Original Research Article

REVIEW OF TRADITIONALLY USED MEDICINAL PLANTS BY THE KIPSIGIS COMMUNITY IN KENYA.

Abstract

Background: Every community in Kenya have their own ways of providing good health care services for its members. Such services are geared towards providing therapeutic and medical related services for the upkeep of good health and also prevention and treatment of infections. Much before the dawn of modern medicine through sophisticated researches and advances, these societies developed their indigenous medicinal system through interaction with their environment. **Aim:** This paper, through secondary literature reviews and survey was aimed at examining the features of commonly used herbal medicine from plants by the Kipsigis community in Kenya.
Place and Duration: The research was carried out at University of Kabianga from January to December 2015.
Methodology: Semi structured interviews, group discussions and observations were used to collect information on traditional knowledge from herbalists. Details of the medical conditions treated, herbal preparations used, treatment methods, local plant names and methods of collection of herbs were recorded. The research team comprised of professionals from the fields of medicine and botany. Local leaders, community elders, church leaders and other stakeholders were used to identify herbalists and convince them to provide information.
Results: The result of this survey revealed that majority of the household, even in urban places; use these commonly available herbs and plants for minor aliments in their families for immediate relief. The study provides information on medicinal and healing methods used by the Kipsigis community. It also revealed that traditional medicines are still widely used in Kericho County. Some of the identified plants have been demonstrated to possess pharmacological activities related to those mentioned by the herbalists.
Conclusion: From the findings it can be concluded that use of traditional herbs as medicine is still common amongst the Kipsigis community but faces numerous challenges and weaknesses. Thus much detailed scientific study on these medicinal plants need to be conducted to ascertain the compounds responsible for such relief.

Key words: Kipsigis; Medicinal plant; Herbalists; Traditional; Indigenous.

INTRODUCTION.

In many developed and developing nations, a large percentage of communities still depend on traditional herbalists who use medicinal plants in order to meet health care needs of their clients. This has been practiced despite the fact that modern medicine may exist. Traditional practices and use of herbal medicines have often kept their reputation for historical and cultural reasons, as well for provision of essential nutrients such as vitamins that are essential for growth and development [1]. Plants and other natural products thus continue to be a source of new drugs [2, 3]. Unsystematic screening of plants has before been used to provide leads for the development of new drugs, but the procedures are quite expensive and has not produced much result due to cost effects [4, 5]. Modern and inexpensive screening methods therefore require to be developed

for future research, and development of new drugs or leads compounds which can be used in synthesis of new drugs [6]. Some scientists have in recent times suggested changes in tactic from just indiscriminate screening of plants to a rather patient engrossed approach. This methods relies on savings in ethno pharmacology and accounts on clinical thought studies before boarding on chemical and pharmacological extraction [7, 8]. To do this, data from communities which still practice traditional medicine (TM) are chronicled and databases developed. Herbal plants which seem to show sign of clinical activity are then selected and screened [9]. This kind of approach was applied in the selection and isolation of artemesin from qinghao (*Artemisia annua*) the herb used in Chinese traditional medicine [10, 11]. Similarly, the *Pygeum africanum* bark extract, now used in the treatment of benign prostatic hyperplasia, was adopted because European settlers in the 1700s observed that South African tribes used the herb to treat an "old man's disease" [12,13].

Africa is known to be the provider of a new frontline for the finding of new medicinal products especially from natural fauna and flora. This could be because, to date, not much research has been conducted out on many traditional medicinal plants in many African countries especially the equatorial basin [14, 15]. Moreover many countries in Africa have scant or no records on TM in spite of the potential danger of complete disappearance of the knowledge on TM from herbalist. This has been effected by several factors including lack of supervisory outlines, use of modern medicine, depletion, overexploitation and deforestation among several other factors. Kenya has many tribes, each with unique methods of treatment comprising thousands of trees, herbs and shrubs which are available in the many forests within the country. The documentation of these traditionally used medicinal plants and healing methods that have been used for many years will therefore offer an important database for future scientific researches and hence act as a potential source for development of new drugs [9, 16, and 17]. Even though the advent of modern medicine, herbal or traditional medicines are still widely used by many communities in Kenya, especially by the rural communities, just like in other parts of sub Saharan-Africa. Nevertheless, most of such herbal plants used by the 42 tribes in Kenyan mainly goes undocumented [9]. In addition, most of the honest herbalists are now aging and would prefer to pass information on TM orally o those who are closest to them or relatives, who might not necessarily be interested in the practice. Rampant deforestation, overexploitation due to rapid population growth and lack of guideline also pose major challenges to the practice of TM in Kenya. The risk of such vital knowledge disappearing is therefore eminent in many parts of Kenya. The fame and reputation of herbal medicine has also suffered other challenges related to the practice, including the development of fake herbalists out to con innocent patients [9]. Of late there have been new accounts of counterfeit herbalists who mix conventional medicine with decoctions from plants, and sell them as herbal medicine to innocent patients, thus compromising their health. It is therefore vital to grow and develop a database of the medicinal plants that have been used by various Kenyan communities especially the Kipsigis community. This is important for research and potential development of new drugs [16, 18]. This can be backed by the fact that a number of Kenyan verified traditional herbs have undergone assessment, and many have revealed potential efficacies [19, 21]. This study was aimed at getting the first time systematically document of the herbal medicinal plants used by the Kipsigis community in Kericho County, Kenya. This research will give information as part of a contribution to ethno medical knowledge reservoir for future reference and research in development of new effective drugs.

ABBREVIATIONS: TM: Traditional Medicine, WHO: World Health Organization.

MATERIALS AND METHOD

Data collection

The research project was done between March 2015 and January 2016. The research team was composed of professionals who interviewed the herbalists and patients in the study area, in order to identify the illnesses treated and identity of the plants. The herbalist also provided some valuable medicinal information, introduced us to her colleagues and helped us in the identification of the other medicinal plants used by the locals. A reconnaissance mission was primarily conducted with aid of local leaders, community elders, church leaders and other stakeholders in order to identify the genuine herbalists. The same group always accompanied us when we visited the herbalists, in order to ward off any suspicion from the herbalists and explain our mission to them in languages they understood better. We also had in our group one local person who was familiar with the local names of trees and shrubs, terrain and vegetation who together with the local practicing herbalist so that we were not deceived by any person with wrong intention. They also helped in the location and identification of the plants. Semi structured interviews were used to collect information from the herbal practitioners. The interviews were conducted within the premises or practice of the herbalists [22, 23]. The interviews were conducted in either Kipsigis or Swahili. About 50 herbalists were quizzed using the questioners, 30of them were women and the remaining were men, and their age groups were ranging from 38 to 75 years. The information on the medicinal plants was recorded and documented from the interviews, observations and group deliberations with the herbalists with a view of getting more from them. The information about their names, age, sex, and level of education, duration of practice and source of the knowledge on traditional medicine were recorded for documentation [22]. Information about the medical conditions treated, signs, symptoms of the sicknesses, plants and herbal methods of preparations used, methods of treatment, local names of the medicinal plants, parts used and methods of collection of the herbs among other information relevant to the practice were recorded. Site visits was also done to assist in the identification. The plants and parts used were identified in the field, and where there was a difficult in the identification, samples were collected and taken to the Botany department at University of Kabianga for further identification. The plants habitats were photographed and the specimen samples labeled, dried and deposited at the University of Kabianga Herbarium. The specimen were identified and named as per taxonomic keys. The data obtained was compared to those from previous studies that have been undertaken in the region.

RESULTS AND DISCUSSION.

The result of this survey revealed that majority of the household, even some in urban places use these commonly available herbs and plants for minor aliments immediate relief. A total of 20

medicinal plant species belonging to different families were identified, and were reported by their local and botanical names. The description of the plants including local and botanical names, part used and diseases treated are outlined in Table 2.

The pants were harvested for different uses and different parts were harvested. The preparations that were employed and used were comparable to those testified in the Marakwet study, albeit with slightly different names [21]. They encompassed roots, tubers, barks, leaves, twigs, seeds, sap and fruits and were prepared in various forms depending on the intended medicinal use. They were formulated into decoctions, ashes from dried and burnt leaves for example "*legetetwet'* extracts were harvested from crushed or pound leaves and is commonly used as a synergetic plant and for relieving slight headaches. The proportions of the pants parts used are as outlined in Table 1. Roots were the most widely used parts (45%), then closely followed by leaves (35%) barks at (25%), tubers were (1%) and whole plant (1%). Fruits, seeds, bark and leaves, leaves and flowers, leaves and roots, leaves and stems, roots and stems, and roots and twigs had 1.5% and 2 % respectively. (Table 2).

T**able 1: Percentage of Plant part used**.

Plant Part used	%
Roots	45
Leaves	35
Bark	25
Tubers	1
Whole plant	7
Fruits	1.5
Seeds	2

Table 2: Plants used by Kipsigis Community.

	Botanical name	**Local name**	**Part used**	**Disease treated**
1.	*Carissa edulis*	*Legetetwet*	Roots	Used as synergetic plant, ulcers, headache.
2.	*Leucas calostachys*	*gechebchat*	Roots	Used as synergetic plant, abdominal pain
3.	*Rhamnus prinoides*	*Kosisityet*	Roots	Used as synergetic plant, wound, heartburn
4.	*Erythrina abysynica*	*Kokorwet*	Roots	Used as synergetic plant, colic pain, wounds.
5.	*Cissampelos Pereira*	*Tabararyetab koita*	Roots	Used as synergetic plant, fever, colic pain.
6.	*Trimeria grandifolia*	*Chepkererlon*	Roots	Used as synergetic plant, headache.
7.	*Launaea cornuta*	*Kipche*	Roots	Used as synergetic plant, ulcers,
8.	*Aloe*	*Tengeretwet*	Leaves,	Ulcers, colic pains.

	kedongensis		fruits, seeds	
9.	*Zanthoxylum chevalieri*	*Kokiat*	Leaves, seeds, fruits	Stomachache, headache, abdominal pain
10.	*Vachelia xanthophloea*	*Leng'net*	Leaves, bark.	Ulcers, emetics, eyes,
11.	*Cucumis prophetarum*	*Chepsawoy*	Tubers, bark	Diarrhea, headache
12.	*Rhoicissus tridentate*	*Torotwet*	Bark	Heartburn, colic pain.
13.	*Terminalia brownii*	*Kaloswet*	Bark, tubers	Burns, Wounds
14.	*Leucas calostachys*	*N'gechebchat*	Bark, stems, leaves.	Ulcers, heartburn
15.	*Jasminum fluminense*	*Kipkoburo*	Bark, stems, tubers	Common cold, malaria
16.	*Rubia cordifolia*	*Chepsalaite*	Leaves,	Throat infections, oral rush
17.	*Momordica foetida*	*Cheptenderet*	Leaves, stems	Ulcers, colic, emetics
18.	*Leonotis nepetifolia*	*Kipchuchuniet*	Leaves, roots	Common colds, headaches,
19.	*Rotheca myriocoides*,	*Ketbaiyat*	Roots, stems	Throat infections, oral rushes, burns.
20.	*Dovyalis abyssinica*	*Mindililwet*	Leaves, stems, Bark	Headache, Diarrhea

From the findings it was evident that there were less herbalists compared to those in the similar studies elsewhere in rift valley [21]. Most of the herbalists that we interviewed suggested that they had inherited or learnt the art from a close relative especially from their elderly. Interestedly, we noted that a good number, especially the younger herbalists did not even understand the vernacular names of quite a number of the plants that they used. But they could describe the plant; how the plant looked like, or where it was obtained but had forgotten the name that whoever had shown them had used. This showed that majority of the herbalist keep the used plant as a secret and hence the secrecy of the practice. The trend is pretty worrying and it shows how fast the TM is disappearing; especially seeing that it is orally transmitted [11]. The greatest challenges were that some herbalists were not willing to divulge the plants used, or methods of treatment. Especially herbs used in pregnancy in order to give birth to a child of a particular sex, or plants used to terminate pregnancy and male fertility drugs. Traditional healing however is not a religion, but rather a cosmology. In traditional African healing, the physical, psychological, spiritual and ancestral worlds are interconnected and traditional healers are the mediums through which these worlds are communicated with. This is a replica of the Kipsigis community.

CONCLUSIONS

This study is one of the kind conducted with the aim of documenting the traditional medicinal plant used by Kipsigis community. From the findings it has been revealed that traditional medicine use is still common but faces numerous challenges and weaknesses. The greatest problem is the secrecy involved in passing of knowledge orally to the next generation or to researchers, or better still to a close family member who may want to put in practice. This was exhibited by the fact that many of the practitioners, especially the younger ones, could not even remember the plant names and did not dare to ask from their alders. Such challenges together with several others like lack of guideline, deforestation and climate change, arrival of modern medicine, absence of interest in many young cohort in traditional medicine and fake herbalists pose a chief risk to indigenous knowledge on traditional medicine. Traditional medicine is a knowledge which has now been confined only to a certain age group should be passed to the new generation as they finds it hard to recognize the efficacy of these herbs and plants in our day to day life. Such traditional medicines have been reported to provide cost effective benefit to people and act as immediate relief in various common ailments. Therefore there is an urgent need to reserve the tradition of these locally available herbs and plants passed on from older to younger generation.

CONSENT.

Not applicable

ETHICAL CONSIDERATION

Not applicable

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