TRADITIONAL MEDICINE PRACTICE IN NIGERIA IN THE NEXT DECADE

*EGHAREVBA, Henry Omorogie and KUNLE, Oluyemisi Folashade

Department of Medicinal Plant Research and Traditional Medicine
National Institute for Pharmaceutical Research and Development (NIPRD), Abuja, Nigeria

ABSTRACT

The integration of traditional medicine (TM) into the formal health care delivery system of developing countries like Nigeria remains a huge challenge despite the predictable benefits of its capacity to provide sustainable health care service through improved access to healthcare and the consequent reduction in infant and maternal mortality. However, the more advanced countries like China, Japan, Korea, India, Vietnam, US, UK and Germany have also advanced in their integration process with China and India taking the lead. Nigeria with a population of about 170 million people needs to take a cue from these countries and undertake the rapid development of its Traditional Medicine Practice if she is to achieve the goal of universal access to health care within the next decade in the new millennium. This historical research exposed the likely challenges and suggests solutions and next steps towards achieving an acceptable level of TM development and integration within the next decade. The recommendations made would help facilitate and strengthen the official recognition of traditional medicine and its integration into the national health delivery system. It will also assist in coordinating and harnessing the efforts of the stakeholders in the field of traditional medicine, and actualizing the economic potentials derivable from traditional medicine.

Key words: Nigeria, Traditional Medicine, Complementary and Alternative Medicine, Integration.

INTRODUCTION

Definition of Traditional Medicine

According to the World Health Organisation (WHO), Traditional Medicine (TM) refers to the total combination of knowledge, beliefs, practice, approach, whether explicable or not, incorporating plants, animals and mineral-based medicine, spiritual therapies, manual techniques and exercises indigenous to different cultures applied singularly or in combination, to diagnose, prevent, eliminate or maintain a physical, mental, or social disease or
wellbeing. In Africa, as in India and China, this may include socio-psychological ideology and practices, and metaphysical forces. Usually, it relies exclusively on past experience and observation handed down from generation to generation, verbally or in writing (WHO, 2000; WHO, 2002).

Areas covered by traditional medicine practice include but not limited to, herbal medicine, bone setting, delivery by traditional birth attendants, circumcision by traditional medicine practitioners, meditation, aromatherapy, massage therapy, homeopathy, chiropractic, acupuncture, music therapy, laughter therapy, color therapy and flower therapy. The use of plants or herbs as medicines (herbal medicine), is the most common and acceptable form of traditional medicine practiced today (Sofowora, 2008).

In modern terminologies, the terms ‘complementary’ ‘alternative’ or ‘non-conventional’ medicine (CAM) are used interchangeably with traditional medicine in many countries of the world as against conventional medicine, which is commonly used for orthodox or western medical practice.

History of Traditional Medicine

Various records exist on the use of traditional knowledge in treating numerous disease conditions. This can be found even in the holy book like the Bible, in Ezekiel 47:12 and Revelation 22:2, which made allusions to the use of leaves as medicines. However, some written records of the use of herbs actually pre-date several thousands of years B.C. (Kloss, 1992).

The Chinese also have record of the use of traditional medicines as far back as the fourth century B.C., and have published several pharmacopoeia(Pen Tsao or material medica) to this effect (Evans, 2002). The earliest known Chinese book on herbs was unearthed in Hunnan province and dates from the fourth century B.C. It lists over 200 herbs with instructions for 52 pharmaceutical preparations. Since then, several compilations “Pen Tsao” have been published by the Chinese (Sofowora, 2008).

Physical evidence of the use of herbal remedies some sixty thousand years ago has been found in a burial site of a Neanderthal man uncovered in 1960 in a cave in northern Iraq (Sofowora, 2008).

Indeed, well into the twentieth century, much of the pharmacopoeia of scientific medicines were derived from the herbal lores. The knowledge of plant-based drugs developed gradually from experiences garnered over time and was passed on in form of traditions and cultures, thus laying the foundation for many systems of traditional medicine all over the world. Hence traditional medicine actually predates modern or orthodox medicine. In most communities herbal medicine is still a central part of their medical system.

Although it is not known exactly when the first men practiced herbalism in Africa. A number of theories have been advanced by scholars and traditional medical practitioners alike to explain the acquisition of knowledge by our forefathers who have for many centuries depended on herbs for rearing their children and maintaining their own good health. Among the traditional healers were some who specialized in treating specific disease conditions like orthopedics, midwifery, eye diseases, psychiatry, infectious diseases, etc., which involved the use of herbs.

It is also believed in most part of Nigeria and Africa that hunters are the original custodians of some effective traditional herbal recipes because of their vast knowledge. Such knowledge could have been acquired when, for example, a hunter shot an animal. If the animal ran away, chewed leaves from specific plant and did not die, it is believed the hunter noted the plant as a possible antidote for wounds or for relieving pain. Similarly, observations were made in villages where, for example, a domestic animal chewed the leaf of a specific plant when the animal was ill and recovered later or when another animal accidentally chewed a leaf and died (Evans, 2002; Sofowora, 2008). Similar observations by scientists have confirmed that chimpanzees use medicinal plants in Africa for self-medication (Huffman and Wrangham, 1993).

Some traditional healers claim that when in a trance it is possible to be taught the properties of herbs by the...
spirit of an ancestor who was knowledgeable in herbalism. In whatever manner the early African gained his knowledge of curative powers of herbs, it is an undisputable fact that he was able, thereafter to recognize the plant, as the detailed flora available today describing medicinal plants were then non-existent.

Nigeria, like China and India, has a long history of use of traditional medicine. Historical evidences of the fact abound in our various cultures. A good example is the Calabar bean (dried ripe seeds from Physostigma venenosum Balf.) which has been used in Calabar and nearby villages in Eastern Nigeria as an ordeal plant and poison to adjudicate accusation of witchcraft for many years before its identification in England in 1840, and the subsequent isolation of some of the alkaloids, such as physostigmine (1) by Jobst and Hesse in 1864, eseramine (2), physovenine (3) and geneserine (4), which are responsible for most of its activities (Evans, 2002). Physostigmine is used in the treatment of glaucoma (high intraocular pressure).

According to the Yoruba Ija pedagogy, itegan nas it that Orunmila (a Yoruba spiritual messiah) and Osanyin (an apprentice under Orunmila) were the first two men to practice herbalism in Nigeria. Scholars of Ija believe that Osanyin lived some thousands of years before the famous Egyptian herbalist, Imhotep, who lived around 2980 B.C.

Global Trends

The world leading countries in Traditional Medicine Development include China, India and South Korea, and resent estimates indicated that about 80% of the world’s population now relies on herbal medicines. The governments of Third-World countries, unable to sustain a complete coverage with Western-type drugs, have been encouraged to undertake the rational development of traditional treatments by the World Health Organisation (WHO) who has taken an official interest in such developments in order to facilitate its aim of making health care available to all (Dewick, 2009; Bodeker et al., 2005; Mukherjee, 2002; Bisset, 1994). The United Nations through it organ such as United Nations Industrial Development Organisation (UNIDO) has also lent credence to the industrial utilization of medicinal plants which are sources of export earnings for the producers especially the low-income countries (Evans, 2002).

The Chinese government has been promoting the training of healthcare personnel so that they are knowledgeable in both fields since 1950s in a bid to promote self-reliance, and began major health reforms in the 1990s to 2006 (Sofowora, 2008; Ameh et al., 2010). Hence Orthodox practice exists alongside Traditional medicines practice in most healthcare facilities such that patients have the choice of the type of diagnosis and treatment they want. In 2001, out of the 1276 Good Manufacturing Practice (GMP) certified drug manufacturers, about 184 were Traditional Chinese Medicines (TCMs) manufacturers. There were 165 approved hospitals as clinical trial sites, out of which were 40 TCM clinical trial sites., and about 1250 Traditional Chinese Medicines (TCMs) were listed in the national essential drug list (EDL) with sales of over $9.8 billion. By 2004, manufacturers without GMP certifications were shut down and all clinical trials had to be conducted in line with Good Clinical Practice (GCP) as promulgated in 1999. The Chinese government also promulgated and implemented policies such as registration of crude and processed drug, quality and efficacy assurance, Good Agricultural practice (GAP), etc., from 2001, and was able to bring the annual cost of medical coverage to about $7 per person in 2006. In India, though the orthodox and traditional medicine practitioners do not exist alongside each other in the same healthcare facility, the traditional clinics are recognized and allowed to practice ethically. Other countries like South Korea,
Japan, United States of America and Brazil, borrowing from the Chinese, have also adopted a more proactive approach toward improving the use and economic gains of Herbal Medicine (HM) (Ameh et al., 2010).

The global export of medicinal plants was US$ 759 million in the year 2001. China stood as the world’s No.1 exporter of medicinal herbs with an export value of US$ 200 million in the same year. In terms of the value of export-import, Hong Kong(17%) plus mainland China(4%) had the largest share(21%) in the import market followed by US(14%) and Japan(10%) in 2001 (Rath, 2005).

In Europe, the leading markets for herbal products are Germany followed by France, UK and Italy. Germany has the largest herbal extraction industry in Europe. The US remains the major market for essential oils and herbal tea. While 80% of the world population still uses traditional medicines, in the developed countries the interest in alternative medicines has increased by 60% since 1989 (Rath, 2005). In the US, consumer use of herbal products was less than 5% in 1991 but increased to about 50% in 2004. In year 2000, WHO estimated that the world market for herbal medicines and herbal products was worth US$62 billion and would hit US$ 5 trillion by 2050, with a market growth rate of about 7% per annum (Rath, 2005).

In most parts of Africa, traditional medicine has been part of the people’s culture despite the fact that it may not be as organized as in India or China (Sofowora, 2008). Hence, despite the long history of use and patronage, the lack of organization has reduced the credibility, acceptability and respect it deserves in healthcare delivery. Ethiopia is reported to be up to 90% dependent on TM while Nigeria is about 86% dependent on TM (Ameh et al., 2012; Adefolaju, 2014).

In Nigeria in particular, the demand for and use of herbal medicine is rather on the increase as evidenced by the increasing appearance of herbal products, markets, shops, spar, and clinics in recent times. This may be due to the issues of availability, accessibility and affordability, preference for more natural lifestyle, and belief in the safety and efficacy of these products some of which have been scientifically proven. It is laudable that the Government of Nigeria has proposed policies and legislations to optimize the use of traditional medicine and its practitioners in achieving health for all. The draft2007 bill as expected will help organize and regulate the practice of the act and profession of traditional medicine as obtainable in more advanced countries of the world.

**Characteristics & Challenges of Current Practice in Nigeria**

The Nigerian climate has severally been described as the most diverse in the world, from Freshwater to Mediterranean and Montane (fresh water, mangrove, rainforest, derived savannah, savannah, Sahel savannah, Mediterranean as found in plateau and Montane as found in the border with Cameroon) allowing a wide range of plant flora and biodiversity (NIPRD/NAN-TMP Forum, 2009). The large population of 168-170 million, wide ethnic groups and languages as well as the cultural/religious diversities ought to enrich our national ethnomedicinal heritage since these varieties of factors interact with the environment in different ways to create diversities of information on flora usage, practice and serendipity. Prof. J.I. Okogun, a renowned natural product chemist, once reiterated that it was recommended to the Federal Government of Nigeria in the 1970s to setup medicinal plant gardens all over the country. Despite the government’s efforts, the programme did not succeed due to the various challenges and obstacles such as bush burning and other desertification processes.

The full integration of traditional medicine practice in healthcare delivery in the more developed world like China, India, Democratic People Republic of Korea, Vietnam, USA and some European countries has advanced tremendously. Nigeria too has made tremendous progress especially in the last decade. We are beginning to see manufacturing companies and herbal homes/spar, etc., which now produce well-packaged products that meet NAFDAC specification. However, despite these advances, there is still a lot to
be done as the quantum of practitioner meeting the required regulations is still very low. Hence the challenges of ethics, standardization, sustainability and conservation, etc., remain.

**Ethical issues (Standardization)**

**Regulatory framework and Structure**

- There is presently no sufficient regulatory framework and policy in place for the efficient use of traditional medicine and practice. The provision by NAFDAC policy for *Listing* of herbal products is in the right direction. But there is the need to establish specific scientific parameters for ensuring batch-to-batch safety and efficacy. Example is the level of toxic heavy metals in the product which may dependent on the soil or region of cultivation.

**Standardization of input, process, product and practice**

- Most recipes or products are widely varied for same ailments. Even same recipe can be prepared variedly with little or no attention paid to standardization of materials used, process methodology/procedures and the final product. In addition the technologies employed are crude with no standard measuring, mixing and formulation equipment. This eventually leads to batch variation and poor product quality. Ideally, the whole process should be standardized from cultivation, harvest or collection, to processing and packaging of the final product. Thus we should be deploying best practices, which include GAP, GMP, GLP (Good Laboratory Practice), GCP, etc. These help to minimize variation in batches (Kunle *et al.*, 2012).

- Lack of established parameters and analytical tools for monitoring adulteration. Quick test kits for on-the-spot analysis or test need to be developed. This is a global problem that is yet to be well tackled.

- Poor packaging: The public perception of a product is very dependent on its packaging. The current perception of TM is very poor among the educated class who are those responsible for policy formulation and implementation. This has led to negative stigmatisation which has led to policy stunting, abortion and failure. However, the well packaged products from China, Indian and the US are well patronized.

- Little or no organized or documented clinical trial research and other drug development research to determine product stability, appropriate doses or improve mode of administration/application, indication and contraindications. Here we also need GLP (Good Laboratory Practice) and GCP (Good Clinical Practice). This has created the situation where there is no Herbal drug in Nigerian National EDL.

- The lack of proper documentation of knowledge and practice is one major threat of ethical significance. This has led to continued loss of indigenous TM knowledge which forms an important part of our cultural heritage continued loss of plant species and knowledge of their natural habitat, and loss of information or data on the contribution of the sector to the national economy. Gene bank technology can be deployed to help in the documentation of medicinal plants.

- Monitoring & evaluation tools for the practice. These include the issue of production records, diagnosis and prescription, drug reaction (pharmacovigilance), etc. Also no reliable data on the numbers of provider though we have associations like the National Association of Nigerian Traditional Medicine Practitioner (NANTMP). The body does not regulate practice or enforce registration of its members. It is estimated that there are over 200,000 TMPs in nationwide but only 146 are registered as NANTMP members (HERFON, 2006; NANTMP, 2015).

- Standardization of Practice is most challenging since TM tends to adopt a holistic approach to life, equilibrium between the mind and body, and environment. That is, the approach to treatment/cure is usually universal or holistic whether physical, symptomatic or metaphysical, unlike the orthodox practice which is systematic and depends on cause and targeted remedy. This mode of diagnosis often adopts esoteric beliefs leading to much subjectivity and personal opinion, and the practice of spiritism or life-force, for which appropriate methodologies can hardly be developed without harming the holistic approach. Thus not all aspect of TM practice could be standardized. Those practices that can
be standardized should be identified, and the framework for their standardization developed. Practices that could not be standardized should be discouraged or monitored to reduce fatalities.

- Lack of organized training and specialization. There is no provision for professionalism or certification. This gives room for quackery since there is virtually no restriction. The teaching of TM in ethnopharmacology by some Universities is not sufficient, and the moribund Federal College of CAM, setup by the government for training and man-power development need more attention and supports than it is currently receiving.

**Resource sustainability**

The concept of sustainable utilization of resources which is the present world order has not been integrated into our current TM practice. Thus our practice is still characterized by in adequate plan for replenishing medicinal plants resource, documentation of local and botanical names, domestication of wild species, and development of superior species, controlled cultivation through green houses, and preservation or storage plan for medicinal plant harvest. There is also no realistic or sustainable plan to control rural urban drift which affects the human resource for medicinal plant cultivation and propagation, no adequate support for huge investment promotion and therefore no attraction for big investor(s). Closely related to the above is the inadequate plan for industrial scale production and investment and lack of incentives for investment and export.

**Socio-cultural issues**

There is currently very low level of interest by youth to acquire traditional knowledge. Hence most practicing youths are charlatans who dabbled into the trade due to economic frustrations. Rural urban drift affects acceptability of traditional practices in the face of the more technologically advance orthodox practice, exposed human are bound to prefer the orthodox practice to the seemingly not-scientifically proven TM. In addition to the above, there are also acceptability barriers along cultural boundaries due to beliefs, agricultural practices and rituals, and western religious influence leading to rejection of tradition.

**Socio-political & Educational issues**

The non-cordial or non-receptive attitude of orthodox practitioners and TM practitioners to one another is due to a number of factors which range from superiority/inferiority complex to lack of education on both sides. For instance most orthodox practitioners lack adequate knowledge or training in TM, especially approach to diagnosis and treatment and unable to comprehend or accept them, while inadequate education and modern knowledge by TMPs lead to their inability to adopt some scientific approach like GAP, GLP, GMP, GCP, experimental design, documentation and interpretation of observed result/output/outcome, etc. Educating both sides will help to foster harmony.

The issue of stratification in the society - “Social class issue”, has also slowed down the advancement of TM in Nigeria. Nigerians are generally a very class conscious population and many of its citizens would do whatever it takes to be seen as belonging to a higher class than he/she actually belongs. The higher classes believe in their affluence and ability to afford the expensive western-type medicine, and thus would want to only be associated with orthodox medicine, even though they may secretly patronize TMPs. This attitude has created negative stigma for the TM.

**IPR issues**

Though a lot is being done by World Intellectual Property Organization (WIPO), we still have the following problems:

- Difficulty in protection of traditional knowledge or practice which may be communal or cultural to a region or ethnic groups.
- Inadequate intellectual property protection
- Suspicion (or lack of trust) and difficulty in collaboration with researchers due to IPR issues
Advocacy issues

This includes inadequate sensitization/promotion on product quality, stability, safety, efficacy, preservation, availability and use by government in Essential Drug List. There is poor sensitization on resource conservation, deforestation, bush burning, etc. There is also need for better sensitization on product credibility and correction of societal perception about the use of traditional medicine. But this has to be systematic and credible. For instance, sensitization for the use of HM could only be deemed credible when government has assessed and included the particular product in its EDL.

The Next Decade of TM Practice in Nigeria - What Do We Expect To See?

More than 90% of TM practice include or is dependent on herbal medicine. This has been further strengthened by the cordial relationship between patients and his/her traditional doctor, and continuous sympathetic nature of care, ease of access, cost and low level of stigmatization from practitioners.

Regulation & Ethical issues

The next decade in TM practice in Nigeria will want to witness the full domestication (implementation) of WHO guideline for the standardization of herbal products. Hence we expect to see:

- There is the need for the passage of an Exclusive TMP bill to regulate the practice and practitioners. The current policy of being regulated by Medical and Dental Council of Nigeria (MDCN) needs to be improved upon (HERFON, 2006). The council must as a matter of urgency look for ways to enhance integration by ensuring improved knowledge of both systems among its members.
- The inclusive status of TM practice in our healthcare delivery system should be improved upon to a fully integrated status as proposed by WHO and as currently obtained in China, India, Democratic People’s Republic of Korea, Republic of Korea and Vietnam. In these countries both groups of practitioners are reasonably knowledgeable in both fields and have mutual respect for one another and both fields of knowledge. This needs to happen in Nigeria.
- The States and Local Governments are closer to the grass-root and should have their territorial Traditional Medicine Board, which should develop an integration plan under guidance of the Federal Ministry of Health. This is because the TM is mostly community based.
- The Federal Ministry of Health should develop an integration strategy that involves the National Primary Health Care Development Agency (NPHCDA), which is saddled with healthcare development/ delivery at the grass-root. Although a lot had been done in this regard such as the training of traditional birth attendants (TBAs), but there is the need to extend this to traditional bone setters, Tribal marks surgeons, etc.
- It is an accepted fact that standardization of herbal medicinal products is of great relevance in the regulation of TM practice since TM depends of HM to a large extent. Standardization of cultivation, harvest /collection (season and handling), input technologies, process technologies and product is very important. This should employ best practices such as GAP, GMP, GLP and GCP. Though the National Agency for Food and Drug Administration and Control (NAFDAC), the National Institute for Pharmaceutical Research and Development (NIPRD), the Nigerian Natural Medicine Development Agency (NNMDA), the Nigerian Medicinal Plant Development Company (NMPDC), etc., and the Universities are involved in development and standardization of herbal products, there need for more coordination, especially in clinical trials of HM for inclusion into the EDL, by NAFDAC and the Traditional Medicine Council of Nigeria (TMCN). The Complementary and Alternative Medicine (CAM) Practitioners should be taught very clearly and trained periodically on the set standardization criteria. NIPRD is an agency well positioned for product standardization and practical training of practitioners because of it technical capacity. There should be standardization of TM premises and facilities for GMP and GCP in a fully integrated healthcare system. The development of the Nigerian Herbal
Pharmacopeia and West African Herbal Pharmacopeia is a step in the right direction. The Government should periodically commission researches and clinical trials at GLP and GCP accredited sites for selected herbal remedies for inclusion into the essential drug list (EDL). Though TM or CAM is associated with low technologies, which may be responsible for its accessibility and affordability, efforts should be made at improving existing technologies for better standardization, cost effectiveness and acceptability by the general public.

Resource sustainability

- Biodiversity conservation strategy for the conservation of recognized medicinal plants of great health and economic importance should be developed and implemented. This should include the setting up of regional botanical or medicinal plants gardens. The Chinese cultivated over 450,000 hectares of medicinal plant in 2001. This has been on the increase (Rath, 2005).
- An investment strategy should also be developed and implemented. Here government may consider setting up a Traditional Medicine Development Trust Fund (TMDTF), which should be funded by contributions from recognized stakeholder including NHIS, NAFDAC, development partners (donor agencies) and taxes derived from the practitioners themselves and imported herbal medicinal products. The funds can be used for appropriate research and promotion of TMP in the country/sub-region.
- There is need for resource mobilisation from donor and development partners for the development of TMP. This currently has not been very successful. WHO and WAHO have sponsored some research activities in these areas at NIPRD in the past. Other development partners need to come on board to sponsor clinical trials of some renowned herbal remedies and their social production for use at the primary healthcare facilities.
- There is need for radical approach towards development of human and infrastructural capacity in sustainable practice of TM. Such capacities should include biotechnology for development and conservation of endangered and superior species. The establishment of the Federal College of Complementary and Alternative Medicine, Abuja, established in 2008, is a step in the right direction. More of such facilities should be established and well equipped. The study of TM should be introduced into the elementary and secondary school curriculum as well as the curriculums of tertiary institutions. The decade gained by Nigeria in the Telecom sector could be reproduced in TMP development by learning from those who are ahead. Nigeria needs to learn from China, India, The Democratic People’s Republic of Korea and Vietnam.

IPR issues

- A proper IPR policy that will help protect genuine intellectual property, and formulate acceptable benefit-sharing from shared traditional knowledge should be developed. This will encourage documentation of knowledge and scientific development of the sector, which will strengthen the integration strategy and enhance the process (Kunle, 2009).

Advocacy issues

- We should see better sensitization from government and other stakeholders including development partners, on the credibility of the practices and product and to correct uncomplimentary societal perceptions about the use of traditional medicine. The economic benefits derivable from this may help stem human resource drift to urban areas, western influence and youth denunciation of traditional and cultural heritage.
- NIPRISAN which is a herbal drug developed at NIPRD and recognized in the United States should be made more accessible and enlisted into the EDL. Sensitization on sustainable use of bio-resources to harness economic benefit from the TMP should be implemented and sustained.
- There should be sensitisation of all stakeholders especially the practitioners on the TMP policy/regulations, and the provisions for their implementation and enforcement in
order to eradicate quackery perpetrated by charlatans and dupes.

CONCLUSION

The healthcare challenge of the 21st Century is how to provide sustainable health care service to the developing world like Nigeria. The goal is to improve access to healthcare and reduce infant and maternal mortality. This will remain a very tall dream if we do not look inward and develop strategy for self-reliance in healthcare delivery. A framework involving the aforementioned recommendations for the next decade of Traditional Medicine Practice in Nigeria will help facilitate and strengthen the official recognition of traditional medicine and its integration into the national health delivery system. It will also assist in coordinating and harnessing the efforts of the stakeholders in the field of traditional medicine, and actualizing the economic potentials derivable from traditional medicine. This will help promote the principle of self-reliance and eventually assist in promoting the health of Nigerians towards the achievement of the provisions of the Millennium Development Goals (MDGs), Vision 20:2020, National Economic Empowerment and Development Strategy (NEEDS), the Health Sector Reform Programme (HSRP) and the National Strategic Health Development Plan (NSHDP), in order to fulfill the Transformation Agenda of the current Administration. Finally, we must remember to “work the plan as much as we have planned the work”.

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