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# The place of traditional medicine in the African society: The science, acceptance and support

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**Abstract:** Traditional medicine (TM) has been described by the World Health Organisation (WHO) as one of the surest alternative means to achieve total health care coverage of the world's population. In most African societies, traditional medicine plays an important role in the lives of millions who cannot access western medicine. In some areas, TM is part of the first set of response mechanisms for medical emergencies whilst in others the whole health system of the community is hinged on medicines rooted in local practice and belief. Although the relevance and values of TM is beginning to gain recognition, African traditional medicine (ATM) still faces some challenges which underscore its scrutiny. This paper thus analyses the issue of science, acceptance and support for successful implementation of ATM and present the contemporary measures that are being taken to raise its standard to the level of western medicine.

**Keywords:** Traditional Medicine, Western Medicine, African, Health

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## 1. Introduction

Traditional medicine (TM) is a method of healing founded on its own concept of health and disease which comprises unscientific knowledge systems that developed over generations within various societies before the era of western medicine (WM) [1]. Knowledge is passed on orally from father to son through generations and is jealously guarded in certain families. The components of TM are encompassing and include herbal medicine, therapeutic fasting and dieting among others [2]. The practitioners include herbalists, diviners and midwives.

Many traditional medicine practitioners (TMPs) in Africa are people without education, who have rather received knowledge of medicinal plants and their effects on the human body from their forebears as in reference [1]. They have a deep and personal involvement in the healing process and protect the therapeutic knowledge by keeping it secret as in [2]. In a manner similar to western medicinal practice, the practitioners of TM specialise in particular areas of their profession as in [3]. According to a documented review, the Inyangas of Swaziland are said to

be experts in herbalism, whilst the South African Sangomas, are experts in spiritual healing as diviners, and others specialise in a combination of both forms of practice as in reference [4].

Modern science has, in the past, considered methods of TM as primitive but little was done to investigate the legitimacy of these practices as in [5]. Consequently, the orthodox health care practitioners have, in most cases, continued to shun TMPs despite their contribution to meeting the basic health needs of the population as in reference [6]. For instance, modern pharmaceuticals and medical procedures remain inaccessible to large number of African people due to their relatively high cost and concentration of health centers in urban centers. TM on the other hand is available and affordable to the ordinary African both in the rural and urban areas. In recent years, the treatments and remedies used in ATM have gained more appreciation from researchers in western science.

The TMPs are now receiving formal training at university level where they currently adopt methods similar to those used by western medicine practitioners (WMPs) to diagnose diseases and administer treatment. On another

front, developing countries have begun to realise the high costs of modern health care systems and the technologies that are required, thus proving Africa's dependence on TM as in reference [7]. Due to these, interest has recently been expressed in integrating ATM into the continent's national health care systems as in [7]. The present paper thus explores the relevance of ATM with regard to its science, acceptance and the necessity for its support from the stakeholders while also highlighting steps taken so far by African Governments.

## 2. The Place (Importance) of Traditional Medicine in Africa

The importance of TM for people in Africa in the past, now and in the future is enormous. The remedies made from indigenous plants play a crucial role in the health of millions of Africans. According to the International Development Research Centre (IDRC), one estimate puts the number of Africans who routinely use these services for primary health care as high as 85% in Sub-Saharan Africa

as in reference [3]. In Ghana, traditional medicine caters for about 75-85% of the rural people and 45-65% of urban dwellers as in reference [8], while WHO declaration at Beijing in China stated that about 85% of people worldwide seek traditional health practitioners as first choice before WM as in reference [9].

The relative ratios of TMPs and orthodox medical practitioners (OMPs) in relation to the whole population in African countries showcase the importance of TMPs. For example, in Ghana, a census held in September 2010 showed there were 400 people to every TMPs compared to a ratio of 1: 17,733 for OMPs. Again in 2011, the ratio for TMPs to people remained the same whilst that of OMPs improved to 1: 11,500 as in [10]. In Swaziland, the same situation applies where for every TMP there are 110 people whereas for every OMP there are 10,000 people (Table 1). The TMPs have therefore proven to be a large and influential group in primary health care and an integral part of the African culture and are required for the health of its people.

*Table 1. Ratios of doctors (practicing WM) and TMPs to patients in East, West and Southern Africa [10]*

Country	Doctor: Patient	TMP: Patient	Reference
Botswana	-	TMPs estimate at 2,000 in 1990	Moitsidi, 1993
Eritrea	Medical doctors estimated at 120 in 1995		Government of Eritrea, 1995
Ethiopia	1:33,000		World Bank 1993
Ghana	1 : 11,500	1 : 400	Ministry of Health, Ghana, 2011
Kenya	1:7,142(overall)	1:987(Urban Mathare)	World Bank 1993
Kenya	1:833 Urban Mathare)	1:378(Rural Kilungu)	Good 1987:Good 1986
Lesotho		Licensed TMPs estimated at 8,597 in 1991	Scot et al, 1996
Madagascar	1:8,333	-	World Bank 1993
Malawi	1:50,000	1:138	Misonthi and Seyani 1986
Mozambique	1:50,000	1:200	Green et al, 1994
Namibia		1:1,000(Katutura) 1:500(Cuvella) 1:300(Caprivi)	Lumpkin, 1994
Somalia	1:14,285 (overall) 1:2,149(Mogadishu) 1:54,213(Central ) 1:216,539(Sanag)		World Bank, 1993 Elmi et al, 1983 Elmi et al, 1983 Elmi et al, 1983
South Africa	1:1,639(overall)	1:700-1,200 (Venda)	World Bank, 1993
South Africa	1:17,400 (homeland areas)		Savage, 1985 Arnold and Gulumian, 1987
Sudan	1:11,000	-	World Bank 1993
Swaziland	1:10,000	1:100	Green, 1985 Hoff and Maseko, 1986
Tanzania	1:33,000	1:350-450 in DSM	World Bank 1993 Swantz, 1984
Uganda	1:25,000	1:708	World Bank, 1993 Amai, 1997
Zambia	1:11,000	-	World Bank, 1993
Zimbabwe	1:6,250	1, 234(Urban) 1:6,250(rural)	World Bank 1993 Gelfand et al, 1985

Given the high cost of medicine manufactured by the western pharmaceutical companies, treatments are not made available widely enough for most Africans. This may imply that many rural African communities are not able to

afford the high price of pharmaceuticals and in some instances, they cannot readily obtain the medicine even if they were affordable; therefore, TMPs remain their only means for medical help as in reference [10].

### 3. The Science and Acceptance of Traditional Medicine in Africa

In the African environment, the therapeutic potential of traditional medicine is enormous and requires further in-depth study to improve methods and training so as to form a more effective organization within the ranks of TMPs. Many scientists believe that most herbs in traditional cultures are given as part of a whole system of medicine as in [11]. The known maxim in traditional medical practice is; *'take this herb and do this exercise and change your diet'* i.e., it is a multidimensional treatment. In most cases, the administration of TM is a contentious issue particularly in the areas of methods, diagnosis and doses which have made its integration to Western Medical Model a herculean task as in [11]. The argument for TMPs on the other hand, lies largely on the lack of sufficient time and research funds to showcase its potentials. Most grants given toward TM research have been for pilot projects which cannot establish the desired definitive assessment of efficacy expected of a robust research. For TM to respond to the challenge of science and to be accepted by all, there has to be some serious input of funds from governments, agencies and corporate bodies to undertake in-depth research work into its efficacy, safety, quality, standardization and regulation.

It is no secret that there are often huge variations in the way in which the medicines are used in TM, including herb source, preparation, dose and indication. Also, because TMPs are unregulated professional body coupled with the lack of standardisation in their products, it may be difficult to generalise the results from a formal, structured and highly monitored trial. Nevertheless, herbal medicine research must be performed to achieve a balance between internal and external validity to bring about standardisation in conformity with the WM principles as in [12]. It is however encouraging that most contemporary TMPs have begun to apply proven standardisation in their work to match the western medical practice. Tremendous improvements have been achieved in the areas of the use of modern equipments that are found in western medical hospitals/clinics, labelling of herbal preparations with required dosages and availability of well trained practitioners with bachelors and masters degrees.

Researchers increasingly agree that it is important to establish a rational basis for dosing and standardisation of biologically active compounds before conducting large-scale treatment trials as in [5]. These efforts can improve the investigators' ability to assess the risks and benefits of subjects' participation in large-scale herbal medicine trials as in [13]. Likewise, more rigorous monitoring of adverse events and standardised reporting of research results for both safety and efficacy data will improve long-term efforts to enhance risk-benefit ratio determination for trial participants and these are being addressed in traditional herbal research and practice.

Cultural factors also may influence judgements of the risks and benefits in herbal medicine research as culture has

a great influence on traditional medicine as in reference [2]. For instance, a cultural familiarity with many traditional herbal medicines may promote a familiarity bias, accepting a widespread cultural assumption of safety, based on the historical use of herbal medicines as in [5]. It will therefore be important to establish standards of evidence for demonstration of safety devoid of cultural influence before conducting large-scale clinical trials on which the efficacy of herbal medicines can be evaluated.

Research activities in TM must also be formulated based on challenges as found in WM. This will give a brighter future to this area of research and position TM research to play a critical role in global health as in [13]. China, India, Nigeria, the United States of America and WHO have all made moderate research investments in traditional herbal medicines as in [14]. Industries have also invested some funds looking for promising medicinal herbs and novel chemical compounds. Non-governmental organisations such as the Association for the Promotion of Traditional Medicine (PROMETRA) in Senegal and the Centre for Scientific Research into Plant Medicine located at Akuapim-Mampong in Ghana are also dedicated to preserving and restoring ATM and indigenous science as in [15]. Although these are still relatively modest investments and attempts compared to WM, it shows a promise that at last the scientific community is beginning to pay attention to TM as an alternative or partner to WM.

Addressing the scientific challenges of TM requires collaborative partnerships that implement sound research designs as in [16]. In fact collaborative partnership which displays a commitment by all parties in international research agreements to work together for common language and goals should be the way forward for ATM research and with sustained investment; it will become increasingly possible to conduct sound international scientific investigation on TM. Furthermore, sustainable collaborative research partnerships would benefit from robust and independent adverse-event reporting systems for herbal medicines so that the risk-benefit ratio for herbal medicine research can be more clearly defined as in reference [17].

### 4. Usage (Patronage) of Traditional Medicine in Africa

In many rural areas of Africa, TM is the only means for providing basic health care, despite all scientific and technological development recorded at the end of the last century. The WHO has estimated that about 85% of Africans rely on traditional medicine to meet their health needs as in reference [18]. This percentage may increase if one takes into account that many people use both western and traditional medicine treatments depending on what is wrong with them at a point in time as in [19].

The popularity of traditional medicine has grown to the extent that most people in Africa are now considering it as

an alternative health care remedy as in reference [20-21]. People in urban areas in many parts of Africa patronize TM more than WM though not as much as those in rural towns. Again, the proportions of people who use both TM and WM in equal measures are usually about the same for city dwellers and those in the rural areas. This development can be attributed to the rural-urban migration in which the rural migrants have brought with them the practice of using TM for treatment which has reflected in the high number of people using TM in the cities. Many Africans in the western world also use TM to treat various ailments thereby raising questions about the necessity for this usage in western countries in spite of the elaborate health care systems in place as in [22]. This use by mainly immigrants gives an indication of the high cost and inaccessibility of WM particularly for those without good health care insurance.

## 5. Support and Chances of Success of Traditional Medicine in Africa.

The WHO, for almost 40 years, urged developing countries to develop TM and include them in national medicine lists, i.e. traditional preparations that have demonstrated efficacy and safety in scientific researches as in [23]. During the last decade (2001-2010), WHO and the African Union (AU) developed various instruments to support countries to develop TM and make it a credible instrument in order to integrate it into the national health system. The AU declared the decade 2001-2010 as the decade of TM to fast-track its development so as to make Africans proud. However, the outcome of the programme within the stipulated time was not encouraging as in reference as in [24]. Despite the poor results, African Governments are being urged to continue to support activities of TM as a way of contributing to the development of quality health care service in Africa.

The TMPs in Africa offer information, counseling and treatment to patients and their families in a personal manner as well as having an understanding of their client's environment as in reference [25]. Despite this, TMPs have rarely been included in key decision making, action agendas and community programs in disease prevention and care as in reference [25]. Again, for TM to be wholly accepted, governments and scientists must be cautious not to transform it into a "robot" of allopathic medicine and must respect the concepts of TM and invest in its development. The issues that retard advancement can be solved by investing in research, training, and drafting of legislation and regulations to uphold both the user and the intellectual property rights of TMPs, especially in cases where there are discoveries of new drugs based on traditional recipes as in reference [26-27].

Governments should establish the necessary institutional and financial support to promote the potential role of TM in primary health care delivery as in [28]. Priority should be given to the development of TM by means of the following

measures: (a) inventorying and documenting the various medicinal plants and herbs which are used to treat common diseases in each country; (b) establishing local botanical gardens for the preservation of essential medicinal herbal plants in different parts of each country, in order to ensure a sustainable supply of safe, effective and affordable medicinal herbs; (c) setting up testing laboratories with adequate facilities for the assessment of the efficacy of medicinal herbs, and (d) establishing dosage norms for the most efficacious use of herbal extracts in any forms of administration as in [28-29].

In recent time, most African (developing) countries, have started developing more interests in traditional remedies and heeding to the call for support. This is due, in part, to the lack of means to provide comprehensive health care to the citizens as obtained in the developed countries. Some countries have established departments of traditional pharmacology within their health-ministries so as to encourage the use of local medicinal plants as in reference [28-29]. Education ministries have also started to introduce conservation of bio-diversity into their school programmes which demonstrates the political will of African governments towards the conservation of nature and the sustainable use of bio-diversity.

## 6. Challenges of Traditional Medicine in Africa

Despite being widely used in Africa, TM has been viewed with a lot of scepticism by conventional health practitioners and the practice faces some challenges. For instance, there are worries about the lack of information in TM herbal-based treatments regarding the composition of the remedy in many cases. Herbs are natural products and their chemical composition varies depending on several factors, such as botanical species, used chemotypes, the anatomical part of the plant used as well as the storage, sun, humidity, type of ground, time of harvest and geographic area as in reference [30]. These variabilities can result in significant differences in pharmacological activity involving both pharmacodynamic and pharmacokinetic issues and must be standardised to achieve a high pharmaceutical quality for TM. Moreover the use of herbal extracts during pregnancy or lactation should undergo strict medical supervision because many herbs may not have been studied for their effect on foetuses as in reference [31]. Proper research that proves efficacy will help overcome most of the challenges facing TM as in reference [32].

## 7. Conclusion

The principle of practice in Traditional Medicine is premised on the belief that human being is both a somatic and spiritual entity, and that disease can be due to supernatural causes as well as the invasion of foreign object into the body. It is therefore not only the symptoms of the

disease that are taken into account in TM, but also psychological and sociological factors. Thus, the holistic nature and culture-based approach to traditional healthcare is an important aspect of the practice, and sets it apart from conventional western approaches. Many Africans, especially rural people and poor people in urban centres, rely on the use of TM when they are ill. In fact, in many rural communities in Africa TM is the major and in some cases the only source of health care available. Thus there can be no doubt about the importance, acceptability and efficacy of herbal remedy within the African society although more can be done to improve both the quality and efficacy of TM leading to greater acceptance and therefore success.

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