TRADITIONAL MEDICINES AMONG THE EMBU AND MBEERE PEOPLES OF KENYA

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Abstract

Ethnobotanical information and traditional medicines were investigated and documented in Embu and Mbeere districts, Eastern Province of Kenya. Oral interviews were obtained from over 100 herbalists, both men and women aged between 40 and 80 years. All the herbalists interviewed were Christians and had little formal education. Non-Christian herbalists were purported to combine herbal medicines with witchcraft and were not interviewed. Of the 40 commonly used herbal plants 25 were used as multi-purpose medicinal plants (mpmp), while 15 were used to treat one disease type. There was a correlation between the outpatient morbidity data at the local District hospital, and the common incident diseases treated by the herbalists. Generally a decoction or infusion of the herb was recommended for the treatment of internal or external condition of the patients. Malaria and typhoid were treatable with a total of 15 and 12 plants respectively and were among the first two commonest diseases found in the study area. *Terminalia brownii* was found to be the most used medicinal plant either alone or in combination with other herbs. The second and third most utilized medicinal plants were *Ovariodendron anisatum* and *Wurbugia ugandensis* respectively.

Key words: Herbalists; Herbal medicine; Terminalia, Decoction

Introduction

Herbal medicines have been used for many years dating back as far as 3000 BC (Ayensu, 1978; WWF, 1993). Despite enormous advances in conventional medicines, traditional medicines have been encouraged by the World Health Organization (WHO, 1978), partly because some conventional drugs have failed to prove effective, have serious side effects, or cannot cure certain new illnesses such as AIDS.

The World Bank has recently put a strong case for herbal healthcare (Mburu Mwangi, 2005), and recognized vital values of medicinal plants. These values are medicinal, ecological, income generation, cultural, social and religious roles. The World Bank report further pointed out that Kenya’s ministry of Health budget for medicines in 2002 provided for only 30% of the population. This left 70% (21 million) of the population who could not access the conventional drugs. The latter population group was therefore left to rely on traditional medicines for their healthcare needs.

In Africa, 90% of the population relies on traditional healers to meet their primary healthcare needs (Miller, 1990). In sub-Saharan Africa, it is estimated that one Western trained physician treats about 40,000 while one traditional healer treats about 400 patients (Hogle, 1990). This implies that there are many traditional healers serving a large portion of the population. There is need, therefore, to not only carry out ethnobotanical research and healing methods, but also encourage propagation and conservation of herbal plants among the local people. In addition, there is a rapid disappearance of genuine traditional herbalists and decline in authentic knowledge in traditional
treatment (Lindsay and Hepper, 1978). This is due to the Western influence and death of many aged healers from whom a great deal of information is derived. It is imperative therefore to document the indigenous knowledge regarding traditional medicines before it disappears.

In Kenya comprehensive ethnobotanical information and healing methods among the local communities is not completed. However, indigenous information of medicinal plants is recorded by several authors: (Glover, 1966; Lindsay and Hepper, 1978; Kokwaro, 1993; Kaendi, 1997; and Musila, 2000), among others. Elsewhere, herbal medicines research has been recently reported: (Barakat, E., Abu-Irmailum, Fatma U. Afifi. 2003; Joana Camejo-Rodrigues et al., 2003; and Lucia Viegi et al., 2003).

In this publication, ethnobotanical information and traditional medicines of the Mbere and Embu people of Eastern province, Kenya is reported. The local herbalists complement the conventional local doctors in the treatment of the common diseases in the study area (Table 1). Documentation of the practices of these herbalists in Embu and Mbeere districts of eastern Province, Kenya, is reported for the first time. It is important to note that indigenous knowledge is passed orally and therefore there is need for comprehensive documentation. These herbalists use herbs whose available plant biodiversity transverses from the rainforests of Mt Kenya slopes to the semi-arid Mbeere District, availing a wide biodiversity of plants.

**Materials and Method**

The main objective of this research was to document indigenous knowledge of the Mbeere and Embu peoples of the Eastern Province, Kenya. This involved documentation of the medicinal plants traditionally used in healthcare, the herbal drugs preparations, the diseases treated, and collection of plant specimens. Preliminary visits were done to identify and select the herbalists to who took part in this study. The Provincial Director, Ministry of Gender, Sports, Culture, and Social Services provided a list of authentic herbalist groups. These groups were selected to cover most of the area under our study. The initial selection was based on the willingness of herbalists to give voluntary information and interaction with researchers during consultative meetings. These meetings were participatory in nature, with researchers as facilitators. The common agenda was to produce a pharmacopoeia of herbal drugs for use by the herbalists in the study area.

Ethnobotanical data was collected during a 12-month period from 110 herbalists practicing in the study area. They were both men and women aged 40 to 80 years. All the herbalists interviewed were Christians. Non-Christian herbalists were said to combine herbal medicines with witchcraft and were therefore avoided.

The indigenous knowledge was collected using Participatory Rapid Appraisal method (PRA). This involved driving around to the identified herbalists. An expert in PRA from the National Museums of Kenya participated in this research. Formal interviews through questionnaires were avoided as it was found to be intimidating to the herbalists, majority of whom were semi- illiterate. A record of responses from individual and groups of herbalists were documented immediately during consultative meetings.

Plant materials were authenticated by comparison with herbarium specimens. Each plant specimen collected was given a herbarium specimen number and the voucher samples kept in the East African Herbarium, and in the Faculty of Science (Botany Department), Jomo Kenyatta University of Agriculture and Technology (J.K.U.A.T.).

**Results**

The results are provided in Tables 1 - 3.
Table 1: Outpatient morbidity data for Embu District Hospital*

<table>
<thead>
<tr>
<th>Year / %</th>
<th>2000</th>
<th>%</th>
<th>2001</th>
<th>%</th>
<th>2002</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disease type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td>87898</td>
<td>29.1</td>
<td>128682</td>
<td>31.9</td>
<td>139985</td>
<td>29.4</td>
</tr>
<tr>
<td>Respiratory. system</td>
<td>68392</td>
<td>23</td>
<td>93742</td>
<td>23.2</td>
<td>97500</td>
<td>20.5</td>
</tr>
<tr>
<td>Intestinal worms</td>
<td>25385</td>
<td>8.4</td>
<td>33796</td>
<td>8.4</td>
<td>36268</td>
<td>7.6</td>
</tr>
<tr>
<td>Skin infection</td>
<td>22850</td>
<td>6</td>
<td>25972</td>
<td>6.4</td>
<td>29468</td>
<td>6.2</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>14771</td>
<td>5</td>
<td>16515</td>
<td>4.1</td>
<td>18576</td>
<td>4</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>10525</td>
<td>3.5</td>
<td>12714</td>
<td>3.2</td>
<td>10913</td>
<td>2.3</td>
</tr>
<tr>
<td>Rheumatism</td>
<td>5882</td>
<td>2</td>
<td>9756</td>
<td>2.4</td>
<td>10873</td>
<td>2.3</td>
</tr>
<tr>
<td>Eye infection</td>
<td>5333</td>
<td>2</td>
<td>7274</td>
<td>2</td>
<td>12762</td>
<td>2.7</td>
</tr>
<tr>
<td>Urinary tract infections</td>
<td>4513</td>
<td>1.5</td>
<td>5644</td>
<td>1.4</td>
<td>6681</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Total new cases</strong></td>
<td>271181</td>
<td></td>
<td>371668</td>
<td></td>
<td>437781</td>
<td></td>
</tr>
</tbody>
</table>

٭Source: Embu district Health Annual report.

Table 2: Plant species and the healing methods used by the Mbeere and Embu people

Key: (m)=Mbeere; (e)= Embu

<table>
<thead>
<tr>
<th>Condition/Local Names</th>
<th>Plant species</th>
<th>Part used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Allergy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muuti (m)</td>
<td><em>Erythrina abyssinica</em></td>
<td>Roots</td>
</tr>
<tr>
<td>Mururuku (m)</td>
<td><em>Terminalia brownii</em></td>
<td>Roots</td>
</tr>
<tr>
<td>Gatukia (m)</td>
<td><em>Emilia discifolia</em></td>
<td>Roots</td>
</tr>
<tr>
<td>The roots are boiled in water and the decoction taken</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2. Abortion (persons)       |                               |           |
| Mururuku (m)                | *Terminalia brownii*           | Leaves    |
| The leaves are boiled in water and the decoction taken |

| 3. Anthrax                 |                               |           |
| Mukengeta (m)              | *Senna singuana*              | Roots     |
| Muthunthi (m)              | *Maytenus senegalensis*       | Leaves    |
| The parts are boiled and the decoction taken by the patient |

| 4. Asthma                   |                               |           |
| Muthiga (e)                 | *Warburgia ugandensis*        | Leaves/bark|
| Mwaraka (e)                 | *Plectranthus barbatus*       | Roots     |
| Kieha kia Murangi (m)       | *Engleromyces goetzei*        | Inner fresh|
| The parts are boiled in water and given to the patient |
5. Back-ache and Joint-ache

Muthira (e)  
*Gnidia glauca*  
Roots

Murangare (m)  
*Acacia ataxacantha*  
Roots

Muthigira (e)  
*Acacia mellifera*  
Roots

Muva (m)  
*Pappea capensis*  
Roots

Mutagataga (e)  
*Harrisonia abyssinica*  
Leaves/Roots

Mubindithindi (e)  
*Fagaropsis angolensis*  
Leaves

Muvingo (m)  
*Dalbergia melanoxylon*  
Bark

Muuru (m)  
*Pappea capensis*  
Leaves

Muugu (e)  
*Landolphia buchananii*  
Leaves

The parts are boiled in water and taken with goat's soup

6. Bone-setting (fracture)

Muthata (e)  
*Olea europaea ssp. africana*  
Sap

Karura (e)  
*Asparagus racemosus*  
Roots

Apply sap or root decoction and bandage

7. Boils:

Ikothokotho (m)  
*Cissus rotundifolia*  
Fruits

Sap from the fruit applied on the boil

8. Bronchitis

Makandu (e)  
*Ocimum gratissimum*  
Leaves

Mucuki wa ngigi (e)  
*Ageratum conyzoides*  
Roots

Mumonjore (e)  
*Solanecio sp.*  
Roots

The parts are boiled and the vapour inhaled

9. Bleeding (Blood clotting)

Mutagataga (e)  
*Harrisonia abyssinica*  
Leaves

Mucuki wa Ngigi (e)  
*Ageratum conyzoides*  
Ashes

Mutundu (e)  
*Croton macrostachyus*  
Juice

The decoction of bark is taken, while ashes and the juice are applied to stop bleeding

10. Colds and Flu

Mucobi (m)  
*Hoslundia opposita*  
Leaves

Mutongu (m)  
*Solanum incanum*  
Fruits

Muthuguni (m)  
*Clerodendron myricoides*  
Leaves

Gitunguru (e)  
*Allium ampeloprasum*  
Leaves

Muratina (m)  
*Kigelia africana*  
Bark

Mugaa (1) (e)  
*Acacia abyssinica*  
Tea from the bark

Mugaa (2) (e)  
*Acacia hockii*  
Bark

Munyua-mai (e)  
*Eucalyptus globulus*  
Leaves

Muringamu (e)  
*Eucalyptus saligna*  
Leaves

Ndania (e)  
*Coriandrum sativa*  
Leaves

Mucururi (m)  
*Trichodesma zeylanicum*  
Whole plant
Parts are boiled in water. The patient inhales the vapour or washes face with the decoction.

11. Cancer (of Breast and Prostate Glands)

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muburu (m)</td>
<td><em>Vitex doniana</em></td>
<td>Leaves</td>
</tr>
<tr>
<td>Mukururu (m)</td>
<td><em>Flueggea virosa</em></td>
<td>Roots</td>
</tr>
<tr>
<td>Ndonga (m)</td>
<td><em>Ovariodendron anisatum</em></td>
<td>Root tuber</td>
</tr>
<tr>
<td>Muthunga (e)</td>
<td><em>Launea cornuta</em></td>
<td>Whole plant</td>
</tr>
<tr>
<td>Mubuu (m)</td>
<td><em>Grewia villosa</em></td>
<td>Roots</td>
</tr>
<tr>
<td>Muraga (m)</td>
<td><em>Maytenus obscura</em></td>
<td>Roots</td>
</tr>
<tr>
<td>Muiria (e)</td>
<td><em>Prunus africana</em></td>
<td>Bark</td>
</tr>
</tbody>
</table>

Concoction of the boiled parts is drunk by the patient.

12. Calf-rejection

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ndonga (m)</td>
<td><em>Ovariodendron anisatum</em></td>
<td>Root tuber</td>
</tr>
</tbody>
</table>

Concoction given to animal.

13. Dog-poison

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mwakia (m)</td>
<td><em>Zanha africana</em></td>
<td>Root tuber</td>
</tr>
</tbody>
</table>

Root powder mixed with food.

14. Dog-bite

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kianduri (m)</td>
<td><em>Xerophyta spekei</em></td>
<td>Ashes</td>
</tr>
</tbody>
</table>

Ashes applied to the bitten part.

15. Diabetes

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mucege (m)</td>
<td><em>Bidens pilosa</em></td>
<td>Ashes</td>
</tr>
<tr>
<td>Mutegenye (m)</td>
<td><em>Cyathula polycephala</em></td>
<td>Ashes</td>
</tr>
<tr>
<td>Kianduri (m)</td>
<td><em>Xerophyta spekei</em></td>
<td>Ashes</td>
</tr>
</tbody>
</table>

Add water to ashes and drink.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ndonga(m)</td>
<td><em>Ovariodendron anisatum</em></td>
<td>Ashes</td>
</tr>
</tbody>
</table>

Add water to the ashes and give to the patient.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karuria-Tatha (m)</td>
<td><em>Schkuhria pinnata</em></td>
<td>Whole plant</td>
</tr>
</tbody>
</table>

Boil the whole plant and drink the decoction to reduce sugar levels.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muthunga (m)</td>
<td><em>Launea cornuta</em></td>
<td>Whole plant</td>
</tr>
<tr>
<td>Muthigiriri (m)</td>
<td><em>Lonchocarpus eriocalyx</em></td>
<td>Bark</td>
</tr>
</tbody>
</table>

The decoction reduces the sugar levels when drunk.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mwembe (e)</td>
<td><em>Mangifera indica</em></td>
<td>Leaves (shoot)</td>
</tr>
</tbody>
</table>

Dry young shoots of *Mangifera indica*. Dry *Launea cornuta*. Mix one teaspoonful of each powder in a cup of water, drink 3 times a week, and repeat if necessary.

16. Diarrhea

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutagataga (m)</td>
<td><em>Harrisonia abyssinica</em></td>
<td>Roots</td>
</tr>
<tr>
<td>Murerema (e)</td>
<td><em>Basella alba</em></td>
<td>Leaves</td>
</tr>
</tbody>
</table>

Mix the parts with water, boil and drink.
17. Erectile Dysfunction (Impotence)
Managu (e)  
Iviuviu (e)  
Kungumanga (e)  
Ndonga (e)  
Mugeta (e)-Muthiga  
Muramba (e)
**Solanum nigrum**
**Sonchus asper**
**Punica granatum**
**Ovariodendron anisatum**
**Warburgia ugandensis**
**Adansonia digitata**
Whole plant  
Whole plant  
Seeds  
Whole plant  
Leaves  
Bark

**The decoction of parts drunk**

18. Eye Problem (infection)
Mururuku (m)
Muringa (m)
**Terminalia brownii**
**Cordia africana**
Leaves  
Bark

**Wash eye with decoction**

19. Elephantiasis
Mwerere (Kirembo) (e)
Mukengeta (e)
**Euphorbia peudograntii**
**Senna singuana**
Bark  
Bark

**Drink decoction of bark**

20. Fungal Infection and Ring Worm
Gatukia (e)
Mucii (m)
Mwinu (m)
Mukorwe (e)
Mururuku (m)
**Emilia discifolia**
**Leucas mollis**
**Senna didymobotrya**
**Albizia gummiðera**
**Terminalia brownii**
whole plant  
Leaves  
Leaves  
Bark  
Leaves

**Apply decoction from boiled parts on the body**

21. Family Planning (persons)
Mururuku (m)
**Terminalia brownii**
Leaves

**Boil leaves in water and drink before action**

22. Gout
Murangare (m)
**Acacia ataxacantha**
Roots

**Decoction from boiled roots taken**

23. Gonorrhoea
Murangare (m)
Mwogoya (m)
Kithunju (m)
**Acacia ataxacantha**
**Plectranthus barbatus**
**Aloe kendongensis**
Roots  
Roots  
Leaves

**Decoction of the boiled roots taken**

Makongo (m)
Mutura (e)
Cong’e (e)
Muruva (m)
**Agave sisalana**
**Ximenia americana**
**Oxygonum sinuatum**
**Grewia tembensis**
Roots  
Bark  
Leaves  
Roots
Decoction from mixture of the parts taken, two cups daily for three days

Mukungumanga (m) *Panica granatum* Seeds
Mubabai (male) (m) *Carica papaya* Roots
Gikwa kia ngima (e) *Dioscorea minutifolia* Tuber

The above parts are boiled together in three cups of water (teaspoon each), one cup of decoction taken daily for three days.

24. Insecticide

Muthiringo (m) *Strombosia scheffleri* Powder of the dry leaves
Murema muthua (m) *Carphalea glaucescens* Leaves
Muthira (m) *Gnidia glauca* Leaves

Apply dry powder of the leaves

25. Kidney Problems

Mururi (e) *Trichilia emetica* Bark
Mukururu (m) *Flueggea virosa* Roots
Muthaguta (e) *Securinega virosa* Bark

Boil parts in water and give to the patient

26. Malaria

Mubindithindi (e) *Fagaropsis angolensis* Leaves
Mwinu (e) *Senna didymobotrya* Leaves
Wanjiru-va-Rurii (e) *Ajuga remota* Whole plant
Mukurwe (e) *Albizia gummifera* Bark
Mumonjora (e) *Solanecio sp.* Leaves
Muuti (e) *Erythrina abyssinica* Roots

Decoction of the above mixture in boiled water is taken

Mururuku (m) *Terminalia brownii* Leaves
Mukunyi (m) *Cardiospermum corindum* Roots
Mutagataga (m) *Harrisonia abyssinica* Roots
Mugirimura (m) *Pentas zanzibarica* Roots
Muvovo (m) *Leonotis mollissima* Roots
Murumbawe (m) *Withania somnifera* Leaves/Roots
Muterendu (m) *Teclea nobilis* Leaves
Mataa (m) *Ocimum basilicum* Leaves
Karuria-tatha (m) *Schkuhria pinnata* Whole plant
Mukenia (m) *Lantana camara* Leaves
Mucatha (m) *Vernonia lasiopus* Leaves
Kithunju (m) *Aloe balyi* Leaves
Mubuthi (m) *Caesalpinia volkensii* Leaves
Mutambi (m) *Strychnos henningsii* Stem
Kivia (e) *Engleromyces goetzei* Whole fruit
Mugegeti (e)  
*Pistacia aethiopica*  
Bark

Mwarobaine (e, m)  
*Azadirachta indica*  
All parts

Mukandu (m)  
*Ocimum gratissimum*  
Leaves

Njugu (e)  
*Cajanus cajan*  
Leaves

**Parts indicated are boiled in water and drunk two times a day for a week.**

**27. Pneumonia**

Mwokia (m)  
*Zanha africana*  
Roots

Mucigara (m)  
*Uvaria scheffleri*  
Roots

Murangare (m)  
*Acacia ataxacatha*  
Roots

Mukumbi (m)  
*Abrus schimperi*  
Roots

Muthigira (m)  
*Acacia mellifera*  
Bark

Kigurugua (m)  
*Commiphora africana*  
Roots

Kithunju (m)  
*Aloe ballyi*  
Leaves

Mugirimura (m)  
*Vernonia brachycalyx*  
Roots

Mucatha (m)  
*Vernonia lasiopus*  
Leaves

Munjuga-iria (e)  
*Clerodendrum myricoides*  
Roots

**Decoction of mixture drunk**

**28. Rheumatism (Joint Pains)**

Mubingo (m)  
*Dalbergia melanoxylon*  
Roots

Muthinia (m)  
*Croton dichogamus*  
Roots

Mutiru (m)  
*Lonchocarpus eriocalyx*  
Bark

Mukenenga (m)  
*Zanthoxylum chalybeum*  
Roots

**29. Stomach Pains**

Mwirungwa (e)  
*Leonotis mollissima*  
Roots

Mucuki (m)  
*Epilobium hirsutum*  
Roots

Muthunthi (m)  
*Maytenus senegalensis*  
Roots

Mutegenye (m)  
*Cyathula polycephala*  
Leaves

Muga-Nthegu (m)  
*Albizia amara*  
Roots

Kirurite (e)  
*Tithonia diversifolia*  
Leaves

Thina (e)  
*Cuscuta kilimanjari*  
Whole plant

Muthaata (m)  
*Olea europaea*  
Leaves

**Parts boiled in water and the decoction drunk**

**30. Shampoo (Hair)**

Karundu (m)  
*Hermannia sp.*  
Leaves

**Mix the leaves of the plant with water, apply to hair then rinse with water**

**31. Skin Lashes**

Mung'endia Nthenge (m)  
*Senecio succulent*  
Stem

**Apply the stem ash**
Ikothokotho (m)  
**Cissus rotundifolia**  
Fruits

Mururi (e)  
**Trichilia emetica**  
Sap

**Apply sap or fruit juice to lashes or pimples**

32. **Snake-bite**

Ndonga (m)  
**Ovariodendron anisatum**  
Ashes

Kianduri (m)  
**Xerophyta spekei**  
Ashes

**Apply ashes to the bite**

33. **Soup**

Muthinia (m)  
**Croton dichogamus**  
Roots

Mutenenga (m)  
**Zanthoxylum chalybeum**  
Roots

Mugeta (m)  
**Warburgia ugandensis**  
Leaves

**Boil the parts in water and take with goat’s bone soup**

34. **Tooth-ache**

Mwokia (e)  
**Zanha africana**  
Roots

Gakurue (e)  
**Phyllanthus sepialis**  
Roots

Mutungu (m)  
**Solanum incanum**  
Fruits

Mutegeye (e) white  
**Achyranthes aspera**  
Roots

**Either apply powdered parts to the tooth or boil the parts and gaggle the decoction**

35. **Typhoid**

Muthithi (e)  
**Osyris abyssinica**  
Leaves/Roots

Mutathi (e)  
**Clausena anisata**  
Roots

Mwiria (e)  
**Prunus africana**  
Bark

Mukambura (m)  
**Dovyalis abyssinica**  
Fruits

Cong’e (e)  
**Oxygonum sinuatum**  
Whole plant

Kiruma (m)  
**Aloe lateritia**  
Leaves

**Mixture of parts boiled in water and then drunk**

Mwonge (m)  
**Periploca linearifolia**  
Roots

Kirurite (e)  
**Tithonia diversifolia**  
Leaves

Mutootoo (m)  
**Dombeya rotundifolia**  
Bark

Munjuga-iria (m)  
**Clerodendrum myricoides**  
Roots

Murembu (e)  
**Ehretia cymosa**  
Bark

Murava (m)  
**Combretum molle**  
Leaves

**Individual parts are boiled in water and drink**

36. **Ulcers**

Gatukia (e)  
**Emilia discifolia**  
Whole plant

Mugere (e)  
**Hibiscus micranthus**  
Roots

Mukeu (e)  
**Dombeya burgessiae**  
Roots

**Powder of the parts is mixed with water and boiled, then given to the patient**
37. Vitamins Supplement
Muburu (m)  Vitex doniana  Fruits
Muthigiu (m)  Rhus natalensis  Tea from bark

Tea or fruits is taken

38. Worms (Human/animals)
Mubarwa (e)  Albizia anthelmintica  Bark/roots
Mwinu (e)  Senna didymobotrya  Leaves
Muvovo (m)  Leonotis mollissima  Leaves
Mucaritha (m)  Entada leptostachya  Roots
Mugeta (m)  Warburgia ugandensis  Bark
Mururuku (m)  Terminalia brownii  Bark
Terere (e)  Amaranthus hybridus  Leaves
Mubera (m)  Psidium guajava  Leaves
Mubiru (m)  Vangueria madagascariensis  Leaves

The parts are boiled in water and given to the patient

39. Skin burns
Mwembe (e)  Mangifera indica  Leaves

Decoction applied

40. Blood pressure
Muthigiriri (e)  Lonchocarpus eriocalyx  Bark
Muterendu (e)  Teclea simplicifolia  Leaves
Mukura (e)  Piliostigma thonningii  Bark

Drink decoction

Table 3: Medicinal plant species ranking.

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Ranking</th>
<th>No of Times Used</th>
<th>Diseases Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminalia brownii</td>
<td>1</td>
<td>6</td>
<td>Allergy, Abortion, Eye problems</td>
</tr>
<tr>
<td>Ovariodendron anisatum</td>
<td>2</td>
<td>5</td>
<td>Family planning, Kidney, Worms</td>
</tr>
<tr>
<td>Warburgia ugandensis</td>
<td>3</td>
<td>4</td>
<td>Cancer, Calf rejection, Diabetes, Erectile Dysfunction</td>
</tr>
<tr>
<td>Acacia ataxacantha</td>
<td>3</td>
<td>4</td>
<td>Asthma, Erectile Dysfunction, Soup, Worms.</td>
</tr>
<tr>
<td>Harrisonia abyssinica</td>
<td>3</td>
<td>4</td>
<td>Back-ache, Gout, Gonorrhea, Pneumonia.</td>
</tr>
<tr>
<td>Olea europaea</td>
<td>4</td>
<td>3</td>
<td>Back-ache, Joints, Bleeding, Diarrhea, Malaria.</td>
</tr>
<tr>
<td>Emilia discifolia</td>
<td>4</td>
<td>3</td>
<td>Bone-setting, Stomach pains.</td>
</tr>
<tr>
<td>Leonotis mollissima</td>
<td>4</td>
<td>3</td>
<td>Allergy, Fungal infection, Ulcers.</td>
</tr>
<tr>
<td>Acacia mellifera</td>
<td>5</td>
<td>2</td>
<td>Malaria, Stomach pains, Worms.</td>
</tr>
<tr>
<td>Fagaropsis angolensis</td>
<td>5</td>
<td>2</td>
<td>Backache, Pneumonia.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Backache, Malaria.</td>
</tr>
</tbody>
</table>
### Discussion

Herbal medicines played an important role in the provision of health care for the rural poor within the communities under our study. The advantages are clearly low cost of herbal drugs and an element of self-reliance and non-dependency on government health institutions, some of which were located far away from the communities. Traditional health practitioners or herbalists treat patients using the indigenous knowledge acquired over generations, down family lines. This information is usually stored in human pharmacopoeia and hence the need for documentation for posterity. It is also prudent to document the indigenous knowledge due to the rapid disappearance of herbalists with authentic knowledge majority of who are advanced in age.

The herbalists were able to identify poisonous plants, by observing the foliage which domestic animals avoided while grazing. In addition, birds and bees avoided nectar from flowers of toxic plants, and through this “traditional taxonomy” plants with thorny leaves were regarded as “male”, that is, naturally poisonous. On the other hand, plants without thorny leaves were regarded as non-poisonous.
The commonest diseases within the study area were malaria, respiratory disorder, intestinal worms, skin diseases, and pneumonia, rheumatism, diarrhea and eye infections. Their incidences increased in that order. This was confirmed by the Embu District hospital morbidity data covering a three-year period from year 2000 to 2002 (Table 1). These diseases were treatable by the herbalists using common medicinal plants found in the study area. The report shows malaria was the commonest and the most commonly addressed disease by both herbalists and by the doctors at the local hospital. There was a correlation between the number of plants used to treat the most common diseases and the prevalence of diseases found in the study area (Table 2). Thus, the herbalists knew many herbal plants that were used in the treatment of the most prevalent ailments.

Medicinal plants species documented in the study area were ranked by the number of times they were used to treat different diseases (Table 3). The ranking ranged from 1 to 6. Rank 1 represented multi-purpose herbs and rank 6 denoted those herbs used to treat one type of ailment without combination with other medicinal plants.

_Terminalia brownii_ was a multi-purpose medicinal plant and among the most used herbal plant for various conditions. It was used as a multi-purpose medicinal plant and was used either alone or in combination with other plants. The second and third most utilized medicinal plants were _Ovariodendron anisatum_ and _Warbugia ugandensis_ respectively. For this reason, these plants should be encouraged for propagation and conservation. In addition, proper methods of harvesting should be used as means of conservation of such multi-purpose medicinal plants.

Conclusions

The herbalists were active in the provision of primary and secondary healthcare in the study areas. Malaria was the commonest disease in Mbeere and Embu districts and could be treated with at least twenty-five medicinal plants, either singly or in combination with other medicinal plants. Respiratory ailments were treated with 21 herbs; Intestinal worms with 9 herbs; Pneumonia with 10 plants; Diarrhea with 23 plants; Rheumatism with 9 herbs and urinary tract infections with 11 herbs. The most used medicinal plants were _Terminilia brownii_ and _Ovariodendron anisatum_, which treated six and five conditions respectively.

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References