



A Review Of The Role Of Medicinal Plants In Traditional African Medicine

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Abstract:

Plants have formed the basis of sophisticated traditional medicine practices that have been used for thousands of years by people in many countries. The term ‘medicinal’ as applied to a plant indicates that it contains a substance or substances which modulate beneficially the physiology of sick mammals and that it has been used by man for that purpose. The knowledge and use of herbal medicines are also associated with supernatural powers and hence some of the preparations and treatments are followed by rituals and chanting of incantations. Basically, the traditional medicines fall under three categories; those common remedies which are not followed by any rituals, those which are considered to be family secrets handed down from one generation to the other and then those medicines known to the professional herbalists who go through strict and rigorous practice while paying heavily for the acquired knowledge. Although some herbs may have medicinal values, sometimes the medicinal preparations inflict side effects. However, the present knowledge on medicinal uses of plants needs scientific investigation to confirm their medicinal value. It is incontrovertible that traditional African medicine exhibits far more merits than demerits and its values can be exploited provided the Africans themselves can approach it with an open mind and scientific mentality. No doubt the traditional healers diagnosing and managing various common diseases at primary health care level, with various herbal dosage forms which may include; concoctions, decoctions, infusions, dried prodder, ointments, tinctures and macerates are much closer to the community than the orthodox doctors who are mainly found in urban health care locations. But the major challenge is that scientifically based evidence on traditional medicine, quality standards and regulations are not being developed at the same pace as the demand for the medicines. Therefore, member states of WHO African region need to scale up institutionalization of African traditional medicine in their health system. Institutionalizing African traditional medicine in health system is a key pillar in the promotion of traditional medicine in this 21st century.

Keywords: Traditional medicine, Medicinal plants, Herbs, Treatment.

Introduction

Traditional medicine is defined by the World Health Organization (WHO, 1978a) as the sum total of practices whether explicable or inexplicable used in diagnosing, preventing or eliminating a physical, mental or social disease which may rely exclusively on past experience or observations handed down from generations to generations verbally or in writing. It also comprises therapeutic practices that have been in existence often for hundreds of years before the development of modern scientific medicine and are still in use today without any documented evidence of adverse effects.

The classical floristic work of Hutchinson and Dalziel (1954) has shed light on the taxonomy of the plants of West Africa. Other recent publications on the plants of West Africa have also dealt with only the systematic aspects (Keay *et al.*, 1964; Glendhill, 1972). These workers gave much emphasis on the collection and recording of plants of the different regions. Botanists and Naturalists and plant collectors have over-looked the ethno botanical aspects of those plants though products are used for medicinal purposes (Farnsworth *et al.*, 1985; Akerele, 1991).

A useful interpretation of the term 'medicinal plant' as used in its traditional sense has been given by Fellows (1991). The term 'medicinal' as applied to a plant indicates that it contains a substance or substances which modulate beneficially the physiology of sick mammals and that it has been used by man for that purpose. Farnsworth and Soejarto (1991) refer to medicinal plants as all higher plants that have been alleged to have medicinal properties, i.e. effects that relate to health, or which have been proven to be useful as drugs by Western standards, or which contain constituents that are used as drugs.

Before the advent of the Europeans in West Africa plants were used for traditional medicines. This practice is still continued with wide application (Oliver, 1960; Irvine, 1966). Remedies for common diseases such as piles, pains, fever are known to most of the common people (Holland, 1922). However, the knowledge of herbal medicines for complicated diseases is confined to mostly the practicing herbalists or to certain family members who inherit the knowledge from the forefathers (Holland, 1922). The curative art is kept with some sanctity and secrecy with the belief that the herbal medicines will lose their potency if revealed to other people (Singh *et al.*, 1980). The fear of losing patronage is also a probable factor for the monopoly of the curative art. Similar observations have also been made in other parts of the world (Singh *et al.*, 1980). The knowledge and use of herbal medicines are also associated with supernatural powers and hence some of the preparations and treatments are followed by rituals and chanting of incantations, similar observations has been made by Jain and Borthakur (1980). It is also believed that complicated disease are attributed to the spell of evil spirits or by the violation of the laws of their traditional gods, Jain and Borthakur (1980) perhaps, the purpose of the rituals accompanying medicinal preparations or uses, therefore, is to appease these traditional gods. However, minor ailments are regarded as natural.

Basically, the traditional medicines fall under three categories:

1. Those common remedies which are not followed by any rituals.
2. Those which are considered to be family secrets handed down from one generation to the other.
3. Those medicines known to the professional herbalists who go through strict and rigorous practice while paying heavily for the acquired knowledge (Egunjoba, 1978). Although some herbs may have medicinal values, sometimes the medicinal preparations inflict side effects (Shiv and Kamlesh, 1980). However, the present knowledge on medicinal uses of plants needs scientific investigation to confirm their medicinal value.

Brief History of Traditional Medicine:

Plants have formed the basis of sophisticated traditional medicine (TM) practices that have been used for thousands of years by people in China, India, Nigeria and many other countries (Farnsworth and Soejarto, 1991). Some of the earliest records of the usage of plants as drugs are found in Artharvaveda, which is the basis for Ayurvedic medicine in India (Dating back to 2000 BCE), the clay tablets in Mesopotamia (1700BCE), and the Eber Papyrus in Egypt (1550BCE) (Kumar *et al.*, 1997). Other famous literature sources on medicinal plant include "*De materia medica*" written by *Dioscorides* between CE 60 and 78 and "Pent's as Ching classic of *material medica*" (Written around 200CE) (Joy *et al.*, 1998).

Nonetheless, the history of herbal medicines dates back to early man-long experience of trial and errors brought home the importance of useful against the harmful plants (Parfitt, 1978). Perhaps as early as Neanderthal man, plants were believed to have healing power (WHO, 1978b). The earliest uses were found in Babylonian circa 1770BC in the code of Hammurabi and in ancient Egypt circa 1550BC, in fact ancient Egyptians believed medicinal plants to have utility even in the afterlife of their pharaohs (Parfitt, 1978). The earliest recorded history of civilization from ancient culture of Africa, China and Egypt and Indus valley revealed evidences in support of the use of herbal medicine by dweller of those regions (Baqar, 2001).

Utilizations of Medicinal Plants in Traditional African Medicine:

Plants which have formed the basis of sophisticated traditional medicine system for thousands of years were originally instrumental to early pharmaceutical drug discovery and industry (Parfitt, 1978). Traditional African medicine (TAM) is our socio-economic and socio-cultural heritage, servicing over 80% of Africa (WHO, 1978b). Although it has come a long way from the times of our ancestors not much significant

progress on its development and utilization had taken place due to colonial suppression on one hand, foreign religions in particular, absolute lack of patriotism and political will of our Governments and then on the other hand, the care free attitude of most African medical scientists of all categories (WHO, 1978b; Sofowora, 1993b).

It is incontrovertible that traditional African medicine exhibits far more merits than demerits and its values can be exploited provided the Africans themselves can approach it with an open mind and scientific mentality (Sofowora, 1993b). The degree of sensitization and mobilization by the World Health Organization (WHO) has encouraged some African countries to commence serious development on TAM (WHO, 1978b). Traditional medicine as a major African socio-cultural heritage, obviously in existence for several hundreds of years, was once believed to be primitive and wrongly challenged with animosity, especially by foreign, religion dating back to the colonial days in Africa and subsequently by the conventional or orthodox medicinal practitioners (Sofowora, 1978b). However, today traditional medicine has been brought into focus for meeting the goals of a wider coverage of primary health care delivery, not only in Africa but also to various extents in all countries of the world (WHO, 1978b). Traditional medicine is the first-choice healthcare treatment for at least 80% of Nigerians who suffer from high fever and other common ailments (Baba *et al.*, 1992; Sofowora, 1993b).

The explicable form of traditional medicine can be described as the simplified, scientific and direct application of plant, animal or minerals for healing purposes and which can be investigated, rationalized and explained scientifically (Maxwell, 1962). The use of *Salix alba*, the willow plant (containing the salicylates) for fever and pains which led to discovery of aspirin, would belong to this form of traditional medicine (Maxwell, 1962; Bruneton, 1995).

Herbal medicines, which squarely belong to this form, are regarded by the World Health Organization, as finished and labeled medicinal products that contain as active ingredients, aerial or underground parts of identified and proven plant materials or combination thereof, whether in crude form or as plant preparations; they also include plant juices, gums, fatty oils, essential oils etc. (WHO, 1978a). There are several other official modern drugs today, which were originally developed like aspirin through traditional medicine e. g; morphine, digoxin, quinine, ergometrine, reserpine, atropine etc, Sofowora (1993b) and all of which are currently being used by orthodox medicine in modern hospitals all over the world.

The inexplicable form of traditional medicine on the other hand, is the spiritual supernatural, magical, occult mystical or metaphysical form that cannot be easily investigated, rationalized or explained scientifically e.g. the use of incantations for healing purposes or oracular consultation in diagnosis and treatment of diseases (Maxwell, 1962). The explanation is however, beyond the ordinary scientific human intelligence or intellectual comprehension.

Traditional Medicine Practice in the Development of Primary Health Care Delivery:

Primary Health Care (PHC) is the key to the development of a national health policy and as defined by *Alma-Ata Declaration* of 1978, it is an essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accepted to individuals, families, in the communities and through their participation and at a cost that the community and the country can afford, in order to maintain, at every stage of their development in the spirit of self-reliance and self-determination (WHO, 1978a). It is the first level of contact for the individual, family and the community within the national health care system, bringing health care as close as possible to where people live and work and thus constitutes the first element of a continuing health care process (WHO, 1978a). A health system, based on primary health care was adopted as the means of achieving the goal of health for all by the year 2000, WHO, (1978a) most developing countries of the world, for which the scheme was designed, have failed to seriously implement it up till this moment (in the year 2015). Hence the goal of "health for all" remains unattained in all such countries (WHO, 1978a).

Examining the philosophy from the critical view point of the definition of primary health care, it is easy to assess the orthodox practice alongside the traditional type of health care in the African context, Akerele (1988) specifically in the areas of social acceptability, cost affordability, self-reliance, cultural compatibility,

relevance and community participation, the orthodox or the modern western-based medicine and have not been adequate for majority of African populations and that if we must make progress, there is an inevitable need for the official integration of traditional medicine and the utilization of traditional medical practitioners into the primary health care in Nigeria and in Africa at large. The only health care providers close to them are the traditional medical practitioners, living with them and providing health care services in the same communities (WHO, 1978a; 1978b).

Incorporation of Traditional Medicine into Orthodox Medicine:

The western type of health institutions are out of reach of most people in terms of distance and cost, especially at the village setting (WHO, 1978a). On the other hand, the orthodox medicine as currently made available today in Nigeria (as in most African countries), so long as every nook and corner of our rural populations in Africa cannot yet be provided with the basic health care needs including full-time resident medical personnel and readily available and affordable drugs, the practice of conventional medicine has failed us woefully (Akerle, 1988; Enwonwu, 2003). Although, wherever modern health facilities exist traditional medicine is incomparable, Enwonwu, (2003) therefore, the most workable health agenda for Africa is the institutionalization of traditional medicine in parallel (not in complete fusion) with orthodox medicine, within the national health care scheme in order to move the health agenda forward. Effective health agenda for the African continent can never be achieved by orthodox medicine alone unless it is complemented by traditional medicine practice (WHO, 1978b; Akerle, 1988; Sofowora, 1993b; Enwonwu, 2003).

The Role of Traditional Medicine Practitioners and Government on the Improvement of Health Care Delivery

The traditional medicine practitioners (TMP) or traditional healers (TH) is described as a person who is recognized by the community in which he lives as competent to provide health care by using vegetable, animal and/or mineral substances and certain other methods, WHO (1978b); serving as the nurse, pharmacist, physician, dentists, mid-wife, dispenser etc. The specialists include herbalists, bone setters, traditional psychiatrists, traditional pediatricians, traditional birth attendant (TBA), occult practitioners, herb sellers, general practitioners etc, WHO (1978b); Akerle (1988); Sofowora (1993b); they are certainly more readily available, accessible and approachable than the orthodox physicians while their services are much more affordable than modern medical facilities. Relatively, no doubt the traditional healers diagnosing and managing various common diseases at primary health care level, with various herbal dosage forms namely: concoctions, decoctions, infusions, dried powder, ointments, tinctures and macerates are much closer to the community than the orthodox doctors who are mainly found in urban health care locations (Wallis, 1961; Akerle, 1988). The TMPs administer these medications through various routes such as oral, rectal, intra-uterine, sub-cutaneous, external or topical applications (Wallis, 1961; Akerle, 1988; Sofowora, 1993).

Although most government in Africa are yet to pass into law, the official recognition of their practices (like in China, Japan, India, Thailand and Korea), the practitioners have been generally acknowledged excellence at PHC level in the areas of bone setting, psychotherapy in psychiatry, hydrotherapy as well as obstetrics and gynaecology (by the TBA) (Sofowora, 1993b). Whether approved or not by the government traditional medicine continues to play a very significant role in the medical primary health care implementation in Africa and other developing countries of the world, most especially in the rural areas which cover almost 80% of the entire population (WHO, 1978a).

The World Health Organization has since urged developing countries of the world to utilize the resources of traditional medicine for achieving the goal of Primary Health Care, WHO (1978a); this injunction stems round the various advantages of traditional medicine namely; low-cost, affordability, ready availability, accessibility and acceptability and perhaps low toxicity. The practitioners are more so, ready sources of medicinal man power. It is also expected that in recognizing them and hence utilizing the advantages, the various disadvantages of the practice can also be resolved. These include lack of adequate scientific proof, imprecise diagnosis and dosage, under standardized medicines and occult practices (Maxwell, 1962; Enwonwu, 2003).

Challenge of Traditional Medicine and the Way Forward

Traditional medicine has demonstrated its contribution to the reduction of excessive mortality, morbidity and disability due to diseases such as HIV/AIDS, malaria, tuberculosis, sickle-cell anaemia, diabetes and mental disorders (Lewis and Lewis, 1977; Bailey and Day, 1989). Traditional medicine reduces poverty by increasing the economic well-being of communities, develops health system by increasing the health coverage to the people (WHO, 1978b).

The major challenge is that scientifically based evidence on traditional medicine, quality standards and regulations are not being developed at the same pace as the demand for the medicines (WHO, 1978b). Therefore, member states of WHO African region need to scale up institutionalization of African traditional medicine in their health system. Institutionalizing African traditional medicine in health system is a key pillar in the promotion of traditional medicine in this 21st century (WHO, 1978b).

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