

## Traditional Health Care System and Challenges in Developing Ethnopharmacology in Africa: Example of Oku, Cameroon

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**KEYWORDS** Traditional Health Care System. Indigenous Knowledge. Medicinal Plants. Ethnopharmacology. Cameroon.

**ABSTRACT** Most traditional African Cultures believe that, to maintain the health and vitality of human beings, they have to address forces in both the natural and the spiritual world. The paper uses a combination of primary and secondary data sources to identify the strengths, weaknesses, opportunities and threats of the traditional health system. It presents some concepts and practices, some characteristics of indigenous knowledge transfer system and some aspects of their link with the Western health care system. The paper concludes that the traditional health system is very complex. Failure to understand and appreciate these complexities has led to a great number of failures in the cooperation between African traditional medicine and the Western health care system. It therefore identifies the scope to enhance the strengths and challenge the weakness of the traditional practices. It recommends that there is a need to research for methods of testing, refining and validating indigenous knowledge in traditional medicine in order to support the process of integration in the Western health care system.

### INTRODUCTION

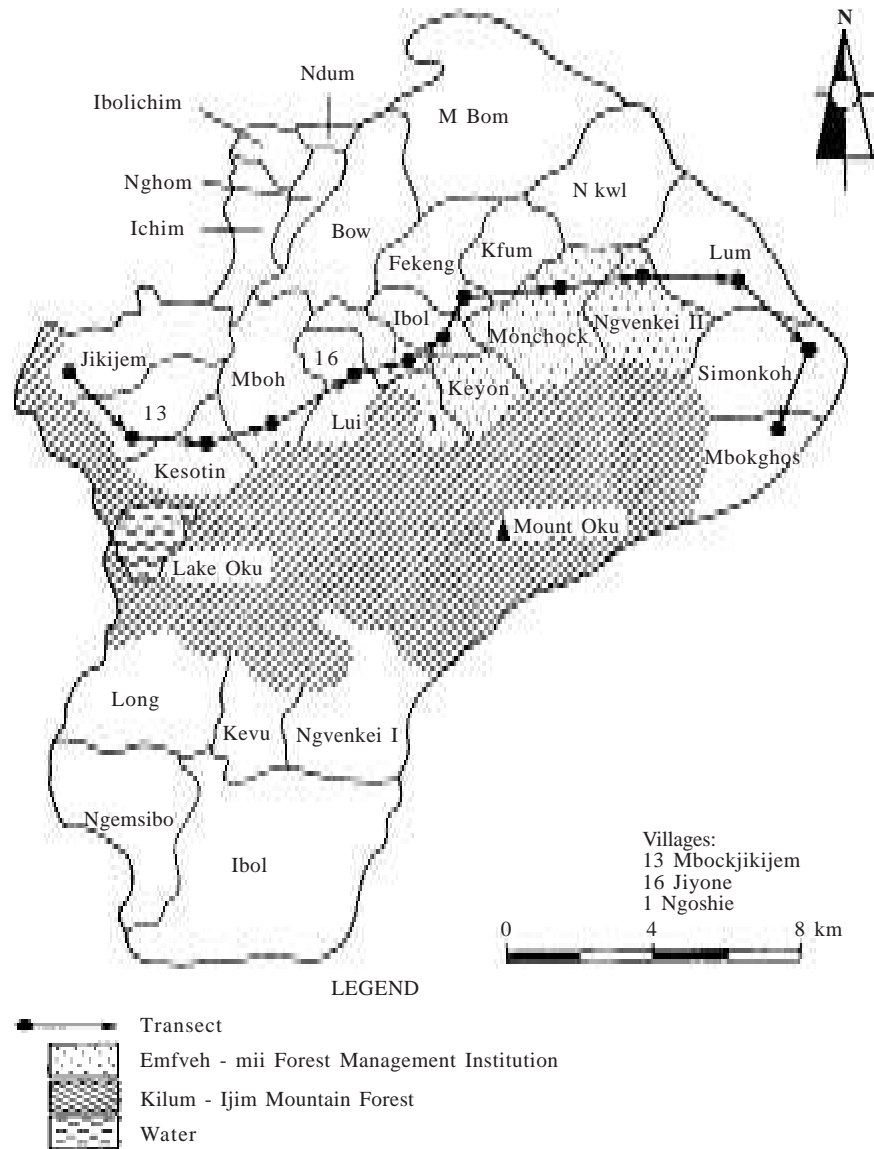
Before the advent of Western Science, medicinal practice as applied to human being was probably very similar in all parts of the world (F.A.O. 1984). The healing art consisted of two major elements that were often used in combination: the application of natural products and an appeal to spiritual forces. Natural products include extracts or decoctions from leaves, roots, oils, fats, animal parts or insects. Appeals to spiritual forces involved incantations, symbols and sacrifices among other rituals (Darshan and Bertus 2000; Juan et al. 2000). These practices are still very common in many cultures. The World Health Organisation (WHO) estimates that 70 to 80% of the people in developing countries use traditional medicine as a major source of health care. Many African cultures have a holistic perception of health and vitality. Vitality is the energy to sustain life. It is the essence of health (Darshan and Bertus 2000). In this perception five entities are considered: God, the superhuman and ancestral spirits; mankind; biological life forms (plants and animals); and finally, all phenomena and objects that do not have a biological life. De Smet (2000) and Mbiti (1969) describe how these entities are always included in traditional African health care. In addition to these five entities, there is a "vital life force" that permeates the whole universe (Esdt sieck 1977; Haverkort et al. 1999; Haver-kost 1999).

For the African every person, plant, animal and natural phenomenon is a carrier of the divine. God is the source and ultimate controller of the vital forces, while the spirits have access to some of these forces. A few human beings have the knowledge and ability to tap, manipulate and use the vital forces, such as 'medicine men', witches, priests and rainmakers. The vital life forces can be benevolent or malevolent, and used in either positive or negative ways (Bossard 1996). The role of witches and to a lesser extent, diviners, is to address the "negative" powers. They can cause or cure a curse given to a person, an animal or a location. The priests and traditional healers normally use positive spiritual powers. In order to appease the gods, people have to perform rituals and make sacrifices. The traditional cultures accept that the vitality of human beings, animals, plants and environments are interrelated. Moreover, only when different needs at the physical, mental and spiritual level are balanced, is well-being and vitality possible. Ironically, traditional medicine is today being challenged by Western biomedical tradition. In most African societies, the traditional health care system operates side-by-side with the Western health care system. The paper investigates the functioning of the traditional health care system, its strengths and weaknesses, its link with the Western health care system and the scope for the development of ethnopharmacology.

**THE STUDY AREA**

The Oku village communities are located in the Bamenda Highlands of Cameroon. The area is characterized by several micro-Kingdoms located in mountainous landscapes. The highest peak is Mount Oku (3011m above sea level). The grid reference of the summit of Mount Oku is 6012°N and 10032°E (Fig. 1). Land under na-

tural forest including degraded forest is 6900 hectares, area under tree and shrub Savanna 2400 hectares, grass Savanna 1240 hectares and montane forest 17,325 hectares (Macleod 1986). A population of 300,000 people depends on the forest for livelihoods. The area possesses some of the most intact cultures of the region. Mountain dwellers are characterized by isolation, remoteness, marginality, vulnerability to the inhosp-



**Fig. 1. Location of the study area and villages investigated in Oku, Cameroon**

pitable environment and the drudgery of farm labour. Their culture and indigenous knowledge system have therefore been based on learning from and adapting their civilization to the environment.

Culturally, the fact that these ethnic minorities are outside of the dominant cultures of mainstream society in Cameroon, they provide an opportunity for an understanding of the functioning of the traditional health care system and its ethnopharmacological resources. Villages around Mount Oku have long been known as centres of traditional healing. People travel over 400km to receive treatment. Although traditional medicine in the area has been the focus of several recent studies (Krafezyk 1982 cited by Macleod 1986), little is known about the traditional health system and the plants that are used in the preparation of medicines. Studies have focused more on the ethnobotanical studies of the plant resources of the area (Ndenecho 2007; Ndenecho 2006; Tame 1993 and Thomas 1987). Further work is necessary on scientific identification and inventory of medicinal plant species and their pharmacological uses.

#### **DISEASE PERCEPTION AND RESEARCH METHODOLOGY**

According to Morris (1996) and Bossard (1996), Africans distinguish between four causes of disease. First, the natural cause of disease, equated with acts of God. Second, there are diseases related to moral or ritual infringement, like sexual abuse, stealing, killing or ignoring taboos. The third kind of disease is associated with witchcraft or sorcery. Finally, there are diseases associated with spirits, like the ancestral spirits. In order to understand and appreciate these complexities, a participatory assessment of the characteristics of the traditional health systems was made through dialogue with local people. A total of 26 traditional healers are randomly selected on a west-east transect (Fig. 1) from 13 villages, that is, a herbalist and a diviner per village. Two complementary survey methods were used: informal interviews addressed to each healer and diviner; and observation of the healing and divination process. The data collected was complemented with secondary sources. Based on ethnobotanical surveys for the area, medicinal plant potentials were established (Ndenecho 2007; Ndenecho 2006; Tame 1993; and Thomas 1987).

An analysis of the data provided insights in the functioning of the traditional health care system, the plant species commonly used, the strengths and weaknesses of the system and the feasible links with western medicine.

### **RESULTS AND DISCUSSION**

#### **The Concept of Traditional Medicine**

All the healers (100%) and diviners (100%) believe that life forces are manifested in everything living or non-living. These life forces all have their own personalities and cosmic place. Therefore, the preservation or restoration of health is impossible without them. Traditionally, they use herbal and animal products as medicines, intoxicants, and poisons in their struggle for survival and in their quest for religious experiences. A healer's power is not determined by the number of medicinal plants he knows but by the ability to apply an understanding of the intricate relationship between the patient and the world around him. The healers demonstrate outstanding ability and wisdom. All 13 healers reported specialized and renowned knowledge of herbs and treatment for special types of illness. On the other hand, the diviners reported (100%) that they were being sought out more often to diagnose obscure maladies and treat them by the method of discovering what form of "spiritual uncleanness" the patient was suffering from and then perform a suitable purification ceremony to remove the cause. Unlike a doctor trained in Western biomedicine, the healer looks for the cause of the patient's misfortune in the relationship between the patient and his social, natural and spiritual environment.

The diagnosis of disease by a traditional healer is based on an understanding of the concepts that, it is not limited to direct observation tests ((Bossard 1996). Many supernatural methods are used, such as "reading" an egg, and cola nut seeds, or cowries. Sometimes fowls are used in diagnosing disease. In the people's culture "healing hands are a gift from the gods". There are no schools or other formal training centres for learning traditional healing practices. Preventive and curative measures are in line with the holistic view of health and disease (Pottier 1993). They combine the use of herbs with certain symbolic and mystical activities. Along with

the medicinal treatment, a ritual is needed to re-create adequate spiritual conditions for a healthy life. Failure to understand and appreciate these complexities has led to a great number of failures in the cooperation between healers and outsiders (Durshan and Bertus 2000).

### The Traditional Health System

The traditional health system has the following components:

- **Diviners:** Divination and healing are often practiced by the same person, who has the power to deal with the spiritual realm. They look for disturbing events in the past, which can cause misfortune if left untreated. Many healers are specialized in one or more biomedical aspects, such as herbalism, midwifery or surgery. There has been a tendency in western medical journals to play down such expertise by focusing on the risks of traditional medicine. Though there is a genuine cause for concern, it is unfair to pass judgement on traditional healing simply on the bases of its worst results.
- **Herbalism:** Common ailments, such as headaches or coughs are considered to be diseases with natural causes. Their symptoms are treated at the household level, without resorting to magical practices. For other illnesses, or when a common ailment persists, recourse is sought to divination in combination with herbalism. Herbal medicines are applied to every part of the body in any conceivable way. There are oral forms, enemas, fumes to be inhaled, vaginal preparations, fluids administered into the urinary tract, preparations for the skin and various lotions and drops for the eye, ear and nose.

The traditional healer knows the virtues of the native plants. The healing includes all elements of the natural community, that is, the human society and its environment; mountains, clouds, plants, water, animals and streams. Not everyone can cure everything. According to the lineage, this “depends on the hand of each traditional healer”. The belief is that the cure comes from something sacred deep within the healer. For this reason the genuine healers never ask to be paid for their services. Their compensation depends on the discretion of the patient.

Table 1 presents some medicinal plants of

Mount Oku. Hundreds of wild plants have medicinal value but this knowledge base remains secret. Few plants are used to cure a single illness or disease. The preparation of a mixture of several plants is common. These medicinal plants cannot be gathered at any time of the day; they have their proper time. This is because the spirits of the plants can only be found in their “bodies” at certain moments. Moreover, they must never be pulled or torn violently during harvesting; first, the healer must pray to the guardians of the plant using incantations. The mountain is the place with particular strength of the medicinal plants. Mount Oku cloud forest is well known for its abundant biodiversity and rich endemism among vascular plants.

The plants presented in Table 1 constitute the base for herbal medicine in the area. De Smet (2000) noted that more than 50% of the western drugs currently available are either directly or indirectly based on natural substances. Krafezyk (1982) reported that in the area, 81% of the population depends on the traditional health care system because it is affordable. They resort to Western medicine when traditional medicine fails. He also reported 43% of urban dwellers as dependent on the traditional health system. Traditional medicine stands and stores are becoming a common feature of urban landscapes in the region. These have been promoted by common initiative groups and non-governmental organizations composed of traditional healers. Unfortunately, the habitats of these medicinal plants are threatened by anthropogenic degradation. The highlands are a land pressure area (Ndenecho 2005).

### Threats and Opportunities

In many parts of the region both traditional and modern health systems exist. Normally, people consult both systems, though for different reasons and during different stages of the disease. Certain diseases are believed to be better treated by one of these systems. Despite the increased interest in traditional health care, forms of true cooperation between the two systems are rare. Under European colonial rule the indigenous medical practitioners lost much of their influence. Europeans branded them as wizards with obscure practices. Traditional healers may refer to modern medicine, but the reverse is rarely the case. There is a tendency in the western-oriented bio-

**Table 1: List of medicinal plants of Oku**

<i>Species</i>	<i>Local name</i>	<i>Form</i>	<i>Use</i>
<i>AGAVACEAE</i>			
<i>Dracaena deisteliana</i>	Nkeng	shrub	ritual
<i>ANACARDIACEAE</i>			
<i>Sorindeia peleoides</i>	Kintieh'she	shrub	ritual
<i>ARALIACEAE</i>			
<i>Schefflera barteri</i>	Elang	small tree	medicine
<i>APOCYNACEAE</i>			
<i>auvolfia vomitoria</i>	Ebtum	small tree	medicine
<i>Voacanga africana</i>	Ebtum	small tree	medicine
<i>BASELLACEAE</i>			
<i>Kigelia africana</i>			
<i>Markhamia tomentosa</i>	Kefu feyin	climber	medicine
<i>BIGNONIACEAE</i>			
<i>Kigelia Africana</i>	Kinlieh'she	small tree	ritual
<i>Markhamia tomentosa</i>	Enggweh	small tree	medicine
<i>BORAGINACEAE</i>			
<i>Cynoglossum sp.</i>	Imbanen	herb	medicine
<i>COMPOSITAE</i>			
<i>Grassocephalum sp.</i>	Nganggang	herb	medicine
<i>Lactuca grandulifera</i>	Chyinauwum	herb	medicine
<i>Lactuca schweinfurthii</i>	Chyinauwum	herb	medicine
<i>CRASSULACEAE</i>			
<i>Bryophyllum pinnatum</i>	King-ketuleh	herb	medicine
<i>Kallanchoe laciniata</i>	Ketuleh	herb	medicine
<i>Kalanchoe crenata</i>	Ketuleh	herb	medicine
<i>CUCURBITACEAE</i>			
<i>Momordica foetida</i>	Ebfierfer Nak	climber	medicine
<i>ERICACEAE</i>			
<i>Agauria salicifolia</i>	Bhang	small tree	medicine
<i>EUPHORBIACEAE</i>			
<i>Euphorbia Kamerunica</i>	Ebjam	herb	medicine
<i>Ricinus communis</i>	Jang	small tree	medicine
<i>Sapium ellipticum</i>	Kehtoh	large tree	medicine
<i>FABACEAE</i>			
<i>Tephrosia preussi</i>	Kohlem	small tree	medicine
<i>Phasedus vulgaris</i>	Etuum	herb	medicine
<i>GRAMINAE</i>			
<i>Melinis minutiflora</i>	Tejang-egwei		medicine
<i>Zea imperata</i>	?	herb	medicine
<i>LABIATAE</i>			
<i>Satureja robusta</i>	Fegis	herb	medicine
<i>LEEACEAE</i>			
<i>Leea guinensis</i>	Cheng	shrub	medicine
<i>LILIACEAE</i>			
<i>Albuca nigritata</i>	Kerland fejin	shrub	medicine
<i>MARATTIACEAE</i>			
<i>Marattia frazinea</i>	Kelang	shrub	medicine
<i>MORACEAE</i>			
<i>Ficus exasperata</i>	Keghewus	shrub	Medicine
<i>Ficus Oreodryadum</i>	K'ghum figgak	large tree	ritual
<i>MYRSINACEAE</i>			
<i>Ardisia cymosa</i>	Enchia	shrub	medicine
<i>Embelia schimperii</i>	Kenlimlim	climber	medicine
<i>PALMAE</i>			
<i>Raphia farinifera</i>	Eluk	small tree	ritual
<i>PHYTOLACCACEAE</i>			
<i>Phytolacca aodecandra</i>	Etohtam	shrub	ritual
<i>PIPERACEAE</i>			
<i>Piper capense</i>	Boboi	herb	medicine
<i>PEPEROMIACEAE</i>			
<i>Peperomia fernadopoisna</i>	Mbol	small tree	medicine
<i>ROSACEAE</i>			
<i>Prunus africanus</i>	Eblah	large tree	medicine
<i>RUBIACEAE</i>			
<i>Cantium subcordatum</i>	Bangefonembessi	small tree	ritual
<i>RUTACEAE</i>			
<i>Clansena anisata</i>	Fli	small tree	medicine

medical tradition to focus on risks and play down indigenous medicine and the expertise of traditional healers (De Smet 2000). We cannot deny the drawbacks of traditional medicine, which include incorrect diagnosis, imprecise dosage, low hygiene standards, the secrecy of some healing methods and the absence of written records about the patient. The heightened interest in herbal medicine in recent years has also resulted in the emergence of quackery in urban areas. It is unfair to pass judgement on the traditional healing systems on the basis of their worst outcomes.

Indigenous knowledge represents a precious, invisible link between regions and cultures, its resources and the store of experiences nurtured by the specialist in the community. The adoption of new practices and the dominant western systems of learning and scientific investigation appear to threaten these indigenous knowledge systems (Gareth 2000). Ethnopharmacology is a form of Western science that can bring to light which traditional plants are effective and safe for incorporation into the formal health care system. In this process western drug developers must respect the intellectual property rights of the indigenous users of herbal medicines. New techniques should therefore serve to describe, analyze, validate and classify the beliefs and processes of the traditional knowledge system. Such validation according to Gareth (2000) can confirm the long process of observation, analysis and evaluation that determines each unique culture. It may also represent the basic point of reference in the process of exchange between western biomedicine and the local traditional healer.

There is need to stimulate local people and traditional health practitioners to evaluate the strong and weak aspects of their own knowledge and practices. This is certainly a sensitive issue. Can we assume that outsiders or western biomedical practitioners have the capacity and sensitivity to assess traditional knowledge and technologies? What methods exist to test and improve indigenous knowledge with a spiritual dimension?

Traditional healers are the principal professionals in rural health care services. The investigation noted that most traditional healers are willing to learn more about western medicine and to cooperate to some extent with their biomedical counterparts. They presume that this may

increase their prestige, recognition and income.

Despite rhetoric from the Ministry of Health, well-functioning programmes of collaboration between western and traditional health systems have been relatively scarce. The feeling among traditional medical practitioners is that such pilot projects have failed as a result of opposition from biomedical establishments. Moreover, some traditional healers often do not want to be incorporated in the western-oriented primary health care system as community health workers. They fear that this would look as if they accepted the superiority of western medicine, alienating themselves from their traditional roots. Their clients might feel that the healer has lost control over the total healing process and therefore is a quack.

## CONCLUSION

Since different paradigms of health and illness stand in the way of real integration of the two systems, western biomedicine and indigenous traditional medicine may remain apart as two parallel systems. There is need to research for methods of testing, refining and validating indigenous knowledge in traditional medicine in order to support the process of integration. This will require a thorough understanding of indigenous practices. In this process, reluctance to share specific indigenous knowledge with outsiders must be understood. The study recommends working within a basic framework of education involving local individuals chosen from among the sons and daughters of the village or from relatives. This counteracts the suspicion of intellectual piracy. Ethnopharmacology is a form of western science that can bring to light which traditional plants are effective and safe for incorporation into the formal health care system. In this process, western drug developers must respect the intellectual property rights of the indigenous users of herbal medicine. They must provide adequate compensation for the sharing of that knowledge, as established in the convention on Biological Diversity (De Smet 1999).

## RECOMMENDATIONS

If irreplaceable genetic resources are lost, traditional medicines and indigenous knowledge will also disappear. To prevent this from



happening, prompt action is required at every possible level: local initiatives, support from non-governmental organizations, universities, scientific research and active governmental support for international agreements to protect intellectual property rights. *In-situ* and *ex-situ* conservation of medicinal plants must be established in order to highlight the links between people and plants and to show the importance of the plants to human welfare as well as the maintenance of ecological integrity. Future studies should consider ethnobotanical parameters such as known medicinal plant species, specific medicinal uses of plants, species status (wild or cultivated), plant organs used (root, tuber, shoot, exudates, bark, seeds, fruit), and its status of use (used in the past, still in use, used recently). This should be complemented by a detailed understanding of the concept of traditional medicine and a study of the knowledge transfer systems.

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