

# The study of spiritual remedies in orthodox rural churches and traditional medicinal practice in Gondar Zuria district, Northwestern Ethiopia

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## ABSTRACT

During flowering season from September 2007 to December 2007, ethno medicinal information, as well as Spiritual remedies, documentation carried out among Orthodox Christian people of Gondar zuria district in northwestern Ethiopia. Based on the local utilization of plants and the aboriginal knowledge provided by the orthodox Christian people were documented. Field survey and personal discussion method has been used for collection of data. A list of 33 therapeutically, potential plants of 31 genera, 30 species belonging to 24 families identified by its taxonomic characters. The plants with their local names, ethno therapeutic claims including mode of preparation and method of applications to treat common illness and socio demographic profile of informants and spiritual remedies given by the Orthodox Christian priest in this district are studied.

**Keywords:** Medicinal Plants; Spiritual remedies; Orthodox Christian; Gondar zuria district; Ethiopia

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## INTRODUCTION

The World Health Organization (WHO) defines traditional medicine as health practices, approaches, knowledge, and beliefs incorporating plant, animal and mineral-based medicines, spiritual therapies, manual techniques, and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses and maintain well-being (1). In prehistoric culture, the mixture of herbal potion together with religious ritual and magic like formulas were part of all healing practices. Ethiopian society is not an exception to these traditional healing practices. Peoples here follow customs of Christian, Muslim, Jewish and other primitive religious rituals together. Today in Ethiopia up to 80% of the population uses traditional healing practices (2).

Most of the herbal remedies are interrelated to Ethiopian Orthodox Christianity religious practices. Priests of the church always taking the cross where ever

they go and bless the people is usual here and they give massage over the disease-affected part with the cross. With the help of incantation, priest convert ordinary water to holy water, they spill it over the patients, and they enchantment spiritual words to drive away the evil spirit from the people those who suffered by evil attack. Apart from this, priests are giving the herbal remedies.

The fame of traditional religious-magical healings and herbal healings in villages is due to the lack of modern health care facilities. The statistical data shows the average physician to population ratio is 1:51042 and orthodox priests to people ratio is 1: 100(3).So, there is no surprise that, the local populations seeks traditional medicine from orthodox priests and consider the Bible as more than the doctors. These traditional religious healings practices are common in all the villages and it is easily reachable for the people commonly, economically and geographically.

## 2. MATERIALS AND METHODS

### *Ethnography of study Area*

The Gondar zuria district is one among 18 districts in Amhara region in northwestern part of Ethiopia. It is at the distance of 700 km from northwest to Addis Ababa, the capital city of Ethiopia. This district is astronomically located at 12° 40'N latitude 37° 45'E- longitude. It lies at an altitude of 1550 to 1800 m above the sea level. It receives an annual rainfall of 711.8 to 1822 mm and monthly temperature from 18°C to 22°C. There are seven major native tribal groups in this district accounting, Agew 0.04%, Amhara 91.23%, Kement 8.25%, Tigraway 0.15%, Weyito 0.15%, others 0.15%. The total population size in this area is 258,146 among these males are 130,723; females are 127,423. The total area of Gondar zuria district is 1,286sq.km, with a population density of 200.6 per sq.km. As per topography, the major areas surrounded by hills and gentle slopes and partially bounded by higher elevation. The dominant soils here are shallow combisol, silt clay loam, and are brown in color. The soil depth is in between 20 to 70 cm. This area bordered by districts like Belesa at East, Denbya at West, Lay Armacheho, Wegera at north and Lake Tana and south Gondar in south (4).

### *Study Design*

Ethno medicinal survey carried out during the flowering season that facilitated perfect identification of plants, as well as maximum availability of crude drugs in the market for sale, during these months. By using a semi structured questionnaires as per the standard guidelines (6). The interview carried out in Amharic language, which is the regional language of this district. Field trip made in villages of this district to collect the ethno medicinal information as well as the spiritual remedies from priests (spiritualist), traditional healers, herb sellers, farmers, and patients. After had first interview with informants, we again went after a month and taken second interview with same informants who we met in first meeting to get strong consent over name and usage of plants. For ethical consideration in each village, the local community leaders informed about the aim and the purpose of this study and requested to cooperate. Each informant asked to get consent verbally to participate in this study.

### *Sampling and Data Collection*

The cross sectional study was made in Gondar zuria district of north west Ethiopia which includes major village settlements like; Gabrael, Sandaba, Netrha, Tekara, Azezo, Gonderoch Marium, Deg Abo, Laye Teda, Brehala Mecha,

Abune Simra, Mardo, Jeja, Farka and Besan. The informants selected based on their traditional medicine knowledge. The volunteer informants were in the age group of 35 to 75 years. From this group the interviewed males number=93 (86.91%) are dominant, compared to females n=14 (13.08%). Among traditional healers n=19 all are men, priests n=55 all are men, farmers n=10 (men 8, women 2), patients n=9 (men 6, women 3), herb sellers in the market n=14 (men 5, women 9). All the informants were Orthodox Christians belonging to the Amharic ethnic group. With reference to the education status of informants, illiterate are n=36 (33.64%), church educationist n=48 (44.85%), before 1970, instead of going to school, students were studied, bible at church. Learn Geez'e language along with the therapeutic usage of plants, medico magical remedies, including fortune telling, techniques used to drive out evil spirit, amulet preparation, baptism, diagnose of diseases by using mirror etc. Primary school educationist n=15 (14.01%), Secondary school educationist n=8 (7.47%). The majority of informants gained healing knowledge, from their ancestors are n=47 (43.92%). From orthodox Christian churches are n=51 (47.66%). From their friends are n=2 (1.86%) and from the traditional healers are n=7 (6.54%). With reference to years of healing experience of traditional healers; 15 years and above are (68%), 12 years are (26.2%) and less than 10 years are (5.8%).

Apart from the socio demographic profile, informants interviewed for the standard questionnaires as to which plants and what parts of the plant, the local population uses and for which purpose; subsequently the plants of importance to the local people were documented. This includes local name of the plant, mode of preparation, route of administration and dose. At the end of the interview, plant specimen collected and identified by its taxonomic characters, and prepared herbarium deposited in Department of Pharmacognosy, School of Pharmacy, University of Gondar.

### *Data analysis*

EPI info version 3.2 statistical package used for entry and calculating qualitative and quantitative data. Any logical and consistency error identified after revision of the original completed questionnaires. Facilities in MS excel spread sheet were utilized to make simple calculation, determining proportions and Informant consensus factor (ICF) values were determined to evaluate the consensus among traditional healers for potential anticancer plants.

## RESULTS

This survey has documented about 33 plants of 31 genera, 30 species belonging to 24 families found to have utilized

in the traditional health care delivery system of the people in Gondar zuria district [Table 1]. Totally 37 different diseases including; all types of cancer, male impotence, jaundice, tonsillitis are treated by 42 formulations made by traditional medical healers from 33 plants. Among these leaves were in highest numbers n=24 (53.33%) followed by roots were n = 8 (17.78%), and seeds were n=6 (13.33%) barks were n=5 (11.11%) and whole plants were n=2 (4.45%). The main route of drug administration is oral n=29 (67.44%), followed by external application n=13 (30.23%) and inhalation n=1 (2.33%). For oral administration, a cupful of extract given and it was estimated 150ml. The most of the plant preparations were from single plant and the plant products were consumed in the form of decoction 21.42 % (9), juice 28.57 % (12), paste 38.09 % (16), infusion 7.14 % (3), oil 2.38 % (7), suspension 2.38 % (1), are given orally. Macerated material paste mixed with butter or honey, applied externally. Among the Plant families, each five species belonging to Euphorbiaceae and Fabaceae respectively and two species recorded in the family of Celastraceae.

This study was found that four plants namely, *Acalypha acrogyna* Pax, *Carissa spinarum* L., *Maytenus ovatus* (Wight&Arn.) Loes., and *Macaranga capensis* (Bail.) Benth. Ex.Sim is using to treat all type of cancer in this district. A group of researchers in National Cancer Institute (NCI) USA isolated Maytansine from *Maytenus ovatus* (Wight &Arn) Loes, Celastraceae (6). In 1977, the above-cited institute carried out clinical trial with Maytansine at the same time a group of Anamycin antibiotics that are same structure to Maytansine were also isolated from a fermented broth of *Nocardia* (7). The ICF calculation of anticancer plants as follows, *Carissa spinarum* L., (ICF = 0.14) frequency 21 *Maytenus Ovatus* (Wight & Arn.), Loes, (ICF = 0.11) 26 frequency *Acalypha acrogyna* Pax. (ICF = 0.16) frequency 18.

## DISCUSSION

In ancient period, Egyptian Abushakir who wrote “Bahre-Hasab” (Ocean of mathematics) which has contains more than 2000 pages, written in Arabic language latter it converted into Gee’ze language, which describes many

**Table 1. list of plants using by people of Gondar zuria district, northwestern Ethiopia**

<b>Plant name, Family &amp; Local name in Amharic :A</b>	<b>Part used</b>	<b>Application &amp; route of administration</b>	<b>Mode of preparation&amp; Dosage</b>
<i>Acalypha acrogyna</i> Pax., Euphorbiaceae Juss A: Gullo	Leaf	All types of Cancer / oral	Fist of leaf is grinded with stone mortar; pestle, the resultant paste is mixed with honey, and given orally in morning. The leaf is heated and applied externally over the tumor-affected area until cure
<i>Adansonia digitata</i> L., Bombacaceae A: Bamba	Bark	Cholera, bloating of stomach /oral	A teaspoon of bark powder boiled with water to make decoction and a cup of this given orally thrice a day before food for a week.
<i>Asparagus africanus</i> var. <i>abyssinicus</i> Fiori., Liliaceae A: setkest	Bark	Syphilis /oral	Pieces of bark immersed in local beer, tela for whole night and in following morning, the content is filtered and a cup this infusion is given orally for 15 days.
<i>Brucea anti dysentrica</i> J. F, Mill., Simaroubaceae A: Abalo	Leaf	Leprosy, scabies and skin diseases /external	Handful of fresh leaf grounded to make a paste and to it add small quantity of honey or butter and it is applied externally until cure.
	Leaf	Syphilis, chronic diarrhea./oral	A half cup of fresh leaf juice is given orally for one week
<i>Calpurnia aurea</i> Baker Fabaceae A: Digita	Leaf	Ascariasis, gastric ulcer /oral	Seven to ten leaves are boiled in water, filtered and a cup of this decoction is given orally in empty stomach, in the morning for a week.
<i>Carissa spinarum</i> L., Apocynaceae A: Agam	Leaf	Snake bite/external	A handful of leaf is grinded to make in to paste, which is applied over snake bitten area
	Twigs & leaf	Throat cancer /oral	Young twig and fresh leaf is collected, pounded to make paste, and mixed with honey, given orally until cure

(continued)

<b>Plant name, Family &amp; Local name in Amharic :A</b>	<b>Part used</b>	<b>Application &amp; route of administration</b>	<b>Mode of preparation &amp; Dosage</b>
<i>Caesalpinia decapetala</i> [Roth.,] Alston., Fabaceae A: chinklate zer	Seed	To prevent false perception/ external	Seeds are used to make necklace, it is be worn prevent false perception and the plants grown as hedge around the house.
<i>Croton macrostachyus</i> Hochst. ex. Delile., Euphorbiaceae A: Bsana, Bisana	Bark	Gonorrhea, Abdominal colic./oral	A piece of fresh bark is soaked in 150 ml of water overnight and in the following morning a cupful of this infusion is given orally for a week.
<i>Dodonaea angustifolia</i> L.f. Sapindaceae Juss, A: kitkita	Leaf	Jaundice, malaria and taeniasis./oral	A fist of leaf is grounded to get half a cup of juice, which is given orally in morning and evening until cure.
	Seed	Gastric pain, bowel colic/oral	A small quantity of seed powder mixed with honey to make paste, which is given orally in the morning, and carrying little seed used to prevent evil eye.
<i>Erythrina abyssinica</i> Lam ex DC., Fabaceae A: Korch	Leaf	Bone fracture , skin wound /external	A handful of fresh leaf grounded to make a paste and it is applied and tied along with bamboos splints and bandage
	Root & bark	Indigestion /oral	Both root and bark pieces are immersed in local beer tela for whole night and in the morning the content is filtered and a cup of this infusion is given orally in empty stomach.
<i>Guizotia abyssinica</i> (L.F.) Cass.,Compositae A: Nug	Seed	Dry cough/oral	A cup of seed powder decoction is given orally in the morning and evening for a week.
	Seed oil	Rabies /oral	A cup of oil is given in morning in empty stomach until cure.
<i>Lagenaria abyssinica</i> (Hook.F.) C. Jeffrey Cucurbitaceae. A: Emboy yekil	Whole plant	Bronchitis, pneumonia /inhalation	Inhale the smoke of the whole plant in morning and evening for a week. Whole plant used to ferment the preparation of local spirit Arake.
	Leaf	Fungal infection / external	Leaf paste is applied over the fungal infected area.
<i>Lupinus albus</i> L., Fabaceae A: Gibto	Seed Fruit	Hypertension /oral	Small quantity of seed and fruit is grounded with water, filtered. The resultant juice is given orally in morning for one month.
<i>Macaranga capensis</i> (Bail.) Benth.Ex. Sim Euphorbiaceae A:Yehail shirr	Root	Male impotence/oral	A piece of fresh root is grounded in morning and put in the local beer tela and keep the content aside for seven hours, and in the evening a cup of this infusion is given orally
<i>Maytenus Ovatus</i> (Wight & Arn.,) Loes., Celastraceae A: Atat	Leaf	All types of cancer/oral	A handful of leaves are minced to make paste and a small quantity of this paste mixed with honey and given orally for morning and evening till cure
<i>Maytenus undata</i> (Thumb.,) Blake lock. Celastraceae A: Checho	Leaf	Eye infection /external	Three drops of fresh leaf juice instill into the eye
<i>Ocimum lamiifolium</i> Hochst Ex. Benth. Labiatae A: Damakesse	Leaf	Cold, cough ,fever and Antidote for Poison / oral	A handful of fresh leaf is pounded and a cup of this juice is given orally in the morning and night till cure
<i>Osyris quadripartite</i> Decn., Santalaceae A: keret	Leaf	Jaundice/oral	A handful of fresh leaf is grinded and cup of this juice given orally for 15 days

(continued)

<b>Plant name, Family &amp; Local name in Amharic :A</b>	<b>Part used</b>	<b>Application &amp; route of administration</b>	<b>Mode of preparation &amp; Dosage</b>
<i>Piper capense</i> L.f., Piperaceae A: Timiz, Tmz	Seed	Cold ,cough & Stomach ache /ora	A teaspoon of seed powder mixed with a cup of milk and it is given orally for a week in morning. The seed powder also used to make food sauce.
<i>Piliostigma thonningii</i> (Schumach. & Thonn.) Milne-Redh. Fabaceae A: Wanza	Bark	Wound heal after male, female circumcision/external	A piece of bark is grounded with water to make paste. It is applied over the wound after circumcision.
<i>Prunus Africana</i> (Hook.f.) Kalkman., Rosaceae A: Tikur Inchet	Leaf	Tonsillitis/oral	A fist of fresh leaf is pounded with water and a half cup of this juice is given orally in morning for one week
<i>Rubia cordifolia</i> L, Rubiaceae A: Enchibir	Root & leaf	Cold ,cough fever /oral	A teaspoon each of both root and the leaf powder is put in the boiling water, filtered and a cup of this decoction given orally in morning and evening for seven days.
<i>Rumex nepalensis</i> Spreng., Polygonaceae A:Ye wusha lut	Root	Ascariasis abdominal bleeding and gastric ulcer /ora	A teaspoon of root powder is boiled in 150 ml of water to make a decoction. A cup of this decoction is given orally in the morning for fifteen days in empty stomach.
	Leaf	External hemorrhage and healing the wound/external	A fist of leaf is grounded to make a paste and applied externally.
<i>Rhamnus prinoides</i> L'Her. Rhamnaceae A: Gesho	Leaf	Leaf part used to prepare local beer	Leaf is the one of the material for fermentation, which is used to prepare the local beer tela.
	Seed	Tinea- ringworm/oral	A cup of seed decoction is given orally in morning for 1 week.
<i>Rosmarinus officinalis</i> L.,Lamiaceae Qora.	Whole plant	Neuritis and paralysis/ oral	Fresh leaf juice is given orally in morning for forty days.
<i>Snowdenia Polystachya</i> [Fresen.,]Plig.,Poaceae A: Muja	Leaf	Tinea -ringworm / external	A part of the young plant is grounded with water and a small quantity of the resultant paste is applied externally.
<i>Salvia nilatica</i> Juss.Ex Jacq. Lamiaceae A:keskeso	Leaf	Wart/external	Fresh leaf is grounded with water to make a paste, which is applied externally over the wart-affected area.
<i>Signa abyssinica</i> , Hochst. Ex.Rich., Caryophyllaceae A: D'' nbilal	Leaf	Skin wound /external	Fresh leaf paste is applied over the wound.
	Leaf	Stomach ache/oral	A fist fresh leaf is grounded with water and a cup of this juice given orally in morning and evening until the pain is relieved.
<i>Syzygium guineense</i> [Wild.] Dc.,Myrtaceae A: Anqa, Doqma	Root & leaf	To treat syphilis and stomach ache./oral	A decoction is made from each one teaspoon of root and leaf powder and a cup of this decoction is given orally three times a day for seven days.
<i>Securidaca longepedunculata</i> Fresen., Polygalaceae A: Etse menahe	Leaf	To get rid of tooth pain/oral.	Chew and sip the leaf juice in morning and evening.
		To treat snake bite/oral	A cup of fresh leaf juice is given orally and leaf paste applied over the bitten area.

(continued)

Plant name, Family & Local name in Amharic :A	Part used	Application & route of administration	Mode of preparation & Dosage
<i>Tragia pungens</i> [Forssk.,] Mull, Arg., Euphorbiaceae A: Aleblabit	Root & Leaf	Chronic cough(T.B) impotence/oral	A teaspoon of leaf and root powder is boiled in water to make decoction. A cup of this is given orally three times a day for forty days in the morning and evening.
	Leaf	snake bite external	Leaf paste is applied externally over the snake bitten area.
<i>Tragia cinera</i> [Pax] M.G.Gilbert & Radcl.- Smith.,Kew Bull., Euphorbiaceae A: Tinkushta	Root	To relieve pain in scorpion sting/external	Large pieces of fresh root are grounded in to paste with the help of stone mortar and pestle. It is applied over the affected area.
	<i>Vernonia adoensis</i> Sch .Bip. Ex. Walp., Asteraceae Yetota shug	Leaf	For healing the wound/external
	Root	Snake bite/oral	Chew up the root, sip the juice, and fumigate the root to inhale.

medico magical remedies and astronomical calculations. In a similar manner, another book compiled with a title “Metshafe-Tibeb” (Book of wisdom) which describes usage of many medicinal plants along with spiritual remedies. The copies of these books are available in many churches in northwestern Ethiopia. This study also found that, based on medical description given in the above cited books many priests practicing traditional medicine. Most of the Orthodox Churches, practicing Jewish traditional customs like male circumcision.

People believe that health is a ‘gift of God’ and ‘evil forces can cause diseases this make community rely on spiritual remedies. Due to this believe, the influence of orthodox Christianity has many religious-magical healing practices, which are very popular among every Ethiopian. This study confirmed that, medico magical remedies of *Dodonaea angustifolia* L.F., the seeds of this plant are used to prevent evil eye (Buda). With help of seeds *Caesalpinia decapetala* (Roth.) Alston, women make and wear necklace to prevent false perception. The primary form of well-accepted traditional religious-magical healing for every Orthodox Christian is the Holy water (“tsebel”). Blessed holy water used to drink for healing diseases. Other popular healing methods in church are baptism, fasting, and penance. In addition, priest giving some sort of counsel and guidance. Apart from this the soul-father, (yenafs abbat) is a kind of family spiritual-doctor makes frequent visits to the home and performs healing services as required.

## CONCLUSION

This study has documented spiritual remedies along with ethno medicinal plants used by the community for various

illnesses. Most of the medicinal plants are collected from wild and the leaves and roots are the frequently used plant parts, which might aggravate loss of bio diversity in the end. Therefore, promoting cultivation of medicinal plants by the community may reduce destruction of wild plants. Identity and study of endangered species of medicinal plants is necessary. This survey could contribute partial remedies in the preservation of Ethiopian cultural heritage.

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