

Imperative for Inclusion of Herbal Medicine Education in the Curricula of Nigerian Schools

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ABSTRACT

This study examines the need for the inclusion of herbal medicine education in the curriculum of the Nigerian schools. The work is propositional. It employs the review method to collate well referenced documented materials. The study reveals that many advanced countries of the world had imbibed similar medical ideology about herbal medicine practices to promote the health of their citizens and also to enhance healthy life styles. Most of the developed Oriental (East) and Occidental (West) continents have herbal medicine programmes on their national health agenda sponsored by their governments e.g. Germany, China, Japan, India, and Asia. Inclusion of herbal medicine education in the schools curricula would help learners, youths and adults to have a healthy living as they personally utilized herbal medicine preparations specifically and instructively. It is imperative at this time when the nation's economy is on the down turn for the government, curriculum planners and education stakeholders to see the need to incorporate herbal medicine education in the curriculum of the Nigerian schools.

Keywords: *Herbal Medicine, Education, Nigerian Schools, Curricula*

INTRODUCTION

From the earliest times, herbal remedies have been used to treat diseases and relief physical pains (Bakhru, 1990; Balick and Cox, 1996; Anselm 2001; Mirutse, Zameda and Thomas, 2003). The plant kingdom is a treasure house of potential drugs and in the recent years, there has been an increasing awareness about the importance of medicinal plants and the medicines accrued from them (Farnsworth, 1988; Anselm, 2001). The traditional African healing system is known by many names like: Folk medicine, herbal medicine, traditional medicine, native medicine, and ethnomedicine (Lovio, Reginer and Korstan, 2002; Mirutse, Zameda, Thoma and Zerinum, 2003). Sofowora (1982) refers to Folk medicine as the knowledge of the mode of treatment, while to Gbile (1986), ethnomedicine refers to the use of plants by members of an indigenous culture for which there is no organized medicinal plants. Mume (1973) describes traditional medicine as tradomedicalism which is a system of treating diseases by the employment of agencies and forces of nature. Herbal medicine has prominently been used in the treatment of various kinds of diseases and illnesses in Africa in general and Nigeria in particular (Sofowora, 1982; Anselm 2001). In their reports about the history of traditional medicine in Nigeria, Sofowora (1982),

Akinwumi (1986), Anselm (2001), conceded that numerous plants have been used for centuries in the practice of herbalism by the contemporary indigenous herbalists with evidence of therapeutic efficacies. From the ongoing, it can be deduced that the use of medicinal herbs to heal illnesses has always been part of human culture and remains the mainstay of primary health care in most third world countries (Farnsworth, 1988). The World Health Organization (WHO) estimated that 80% of the people in developing countries of the world rely on traditional medicine for their primary health care needs and about 85% of the traditional medicine involves the use of herbal extracts. This means that about 3.5 to 4.0 billion people in the world rely on plants (herbs) as sources of drugs (Farnsworth, Akerele, Soejarto and Guo, 1985).

In Nigeria, a World Health Organization survey estimates that about 75% of the populace patronise traditional medicine (Omoseyindemi, 2003). This finding is in consonance with report by Adeniran (2014); Adeniran (2015) that there is high patronage of traditional herbal medicines in contrast to conventional synthetic drugs because of their relative low costs and accessibility. The use of medicinal herbs and the demand for herbal medicine is increasing world-wide and in view of the tremendous expansion of traditional medicine and a growing interest in herbal treatment, it is therefore pertinent at this juncture to make a case for the inclusion of herbal medicine education in the curricula of Nigerian schools.

In the ancient Western world, the Greeks contributed significantly to the development and the use of herbal medicine. The healing system in practice then is said to have originated with Hippocrates (460-377BC) and Aristotle (384-322BC) whose own ideas were rooted in ancient medical beliefs from India and Egypt. Also, the philosopher and Natural Scientist Theophrastus (300BC) in History of plants dealt with the medicinal qualities of herbs and noted their ability to change characteristics through cultivation. Discorides, a Greek Physician (100AD) during his travels with Roman armies recorded the collection, storage and use of medicinal herbs and Galen (130-200AD) who practiced and taught pharmacy and medicine in Rome, published not less thirty books on the subject of herbalism and was well known for his complex prescriptions and formulae used in compounding drugs containing dozens of ingredients, which he called the 'galenicals'.

African Traditional Herbal Medicines: According to Omoseyindemi (2003); Omotayo and Borokini (2012), African Traditional Herbal Medicine is perhaps the oldest and the most diversified of all medicine system. Unfortunately, these systems of medicines are poorly recorded and remained so to date. African traditional medicine in its varied forms is holistic, involving both the body and the mind. According to Sofowora (1982); Gill (1992); Anselm (2001); Omotayo and Borokini (2012); famous African medicinal herbs include: *Aframomum melaguata* (Alligator pepper); *Artemisia afra* (African wormwood); *Pterocarpus (Osun)*, *Viscum album* (Mistletoe), *Cassia alata* (Ring worm plant), *Rauwolfia vomitoria* (wizzle-stick), *Allium sativum* (garlic) *Zingiber officinale* (ginger), *Lantana camara*

(wild sage), *Alchornea laxiflora* (arithmetic stick) etc all and many more were used in treating various illnesses and physical pains.

Occidental (western) Herbal Medicines (Europe and America): West medical herbalism was said to have begun with the work of first century Greek physician Dioscorides who wrote '*De materia medica*'. It became the leading medicinal text for the next 1,600 years (Awake, 2003). As early as 800AD, medicinal herbs were cultivated in monasteries in central Europe one of the famous herbal medicinal healers of this era was Hildegard of Bingen (1098-1179). In later year, a Swiss Alchemist known as Paracelsus (1493-1541) emphasized the importance of correct herbal doses for medical treatment (Kapoor, 1990).

Classical Arabic and North Africa Traditional Medicine: Records of medicinally import herbs dates from 6,000 BC were found in the grave of the Neanderthal man from Shanidar IV archeological site, in the old Akkadians and Sumerians of Iraq. Pollens of several medicinally important plants, for instance, *Ephedra altissima* and *Thea sp* were discovered. Also in Egypt, the writings of Ebers papyrus which originated about 1500BC is reported to contain ancient knowledge about several medicinal herbs. The 20 metres long papyrus scroll found in a tomb in Egypt was named after professor Georges at Thebes in 1872.

Ayurvedic Medicine (Indian traditional Medicine): Indian traditional medicine is tagged Ayurvedic. Ayurvedic simply means 'life science' or 'knowledge'. It is perhaps the most ancient of all medicinal traditions probably older than the traditional Chinese medicine (Kong 1982 and Kapoor 1990). Ayurvedic is considered to be systemized, practical and holistic-maintaining balance and harmony in human body system in its operations. Famous Ayurvedic medicinal plants according to Bakhru (1990); Kapoor (1990) include; *Centella asiatica* (Gotu kola), *Cinamomum camphora* (camphor), *Medicago sativa* (alfalfa), *Withania Somnifera*, *Azadirachta indica*, (neem plant) *Rauwolfia serpentina* (India snake root) etc.

The Chinese traditional herbal medicine: The legendary Chinese Emperor Shen Nung discussed medicinal herbs in his works written at about 2,500 BC but the traditional Chinese medicine was systemized and documented between 100 and 200 BC. The most complete reference to Chinese herbal prescription is the modern day Encyclopedia of Chinese '*materia medica*' published in 1977. It lists nearly 6000 drugs out of which 4800 are herbal origin (Chopra R., Chopra I., Handa and Kapur, 1982). The spread of traditional Chinese (herbal) medicine to most continents has in great measure contributed to the current popularity of Chinese traditional medicine throughout the whole world (Bakhru, 1990; Kapoor, 1990; Chopra R., Chopra I., Handa and Kapur, 1982). Example of famous *Chinese* medicinal herbs according to Chopra R., Chopra I., Handa and Kapur (1982); Kong (1982), 'Bakhru (1990); Kapoor (1990), are; *Angelica polymorpha*, *Artemisia annuus*, *Ephedra indica*, *Panax ginseng*, *Rheum plamatum* etc. Our

traditions and indigenous scientific cultures are fast fading away and it is been highly eroded by the Western world modernism (Occidentals). Contemporary Nigerian learners do not have a smattering knowledge of our traditional indigenous herbal science and culture. Many African learners could not explore local medical herbs available in their environment, not to talk of utilizing their health benefits. There is a dearth of knowledge about the home use of medically important herbs among Nigerian learners and school leavers.

The study is designed to make a case for the inclusion of herbal medicine education (herbalism) in the curricula of the Nigerian schools. When it is included the significance as well as interest will not be limited to the following:

- i. The learners at leaving school will have adequate knowledge about our indigenous medicinal herbs and their uses
- ii. The learners' knowledge of the medicinal herbs will assist them to explore these herbs for a healthy living
- iii. The study will create interest and positive attitudes in learners and also give them basic knowledge to study professional courses like naturopathy, pharmacognosy, ethnomedicine etc in their future health-related academic careers
- iv. Herbal medicine healing culture will be imbibed in our society to complement government primary health care needs of the people.
- v. Rural and Urban dwellers who could not purchase conventional drugs due to high costs can easily procure herbal alternative medicines at little or no cost.

PROCEDURE

This work is propositional, and a review was conducted to make case for the inclusion of herbal medicine education (herbalism) in the curricula of the Nigerian Schools, in accordance to the work of Ebrahim, Maral and Hamid (2014). It is conducted by reviewing relevant contemporary ethnomedicinal literatures from indigenous African texts on herbal medicine and also from the Oriental and Occidental traditional medical works and sources. To evaluate the electronic Africa database, the following websites were searched: Google, scientific information database (SID), herbalism, traditional African medicine, medicinal articles, herbs and natural health etc. Library search was performed by referring to journal archives of library, also evaluating the available articles of research-scientific and educational journals, seminars on traditional African medicine from well referenced publications.

Inclusion of herbal medicine education in the school curricula

Inclusion of herbal medicine education in the school curricula has been a subject of discussion with negligence for decades. Terasawa (1986) had supported the funding of research work and education on Traditional Chinese medicine in his symposia address in Japan. The nation Nigeria could borrow a leaf from this laudable result-orientated endeavour. Inclusion of herbal medicine education in schools' curricula

would make learners explore and enjoy the benefit of their natural environment; imbibing basic knowledge of medicinal herbs in their local environment and the use of such would be an in-road to a self-sustained healthy living (Omoseyindemi, 2003; Omotayo 2007; Ogunlade, 2015; Adeniran 2015).

Herbal medicine Education would bring enlightenment to learners, youths and adults that herbs are naturally endowed to perform functions on humans based on the phytochemicals naturally present in them and not because of the so-called spiritual or metaphysical influence from herbs users (Farnsworth et al 1985, Farnsworth 1988; Balic and Cox 1996; Anselm 2001; Omotayo and Borokini, 2012; Adeniran, 2014; Ogunlade, 2015).

Inclusion of herbal medicine or herbal science education in schools curricula would expunge a long tussle and contradictions about religion and herbalism. Many unlettered people obnoxiously believe that herbal science (the use of roots and leaves) is devilish and diabolical, whereas, in the Biblical Genesis, God recommended the use of herbs for humans (Anselm, 2001; Malkmus, 2006). And God said “Behold I have given you every plant yielding seeds and every tree with seed in its fruits, you shall eat them for food” (Nwankwo 1987; Anselm, 2001; Malkmus 2006; Ogunlade, 2015). So, learning about our naturally endowed medical plants (herbs) for complementary health sustenance in our schools is highly pertinent and imperative in the turn of this new millennium (Kong, 1982; Terasawa, 1986; Bakhru, 1990; Balick and Cox, 1996).

Curriculum guide:

The following may serve as a guide for teachers, school administrators and education stakeholders who may wish to include herbal medicine education in the curricula of schools in Nigeria;

Unit 1: Concept of herbal medicine and herbal science (herbalism)

- i Herbal medicine: view from traditional and scientific perspectives
- ii Herbal medicine and mythology
- iii Herbal science and Religion
- iv The need for herbal medicine education in schools

Unit 2: History of Herbal Medicine

- i Oriental or Eastern countries herbalism e.g. Japan, Asia, China and India
- ii Occidental or Western countries herbalism e.g. Europe and America
- iii African traditional herbalism
- iv Arabic traditional herbalism
- v Comparative herbalism

Unit 3: Tropical Medicinal Herbs

- i Identification of local medicinal herb flora by local, vernacular and English names
- ii Cultivated medicinal herbs
- iii Wild medicinal herbs. Study of rare and exotic species

iv Temperate medicinal herbs and their medicinal significance e.g. *Digitalis spp Cinchona spp* etc

Unit 4: Practical Herbalism

i Herbal science practicum; guided field identification, collection, preservation and uses of local medicinal flora (of at least 50 medicinal species)

ii Herbarium treatment of local medicinal herbs

Unit 5: Discussion on common Illnesses and herbs that cure them e.g.

i Malaria, Fever, Typhoid, Anaemia, and Dermatitis (Ring Worm /Enzema), Abdominal illnesses, Dysentery, Catarract, Hypertension, Heart disorder; Kidney disorder etc

(5b) Fruits and vegetables and their health benefits e.g. carrot, Hibiscus sabdarifa, water melon, cabbage, spinach, Amarranthus, Apples etc

This curriculum guide is not a blue print in its entirety, curriculum operators could adjust depending on the society, culture and the area where the curriculum is being operated.

CONCLUDING REMARKS

There is a need to design a curriculum for herbal medicine education in Nigerian schools as it is done in some countries of the world like China, India, Japan and Asia. People would acquire simple, basic knowledge that would help them explore medicinal flora in the local environment to enhance healthy living. The introduction of this herbal medicine education will complement Government's effort in providing basic primary health care needs of the people. The teachers, curriculum operators and stakeholders in education should therefore be prepared to impart novel knowledge into the young learners that are future leaders. The Federal Ministry of Education via the Joint Consultative Committee on Education should as a matter of urgency to see the need to include herbal medicine education in the curricula of all schools in Nigeria.

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