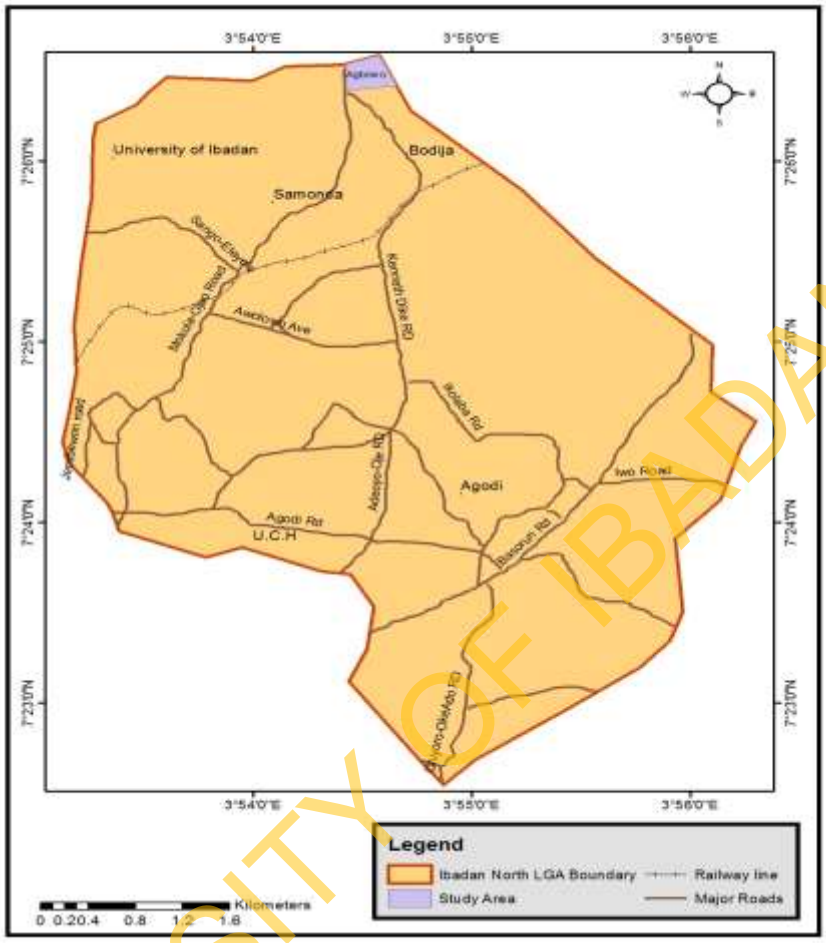

Fig 3.1: The Sketch Map of Ibadan North LGA showing the Study Area
Source: Geography Dept, UI.

3.6 Sample Size Determination and Sampling Procedure

According to Araoye (2004), the formula: $Z^2P (1-p)/ d^2$ was used to calculate the sample size.

n=estimated sample size

z= standard normal deviation set as 1.96, which corresponds to the 95% confidence level.

P= 50% prevalence of herbal medicine.

d= degree of accuracy desired, set as 0.05

$n=Z^2P (1-p)/ d^2$

$\sqrt{1.96}$ x 0.5 x (1- 0.5) /0.025

= 384.16

Attrition rate of 10% was added

i.e. 384 + 38 (10%)

= 422

3.7 Methods and instrument for data Collection

A semi - structured interviewer – administered questionnaire was used for data collection. The questionnaire was developed by the researcher after a review of relevant literature. The questionnaire was divided into four sections. The various sections are as follow: Socio-demographic characteristics; awareness /sources of information on herbal medicine; attitudes to herbal medicines; and practices relating to the use of herbal medicines.

The questionnaire was constructed in English and translated into Yoruba, the major language spoken in the community. The Yoruba version was again given to another person who is equally good in English and Yoruba to translate back to English. This was done to verify the accuracy of the translations. It is the corrected English and Yoruba versions that were used for data collection.

3.8 Validity of the instrument

In order to ensure the validity of the instrument, a copy of the questionnaire was given to some lecturers in the Faculty of Public health and colleagues to review. It was also given to my supervisor to review before it was pretested in Iwo –road in Ibadan North East Local Government.

3.8.1 Reliability of the instrument

A pretest of the instrument was carried out among adults with similar socio-demographic characteristics as the study population. A total of 10% of the sample size for the study was used for the pretest. Copies of the pretest questionnaire were coded, facilitated by use of a coding guide. The coded copies of the questionnaire were entered into computer and analyzed using the SPSS 20 version. The Cronbach's Alpha model technique was used to assess the reliability of the survey instrument using the SPSS computer software. In this reliability assessment a result showing correlation coefficient greater than 0.5 is said to be reliable. In the study the Cronbach alpha score obtained was 0.74 which indicates that the instrument was very reliable.

3.9 Recruitment of research assistants

A total of three research assistant (two females and one male) were involved in the administration of questionnaire. They were recruited based on their readiness to work and literacy in English and Yoruba languages. The minimum qualification of the recruited assistance was a University degree. They were trained by the researcher with the support of a colleague (class mate) for a day on the objectives of the study, importance of accurate data, communication skills, interpersonal relationships, interviewing techniques, how to use the Epi sampling techniques and, most importantly, how to administer the questionnaire in Yoruba language.

3.10 Data Collection process

The EPI sampling technique was used to facilitate the sampling and interview of the respondents, first, the investigator moved to the center of Agbowo community and

spinned a bottle, the spinned bottle was allowed to turn round and round unhindered and allowed to come to rest on its own its own.

Next, interview started from the part of the community to which the mouth of the bottle was pointing. Every third house in that directions was selected and visited and one eligible respondent was selected by balloting for interviews if more than one eligible respondent found in a house and also if only one respondents was found in a house, such a respondents was purposively selected for interview if he/she consented to participate in the study.

After reaching the end of the community, the investigator and the research assistants moved back to the center of the community and started recruitment and interview in another direction. This way a total of 422 eligible adults who consented to be involved in the study was interviewed**.**

3.11 Data Management Analysis and Presentation

A coding guide developed by the researcher was used in coding the copies of the questionnaire. The Data were entered into the computer with the aid of the SPSS version 20. Descriptive statistics and Chi-square test were used to facilitate data analysis. The results are presented in Chapter four using tables.

3.12 Ethical Considerations

Data collection was conducted in compliance with the universal ethical principle governing studies involving human subjects. For instance respondents were informed of the purpose of the study and given option to either participate or not. The research team assured the participants of the confidentiality of any piece of information provided by them.

The research protocol was submitted to the Oyo State Ministry of Health Ethics Review Committee for approval prior to commencement of the study. (See Appendix D for the ethical approval). The informed consent form used is contained in appendix C. Informed consent was obtained from each of the respondents and confidentiality of participants' was maintained during and after the collection of data collection

3.13 Limitation of the study

1. Some participants did not participate in the study because they were of the opinion that the investigator only wanted to use their knowledge for personal gains. A condition given for participation by this category of persons was that they should be given monetary incentive. Monetary incentive or any form of incentive was not given; so they were left out of the study.
2. Some other respondents refused to participate because they had the misconception that participation could make them fall ill which may lead them to resort to the use of herbal medicines. Effort made to disabuse their minds of this occurrence proved abortive.
3. Some of the respondents were reluctant to admit that they ever used herbal medicines; this is due to the fact that herbal medicines are very often perceived negatively by educated persons as a primitive practice. In order to ameliorate the situation the investigator took time to explain over and over again what the objectives of the study was and the potential use of the results of the study. The attrition recorded in 1 and 2 above did not affect the sample size as willing and eligible respondents were recruited and interviewed in their place.

CHAPTER FOUR

RESULTS

4.1 Socio-demographic characteristics of respondents

The socio-demographic characteristics of the respondents are as shown in table 4.1. Respondents aged 30-39 years (42.0%) topped the list followed by those aged 20-29 years (32.0%). The mean age of the respondents was 35.1±9.3years. Majority (53.3%) of the respondents were married and there were more males (60.9%) than females (39.1%). A large proportion of the respondents (72.3%) were Yoruba; 25.8% were Igbo, while 1.9% were Hausa. The table shows that 14.7% had primary education, 44.5% had secondary education and 44.5% had tertiary education. (See table for details)

Table 4.1: Respondents' socio-demographic characteristics

N=422

Socio-demographic variables	N	%
Age group (years)		
20-29	135	32.0
30-39	178	42.0
40-49	65	15.4
>50	44	10.6
Sex		
Male	257	60.9
Female	165	39.1
Marital Status		
Married	225	53.3
Single	187	44.3
Widow/widower	1	0.2
Divorced	2	0.5
Separated	4	0.9
Co-habiting	3	0.7
Education Level		
No Formal	54	12.5
Primary	83	19.7
Secondary	97	23.0
Tertiary	188	44.5
Ethnicity		
Yoruba	305	72.3
Igbo	109	25.8
Hausa	8	1.9

Mean age =35.14 ± 9.26 years

4.2 Respondents' Awareness relating to herbal medicines

Respondents' level of awareness and sources of information of herbal medicine is presented in Table 4.2**.** The table shows that 86.7% of the respondents' were aware of herbal medicines. The Radio (79.7%) was the major source of information on herbal medicines among the respondents'. This was followed by television (68.2%), Magazines (50.9%), Newspapers (50.7%), and posters (49.7%). Seminar/workshops (39.1%) was the least source of information among the respondents.

Table 4.3 highlights respondents' awareness of the broad uses of herbal medicines. The table shows that 82.2% of the respondents were aware of the broad uses of herbal medicines could be for preventing ailments. The table also shows that 72.0% were aware that herbal medicines could be used to treat an ailments (See table for details).

Table 4.2: **Respondents' awareness and sources of information of herbal medicines**

N=422

Awareness and sources	**No**	**%**
Awareness of herbal medicines		
Yes	366	86.7
No	56	13.3
*Sources of information of herbal medicines**		
Radio	337	79.7
Television	288	68.2
Family	270	64.0
Friends	265	62.8
Seminar/workshop	165	39.1
Posters	197	46.7
Magazine	215	50.9
Newspapers	214	50.7
Others	6	1.4

* There were multiple response

Table 4.3. Respondents' awareness of the broad uses of herbal medicines

N=422

Broad uses of herbal medicine*	Yes (%)	No (%)
For Preventive measures	347 (82.2%)	75 (17.77%)
For Treatment purposes	299 (70.9%)	123 (29.15)
For Curative purposes	304 (72.0%)	118 (27.96%)

multiple responses present

4.3 Respondents' attitude to herbal medicines

Table 4.4 highlight respondents' attitudes to the efficacy of herbal medicines. The table shows that 29.4% strongly agreed with the statement that herbal medicines can be used to cure minor health problems. A total of 20.9% were undecided while 12.1% shared a contrary view. The analysis also revealed that 32.0% strongly agreed that only herbal medicines work in the body of some people. A total of 21.1% were undecided while 10.0% disagreed that it works only in body systems of some people. The table also shows that 27.5%, strongly agreed with the statement that herbal medicines enjoys a wider range of acceptability.

Respondent's attitude relating to the comparative advantages of herbal and orthodox medicine is highlighted in table 4.5. The table shows that 45.7% strongly agreed that herbal medicines are safer than orthodox medicines. A total of 15.2% were undecided while 8.5% disagreed; only 5% strongly disagreed. The results also revealed that 29.1% strongly agreed that herbal medicines can cure a wider range of illness compared with orthodox medicine. A total of 18.7% were undecided while 12.3% disagreed and 8.1% strongly disagreed that herbal medicines can cure wide range of illness.

The table reveals that 28.2% strongly agreed with the statement that herbal medicines are better for preventing diseases compared with orthodox medicines. A total of 19.0% were undecided while 13.0 % disagreed. The table also revealed that 28.4% strongly agreed with the statements that herbal medicines should only be use when orthodox medicines fails. A total of 22.0% were undecided while 8.8% strongly disagreed. However, 28.2% strongly agreed that orthodox medicines should be used only when orthodox medicines fails. A total of 19.0% were undecided while 14.5% disagreed.

Table 4.6 presents respondents' attitudinal dispositions relating to herbal medicines. The table shows that 21.8% strongly agreed that herbal medical practitioners should not be allowed to practice in Nigeria because herbal medicines are not effective. A total of 23.2% were undecided while 10.7% strongly disagreed. The table also shows that 27.5% strongly disagreed that herbal medicines are meant for use by low income

earners or poor people. A total of 20.6% were undecided while 12.6% strongly agreed; 13.0% strongly disagreed.

Table 4.4: Respondents' attitudes relating to efficacy of herbal medicines

Attitudinal Statements	**Attitudinal responses**					
	SA (%)	**AG (%)**	**U (%)**	**DG (%)**	**SD (%)**	**Total (%)**
Herbal medicines can only be used to cure minor health problems	124 (29.4)	125 (29.6)	88 (20.9)	51 (12.1)	34 (8.1)	422
I will recommend herbal medicines to someone close to me because they are effective	135 (32.0)	160 (37.9)	66 (15.6)	40 (9.5)	21 (5.0)	422
Only herbal medicines work in the body system of some people	135 (32.0)	123 (29.0)	89 (21.0)	42 (10.0)	33 (7.8)	422
I will always use herbal medicines because of its efficacy	141 (33.4)	133 (31.5)	69 (16.4)	47 (11.1)	31 (7.3)	421
I prefer using herbal medicines because it enjoys a wider range of acceptability	116 (27.5)	159 (37.7)	72 (17.1)	48 (11.4)	26 (6.2)	421

Key: SA=Strongly Agree; AG=Agree; U=Undecided; DG=Disagree; SD=Strongly Disagree; NR=No response

Table 4.5: Respondents' attitudes relating to the comparative advantages of herbal and orthodox medicines

Attitudinal Statements	**Attitudinal response**					
	SA (%)	AG (%)	U (%)	DG (%)	SD (%)	Total
Herbal medicines are safer than orthodox medicines.	193 (45.75)	108 (25.6)	64 (15.2)	36 (8.5)	21 (5.0)	422
Those who use herbal medicines do not fall sick frequently compared to those who take orthodox medicine	114 (27.0)	178 (42.2)	70 (16.6)	40 (9.5)	19 (4.5)	417
Herbal medicines cure ailments faster than orthodox medicines.	132 (31.3)	134 (31.8)	75 (17.8)	50 (11.8)	31 (7.3)	422
Herbal medicines can cure a wide range of illness compared with orthodox medicines	123 (29.1)	134 (31.8)	79 (18.7)	52 (12.3)	34 (8.1)	422
Herbal medicines are better for preventing diseases compared with orthodox medicine	119 (28.2)	134 (31.8)	80 (19.0)	55 (13.0)	34 (8.1)	422
Herbal medicines should be used only when orthodox medicine fails	120 (28.4)	131 (31.0)	93 (22.0)	41 (9.7)	37 (8.8)	422
Orthodox medicine should be used only herbal medicines fails	119 (28.2)	125 (29.6)	80 (19.0)	61 (14.5)	37 (8.8)	422

Key: SA=Strongly Agree; AG=Agree; U=Undecided; DG=Disagree; SD=Strongly Disagree;

NR=No response

Table 4.6: Respondents' other attitudinal dispositions relating to herbal Medicine

Other attitudinal dispositions	**Attitudinal responses**					
	SA (%)	AG (%)	U (%)	DG (%)	SD (%)	Total
Herbal medicine practitioners should not be allowed to practice in Nigeria because herbal medicines are not effective	92 (21.8)	113 (26.8)	98 (23.2)	74 (17.5)	45 (10.7)	422
The most common reason why people use herbal medicine is because it is cheap or affordable	136 (32.2)	126 (29.9)	70 (16.6)	56 (13.3)	34 (8.1)	422
The use of herbal medicines can worsen one's state of health.	113 (26.8)	131 (31.0)	81 (19.2)	55 (13.0)	42 (10.0)	422
I prefer using herbal medicine because it is accessible.	171 (40.5)	130 (30.8)	51 (12.1)	47 (11.1)	22 (5.2)	421
People should not be encourage to use herbal medicines	133 (31.5)	116 (27.5)	68 (16.1)	60 (14.2)	45 (10.7)	422
Herbal medicines are meant for use by low income earners or poor people	103 (27.5)	123 (37.5)	87 (20.6)	53 (12.6)	56 (13.0)	421

Key: SA=Strongly Agree; AG= Agree; U=Undecided; DG=Disagree; SD=strongly disagree

NR=No response

4.4 Use of herbal medicines among respondents.

Respondents 'history of use of herbal medicine is presented in table 4.7. The table shows that by far, more males (63.3%) compared with females (62.4%) had ever used herbal medicines. The difference in pattern of use among in the two sexes was not statistically significant. The pattern of use of herbal medicines among respondents is presented in table 4.8. The proportion of respondents that always used herbal medicine when ill was 32.8% , those that use herbal medicines when orthodox medicines fail was 30.5%, Respondent's that use herbal medicines before using orthodox medicine was 17.9% while those that only use herbal medicines to cure certain diseases which only herbal medicines can cure was 18.8%.

Table 4.7: Responent's history of use of herbal medicines by Gender

N=421

History of use of herbal medicines	Yes (%)	No (%)	X^2 df P value
Ever used herbal medicine by gender			X^2= 0.043
Male	162(63.3)	94(36.7)	df= 1
Female	103(62.4)	62(37.6)	P-value= 0.836

*Not significant (P>0.05)

Table 4.8: Respondents' pattern of use of herbal medicines

N= 265

Pattern of use	No	%
Always use when ill	87	32.8
Use when orthodox medicines fails	81	30.5
Use before using orthodox medicines	47	17.9
Use for treating certain disease which only herbal medicines can cure	50	18.8

4.5 Practices relating to the use of herbal medicines

The pattern of procurement of the herbal medicines used by respondents is presented on table 4.9**.** The table shows that 34.3% of the respondents prepare the herbal medicines they use on their own. Some (31.6%) of the respondents indicated that they obtained the herbal medicines they use from relatives while 15.5% buy the ingredients from hawkers and prepare it on their own.

The frequency of use of herbal medicines among the respondents is shown in table 4.10. The table shows that the proportion of respondents that used herbal medicines always was 29.9%. Those that occasionally use herbal medicines constituted 36.2% while those that rarely use it was 18.1%.

Respondents history of storing/keeping herbal medicines at home for self-care is presented in table 4.11a. The table shows that 59.6% of the respondents reported that they stored their herbal medicines at home for self care when the need arises . Gender differentiation in the storage of herbal medicines is shown in table 4.11b. The table revealed that 58.5% of the male resprndents stated that they store herbal medicines at home for self care. Majority(62.3%) of Females also stored herbal medicines at home for self care . Table 4.12 shows the places where respondents store herbal medicines at home. The table revealed that 38.4% of the respondents store herbal medicines in the bottle followed by 33.7% who reported that they store herbal medicines in the refrigerator while the least place where herbal medicines were stored was in a cool dry place (10.1%).

Respondents history of use of herbal medicines is presented in table 4.13. The table shows that 54.7% of the respondents used herbal medicines within the last three months preceeding study while 45.3% of the respondents did not. Prescribers of herbal medicines used by the respondents is shown in table 4.14. Relatives (37.4%) topped of the list of the prescribers of herbal medicines, followed by Self (34.7%) ; sales agents accounted for 6.1%. Respondents intention to continue the use of herbal medicines is presented in Table 4.15**.** The proportion of respondents who would continue the use of herbal medicines was 61.1%.

Table 4.9: Pattern of procurement of the herbal medicines used by respondents.

N=265

Pattern of Procurement*	No	%
Prepare the herbal medicine on my own.	91	34.3
Obtain the herbal medicines from relatives	84	31.6
Buy the ingredients from the markrt and prepare on my own	41	15.5
Buy the ingredients from the hawkers and prepare it on ,my own	29	10.9
Buy the already prepared herbal medicin*es*	20	7.7

***Multiple response was applied**

Table 4.10. Frequency of use of herbal medicines among respondents

N=265

Frequency of use	***No***	***%***
Always	79	29.8
Occasionally	96	36.2
Rarely	48	18.1
Often	42	15.9

Table 4.11a: History of storing/ keeping herbal medicines at home for self care among respondents

N=265

Whether store/ keep herbal medicines at home for self care	No	%
Yes	158	59.6
No	107	40.4

Table 4.11b: Gender differentiation in the storage of herbal medicines at home for self care among respondents'.

N=265

Sex/Gender	Whether stored herbal medicines at home.		X^2	Df	p- value
	Yes(%)	No(%)			
Males N= 188	110(58.5)	78(41.5)	0.332	1	0.564*
Female N=77	48(62.3)	29(37.7)			

*Not significant (P>0.05)

Table 4.12: Places where herbal medicines are stored at home by respondents

N=252

Places where Stored	No	%
Bottle	97	38.4
Refrigerator	85	33.7
In any airy place	45	17.8
Cool dry place	25	10.1

***** Non response(13) was excluded*

Table 4.13: History of recent use of herbal medicines among respondents

N=265

History of recent use of herbal medicines	**No**	**%**
Whether use herbal medicine within three months preceding study.		
Yes	145	54.7
No	120	45.3

Table 4.14: Prescribers of herbal medicines used by respondents within 3months preceding Study.

N= 265

Prescribers	**No**	**%**
Self	92	34.7
Relative	99	37.4
Friends	32	12.1
Hawkers	26	9.8
Sale agents	16	6.0

4.6 Typologies of medicines prefered using by gender

The gender differentiation of typologies of medicines prefered by respondents is presented in table 4.15. The table shows that they were by far more males (65.3%) compared with female (34.7%) that use orthodox medicine only. The differences in the pattern of use of orthodox medicines among the two sexes was not significant.

The table also shows gender differentation in the use of herbal medicines only. It was revealed that more male respondents (54.6%) use herbal medicines than the female respondents(45.4%). The differences in the pattern of use of herbal medicines among the two sexes was not significant.

The differentiation in the pattern of use of a combination of herbal and orthodox medicines is also contained in table 4.15. The results show that more males (62.1%) compared with females (37.9%) used a combination of herbal and orthodox medicines. The differences in this pattern of use of both herbal and orthodox medicines was not significant.

Table 4.16 shows what respondents' like and dislikes regarding herbal medicines. It was noted that 32.7% of the respondents liked using herbal medicines because it works faster than orthodox medicines. This was followed by 20.1% who liked herbal medicines because of their cheapness. The reasons adduced for not liking herbal medicines included bitter taste(36.3%) and poor curative effects(13.3%) (see table for details)

Table 4.15. Gender differentiation of Typologies of medicines preferred using by respondents

Typologies of use	Gender		X^2	Df	P-value
	Male(%)	Female(%)			
Orthodox Medicine only (N=144)	94(65.3)	50(34.7)	3.696	2	0.158
Herbal Medicine (N=152)	83(54.6)	69(45.4)			
Combine use of herbal and orthodox medicine (N=103)	64(62.1)	39(37.9)			

*Not significant ($p<0.05$)

Table 4.16. Respondents' like and dislikes about herbal medicines

What like and do not like	**Variable**	**No**	**%**
What like about herbal medicine (N=422)	Nothing	77	18.2
	It is cheap	85	20.1
	It work faster than orthodox medicines	138	32.7
	It is efficient	59	14.0
	It is good for use	63	14.9
What do not like about herbal medicine (N=422)	It is bitter	153	36.3
	Nothing	106	25.1
	Poor curative effects	56	13.3
	It has no dosage	39	9.2
	It smells	27	6.4
	It causes stomach ache	11	2.6
	Some preparation are fetish	2	0.5

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Socio-demographic characteristics of the participants

This study revealed that males were more than females. This is in congruence with a study conducted among residents in Lagos State, which focused on the attitude towards herbal medicine use. In the Lagos study, it was noted that male respondents were more than female respondents (Awodele, Agbaje, Abiola, Awodele and Dolapo, 2012).It could be argued however that the study population in the Lagos study is different from this study. The findings of his study is however at variance with the study by Adeniyi, Olufemi and Erinoso (2015), which showed that of the respondents studied by them 60% were females while 40% were males. The varying sampling procedures adopted in the studies may have led to the situation.

This study showed that majority of the respondents were married. This may be as a result of a selection bias or the effect of the inclusion criteria. A higher proportion of the respondents had formal education, with recipients of tertiary education topping the list. It is to be noted' that the community -Agbowo is located in Ibadan North Local Government Area of Ibadan which is blessed with several educational establishments including the University of Ibadan.

The respondent were predominantly Yoruba because the study area (Agbowo), is a community in Ibadan known to be inhabited mainly by the Yoruba in the south west part of Nigeria. The study by Adeniyi et al (2015) conducted in Ibadan also reported a preponderance of Yoruba respondents.

5.2 Awareness and sources of information relating to herbal medicines

This study showed that majority of the adults in Agbowo community were aware of herbal medicines. Specifically, it was observed that 86.7% of the respondents in this study were aware of herbal medicines. The study by Awodele et al. (2012) although conducted among doctors also reported high level of awareness of herbal medicine. The high level of awareness of herbal medicines may be related to what Seidman and Babu (2003) has observed. They noted that there is growing shift to alternative forms of therapy as many patients are showing dissatisfaction with conventional medical care. Moreover, from time immemorial, indigenous people of the world have developed sophisticated social systems and traditional healing systems which are transmitted through oral tradition (Abel and Busia, 2005). This traditional education process may have helped the continued survival of traditional/alternative therapy which largely involves the use of herbal medicines.

Another school of thought could be that, the high level of awareness of herbal medicine in this study could be indicative of a high level of involvement in the use of herbal remedies in the community or the aggressive marketing of herbal medicines products by practitioners. In fact, Ernst and White (2000) and Furharm (1996) have several years ago, reported the use of herbal medicine to be on the increase in many countries.

It was observed in this study that the radio (79.7%) and the television (68.2%) were the major reported sources of information on herbal medicine. This may have contributed to the high level of awareness of herbal medicines noted in the study. Studies have shown that radio and television are common sources of health information especially relating to endemic health challenges such as HIV/ AIDS and malaria. It is to be noted that the last one decade has witnessed aggressive advertisement of herbal medicines through the mass media (print and electronic) in Nigeria. (Adeyemi et al 2015).

According to Komolafe (1998) a lot of interest and attention have been drawn l to the curative claims and norms (ethics) of traditional medicine practitioners in Nigeria. He noted that curative claims by herbalists and traditional healers have constituted headline news in the print and electronic media. According to Parle and Bensal (2001) and Brevort (1998)

the mass media advertisements through television and radio programme have significantly increased consumer's awareness of herbal medicine and given the herbal products undue respectability and credibility.

5.3 Respondents' attitudes relating to herbal medicines

Majority of the respondents were of the opinion that herbal medicine can only be used to cure minor health problems. The findings highlighted the positive attitude of the respondents related to the use of herbal medicines. It was observed that 32% of the respondents would recommend herbal medicine to someone close to them; this is not only a measure of the acceptability of herbal medicines by users but a reflection of their positive attitudes as well. The findings in the study is similar to the findings by Brijal (2011) on the attitude of people towards the use of herbal medicines in South African. According to Brijal (2011) use of herbal medicines would be recommended by 36% of their respondents.

Most of the respondents in the study always use herbal medicines because of their relative efficacy compared with orthodox medicines. The finding is similar to what was obtained in other studies relating to the perception and attitudes relating to the therapeutic efficacy of complementary and alternative medicine (CAM) including herbal remedies. In the studies more CAM users were of the perception that alternative healthcare modality was responsible for some noticeable improvement in physical or psychological well-being. A study in Trinidad on the efficacy of herbal medicine revealed that 79.9% of physicians who reported the use of herbal remedies were satisfied with the outcome.

In his study, herbal medicines are perceived to have wider acceptability. This is in consisted with what (Lasker (1987), Sofowora, (1982), and Chen, (1981) noted. These authors declared that traditional medicine enjoys wider acceptability among the people in developing countries than modern medicines. It was argued by them that traditional medicine blends readily into the socio- cultural life of the people.

Shortage of hospitals and health centers as well as medical and paramedical staff needed to run modern health care facilities (Sofowora 1982).

Results of this study revealed that 45.2% of the respondents had positive attitude to herbal medicine as they claimed that herbal medicines are safer than orthodox medicine. This finding is consistent with a study among urban residents in Lagos (Adekunle et al, 2011). In this study half of the respondents considered herbal medicines to be safe and while 28.4% were of the view that herbal medicines are better for the prevention of illness compared with orthodox medicine. It is the perception of most respondents in this study that people use herbal medicines because it is cheap or affordable. This is similar to the findings observed by (le Grand and wonder gem 2013) that; herbal medicine, apart from being cheaper, could also become a safer perceived alternative to modern drugs.

5.4 Practice relating to use of herbal medicine

The prevalence of use of herbal remedies that 62.8% had ever used herbal remedies show that the level of utilization of herbal medicines was very high among the respondents. A study on herbal medicine use among urban residents in Lagos state Nigeria was carried out by Ibrahim (2011), similarly revealed that there was high prevalence (66.8%) of herbal use among the general adult population.

The 54.5% utilization among the respondents in this study is higher than the 50.2% reported by Adjei, (2013) in Ghana. Several respondents in his study reported that they would continue to use herbal remedies. Adjei (2013) similarly reported such a finding. This development could be a reflection of the respondents' satisfaction with the therapeutic efficacy of herbal remedies.

A high proportion of the respondent prefer herbal medicine to orthodox medicine. Cizlzep (2008) similarly reported that a high proportion of respondents in Ghana who preferred herbal medicine to orthodox medicine.

5.5 Implication of the findings for health promotion and Education

There is no doubt that the findings from this study will have far reaching implications for the effective planning, designs, implementation and evaluation of health promotion and education intervention. Health Education is the combination of learning experiences designed to facilitate voluntary adaptation of behavioral conducive to health (Green and Kreutzer, 1991). It is concerned with reinforcing or changing knowledge, attitudes and behaviors of people through effective time-tested strategies, with the aim of helping them to ensure an optimum well-being. Health education can therefore be used to bridge the gap between the health information acquired and health practices within the context of herbal medicine use. Health Education strategies will be useful in changing the attitudes/behaviour relating to herbal medicine use among the respondents.

Most of the respondents are not aware of the possible effects of the combinations of herbal and orthodox medicines thereby putting them at risk of various drug induces of health problems. Therefore, a public englightment programs in the community are needed to create awareness for rational use of herbal and orthodox medicines.

Public enlightenment through the use of the mass media is a useful health education strategy. Educational materials and resources including the use of radio and TV programs are needed to increase the people's level of awareness relating to the rational use of herbal medicines. The strategy has been widely used to disseminate information successfully to raise people awareness on health issues (Michau, 2007). Health talks on radio that will discuss the good sides and the bad sides of herbal medicines can be used as health promotion strategy to educate the community members

Health promotion specialists need to work with existing organizations in the community e.g Landlords Association and religious organizations, to disseminate information on the dangers of combination of herbal and orthodox medicines. The health promotion specialists should identify people who have had toxic reactions or side effect as a result of orthodox and herbal medicines on the combine use of the medicines.

The development and regulation of traditional /herbal medicines in different parts of the world is often faced with several challenges. The challenges often encountered include those relating to assessment of safety and efficacy, quality control, and inadequate or poor knowledge about traditional medicines. The situation is also true in Nigeria, including Oyo-state, where this study was conducted. Sustained research, advocacy policy reforms or policy interventions are needed to address these challenges.

5.6 Conclusion

The level of awareness relating to herbal medicines and the prevalence of herbal medicines use among the respondents in the community was high. The reasons adduced for the utilization of herbal medicines included relative safety and effectiveness. Most respondents have positive attitudes to the use of herbal medicines. This survey has added to the existing body of knowledge on the use of herbal medicines in Nigeria.

5.7 Recommendations

The following recommendations are offered based on the findings of the study:

(1.) The use of herbal remedies is a common practice in the community. It is therefore necessary to advocate for and formulate policies aimed at regulating, their production, sale and use with a view to preventing their possible adverse reactions.

(2.) Public Enlightement through a variety of media is needed to raise people's level of awareness relating to the hazards that could be associated with the use of herbal medicines. Pharmacovigilance a programme coordinated by National Agency for Food and Drug Administration and Control (NAFDAC) should also involve the monitoring and regulating of herbal medicaments.

(3.) The respondents obtained herbal medicines from various sources including vendors and herbal medical practitioners. The practitioners of herbal medicines need to be provided with appropriate training aimed at enhancing their capacities to be providing herbal medication.-counselling, thus making them safer contacts with their clients.

(4.) The media constitutes a major source of information on herbal medicines among the study population. A combination of advocacy, policy and legal enactment are needed to prevent and control misleading herbal medicine advertisements through the mass media.

(5.) Biomedical researches are needed to identify and characterize the various herbal medicines used in the community with a view to yielding scientific information relating to their therapeutic efficacy, safety, adverse reaction toxicity and storage. Results from such studies can be used as baseline information for designing appropriate educational interventions relating to the use of herbal remedies in the community.

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APPENDIX A

QUESTIONNAIRE

AWARENESS, ATTITUDE AND LEVEL OF UTILIZATION OF HERBAL MEDICINE AMONG ADULTS IN AGBOWO COMMUNITY IN IBADAN NORTH LOCAL GOVERMENT, OYO STATE.

Serial Number……

Dear Respondent,

I am Chigbundu **Ijeoma Gladys**, a postgraduate student of the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan. I am carrying out a study on "perceptions, attitude and level of utilization of herbal medicine among adults in Agbowo community in Ibadan north local government area of Oyo-state. This research is part of the requirement for the award of Master in Public Health (Health Promotion and Education) and the findings will be of immense benefit in the area of healthy behavioural change. Please note you are not required to write your name on the questionnaire. Kindly feel free to express your opinion and be rest assured that your responses will be kept strictly confidential. Your honest and sincere response to the following questions will be highly appreciated.

Would you want to participate in the study? (1) Yes (2) No

For office use only

Serial number: ……
Interviewer: ……
Date of interview: ……

Thank you,

Chigbundu I.G

SECTION A: SOCIO- DEMOGRAPHIC DATA

In these section please tick (√) the option that applied to you or complete the blank spaces provided.

1. Gender: (1) Male (2) Female
2. A**ge** as at last birthday (In years)……... ☐
3. Marital Status: (1) Married ☐ (2) Single ☐ (3) Widow /Widower ☐
(4) Divorced ☐ (5) Separated ☐ (6) Co-habiting ☐
4. Highest level of education (1) No formal education ☐ (2) Primary ☐
(3) Modern School ☐ (4) Secondary ☐ (5) N.C.E ☐ (6) Polytechnic OND/HND
(7) University ☐ (8) others (please specify) ……..
5. Ethnicity (1) Yoruba ☐ (2) Igbo ☐ (3) Hausa ☐ ☐
(4) Others (please specify……

Section B: Awareness and sources of information about herbal medicines.

In these sections, please (√) the alternative response(s) that applies to you or complete the spaces provided.

6a. Have you ever heard about **herbal medicines or remedies** before? (1) Yes ☐ (2) NO

6b. Table 1 contains a list of sources of information for each sources please, tick (√) Yes or No to indicate your source of information on herbal medicines. You can choose more than one source.

Table 1

	Source	Yes	No
6.1	Radio		
6.2	Television		
6.3	Family		
6.4	Friends		
6.5	Seminar/ workshop		
6.6	Posters		
6.7	Magazines		
6.8	Newspapers		
6.9	**Other sources (pls, specify)** ……..		

7. What are the broad uses of herbal medicines? Kindly (√) either true or false in the table 2

Table 2

	Broad use	True	False
7.1	Prevention		
7.2	Treatment		
7.3	Curative		

Section C: Attitudes towards herbal medicine.

8.0 INSTRUCTION: Table 3 contains some statements, for each statements please tick (√) as appropriate with SA= Strongly Agree; AG= Agree; U=Undecided; DG= Disagree: SD=strongly agree.

No	Statements	SA	AG	U	DG	SD
8.1	Herbal medicines are safer than orthodox medicines					
8.2	Those who use herbal Medicines do not fall sick frequently compared to those who take orthodox medicines					
8.3	Herbal medicine practitioners should not be allowed to practice in Nigeria because herbal medicines are not effective					
8.4	The most common reason why people use herbal medicine is because it is cheap or affordable					
8.5	Herbal medicines cure ailments faster than orthodox medicines..					
8.6	The use of herbal medicines can worsen one's state of health.					

TABLE 3

No	Statements	SA	AG	U	DG	SD
8.7	Herbal medicines can only be used to cure minor health problems.					
8.8	I prefer using herbal medicine because it is accessible.					
8.9	I will recommend herbal medicine to someone close to me because they are effective.					
8.10	Only herbal medicines work in the body system of some people					
8.11	I will always use herbal medicines because of its better efficacy.					
8.12	Herbal medicines can cure a wide range of illness compared with orthodox medicines					
8.13	Herbal medicines are better for preventing diseases compared with orthodox medicine					
8.14	Herbal medicines should be used only when orthodox medicine fails					
8.15	Orthodox medicines should be used only when herbal medicine fail					
8.16	People should not be encourage to use herbal medicines					
8.17	Herbal medicines are meant for use by low income earners or poor people					
8.18	I prefer using herbal medicines because it enjoys a wider range of acceptability					

Section D

Practices relating to the use of herbal medicines

INSTRUCTION: ***Please indicate your response to the questions in these sections by ticking (√) as appropriate***

9. Was there anytime you had to use an herbal remedy to treat or cure an ailment?

(a)Yes ☐ (b) No ☐

10. How do you use herbal medicines/ remedies?

(a)Always when ill ☐

(b.)Use when orthodox medicine have failed ☐

(c.)Use before using orthodox medicine ☐

(d.)Use for certain disease which only herbal medicine can cure/ treat ☐

(e)Other please, specify……..

11. What are your source of herbal medicines i.e where do you obtain them from?

(a) Prepare it myself ☐

(b) Relative prepare it for me ☐

(c) Buy from market and prepare myself ☐

(d) Obtain from hawkers and prepare myself ☐

(e) Buy the already prepared One's ☐

(f) Others (specify)……..

12. How often do you use herbal medicines?

(a)Always ☐

(b)Occasionally ☐

(c) Rarely ☐

(d)Often ☐

13. Do you store herbal medicines at home for use whenever the need arises?

a. Yes ☐ b. No ☐

14. If yes, where do you store herbal medicine at home for future use?

……

……

Instruction: please indicate your response to the question below by ticking (√) as appropriate.

15. Did you use any herbal remedy within the last three month?

Yes ☐ No ☐

16. If yes, who prescribed the herbal remedies you used?

(a) Self ☐

(b) Relative ☐

(c)Friends ☐

(d) Hawkers ☐

(e) Sale agents who sell ☐

(f) Other (specify)

17. Have you ever recommended or suggested the use of herbal remedies / medicines to someone

Yes ☐ No ☐

18. Will you continue to use herbal medicines when the need arises in future?

Yes ☐ No ☐

19. What do you like about use of herbal medicines?

……

20. What do you not like about herbal medicines?

……

21. On the whole which of the following types of medicines do you prefer using?

(a) Orthodox medicine ☐

(b)Herbal medicine ☐

(c)Combine use of herbal and orthodox medicine ☐

22. Have you ever used a combination of herbal or orthodox medicines so as to get well faster?

(a.) Yes ☐ (b.) No ☐

THANK YOU FOR YOUR TIME

APPENDIX B: Yoruba version of Questionnaire

AWON IBEERE

IRO, ATI NI IWA IPELE TI IṢAMULO TI ISEGUN IBILE LAARIN AGBALAGBA TO MỌỌKÀ NI AGBEGBE IJOBA IBILE ARIWA IBADAN.

Nomba siriali……

Eyin oludahun,

Emi Chigbundu Ijeoma Gladys, akeko agba ti Sakaani ti Health Promotion ati Education, Oluko ti Public Health, Ile eko Isegun, University ti Ibadan. Mo n rù jade a iwadi lori "Iro, iwa ati ipele ti iṣamulo ti Isegun egboigi oogun laarin mọọkà agbalagba ni Ibadan ariwa agbegbe ijoba agbegbe ti Oyo-ipinle. Eleyi iwadi jẹ ara ti awọn ibeere fun awọn eye ti Titunto si ni ẹya-Ilera (Health Promotion ati Education) ati awọn awari yio jẹ ti awọn laini anfani ni awọn agbegbe ti ni ilera iwa ayipada. Jọwọ se akiyesi pe o ti wa ni ko beere lati kọ orukọ rẹ lori awọn ibeere. Jowo lero free lati han rẹ ki o si wa ni isimi ero dájú pé rẹ ti ṣe yoo wa ni pa muna igbekele. ki o si mọ sincere esi si awọn wọnyi ibeere ni yoo gíga abẹ.

Ṣe o fẹ lati kopa ninu iwadi? (1) Bẹẹni ☐ (2) Ko si

A dupe,

Chigbundu I.G.

1. Pé iwà: (1) Akọ ☐ (2) Abo ☐

2. Ori bi ni kẹhin ojo ibi _____

3. Ipo igbeyawo: (1) ìgbéyàwó ☐ (2) Single ☐ (3) Opó ☐ (4) Pínyà ☐ Ajo gbe ☐

4. Ọgá ipele ti eko (1) Ko si lodo eko (2) ile iwe akoko ☐(3) ☐ ileiweasiko ☐ (4)Secondary (5) NCE (6) Polytechnic ☐ID / HND (☐University (8) Miran (jọwọ pato) ...

5. ilo (1) Yorùbá ☐ (2) Igbo☐(3) Hausa ☐ (4) Miran (jọwọ pato) .....

Abala B: Imo lori lilo ti egboigi oogun.

6a. Nje o lailai gbọ nipa ibile oogun tabi àbínibí ṣaaju ki o to? (1) Bẹẹni ☐2) Ko ☐

Ti o ba ti bẹẹni lati Ìbéèrè ……

6b. Ilana: jowo (√) rẹ orisun ti alaye lati awọn akojọ ninu awọn tabili ni isalẹ

O le yan ju ọkan orisun.

Tabili 1

	Orisun	Bẹẹni	Bẹẹkọ
6.1	Ero asoro magbesi		
6.2	Telifison		
6.3	Ìdílé		
6.4	Awon Ore		
6.5	Apejọ / onifioroweoro		
6.6	Posita		
6.7	akọọlẹ		
6.8	Iwe Iroyin		

6.9 Miiran awọn orisun (jowo, pato)……

7 Ki ni o wa ni gbigboro fun ipawo ti egboigi oogun? Jowo ko ami (√) boya otitọ tabi eke ni awon tabili keji

	Gbogbo ilo	Otito	Eke
7.1	Idena		
7.2	Itọju		
7.3	Iwosan		

IPIN D: Iwa si ọna egboigi oogun.

8.0 ilana: Table 2 ni diẹ ninu awọn gbólóhùn, fun kọọkan gbólóhùn jọwọ ami (√) bi yẹ pẹlu SA = mo gba gan ,; AG = mo gba; U = mi ole so; DG = mo koo; SD = mo ko gba.

SA = mo gba gan; AG = mo gba; U = mi o le so; DG = mo koo; SD = Mo koo gan.

	Gbólóhùn	SA	AG	U	DG	SD
8.1	Oogun Ibile ni o wa ailewu ju oogun oyibo					
8.2	Awon ti o lo ogun ibile ko ba kuna aisan nigbagbogbo afiwe si awon ti o ya oogun oyibo					
8.3	egboigi oogun ise yẹ ki o wa ko le ṣe laaye lati niwa ni Nijiria					
8.4	Awọn idi to wọpọ julọ idi ti awon eniyan lo herbal oogun jẹ nitori pe o jẹ poku ati ti ifarada					
8.5	Egbo igi oogun ni arowoto ailera yiyara ju orthodox oogun					
8.6	lilo ti egboigi oogun le ọkan ká ipinle ti					

	ilera.					
8.7	Egboigi oogun le nikan wa ni lo lati ni arowoto kekere ilera isoro.					
8.8	Mo fẹ lilo egboigi oogun nitori pe o jẹ wiwọle.					
8.9	egboigi oogun iranlọwọ ninu awọn idena ati gbigbe ti arun					
8.10	Mo ti yoo so egboigi oogun lati sunmo si ẹnikan mi.					
8.11	Emi ko fẹ lilo egboigi awọn ọja nitori ti won kikorò lenu					
8.12	Awon eniyan ni o wa ninu awọn ero ti fun eyikeyi sarun nibẹ jẹ ẹya ewebe fun awọn oniwe-ni arowoto					
8.13	Mo ti yoo lo egboigi oogun lẹẹkansi fun awọn itọju ti aisan eyikeyi.					
8.14	egboigi oogun le ni arowoto a jakejado ibiti o ti aisan akawe pẹlu ogun oyibo oogun					
8.15	egboigi awọn ọja yẹ ki o wa lo bi akọkọ ila ti awọn itọju.					
8.16	Oogun egboigi lo yẹ ki o wa nigbati ogun oyibo oogun kuna					
8.17	Egboigi oogun ti wa ni lo nipa kekere owo oya earners					

8.18	Mo fẹ lilo oogun egboigi nitori ti o gbadun a anfani ibiti o ti gba					

Ipin E

Ise o jọmọ si awọn lilo ti egboigi oogun

Ilana: Jọwọ fihan rẹ esi si awọn ibeere wọnyi ni ruju nipa ami(√) bi yẹ

9. Ṣé nibẹ nigbakugba ti o ba ní lati lo egboigi atunse lati toju tabi ni arowoto ohun ?

Bẹẹni Bẹẹkọ

10. Bawo ni o ṣe lo oogun egboigi / àbínibí?

(A) Nigbagbogbo nigbati aisan

(B.) Lo nigbati orthodox oogun ti kuna

(D.) Lo ṣaaju ki o to lilo oogun orthodox

(E.) Lo fun awọn arun eyi ti nikan egboigi oogun le ni arowoto / toju

(E.) Lo fun awọn arun eyi ti nikan egboigi oogun le ni arowoto / toju

(F) Miiran jọwọ, pato .....

11. Ki ni orisun rẹ ti egboigi oogun ie nibi ti o gba wọn lati?

(A) Mura o ara mi

(B) Ojulumo o mura o fun mi

(D) ra oja ati ki o mura lati ara mi

(E) Gba lati hawkers ati ki o mura ara mi

(E) Ra awọn tẹlẹ pese ọkan ká

(F) miran (pato) ....

12. Bawo ni igba ni o lo oogun egboigi?

(A) Nigbagbogbo

(B) Lẹẹkọọkan

(D) saba

(E) Igba

13. Ṣe ti o fipamọ herbal oogun ni ile fun lilo nigbakugba ti awọn ti nilo Daju?

Bẹẹni Bẹẹkọ

14. Ti o bẹẹni, ibi ti ni ti o fipamọ egboigi oogun ni ile fun ojo iwaju lilo?

.....

.....

Ilana: jọwọ fihan rẹ esi si awọn ibeere ni isalẹ nipa ticking (√) bi yẹ.

15. Nje o lo eyikeyi herbal atunse laarin awọn kẹhin meta osù?

Bẹẹni Bẹẹkọ

16. Ti o ba bẹẹni, ti o ti ogun ti awọn egboigi àbínibí ti o lo?

(A) fun ara mi

(B) Ebi

(D) ore

(E) a kiri ta

(E) tita òjíṣẹ ti o ta

(F) Miiran (pato)

17. Nje o lailai niyanju tabi daba awọn lilo ti egboigi àbínibí / oogun si ẹnikan

Bẹẹni Bẹẹkọ

18. Yoo o tesiwaju lati lo oogun egboigi nigbati awọn nilo Daju ni ojo iwaju?

Bẹẹni Bẹẹkọ

19. Kí ni o fẹ nipa lilo ti egboigi oogun?

.....

19. Kí ni o fẹ nipa lilo ti egboigi oogun?

.....

20. Kí ni o fẹ ko nipa egboigi oogun?

.....

21. Lori gbogbo eyi ti awọn wọnyi orisi ti oogun ni o fẹ lilo?

(A) Àtijọ oogun

(B) egboigi oogun

(D) Darapọ lilo ti egboigi oogun ati oogun oyibo

22. Nje o lailai lo a apapo ti egboigi oogun tabi ogun oyibo ki bi lati gba daradara yiyara?

a. bẹẹni b. rara

E ṣeun fun Akoko yin.

APPENDIX C:

Informed consent form

Name of Investigator: Chigbundu Ijeoma Gladys
Name of Institution: University of Ibadan

Title of project: Awareness, attitudes and level of utilization of herbal medicines among Adults in Agbowo community in Ibadan North local government.

Greetings; My name is Chigbundu Ijeoma Gladys I am a post graduate student of the Department of Health Promotion and Education, Faculty of Public Health, University of Ibadan. I am carrying out a research on the "Awareness, attitudes and level of utilization of herbal medicines among adults in Ibadan North Local government. The information collected during the study will be useful in future as baseline information for designing intervention programs on Quality and safety of herbal medicines.

Purpose of the research:

The study is designed to investigate the awareness, attitudes and pattern of utilization of herbal medicines among adults in Agbowo community.

Benefits

There will be no direct benefit to you as result of your participation in this study but the information obtained from this study will be useful in future for designing educational programme aimed at addressing the issues relating to the use of herbal medicines

Confidentiality

The following steps were taken to ensure that you are safe and that information you provide is confidential.

1. Filling of questionnaire will take place in a private place
2. The information that we collect about you will be taken confidential; in order to ensure that your names will not be written anywhere.
3. Information collected from you will be stored in a file that will not have your name or any information linked to your name, but a number assigned to it instead.

4. Copies of the questionnaire containing the questions will be stored for a period of 2 years after which they are destroyed.

Alternative to participate

You do not have to take part in this research if you do not wish to do so you may stop participating in the interview at any time you wish, and there will be no negative consequences for you in any way.

Certificate of consent for Qualitative study.

I have been invited to take part in the research on Awareness, attitude and Level of utilization of herbal medicines among adults in Agbowo community, Ibadan. I have read the information provided, or it has been read by me. I have had the opportunity to ask questions. I consent voluntarily to participate in the study and I have understand that I have the right to withdraw from the interview at any time without any consequences.

Name of participant (PRINT) Date and signature of participants

…….. ……

(DD/MM/YY)

Name of Researcher/Moderator (PRINT)

……

(DD/MM/YY)