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Traditional African Medicine

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Abstract

African traditional medicine is defined as one of the holistic health care system comprised of three levels of specializations namely divination, spiritualism, and herbalism. The traditional healer provides healing services based on culture, religious background, knowledge, attitudes, and beliefs that are prevalent in his community. Hence the current chapter focuses on the different types of african healing system, traditional healers, traditional practices and modern herbalism and also describes the phytochemical and pharmacological evidences of the traditional african herbs like *Acanthus montanus* (Acanthaceae), *Amaranthus spinosus* (Amaranthaceae), *Bridelia ferruginea* (Euphorbiaceae) etc.

Keywords: traditional African medicine, traditional healers, divination, spiritualism, and herbalism

1. Introduction

As per World Health Organization (2002), The “Traditional medicine” may be defined 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 or maintain well-being [1].

Africa is one of the heritage continent also known as cradle of human being and the concept of traditional medicine in africa is existed long back with out documentation as a hidden evidence less practices for human beings who have been struggling with various unknown diseases. African people have their own ancestral practices to heal using different methods [2].

According to World Health Organization report more than 80% of the people in Africa depend on traditional medicine for their health care needs (WHO, 2003). The African people have been depending on various plants and animals source for their drug to treat various physical and mental illness. Nearly, 4000 medicinal plants have been documented towards their various Pharmacological activities [3].

Any Traditional medicine consists of medical treatment with an ancient roots that has been passed over generations to maintain health, as well as to prevent, diagnose, improve or treat illnesses. Various cultural and historic conditions have been influenced in the development of traditional medicine. The common basis for any Traditional medicine concept is a holistic healing to maintain life equilibrium between the body, mind and soul with external environment. Even the Traditional African Medicine is not an exception from this universal holistic approach.

Some of the Traditional healing systems and concepts have been supported by huge volume of literature and are in transition towards evidence healing concepts. However

Traditional African Medicine is still has not been documented and under process of documentation as from generations to generations, this was hidden as secret concept of healing. Still to date, in most parts of the africa, the major population have been continue to rely on traditional medicine to meet their primary health care needs [4].

In Africa, Traditional medicine is a healing belief system having its own health and disease concept. This is considered as a hidden treasure or knowledge that will pass from father to his only one beloved son of that family. The various healing concepts in Traditional African medicine (TAM) includes herbalism, surgery, bone setting, spinal manipulation, psychotherapy, hydrotherapy, occultism, hydrotherapy etc. However, lack of indepth scientific validation of these african traditional medicine and their documentation is a greatest lacuna and very much attention is required by the modern herbalists to safegaurd this healing concept. In the herbalism, vegetable, animal, and mineral substances have been used. In the metaphysical healing concept, Spirtualism concepts like prayers, invocations, or incantations have been offered to some mysterious and powerful forces in the various belief concept system like exorcism, divination, libation etc., were also been practicing to heal several diseases, how ever, scientific validation and documentation is still challenging [5, 6]. Some of plants used in herbalism by traditional african healers are *Foeniculum vulgare* Mill [7], *Rauvolfia serpentina* Linn [8], *Cinchona pubescens* Vahl [9], *Digitalis purpurea* Linn [10], etc.

1.1 Historical development of African traditional medicine

As per the Traditional African Medicine, Illness is considered as disorder that having both natural and supernatural causes. This must be treated by both physical and spiritual means, using various procedures like divination, incantations, animal sacrifice, exorcism, and herbs. It is a type of holistic health care system based on three levels of basic principles known as divination, spiritualism, and herbalism. The health care services provided by the healers are based on culture, religious background, knowledge attitudes, and their community beliefs.

The historical Development of African Traditional Medicine consists of two periods/Eras:

a. Colonial Era

b. Modern Period

1.1.1 Colonial era

In this era, the traditional medicinal practices have been considered as primitive and backward. Under colonial rule, traditional healers and their practices were not recognized by the scientific world as they were wrongly predicted as witchcraft and black magic. These practices in this era was considered by many nations as an illegal by the colonial authorities. Even in this period, attempts have been made to control the sale of herbal medicines. With the spread of colonaialism and christianity, christian missionaries built private ones and allopathy system of medicine is on widespread to treat various diseases [11].

1.1.2 Modern period

However, in this era, the modern world showed more interest in some of the medicinal plants that have been using in the african traditional healing systems as a bioprospecting tools towards discovery of drug leads and drugs. Still there are

many hidden mysteries that need to be learnt from traditional african practices by the modern world. In the writings of Dr. T. Adeoze Lambo, a Nigerian psychiatrist, stated in 1979, always there is a mystery in the african traditional healing concepts especially in the treatment of neurosis [12].

1.2 Principles, methods and areas in African traditional medicine

The principles involved in African traditional medicine is organized into three levels namely divination, spiritualism, and herbalism. It is a holistic approach that considers illness may be due to both physical and spiritual means that can be healed by using the concepts of divination, incantations, animal sacrifice, exorcism, and herbs. Traditional healers in the africa have been occupied prime position in the living community that uses herbs, minerals, animals and other spiritual and cultural belief to cure various diseases.

1.2.1 Divination

It is the spiritual healing process which is an act to contact between spiritual world and the mundane world for getting the guidance to heal [13]. The traditional healers were known as diviners. As per the belief systems, divination is a part of witchcraft and is a sign of metaphysical curses to block ones living energy. The local tribes in Africa have strong belief in metaphysical healing systems incompare to western medicine with respect to some ailments which are not clearly understood by the allopathy system of medicine. These type of ailments were considered as spiritual illnesses. The healing protocols in divination includes following of ancestor instructions and sacrifices to the spiritual world. Sometimes the diagnosis in divination protocol includes dream interpretations like apperance of ancestors, nightmares, omens, owls in diseased patients. The traditional healers through the secret knowledge of divination and interprets the dreams through the communication to spiritual world and the healing process will be done as per the spiritual communication by the healer which includes secret recipes of herbal bath, herbal decoctions, sacrifices, incantations and wearing of herbal parts as a protective medicine in form of talisman [14, 15]. However clear scientific validation over divination healing is still unclear and lack of scientific evidences. The traditional healers never expose their herbo-magical remedies to the other people. The different procedures in the divination includes tarot card and readings, celetic ogham, Norse Runes, tasseography or tasseomancy, Pendulum readings, osteomancy, lithomancy, fullmoon water scrying, pshycic automatic writing. To understand divination, it is always better to watch a documented video (Video 1; Available from (can be viewed at) <https://www.youtube.com/watch?v=yZpqdICyqUM>).

1.2.2 Spiritualism

The spiritualism or spiritual healing is an important healing practices in traditional african medicine and includes the following healing procedures.

a. Spiritual protection

Africans believe that some unknown illness are may be due to an attack by the evil spirits. In this case the spiritual healer prescribes talisman, charm, amulets, specially designed body marks, and a spiritual bath to drive evil spirits away. These rituals are helpul in driving off evil and dangerous dark spiritual forces or elements to ward off the evils or dangers that may have befallen a individual or family or community [16].

b. Sacrifices

Sacrifices are also part of spiritual healing process, sometimes offered at the request of spirits, gods, and ancestors which includes the sacrifice and burrial of various animals like dogs, cats, buffaloes etc. which are burried alive at midnight to save the individual from the evil attacks. Even these sacrifices includes some secret herbs, in which the healers believe that without these herbs, the process of sacrifices is incomplete. In some parts of Africa like Southafrica, this sacrifices also includes human sacrifices which is known as muti or ritual murder, which includes in identification of young child and sacrifices by spiritual healers for various beleifs [17].

c. Spiritual cleansing

This is also a part of spiritual healing also known as spiritual bath. This remedy is prescribed to the disease person with procedure and how many times per day. This includes secret herbal bath, holy water bath, and animal blood poured from head to toe and these practices are common in the african countries like Ghana.

After this bath, the diseased individual is required to offer certain items for sacrifice or libation like dove, dog, cat, got, fowl etc., along with local gin, cola nut, eggs, and plain white, red, or black cloth. It is belief that these items after sacrifice will be taken by the Gods.

The Gods guide the traditional healer for specific bath and specific item for sacrificing. All the specified things will be tied in cloth and thrown into flowing river after sacrifice and left to degrade. Sometimes, these things will left at the cross roads at the outskirts of community depending on the nature and severity of the case.

In somecases these spiritual cleansing techniques also known as a Ritual sacrifice baths. The Hausa-Fulani women of Zaria, Nigeria during cold or respiratory illness, they practices these type of ritual bath with hot water splashes along with the twigs of tamarind or neem tree [18, 19].

d. Exorcism

This is also a part of spiritual healing practising in several parts of the Africa. This includes expelling demons or evil spirits from the person with illness. Africans believes that certain diseases are may be due to possession of evil spirits. The diseases like mental illness is considered due to these evil possessions. The skill of exorcism is only be performed by the traditional leader or preist in that community. This includes various rituals like rosary chanting, dances, drums, music, songs, bibilical verses, touches the ill person with animal tails, and other objects [20].

The other healing techniques in the spiritualism includes libation, which is defined as the pouring of some liquids like gin, aromas on to the ground as an offering to get release from the illness due to karmic events. This can be practised through various techniques like invocation, supplication, and conclusion. The process of libation is to win over the evil wishes and curses by enemies. This includes pouring or offering various liquids to the ground along with prayers and chants [21]. It is always better to watch a documented video (Video 2; available from (can be viewd at) <https://youtu.be/lKZeDWpcoEw>) to understand more about the spiritualism practices.

1.2.3 Herbalism

Even use of herbal remedies is a part of Traditional African Medicine since ancient times. However, In Africa, the herbalism is in transition towards

modernisation. It is the study, standardization, quality control and use of different herbs with evidences or non evidences. The herbalism existed since ancient times. The modern medicine is also evolved from herbalism for eg: Aspirin (from willow bark), Quinine (From cinchona bark).

The herbal practitioners will take an extensive questionnaire consists of case histories and examines the patient physically. The patient medical history and symptoms will also be given an attention by the traditional healers. This includes the examination of every day physiological process like appetite, digestion, urination, defecation, and sleep.

The prescription includes individualized herbs or combinational herbs, usually in form of tinctures, extracts, fractions, decoctions, distillates, snuffs, gruels, teas, syrups, pills, ointments, poultices, etc. [22].

Various parts will be used in herbalism like roots, bulbs, and rhizomes from various healing herbs like *Acacia senegal* Linn (Leguminosae: Mimosoideae), *Aloe ferox* Mill. (Xanthorrhoeaceae), *Artemisia herba-alba* Asso (Med) (Asteraceae), *Aspalathus linearis* (Brum.f.) R. Dahlg. (Fabaceae), *Centella asiatica* (L.) Urb. (Apiaceae), *Catharanthus roseus* (L.) G. Don (Apocynaceae), *Cyclopia genistoides* (L.) Vent. (Fabaceae), *Harpagophytum procumbens* (Burch.) DC. (Pedaliaceae), *Momordica charantia* Linn. (Cucurbitaceae), *Pelargonium sidoides* DC. (Geraniaceae) are some of the important herbs in the traditional African herbalism [23]. To understand the modern and traditional herbalism in africa it is always best from video material (video 3, video 4) (Video 3 available from (can be viewed at) <https://youtu.be/7IvP3SSU2nM> and Video 4 available from (can be viewed at) <https://youtu.be/DV69JKi29Mk>).

2. African traditional medicine in different regions

2.1 Traditional Ethiopian medicine

The first recorded epidemic that occurred in Ethiopia dates back to 849 during the rule of Abba Yohannes as the head of the Ethiopian church. The disease and famine in those days was perceived as God's punishment for Yohannes' misdeeds. In the documented letter to Abba Yohannes, from the Ethiopian emperor and it was wrote that "great tribulations have come upon our land, and all our men are dying of the plague and all of our beasts and cattle have perished." [24]. However prediction of pinpoint of the birth of medicine in Ethiopia is impossible due to lack of clear document evidences. However the Ethiopian traditional medicine (ETM) is poorly documented. In Ethiopia, the traditional healers usually follows herbalism, spiritual healing, bone setting and minor surgical procedures in treating disease. The ETM is highly complex and diverse because the principals of healing will vary from one ethnic group to others. The Ethiopian traditional medicine beleives that disease is mystical and natural imbalance concept and follows holistic approach in the treatment [25].

Despite Western medicine becoming more widespread in Ethiopia, Still today Ethiopians trust and highly depend on traditional healing principles because of the easy and cheap access in urban parts. The first traditional elixir in Etthiopia is holy water and holy oil (Tesbel in Ahmaric) and moslems called as zemzem. Ethiopians beleives that holy water heals every ailment, when it is drunk or had bathed in. Even the orthodox christians in Ethiopia believes in the healing actions of holy annoited oil for treating minor ailments, this gave the concept of herbalism and spirituality in Ethiopian traditional medicine [26, 27].

The traditional medicine in Ethiopia is a combined concept of spiritualism and herbalism. The ETM IS a perceptive and own generational understanding of healing

concept but scientific explanation and validation is yet to be explored. Traditional practitioners are wide with different concepts and they includes bonesetters, birth attendants, tooth extractors, (called 'Wogesha' and yelimd awalaj' respectively in amharic) herbalists, as well as 'debtera', 'tenquay' (witch doctors), and spiritual healers such as 'weqaby' and 'kalicha.' Like other african medicine, Ethiopian medicine also believes that some diseases like mental illness is due to evil curses and healing concepts like exorcism also present in TEM.

Traditional Healing in Ethiopian traditional medicine is not only concerned with curing of diseases but also consists of protection and promotion of human physical, spiritual, social, mental and material wellbeing. The concept of Ethiopian medicine is kept hidden and considered as a hidden treasure, which will be passed orally from father to his favorite child.

The various traditional practices includes herbal medications, medications for pshyco social conditions like Exorcisms for Zar, Aganint, Buda, Ayene Tilla etc., Fumigation (inhalation), and Holy water or blessed water. The traditional practices includes Bone setting, Surgery, Cauterisation, Counter-irritation, Bleeding, Cupping, Steam Bath, Vapor Bath (woushba) and Moxibustion.

The Ethiopian traditional medicine includes Orthodox Christian literate healer (debetera), Orthodox Christian astrologer (Metsehaf Gelach), Mystique spiritual healer (Bale Zar), Divine healer (Psychi, Tenquay), Bone-setter (Woggesha), Kitab ketabi (Amult maker), Islamic Literature healer (Kabir), Islamic medical teacher (Sheki), and Cushitic healer (Qaalluu, Qaallicha, Argessa). the practices in ETM consists of preventive, curative, and surgical care. Traditional Ethiopian medicine includes several elements or disease prevention.

The best example of preventive care in ETM is the prevention of diseases like small pox. It was prevented by the traditional healers in following the social distance protocol and people were vaccinated through innoculating by taking pus from sick person during special rituals. Incase of preventive practices, the following protocols like Sweeping or covering floors with particular plants is another traditionally practiced disease preventive measure. The other methods of prevention include kitabs, which are also used for the purpose of protecting an individual against evil eye, as well as snake and scorpion bites. As healers beleive that contagious disease is an evil act or causing by evil eye. The traditional healers also suggest Amulets, arm rings, hair style and eye make-up (antimony or kool) are also supposed to protect from the evil eye.

There are some secret herbs that are useful as charms against an enemy. In addition, cultural rituals and sacrifices are commonly involved in preventive care. In curative practices of ETM, the diseases like gastrointestinal disturbances, respiratory disorders, sexually transmitted infections, tuberculosis, impotency, hemorrhoids, rabies, intestinal parasites, skin problems, liver diseases, mental disorders, hypertension, diabetes, gynecological conditions rheumatism, malaria etc. will be treated using knowledge of traditional herbalism.

One of the well recognized groups of these healers are the secular medhanit awakias (kitel betashes) herbalists using plants as their primary means of providing treatment. All these awakias have their own traditional pharmacopeias.

The surgical practices includes Traditional practices like bone-setting, uvulectomy, circumcisions, bleeding and cupping, cautery, scarification and tooth extraction. The setting of bones is regarded as an important surgical procedure which requires a certain degree of skill and experience on the part of the healer. In most places, the healer involved in bone-setting is the local wogesha. How ever these practices are crude and aseptic with or without the application of medicines.

The documentation of Ethiopian traditional medicine is resitricted only to the scientific literature and the knowledge of traditional pharmacopeia is not published and it was secret/hidden with the healers and practitioners. The ethiopian

ethnopharmacological information of medicinal plants is fast disappearing and this is more happening in industrialized countries, the erosion of popular information on plants is much faster than in developing ones.

In view of the rapid loss of such knowledge, its documentation as well as a better understanding of its botanico-historical and holistic roots has become an essential task to preserve and restore ethno-allied disciplines [28].

Some of the famous examples in the herbalism of Ethiopian Traditional medicine are as follows

- i. *Ocimum basilicum* Linn (Lamiaceae) which is locally known as besobila in amharic, commonly used in Ethiopia as culinary spice or herb, traditionally believed to heal various ailments like malaria, head ache, a common herb in treatment of various microbial infestations. It is also a common insect repellent in Ethiopia [29].
- ii. *Brassica nigra* Linn (Brassicaceae) which is locally known as senafitch in amharic, commonly used herb in Ethiopian Traditional Medicine to heal various ailments like stomach disorders, wound healing, and abortifacient [30].
- iii. *Nigella sativa* Linn (Ranunculaceae) which is locally known as Tiquir azmud in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like bronchitis, rheumatism and related inflammatory diseases [31].
- iv. *Capsicum annum* Linn (Solanaceae) which is locally known as kara or berebere or mita mita in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like culinary herb, dysentery and vomiting [32].
- v. *Cinnamomum zeylanicum* Breyn (Lauraceae) which is locally known as quarafa in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like microbial infestations, aphrodisiac [33].
- vi. *Coriandrum sativum* Linn (Apiaceae) which is locally known as dimbelal in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like stomach and gastro intestinal disorders [34].
- vii. *Cuminum cyminum* Linn (Apiaceae) which is locally known as ensilal in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like bronchopulmonary disorders, dyspeptic head ache, and stomach bloating [35].
- viii. *Linum usitatissimum* (Linn.) (Linaceae) which is locally known as telba in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like dietary fiber, purgative, immunomodulatory, anti hyperlipidemic, and wound healing [36].
- ix. *Catha edulis* Forsk (Celastraceae) which is locally known as chat in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like stimulant, mental illness, gonorrhea and common cold [37].
- x. *Ruta chalepensis* Linn (Rutaceae) which is locally known as tenadam in amharic, commonly used herb in Ethiopian traditional medicine to heal various ailments like stomach ache, diarrhoea and influenza [38].

2.2 Ghana traditional medicine

Ghanians have developed an unique indigenous healing traditional knowledge which was adapted and defined from their culture, beliefs, and environment, which satisfied their health needs over centuries.

In Ghana, people depends on the traditional knowledge as primary source to heal from various ailments especially in rural areas due to lack of sophisticated medical facilities and being western medicine is an expensive task. The traditional healers and patients ratio in Ghana is 1: 200 approximately. Hence Traditional medicine plays an important role in Ghanaian health care. The traditional knowledge is in the hands of spiritual healers but every family have some sort of traditional healing knowledge which was inherited from many generations as folklore medicine.

The healing in Ghanaian traditional system includes physical and spiritual aspects. The traditional healers are also known as herbal spiritualist collectively known as “bokomowo”, who having occult knowledge towards divination, exorcism and spiritual herbalism. There are various local names for the Ghanaian traditional healers like “gbedela” (Ewe), “kpeima” (Dagomba), “odunsini” (Akan), and “isofatse” (Ga). These healers have their own different concepts and principles of understanding the concept of disease. Today The modern herbalism is a major part of Ghanaian health care and having their own traditional medicine directorate established by the Ministry of health to provide validated traditional medicine which is quality, safe, and efficacious.

The Ghanaian excellence in traditional and alternative medicine have reached to the level of a standardized herbal medicine which is an essential part of modern herbalism. The ministry of health has been established various research centers to validate herbal medicine and incorporated herbalism as a part of university curriculum. There are various degree - awarding medical schools and training many students to graduate them as certified traditional medical doctors. The Ghanaian traditional herbal pharmacopeia is also an important achievement in the journey of Ghanaian herbalism [39, 40]. Some of the important herbs in Ghanaian herbalism are

- i. *Allophylus africanus* P. Beauv. (Sapindaceae) locally known as Odwendwena, the folk uses the bark decoction in the treatment of hemorrhoids and as lactogenic [41].
- ii. *Ananas comosus* L. Merr. (Bromeliaceae) locally known as aborobe, the folk uses the fruit and root of this plant to cure jaundice [41].
- iii. *Bidens pilosa* Linn. var. *Radiata* (Asteraceae) locally known as Gynantwi, the folk uses the whole plant decoction to treat jaundice and hypertension [42].
- iv. *Citrus aurantifolia* Linn. (Rutaceae) locally known as anka, the folk uses the fruit juice in treating urinary tract infections [43].
- v. *Dialium guineense* Willd. (Fabaceae) locally known as Osenafu, the folk uses the fruit as an anti-diarrheal [44].
- vi. *Ocimum canum* Sims. (Lamiaceae) locally known as mme, the folk uses the leaf decoction in treatment of poisoning and malaria [45].
- vii. *Oncoba spinosa* Forssk. (Salicaceae) locally known as Astrotoa, the folk uses the leaf and root decoction or powder in the treatment of cough and wounds [46].

viii. *Paullinia pinnata* Linn. (Sapindaceae) locally known as twentini, the folk uses the root and leaf decoction in the treatment of rheumatism, Sexual weakness, and stroke [47].

ix. *Phyllanthus fraternus* G.L. Webster. (Phyllanthaceae) locally known as Bomagueakire, the folk uses the leaf decoction in the treatment of Tuberculosis [48].

x. *Xylopia aethiopica* (Dunal) A. Rich. (Annonaceae) locally known as Hwenetia, the folk uses the seed decoction in the treatment of Chicken pox, stomachache, bladder trouble [49].

2.3 Traditional medicine in South Africa

Traditional Medicine is a part of everyone life in South Africa. Wide variety of concepts and beleifs existed in south african traditional healing system. The herbalism plays an important role in the traditional healing, The combined herbs use in traditional medicine is known as muti and the market where these herbs will sold is known as muti-market. Herbs, animals, mineral drugs will be available in this market. Eleven herbs are very important in muti market and plays a crucial role in isicakathi (Herbalism) and they are as follows

i. *Commelina africana* Linn. (*Commelinaceae*): locally known as geeleendagsblom, the folks uses the root concoction in treatment of microbial infestations, venereal diseases, and to treat women with menstrual cramps [50].

ii. *Agapanthus africanus* Linn. (*Amaryllidaceae*): locally known as kleinbloulelei, the folks uses this herb in pregnancy care and the traditional healers uses to treat ailments related to pregnancy. They use as leaf or root decoction Orally or rectally, to facilitate easy delivery and a healthy child [51].

iii. *Chlorophytum comosum* Linn. (*Asparagaceae*): locally known as hen-en-kuikens, the folks uses this herb as a protective charm or as an aumlet during pregnancy time against evil spirits for both mother and child [52].

iv. *Ledebouria socialis* (Baker) Jessop. (*Hyacinthaceae*): commonly known as South African scilla or scilla in the local market. The folks uses this herb in treatment of pregnancy, diarrhea, influenza, backaches, skin irritations and wounds [53].

v. *Ranunculus multifidus* Forssk. (*Ranunculaceae*): commonly known as isijojokazane in Zulu. The folks uses this herb in treatment of cures for headaches, urinary complaints, throat ulcers and coughs [54].

vi. *Thunbergia atriplicifolia* E.Mey. ex Nees. (*Acanthaceae*): commonly known as swartoognooi. The local folks uses the herbal infusion as an antiseptic wash in the treatment of sores and swellings [55].

vii. *Kohautia amatymbica* Eckl. & Zeyh. (*Rubiaceae*): commonly known as Ikhubalo Elimnyama. The local folks uses the root infusion as an emetic [56].

viii. *Plantago afra* Linn. (*Plantaginaceae*): commonly known as plantain. The local folks uses the mucilage in the treatment of wounds, inflammations, and eye irritations [57].

- ix. *Gazania linearis* Linn. (Asteraceae): commonly known as african daisy. The local folks used to prevent miscarriage and tooth ache [58].
- x. *Helichrysum pedunculatum* Hilliard & B.L.Burt. (Asteraceae): commonly known as impepho. The local folks used as an antiseptic and wound healing [58].
- xi. *Senecio coronatus* (Thunb.) Harv. Aka. (Asteraceae): commonly known as Indlebe Yebokwe. The local folks used to get rid of pubic lice [58, 59].

2.4 Other parts of Africa

Eritrea is one of African country and has been known for its traditional medicine practice. They use different plants for different diseases. In Eritrea plant called *Kalanchoe marmorata* baker and belongs to the family of Crassulaceae. In local name it is known as Saniaco which has been using for Cold, Intestinal parasites & Burns. some of the important herbs that have been using in Eritrea are mentioned in the [60].

The folks of Uganda as other Africa countries have rich in traditional health care knowledge for addressing various health problems and 80% people uses medicinal herbs atleast once in daily life. For instances in northern sector of kibale national park, the folks have been using *Vernonia amygdalina* Del. (Asteraceae) and *Albizia coriaria* Welw. ex Oliv (Fabaceae) in the treatment of malaria and cough respectively. Some other common medicinal plants that have been using *Coffea arabica* Linn (Rubiaceae), *Coffea canephora* Pierre ex A.Froehner (Rubiaceae) for treatingdiarrhoea, *Crassocephalum vitellinum* S.Moore (Rubiaceae) in treating wound, *Turraea africana* (Welw.) Cheek (Meliaceae) for worm infestations [60]. In Zambia, 75% of people depend on traditional medicinal knowledge to treat various ailments like infertility, wound healing. The famous plant used in zambian societies are *Aloe vera* Linn (Aloeaceae) as an antiseptic, wound healing, antitussive, skin irritant. Various herbs like *Terminalia sericea* Burch. ex DC. (Combretaceae), *Strychnos cocculoides* Baker. (Strychnaceae), *Ximenia caffra* Sond.(Olacaceae), *Cassia abbreviata* oliv. (Fabaceae), *Combretum hereroense* Schinz. (Combretaceae), *Combretum imberbe* Wawra. (Combretaceae), *Dichrostachys cinerea* Linn. (Fabaceae), *Boscia foetida* Schinz. (Capparaceae), *Momordica balsamina* Linn. (Cucurbitaceae) and *Peltophorum africanum* Sond (Fabaceae) [61].

3. Conclusion

In Africa, Traditional medicine is one of the important health care system till today. The traditional african medicine is now evolved as an evidence based healing system and serving as a good prime element in reverse pharmacology and drug discovery. Hence Traditional african medicine is a breakthrough in the drug discovery process.

Even now a days, serious attention has been made on the quality, Safety, and efficacy from the evolved african countries like South Africa, Ethiopia, Ghana, and kenya and there is a paradigm shift from non- validated traditional herbalism to validated modern herbalism which is even accepting by the modern doctors about the magical healing effects of these herbs in diseases like cancer, Covid-19, HIV, and tuberculosis. The current demand for African traditional healing concepts like spiritualism, humanisim, and herbalism towards the disease preventive care and African herbalism has been became an important bioprospecting tool in drug discovery of new drug molecules.

S.no	Scientific name	Family name	Local name	African location	Parts of used	Traditional uses/ Folk remedies
1.	<i>Agapanthus africanus</i> Linn	Amaryllidaceae	kleinbloulelei	South Africa	Leaf, Root	To treat various ailments related to pregnancy. They use as leaf or root decoction Orally or rectally, to facilitate easy delivery and a healthy child
2.	<i>Allium sativum</i> Linn	Alliaceae	Shigueti tseada	Eritrea	bulb	Hypertension,Malaria and Asthma
3.	<i>Allophylus africanus</i> P. Beauv.	Sapindaceae	Odwendwena	Ghana	bark	hemorrhoids and as lactogenic
4.	<i>Aloe macrocarp</i> Todaro.	Aloeaceae	Tsebir	Eritrea	Latex	Impotency, Malaria & easing labor
5.	<i>Ananas comosus</i> L. Merr.	Bromeliaceae	aborobe	Ghana	Fruit and Root	jaundice
6.	<i>Brassica nigra</i> Linn.	Brassicaceae	Senafitch	Ethiopia	Leaves, seeds	Stomach disorders, wound healing, and abortifacient
7.	<i>Bidens pilosa</i> Linn. var. <i>Radiata</i> .	Asteraceae	Gyinantwi	Ghana	Whole plant	Decoction to treat jaundice and hypertension
8.	<i>Capsicum annuum</i> Linn.	Solanaceae	kara or berebere	Ethiopia	Fruits	Culinary herb, dysentery and vomiting
9.	<i>Carica papaya</i> Linn.	Caricaceae	papayo	Eritrea	seed	Diabetes, Amoeba and Typhoid fever
10.	<i>Catha edulis</i> Forsk.	Celastraceae	Chat	Ethiopia	Leaf	Stimulant, mental illness, gonorrhea and common cold
11.	<i>Cinnamomum zeylanicum</i> Breyn.	Lauraceae	Quarafa	Ethiopia	Bark	Microbial infestations, aphrodisiac
12.	<i>Citrus aurantifolia</i> Linn.	Rutaceae	Anka	Ghana	Fruit juice	Treating urinary tract infection
13.	<i>Chlorophytum comosum</i> Linn.	Asparagaceae	Hen-en-kuikens	South Africa	Root/ stem	Protective charm or as an aumlet during pregnancy time against evil spirits for both mother and child
14.	<i>Commelina africana</i> Linn.	Commelinaceae	geeleendagsblom	South Africa	Root	Microbial infestations, venereal diseases, and to treat women with menstrual cramp
15.	<i>Dialium guineense</i> Willd.	Fabaceae	Osenafu	Ghana	Fruit	Antidiarrheal
16.	<i>Dodonaea viscosa</i> Linn.	Sapindaceae	Taheses	Eritrea	leaves	Worm infestation and dandruff

S.no	Scientific name	Family name	Local name	African location	Parts of used	Traditional uses/ Folk remedies
17.	<i>Gazania linearis</i> Linn.	Asteraceae	African daisy	South Africa	Aerial parts	Local folks used to prevent miscarriage and tooth ache
18.	<i>Helichrysum pedunculatum</i> Hilliard & B.L.Burt.	Asteraceae	Impepho	South Africa	Aerial parts	Antiseptic and wound healing
19.	<i>Kohautia amatymbica</i> Eckl. & Zeyh.	Rubiaceae	Ikhubalo Elimnyama	South Africa	Root	Root infusion as an emetic
20.	<i>Ledebouria socialis</i> (Baker) Jessop.	Hyacinthaceae	South African scilla	South Africa	Aerial parts	Treatment of pregnancy, diarrhea, influenza, backaches, skin irritations and wounds.
21.	<i>Linum usitatissimum</i> (Linn.)	Linaceae	Telba	Ethiopia	Seeds, husk	Dietary fiber, purgative, immunomodulatory, anti hyperlipidemic, and wound healing.
22.	<i>Nigella sativa</i> Linn.	Ranunculaceae	Tiqur azmud	Ethiopia	Leaves, seeds	Bronchitis, rheumatism and related inflammatory diseases.
23.	<i>Ocimum basilicum</i> Linn.	Lamiaceae	Besobila	Ethiopia	Whole plant / Leaves	Malaria, head ache, a common herb in treatment of various microbial infestations and mosquito repellent.
24.	<i>Ocimum canum</i> Sims.	Lamiaceae	mme	Ghana	Leaf decoction	Treatment of poisoning and malaria.
25.	<i>Oncoba spinosa</i> Forssk.	Salicaceae	Astrotoa	Ghana	Leaf and Root	Treatment of cough and wounds.
26.	<i>Otostegia fruticosa</i> ssp. Schimper.	Lamiaceae	Fashadima	Eritrea	Leaves	Tonsillitis arthritis and Endo parasite.
27.	<i>Paullinia pinnata</i> Linn.	Sapindaceae	twentini	Ghana	Root and leaf	Rheumatism, Sexual weakness, and stroke.
28.	<i>Phyllanthus fraternus</i> G.L. Webster.	Phyllanthaceae	Bomagueakire	Ghana	Leaf	Tuberculosis
29.	<i>Plantago afra</i> Linn.	Plantaginaceae	Plantain	South Africa	Aerial Parts	Mucilage in the treatment of wounds, inflammations, and eye irritations
30.	<i>Pollichia campestris</i> Aiton	Carryophllaceae	Hareg bait	Eritrea	Root	Snake bite, tonsillitis, eye disease

S.no	Scientific name	Family name	Local name	African location	Parts of used	Traditional uses/ Folk remedies
31.	<i>Prosopis juliflora</i> (SW) D.C.	Fabaceae	Temer musa	Eritrea	Pods	Lactation, digestion disturbance.
32.	<i>Ranunculus multifidus</i> Forssk.	Ranunculaceae	Isijojokazane	South Africa	Aerial parts	Folks uses this herb in treatment of cures for headaches, urinary complaints, throat ulcers and coughs
33.	<i>Senecio coronatus</i> (Thunb.) Harv. Aka.	Asteraceae	Indlebe Yebokwe.	South Africa	Seeds	To get rid of public lice.
34.	<i>Thunbergia atriplicifolia</i> E.Mey. ex Nees.	Acanthaceae	Swartoognooi	South Africa	Leaves	Folks uses the herbal infusion as an antiseptic wash in the treatment of sores and swellings
35	<i>Xylopia aethiopica</i> (Dunal) A. Rich.	Annonaceae	Hwenetia	Ghana	Seed	Chicken pox, stomachache,bladder trouble

Table 1.
Some common medicinal plant used in different parts of Africa.



Figure 1.
Traditional African medicine.

The main lacuna of this traditional medicine in Africa are documentation evidences regulation, Quality control, and standardization. This is possible only by integrating the traditional medicine with modern medicine. Hence the current chapter is focused on the importance of Traditional african medicine in terms of herbalism and belief based healing system. To make the chapter for easy understanding, video materials, **Table 1** and **Figure 1** were incorporated.

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Conflict of interest

The authors declare no conflict of interest.

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