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Traditional Herbal Medicine in National Healthcare in Kenya

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Herbal medicine is becoming increasingly popular all over the world. There are studies suggesting that herbal therapies can be effective in treating certain conditions. This has been confirmed by the classic randomized, placebo-controlled, double blind well-designed clinical trials. With reliable information on herbal medicine, it is easier to integrate these therapies with the mainstream medicine. It is unlikely that patients will completely abandon use of era I medical interventions but rather in a more pragmatic manner will choose to integrate other interventions as a part of their overall armamentarium of medical interventions. Can herbal medicine be integrated with mainstream medicine in Kenya and what are the challenges? This paper discusses these and other questions in respect of herbal medicine.

Key words: Traditional herbal medicine, national healthcare, challenges, Kenya

INTRODUCTION

Traditional herbal medicine is a worldwide practice that has preoccupied mankind in his evolution. It is estimated by WHO that 70-90 % of Africa's rural population still relies on traditional medicine to meet, partially or totally, its health needs. Indeed, herbal medicine is recognised by WHO as an essential component of primary health care [1]. At the moment, a large number of people in developing countries irrespective of their social status, ethnic group or religion regularly uses complementary medicine. It is estimated, for example, that overall in Kenya, the doctor: patient ratio is 1:7142. However complementary medicine practitioner: patient ratio is much better for example 1:987 (Mathare-urban areas) and 1:378 (Kilungu-rural area). These figures are not very different from those in other developing countries [2].

It is estimated that 33 % of the drugs produced in the developed countries are derivatives of compounds originally isolated from higher plants. 25 % of these owe their origins to the tropical rain forests of Africa, Asia and South America. These products are estimated to have an annual retail value worldwide of about $65 billion [3-5]. For example, the counter retail value of *Prunus africana* bark used in treatment of benign prostate hypertrophy is US$ 200 million [6].

If, for example, the oncologists' chemotherapeutic armamentarium today were examined, one would find that there are a number of drugs including vibramycine, vincristine, etoposide, and taxotere (docetaxel, for advanced breast cancer), all developed from higher plants resulting from traditional herbal use. Others are artemisinin and its derivatives (the most recent anti-malarials), digoxin, aspirin, d-tubocurarine, reserpine and ephedrine [7-8].

The expanding use of herbal medicine is gaining recognition globally. This practice is now being treated, in many developed countries, as legitimate mainstream medicine. More and more people in the western world are looking to foods and supplements extracted from natural sources to take them beyond good nutrition into the prevention and treatment of disease. While in developing countries accessibility and affordability is the driving force for increased use of herbal medicines, in developed countries popularity of herbal medicine has been fuelled by concern about the adverse effects of conventional drugs, questioning of the approaches and assumptions of conventional medicine, and greater public access to health information. For

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many patients, herbal medicine appears to offer gentler means of managing chronic, debilitating diseases such as heart disease, rheumatoid arthritis, cancer, diabetes and mental disorders as compared to conventional medicine [1].

In the USA, more than 40 medical schools have added courses on alternative medicine to their curricula, including the top rated Harvard and Johns Hopkins medical schools. In 1997, Bastyr University (USA) opened the first complementary medical clinic merging natural and conventional treatments. It is estimated that over 60 million people in the USA (42 % of the population) regularly use these medicines spending over US$ 10 billion [9]. 78 % of the people living with HIV/AIDS use complementary medicine. Funding for complementary medicine had reached US$ 68.3 m by 2000. Complementary and alternative medicine (mainly herbal medicine) is regarded so seriously in the USA that there is a National Center for Complementary and Alternative medicine, established by the US Congress and overseen by The White House Congress Commission (senators and experts)

The health care systems of France and Germany provide a very strong role model in that doctors and pharmacists receive training in herbal medicine. Herbal medicine is a core part of their treatment options. In Germany, 80 % of physicians prescribe phytomedicines, which account for 27 % of all over-the-counter medicines and 52 % of adults first turn to natural remedies for treatment of illnesses. The same trend applies to other developed countries with Canada reporting 70 %, France 49 %, Australia 48 % and Belgium 38 % of their populations as regular users of complementary and alternative medicine [1]. In the UK, there are many training/research institutions and outlets for complementary medicine and about 3000 clinics offering herbal medicines. In 1997, garlic, *Ginkgo biloba*, and Ginseng sales amounted to over £25 million in the UK [10]

European Union Parliamentary Assembly member states have been called upon to promote official recognition of herbal medicine in medical faculties, to encourage its use in hospitals, and to encourage allopathic doctors to study it at university level. Herbal medicine, together with other forms of complementary medicine, is practiced in public hospitals in Japan, USA, Germany, Canada, Nigeria, Australia and Norway [1].

In the new European legislation on traditional herbal medicine, superfluous testing and charges borne by pharmaceutical companies is avoided, as the regulation does not require new clinical or pre-clinical testing if sufficient information on a given product is already available. Being in medicinal use for a sufficiently long time and hence considered not harmful under normal circumstances is deemed a good justification for registration. Bibliographical as well as expert evidence for long usage is also given due consideration [11]**.** A Committee for Herbal Medicine has developed a simplified registration and authorization of these products which is expected to increase the confidence of consumers and manufacturers as they can now expect the best available expertise in the sector to be involved in the evaluation of these products.

In the Eastern countries herbal medicine is very advanced and widespread. In China for example, a combination of Good Agricultural Practice, Good Extracting Practice, Good Manufacturing Practice, Good Laboratory Practice and Good Clinical Practice has led to the development of safe, high quality and efficacious medicines from herbal medicines. Over 538 traditional medicines consisting mainly of herbs have now been included in the Chinese Pharmacopoeia of 2005. This is just a fraction of about 11,118 plants used in tradition Chinese medicine. In China there are numerous hospitals, universities and large pharmaceutical industries dealing with herbal medicines [12].

Many African countries have in place a legal framework, a national management or coordinating body and national budgetary allocation for complementary medicine and these include Ghana, Mali, Nigeria and Rwanda.

Clinical Studies

There are many clinical studies suggesting that a number of well formulated and standardised

herbal medicines are effective in treating certain conditions. Some of these can be highlighted.
Ginkgo (*Ginkgo biloba)* for example is used in the treatment of age related mental malfunction, including multifarct dementia and Alzheimer's disease [9, 13-14]**.** It has been found safe and capable of stabilizing and, in a substantial number of cases, improving the cognitive performance and the social functioning of demented patients. Clinical findings include increased speed of information processing, faster reaction times on tasks and improvement of quality of life and sleep parameters.

St**.** John's Wort *(Hypericum perforatum)* is well known for the treatment of moderate depression, anxiety and nervous unrest [9**,** 15-16]. *Prunus africana*, *Urtica dioica, Serenoa repens,* and *Cucurbita pepo* are known for their usefulness in the treatment of benign prostate hyperplasia. This has been supported by many clinical studies [17-22].

A clinical evaluation of the antidiabetic and adaptogenic properties of the common vegetable *Momordica charantia* (Karera) extract has been carried out with good results [23]**.** The same applies for *Jatropha curcas* in the treatment of common warts [24]. Double-blind, placebo controlled, multi-centre studies have demonstrated the efficacy and tolerability of Valerian (*Valeriana officinalis*) and its combinations in improving the quality of sleep [25].

Pycnogenol® , a formulation from the grape seed, *Pinus palustris*, has been shown to be effective in patients with chronic venous insufficiency, secondary to deep venous thrombosis or idiopathic venous-lymphatic deficiency [26].

There are also many examples of polyherbal formulations which have proved useful in the treatment of some ailments. The efficacy of a multiherb indigenous formulation in patients with bleeding piles has been reported in a clinical study [27]. It appeared to produce significant beneficial effects in patients with bleeding piles. Niprisan® has been found to be a safe and efficacious herbal medicine for the management of patients with sickle cell disorder [28]; Liv. 52® as a hepatoprotective medicine [29]; and Mupal® in the treatment of duodenal stomach ulcers [30]. A herbal preparation from a traditional herbal practitioner in South Africa has been found to significantly reduce viral load (85 %) and increase CD4+ T cell counts (226 %) [31].

Herbal Medicines in Kenya

Many people in Kenya are already taking herbal medicines as self medication. These are usually prepared at home, or obtained from herbalists, pharmacies and supermarkets. The process of registration of herbal medicines and other complementary medicines is carried out by the Pharmacy and Poisons Board which is the drug regulatory authority in Kenya.

Unlike in other countries of the world, medical doctors in Kenya do not receive any training in herbal medicine. In Germany and France for example, all health professionals receive training in herbal medicine and herbal medicines form a core part of their treatment options. In many other countries of the world and especially in Asia, medical doctors acquire postgraduate degrees or diplomas in herbal medicine.

Integration into Mainstream Health Care

Several challenges face Kenya in the integration of traditional herbal medicine in national health care. These include: lack of a national policy and regulatory framework; issues pertaining to safety, efficacy, quality, access and rational use of traditional herbal medicine and lack of healthy cooperation and communication between complementary medicine providers and medical practitioners. Lack of a clear policy on Intellectual Property Rights and equitable benefit sharing relating to herbal medicine, traditional/indigenous knowledge, biopiracy and unsustainable use of medicinal plants are other challenges.

Kenya is entering a new era when community health services will likely occupy a more prominent position in national health priorities. The type of processing and manufacturing of a large array of medicinal plants produced in rural areas, and in turn the ability of Kenya to invest in Good Manufacturing Practice in phyto-

pharmaceutical industries will determine the future, quality and affordability of these community health services.

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