

The role of Herbal Medicine use in HIV/AIDS treatment

RO Orisatoki⁺ & OO Oguntibeju*

⁺School of Public Health, University of Saskatchewan, Health Sciences Building, 107 Wiggins Road, Saskatoon, SK , Canada S7N 5E5

*Department of Biomedical Sciences, Faculty of Health & Wellness Sciences, Cape Peninsula University of Technology, Bellville, South Africa.

+ Corresponding Author: **Rotimi O Orisatoki**, rotioris@yahoo.com

Telephone number: (306) 966-1649 Facsimile number: (306) 966-7920

Abstract

Herbal medicine use is becoming very popular in many countries especially in the western world, where public health safety has become a concern, especially its concomitant use with orthodox medicine. The devastating impact of HIV/AIDS pandemic coupled with the severe shortage of health personnel has compelled patients to develop coping mechanisms by adopting alternative sources of primary health care, one of which has been the use of herbal therapies. An integration of herbal medicine into the current medical curriculum will enable future physicians to communicate better with their patients on this evolving healthcare system. This review briefly examines the role of herbal medicine in HIV/AIDS treatment and management. It is hoped that this review will provide important and relevant information that will help policy makers to put in place control measures against the abuse of herbal therapy.

Introduction

The use of herbal medicine is increasingly becoming more popular in many countries [1]. This practice has continued to be a main source of health care in the rural communities especially in developing countries, since modern medicine has not been able to reach the majority of the populace. Also, herbal medicines are still being commonly sold by practitioner and their agents without any restriction with most of the health care providers receiving little or no formal training in this area. This lack of proper training may be associated with the inability of herbal practitioners or their agents to answer questions patients have about its efficacy either as a supplement to orthodox medicine or as a therapy to treat or prevent disease. Their inability to answer questions may partly be linked to the fact herbal medicine involve a sophisticated theory or system, with the knowledge that is often passed on, verbally or otherwise, from generation to generation [2,3,4]. Notwithstanding, there have been a remarkable increase in the popularity of herbal preparations especially in developed countries, which has stimulated considerable public health concern among physicians who are sometimes uncertain about the safety of herbs especially when used concomitantly with regular orthodox medications [5].

HIV/AIDS pandemic is currently the most socio-economic challenge that is facing the world at large as it affects mostly the young and economically productive population [6]. A study has shown that majority of people living with HIV/AIDS are susceptible to fungal and bacterial opportunistic infections that result from immunosuppression and treatment of such infections is therefore one of the areas that traditional health services for the control of the disease is prevalent[6]. The World Health Organization (WHO) estimates that 4 billion people (80% of the World's population) use herbal medicines for some aspect of pri-

mary healthcare [7]. Treatment of diseases using traditional remedies is an age old art which has been confined into the backstage due to access to western biomedicine, adequate education, employment opportunities and economic growth [8].

Regional use of herbal medicine

Herbal medicine in the Caribbean

Afro-Caribbean pharmacopoeia is the body of knowledge and practices around medicinal plants with its origins in the cultures of African slaves brought to the Caribbean [9]. Herbal baths are common in Haitian culture for both spiritual and medicinal practices and represent the second most important category of administration after ingestion in the region [10]. There is significant use of herbal remedies in the Caribbean and recent studies in Trinidad show relatively high prevalence of use for symptomatic relief in asthma and therapeutic management in diabetes mellitus [11-12]. No herbal treatment of HIV/AIDS was seen in all literature review done by the authors.

Herbal use in North America

The increasingly diverse US immigrant populations have led to the growing use of medicinal herbs. A survey conducted by the National Center for Complementary and Alternative Medicine in 2004 revealed that use of herbal therapy or of other natural products was most common of the complementary and alternatives medicines and the commonest reason for use of herbal medicines by Americans was that they believed they would improve health when used in combination with conventional medical treatments [13].

Herbal use in Africa

Herbs have a long history in African traditional medicine, however there has been increasing attention and interest in its use in recent times [3]. Traditional herbal medicine has continued to be a main source of health care in the rural communities and heavy reliance on it by the majority of the sub-Sahara Africa population has led to the generally accepted conclusion that it is most preferred form of treatment of HIV-related symptoms [14].

Herbal Use in Asia

Medicinal herbs are a major component of Traditional Chinese Medicine (TCM). It is estimated that over 600 different herbs have been used to treat various human diseases including those caused by viral infection, accounting for approximately one-fifth of the entire Chinese pharmaceutical market and are regarded as the state cultural treasure by the Chinese government [15]. Studies on the anti-HIV activities and mechanisms of TCMs are very limited and are expected to accelerate. Herbs native to Japan were classified in the first pharmacopoeia of Japanese traditional medicine in the ninth century [16]. Ayurveda is a herbal medical system primarily practiced in India. It includes diet and herbal remedies, while emphasizing the body, mind and spirit, in disease prevention and treatment [17].

Herbal use in Europe

Complementary or unconventional treatments are used by many doctors and other therapists throughout Europe. The major forms are acupuncture, homoeopathy, manual therapy or manipulation, and phytotherapy or herbal medicine. The relative popularity of therapies differs between countries, but public demand is strong and growing. Regulation of practitioners varies widely: in most countries only registered health professionals may practice, but in the United Kingdom practice is virtually unregulated. Germany and some Scandinavian countries have intermediate systems. Legal reforms are in progress in the Netherlands and the United Kingdom. European institutions are starting to influence the development of complementary medicine [18].

In Germany, herbal medications are dispensed by pharmacists, subjected to same criteria for efficacy, safety and quality as are other drug products. Despite the progress in orthodox medicine, interest in alternative medicine, including herbal medicine is the increase. A great variety of plants are used for medicinal treatments, either the dried plant or a specific part of it (root, leaves, fruit, flowers, seeds), is formulated into suitable preparations-compressed as tablets or made into pills, used to make infusions (teas), extracts, tinctures or mixed with excipients to make lotions, ointments, creams [19-20].

Herbal medicine in the treatment of HIV/AIDS

Traditional herbal use has been reported to be common among individuals with moderate and advanced HIV disease [21]. In Africa, traditional herbal medicines are often used as primary treatment for HIV/AIDS and for HIV-related problems including dermatological disorders, nausea, depression, insomnia and weakness [22]. The use of traditional herbal medicine by AIDS patients after HIV diagnosis was noted in a study in Uganda [21].

Despite a paucity of evidence on effectiveness and the possibility of serious side effects, some African ministries of health currently promote traditional medicines for the treatment of HIV and associated-symptoms. In the case of South Africa, the Ministry of Health is actively

promoting the use of traditional medicines with antiretroviral treatments [23]. Two principal African herbal compounds used for HIV/AIDS treatment in sub-Saharan Africa include *Hypoxis hemerocallidea* (African potato-an immunostimulant) and *Sutherlandia*. These two herbal remedies are currently recommended by the South African Ministry of Health for HIV management [24].

We believe that medical practitioners and researchers ought to be informed about the use of herbal medicine for both HIV-related illnesses and other co-morbid conditions as part of their history taking and clinical assessments. Failure to do so may cause health-care workers to inadvertently overlook the full spectrum of potential herb-drug interactions that may be experienced by an AIDS patient. For instance, a study in Canadian found that more than 53% of HIV outpatients taken traditional herbs did not report its use to their treating physician [25]. Also, antiretroviral therapy recipients have been reported to use herbs to alleviate some of the negative side effects of antiretroviral (ARV) drugs such as nausea and diarrhea [21].

In North America, commonly used herbal dietary supplements have been found to impede on ARV drug effectiveness. Specifically, garlic supplements (*Allium sativum*) and St John's Wort (*Hypericum perforatum*) have been shown to have detrimental effects on the plasma concentrations of *saquinavir* and *indinavir*. [26].

The most common reasons patients gave for using herbs include general wellbeing, relaxation, pain, stress, spiritualism and healing. It was reported that 9% of outpatients believed that it was possible to treat HIV solely with the use of herbs, while others use it to improve energy level, to supplement dietary intake and to enhance response. However, in a US study, the most common treated conditions using herbal medicine include anxiety/fear, depression, pain and neuropathy [25, 27].

Fogarty et al. (2007) also found that 44.3% of an Australian HIV patient sample reported mixed use of marijuana for therapeutic and recreational purposes [28].

Although modern medicine may exist side-by-side with such traditional practice, herbal medicines have often maintained their popularity for historical and cultural reasons, so such people see traditional medicine as a complementary health care not alternative to modern medicine [21]. However, there are some challenges to collaboration between traditional herbal medicine and orthodox medicine especially in the developing countries mainly due to shortage of mutual trust and appreciation between the two health system, limited availability of training in basic preventive medicine, palliative care for traditional herbal healer, lack of meaningful referral between conventional health providers and traditional herbal healers, exclusion of traditional healing methods from the training curricula of doctors and traditional healers fear of losing their treatments secrets to scientists and researchers [14]. A patient's level of knowledge about HIV disease, a belief that ART is effective and prolongs life and recognition that poor adherence may result in viral resistance and treatment failure all impact negatively upon a patient's ability to adhere. Beliefs about the medications (including traditional) themselves also play a role in adherence. Patients who report low confidence in the efficacy of the medications and perceive minimal benefits resulting from ART are less likely to be adherent. It is estimated from other studies that at least 30% of patients on ART will use any form of traditional complementary and alternative medicine [29].

Because the exact level of risk and/or benefits resulting from traditional herbal medicine-antiretroviral- drug co-therapy amongst AIDS

patients is largely unknown, the concerns raised about herb-ARV drug interactions, communication between patients and physicians about herbal medicine is valuable in enabling physicians to address issues of potential herb-drug interactions and ensuring appropriate medical care [30]. The range of care for patients encompassed a broad range of treatment options. South Africans living with HIV/AIDS are now encouraged to make their own informed choices about the types of treatment they wish to seek, including antiretroviral (ART), exercise, nutrition as well as traditional and complementary medicines (TCAM) [31]. The devastating impact of HIV/AIDS pandemic in the region (Southern Africa) coupled with the severe shortage of health personnel might have forced the inhabitants to develop coping mechanisms by adopting alternative sources of primary health care, one of which has been the use of herbal therapies [32].

Conclusion

The inclusion of traditional herbal healers in the health care system especially in primary healthcare team in developing countries could improve quality of life and safety standards and their use as a complimentary therapy could play a role in the palliative care of people living with HIV/AIDS.

While many years of herbal use in traditional settings can be used as a testimony that a particular herbal ingredient is effective or safe, several problems need to be addressed. It is now known that ingredients that form part of herbal preparations are incorporated into modern practice and are now used in developed countries as part of health promotion or disease prevention strategies. One of the most difficult issues to contend with in translating traditional herbal practices into conventional western medicine is the individualization of prescription containing multiple herbal and other ingredients.

Whether backed by medical science or simply by years of use, traditional treatments remain popular and as more research is carried out, some may play a complementary role in modern medicine.

There is an urgent need for educational intervention with regard to herbal medicine in the training of our physicians. We propose that an integration of herbal medicine into the current medical curriculum so that future physicians would be better prepared to communicate with their patients on this healthcare modality. Continuing education programme are also recommended so that practicing physicians would have the opportunity to upgrade their knowledge in this rapidly expanding area of significant public health concern.

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