KAP of traditional healers on treatment of eye diseases in Kitui district of Kenya

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ABSTRACT
Objective: To establish the prevailing eye practices among traditional healers in Kitui district and establish whether these healers are able to identify ocular emergencies and refer in good time.

Design: Community based qualitative survey

Setting: Kitui district, Eastern Kenya

Subjects: A total of 87 healers from 3 divisions of Kitui district were interviewed.

Results: Seventy six (87.4%) said that they treat at least one of the eye conditions presented to them. Instillation of plant extracts into the conjunctival sac was the most preferred treatment modality and was practiced by 46 (52.9%) healers for cataracts, 48 (55.2%) for ocular injuries and 21 (24.1%) for allergic conjunctivitis. The most commonly performed surgical procedures included rubbing the underside of the upper lid with a specific leaf for allergic conjunctivitis with papillary reaction performed by 43 (49.4%) healers; piercing chalazia with a thorn or needle by 11 (12.6%) healers and making small incisions and applying herbs for ocular swelling by 4 (4.6%) healers. The most preferred treatment for chemical injury was breast milk from any breast feeding mother practiced by 29 (33.3%) healers. Small extra ocular foreign bodies are removed by introducing seed from a specific plant in to the conjunctival sac by 51 (58.6%) healers. Some healers mix traditional medicine with exorcism and rituals especially for squint as practiced by 14 (16%) healers and ocular tumors by 9 (10.3%) healers. The conditions the healers said they would refer included ocular tumors reported by 48 (55.5%) healers, cataracts by 34 (52.9%) healers, ocular injury by 30 (34.5%) healers and squint by 21 (24.1%) healers.

Conclusion: Majority of the healers interviewed treat patients who present to them with eye diseases. Most did not refer emergencies like ocular injuries.

INTRODUCTION
Traditional eye medicines (TEM) vary from community to community. In some studies done in Africa, these medicines have been found to include herbs taken by mouth(1), herbs applied into the conjunctival sac(2,3), breast milk instilled into conjunctival sac(3) among others. Surgical procedures include couching for cataracts in Western Africa and India(4,5,6), epilation of lashes for trichiasis(1) and incision with razor blade for chalazion among others.

Complications associated with the use of TEM have been found to include keratitis, endophthalmitis, panophthalmitis and poor visual outcome(2,7,8). Childhood blindness from TEM use leading to bilateral corneal scars has been reported(9,10). TEM use also leads to delays in seeking medical attention in patients with ocular injuries and other emergencies.(2)

Factors favoring the use of TEM include long distance to health facilities, poverty, and illiteracy.(1,3) The most commonly treated conditions include conjunctivitis(3,11), cataracts(1,7,4) and ocular trauma.(2)

In some countries including Malawi, Nepal and South Africa, the use of TEM use has been well studied and collaboration programs between the healers and contemporary medical practitioners started. (3,11,12,13) A manual for training healers in these collaboration programs was written in a symposium in Blantyre, Malawi in 1997(14) and has been used in various programs with plausible success.(13)

In Kenya a few studies have been done on the use of TEM but the authors could only access one publication by Klauss et al more than 20 years ago.(1) Little is therefore known about how each Kenyan community traditionally handles patients with eye diseases. Kitui district was chosen for this study because traditional medicine has been reported as popular in this area in other fields of medicine. Factors that favour use of TEM are also common in this community.
This study was conducted to establish what traditional healers in Kitui district know about eye diseases and how they manage patients with ocular diseases; including emergencies.

**METHODS**

Two stage cluster sampling technique was used to identify the areas to be studied. In the first stage, 3 divisions (Kitui Central, Yatta and Mutitu) were randomly selected from the 7 divisions in the district. In the second stage, 2 locations were randomly selected in each of the above divisions. All the healers in each of the selected locations were interviewed. Chiefs, assistant chiefs and village headmen helped to trace the healers in their localities. Face to face interviews using a semi-structured questionnaire were done after signing of informed consent. Some healers are registered with the Ministry of Culture and Social Services whereas others are not. All healers (registered or not) were included in the study. Exclusive psychotherapists (witchdoctors); healers using spiritual powers only, were excluded. The commonly used herbs were taken for identification by a botanist at the University of Nairobi Department of Botany.

**RESULTS**

Table 1: General characteristics of the studied traditional healers

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>45</td>
<td>50.6</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>49.5</td>
</tr>
<tr>
<td>Registered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>14.9</td>
</tr>
<tr>
<td>No</td>
<td>74</td>
<td>85.1</td>
</tr>
<tr>
<td>Education Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>34</td>
<td>39.1</td>
</tr>
<tr>
<td>Primary Level</td>
<td>31</td>
<td>35.6</td>
</tr>
<tr>
<td>Secondary</td>
<td>13</td>
<td>14.9</td>
</tr>
<tr>
<td>Post Secondary</td>
<td>9</td>
<td>10.3</td>
</tr>
<tr>
<td>Where Based</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>14</td>
<td>10.1</td>
</tr>
<tr>
<td>Village</td>
<td>73</td>
<td>83.9</td>
</tr>
</tbody>
</table>

A total of 87 traditional healers from the three locations in Kitui district were interviewed. 87% said they treat eye diseases.

Figure 1: Treatment of allergic conjunctivitis

Forty three (49.4%) healers said that if a patient presents with tearing and redness of both eyes, they evert the upper eye lid and observe for small swellings (papillae) which if present, they rub them with a leaf from a common plant (Cajanus cajan) until they bleed profusely.
Figure 2: Treatment of chalazion

![Bar chart showing treatment options for chalazion](chart1)

- Rub herbs on lesion: 25.3%
- Refer: 21.8%
- Herbs in the eye: 13.8%
- Pierce with needle: 12.6%
- Herbs in the mouth: 10.3%
- Teach lesion seven times: 8%
- Make small incisions to apply herbs: 4.6%
- Other: 3.4%

Figure 3: Treatment of cataracts

![Bar chart showing treatment options for cataracts](chart2)

- Herbs into the eye: 52.9%
- Refer: 39.1%
- Herbs by mouth: 4.6%
- Wash face with herbs: 3.4%

Figure 4: Treatment for Squint

![Bar chart showing treatment options for squint](chart3)

- No response: 2.3%
- Herbs into the eye: 2.3%
- Other: 9.2%
- Cleansing rituals: 16.1%
- Refer: 24.1%
- Nothing: 46%
Figure 5: Treatment for extraocular foreign body

Table 2: Chemical injury

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put herbs into the eyes</td>
<td>20</td>
<td>23.0</td>
</tr>
<tr>
<td>Refer immediately</td>
<td>15</td>
<td>17.2</td>
</tr>
<tr>
<td>Put milk into the eyes</td>
<td>29</td>
<td>33.3</td>
</tr>
<tr>
<td>Put sugar solution into the eyes</td>
<td>11</td>
<td>12.6</td>
</tr>
<tr>
<td>Wash face</td>
<td>9</td>
<td>10.3</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>87</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The commonly reported chemical is sap from a common plant called Euphorbia hirta growing freely in the area and also planted as a fence. Injuries from commercially prepared chemical were not reported to be common. Using breast milk from any breastfeeding mother for these chemical injuries is a common home remedy recommended by 29 healers (17.2%).

Treatment of eye injuries were: putting herbs into the eyes (55.2%), referral to hospital for medical treatment (34.5%), giving herbs by mouth (1.1%) and others (9.2%).

Table 3: Ocular tumors (n=87)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put herbs into the eyes</td>
<td>15</td>
<td>17.2</td>
</tr>
<tr>
<td>Take herbs by mouth</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
<td>Perform or send for rituals</td>
<td>9</td>
<td>10.3</td>
</tr>
<tr>
<td>Refer</td>
<td>48</td>
<td>55.2</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>84</strong></td>
<td><strong>96.6</strong></td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Dust particles and pieces of vegetative matter blown to the eyes by wind were said to be common problems in the locality. The commonly practiced remedy for such a problem was to put several very small seeds from a specific plant (Cordial sinensis) into the conjunctival sac. The patient is allowed to sleep for 6 hours or overnight. On waking up, all the seeds plus the extra-ocular foreign body are found collected at the medial canthus, all matted together with a mucoid discharge. The complex of the seeds, foreign body and discharge are said to be easily picked with a pointed object. This practice was done by 51(58.6%) respondents.

**Surgical Procedures**

Forty five (56.3%) healers said that they performed some surgical procedures to their patients. The commonly practices surgical procedures were:

- Rubbing of papillae in allergic conjunctivitis with a specific leaf until blood oozes (43, 49.4 % of all healers)
- Making small incisions over lesions (chalazion, tumors) and apply herbs on the lesions (4, 4.6% of all healers)
- Piercing lesions (chalazion) with a sharp object, either a needle or a thorn, and squeezing out the contents (11, 12.6% of all healers)
**Collaboration with providers**

Most (63, 72.4%) of the interviewed healers said they would support any collaborative efforts between the healers and contemporary medical practitioners.

**Preparation of Herbal Medicine**

Various methods of making herbal drops were reported as follows:

- Boiling the plant in water and sieving the particles away, leaving the juices which are used after leaving them to cool (70, 80% of all healers).
- Chewing the leaves (the healer chews) and putting the juice into the patients conjunctival sac (10, 11% of all healers).
- Putting the juice straight from the plant to conjunctival sac (16, 18% of all healers).
- Crushing the plant with a stone or mortar and pestle and putting the juice into the conjunctival sac (10, 11% of all healers).
- Diluting ones own urine with water and putting into the conjunctival sac (2, 2.2% of all healers).

**DISCUSSION**

Of the total 87 healers interviewed in 3 divisions of Kitui district, 87.4 % said they could treat patients with eye diseases among other conditions. Most of the healers (85%) were not registered with the relevant ministry and their drugs had not been studied and tested for efficacy and safety. The regulation exercise for traditional medicine is not effective because even the registered healers were not restricting their prescriptions to the medications they had presented for analysis to the Ministry of Culture and Social Services.

The prevailing traditional eye practices in this community were found to include the use of plant extracts in conjunctival sac, minor surgical procedures, sorcery and rituals, use of breast milk into conjuctival sac, washing face with herbal preparations in conjunctival sac, minor surgical procedures, sorcery and rituals, use of breast milk into conjuctival sac, washing face with herbal preparations and minor surgical procedures. The sterility of the instruments is not guaranteed when performing the procedures. Couching, a manual posterior dislocation of the lens in patient with cataract as practiced in West Africa and some Asian communities is not practiced in the Kamba community. Epilation was also not mentioned in this study as compared to the study done by Prof. Klauss et al. (1)

The use of breast milk especially fresh from a breast feeding mother for any chemical injury (33.3% of healers) is also a well known home therapy and many patients were said to use it without necessarily visiting the healer. Injuries from industrial chemicals are rare. Some healers combined herbal medicine and rituals, exorcism and divination in their practice. Squint and ocular tumors were among the conditions which were least understood and a significant number of healers recommended or performed some spiritual rituals as part of their treatment (16.1% for squint, 10.3% for ocular tumors). Traditional African medicine has from time immemorial been a mixture of herbal medicine and spiritual healing and similar results have been replicated in other studies. (1,3,4) The use of seed to help remove small extra ocular foreign bodies and dust particles is a peculiar practice in this community and is a widely known home remedy in the area. Other uncommon practices encountered included the use of patients own urine to "clean" his own eyes (2 healers), removal of extra-ocular foreign bodies with the tongue (1 healer) and the use of sugar solution for chemical injuries (11 healers). The conditions that most of the healers preferred to refer to hospital were found to be ocular tumors (55.2%), cataracts (52.9%), ocular injuries (34.5%), squint (24.1%) and cataracts 52.9%. Delayed referrals for conditions like trauma chemical injuries and ocular tumors could be a contributor to subsequent complications. A hospital based study in done by Msela et al (2) in Tanzania revealed that 49% of patients with ocular trauma had used traditional medicine before presentation with complications from both delayed presentation and side effects from the herbs contributing to the poor visual prognosis in this group. Use of traditional medicines for cataracts could also be contributing to low cataract surgical rates in the community. Most of the interviewed healers said that they did not do anything for squint nor did they recommend any form of treatment because they considered it a birth disorder which cannot be corrected. This could also lead to delayed presentation to hospital or no treatment at all for such patients and development of amblyopia.

**Preparation of Herbal Medicine**

The plants used varied from user to user even for the same condition and there seemed to be no consensus for the best herb for a particular condition. In the study by Klaus et al (1) among 16 traditional healers in Kenya, similar findings were reported with 28 herbs being used for conjunctivitis only. The use of herbal preparations in conjunctival sac has been reported in most studies in Sub-Saharan Africa and side effects well documented. (1, 2, 3, 5, 7, 10) These results can however not be extrapolated to all regions because the herbs vary from area to area and the preparation methods are also diverse.

A number of healers (12.6%) said they pierce chalazia with sharp objects like needles and thorns. The sterility of the instruments is not guaranteed when performing the procedures. Couching, a manual posterior dislocation of the lens in patient with cataract as practiced in West Africa and some Asian communities is not practiced in the Kamba community. Epilation was also not mentioned in this study as compared to the study done by Prof. Klauss et al. (1)
attempt to treat patients with ocular emergencies and may cause delays in presentation to hospital. Clinical studies should be conducted in Kitui to establish the effect of these practices on ocular morbidity.

REFERENCES


