

Perceptions and attitudes of modern and traditional medical practitioners about traditional medical practice in Eritrea

Abstract

Background: Traditional medicine has a long roots and a wide acceptance throughout Eritrea. It is used in the prevention and treatment of physical and mental disorders as well as social imbalance. It is compatible with the prevailing health beliefs and practices in most parts of Eritrea. Traditional Eritrean pharmacopoeia comprises various plant and animal products, spiritual healings, physiotherapy, and traditional surgical practices.

Objective: The study aims to assess the perceptions and attitudes of modern and traditional medical practitioners about traditional medical practice in Eritrea. It tries to promote positive elements of traditional medicine and its integration with modern health care practices as well as in formulating a policy that includes both practices for optimum health care coverage.

Methods: A cross-sectional study was conducted in 2005 in four administrative regions of Eritrea. A sample of 100 Traditional Medical Practitioners and 100 Modern Medical Practitioners were selected for the study. Data was collected through questionnaire and semi-structured interviews. During the study period ten types of TMPs and five types of MMPs (physicians, pharmacists, nurses and health technicians) were approached. Data was analysed through quantitative and qualitative methods. The study adopts a deductive approach to analyse the perceptions and attitudes of modern and traditional medical practitioners about traditional medical practice in Eritrea.

Results: The study shows that about 57% of MMPs supported the idea of combined therapy (traditional and modern) for certain types of diseases, and 53% agreed to collaborate with traditional medical practitioners in research and in the treatment of certain diseases in which the traditional medical system is claimed to be effective. The need for collaboration is stressed largely due to the emphasis on the socio-cultural dimensions of health. The overall findings from the responses of both traditional and modern medical practitioners indicated that generally there is goodwill to establish positive relationships and collaborations between both practitioners although there are significant differences not only in their way of thinking but also in their perceptions of man and health.

Conclusion: Traditional and modern health care systems are complementary than competitive. Traditional medical system complements the modern health care system in the social, medical and economical dimensions. With proper documentation and scientific research, traditional medicine will solve much of basic health care service problems of the Eritrean people, particularly the underserved rural community. Hence there is a need for the identification, documentation and registration of diseases that can be effectively cured by traditional medicine, as well as training of TMPs in the diagnosis, preparation and dosage control of traditional medicaments.

Keywords: Eritrea, traditional medicine, complementary and alternative medicine, selective integration

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Introduction

In Eritrea¹, traditional medicine has long roots and it has been in existence even before the advent of modern medicine. It is still widely used in prevention and treatment of physical and mental disorders as well as social imbalance. In Eritrea, the traditional medical system includes herbalists, traditional birth attendants (TBAs), spiritual healers, druggist, magicians, bone-settlers etc. Traditional medicine is the sum total of knowledge or practices whether explicable or inexplicable, used in diagnosing, preventing or eliminating a physical,

mental or social disease which may rely exclusively on past experience or observations handed down from generation to generation, verbally or in writing.² It also comprises therapeutic practices that have been in existence often for hundreds of years before the development of modern scientific medicine and are still in use today without any documented evidence of adverse effects.

In Eritrea traditional medical practitioners are not officially recognized and usually done under an unofficial capacity. It is dominated by an informal system whereby traditional medical

practitioners and patients enter into outcome-contingent contract. Village traditional resources (both cash and in kind payments) are used to finance traditional medical practitioners. Due to its intrinsic qualities, unique and holistic approaches as well as its accessibility and affordability, it continues to be the best alternative care available for the majority of the global population, particularly for those in the rural areas of developing countries.

The efficacy and potency of traditional medicine (TM) are indeed attracting global attention³⁻⁵ and that traditional, complementary and alternative medicine is globally increasing in popularity.^{6,7} The global trend indicates that even in the advanced countries, more people with the most advanced and sophisticated modern/orthodox medical system are making headway in TM use to cater for their health care requirements.⁸ Studies have shown that, almost 70% of the population in Australia used at least one form of contemporary and alternative medicine (CAM), and 44.1% visited CAM practitioners in 2007. Also, the annual "out of pocket" expenditure on CAM, nationally, was estimated at US\$ 3.12 billion.⁹ In the Netherlands, 60%, while in the United Kingdom, 74% of the people are advocating for the inclusion of CAM into the National Health Service. The percentage of the population which has used CAM at least once in Canada, France, USA and Belgium stands at 70%, 75%, 42% and 38% respectively.¹⁰ A survey conducted in the member states of the European Union in 1991 revealed that 1,400 herbal drugs were used in the European Economic Community by patients.¹¹ One-third of American adults have also used alternative treatment and there is a fast growing interest in CAM system in the developed world.^{8,11}

The WHO estimates that about 60% of the world's people uses herbal medicine for treating their sicknesses and up to 80% of the population living in the African Region depends on TM for some aspects of primary health care.¹² Indeed, in rural communities in Ghana, like other developing countries and elsewhere, TM will continue to remain a vital and permanent part of the people's own health care system. Traditional medical practitioners have an important role in traditional rural communities. Their role is that of physician, counsellor,

i Eritrea is a country located in the Horn of Africa region bordered by the Red Sea to the east, Djibouti to the southeast, Ethiopia to the south, and the Sudan to the north and west. Eritrea gained independence from Ethiopia in 1993 after 30 years of armed struggle. With a population of about four million people, Eritrea has an area of 124,320 square kilometres. The country's economy is largely dominated by subsistence agriculture. About 80% of the Eritrean people depend on farming and herding for its livelihood and almost 70% of the people live in countryside. The population density ranges from 36.3 to 40.6 people per sq. km.¹ Eritrea is a low income country; for the year 2010 the GDP for Eritrea was estimated at US\$3625 billion together with a per capita estimate of US\$681.¹ Psychiatrist and priest, and people visit traditional medical practitioners for problems that range from social dilemmas to major medical illnesses.

With the growing popularity of traditional medicine globally many people now depend on traditional healthcare either for primary, secondary or complementary healthcare.^{10,13} In industrialized countries, almost half the population now regularly use some form of Traditional or complementary and alternative medicines. As it has been noted in WHO (2002) TM is used in the United States by 42% of the population; in Australia by 48%; in France by 49%; in Canada by 70%), and considerable use exists in many other developing countries (China, 40%; India, 70%; Chile, 71%; Colombia, 40%).¹⁰ The WHO has consistently estimated that up to 80% of the populations of

African rely on traditional medicine for their basic health care needs, either on its own or in conjunction with modern biomedical care. Traditional medicine appears to be the only source of healthcare in such communities in Africa.¹⁴ Reports from WHO show traditional medicine use in Uganda and Tanzania at 60%, in Benin and Rwanda at 70%, and in Ethiopia at 90%.

Like in most Sub-Saharan African countries, in Eritrea there are dualistic health care structures-with the traditional and modern sectors coexisting side by side. The question here is that with a vertically integrated service in the health sector, with traditional and modern health care systems, is it possible that both coexists and even supports each other and under which conditions is that possible? The problem here is that although a large proportion of the population in Eritrea rely on traditional medicine including traditional midwives, herbalists and bone-setters, and on local medical plants to satisfy their primary health care needs, traditional medical practice has not yet officially recognized in Eritrea. Because of this there is no formal referral system between modern and traditional medical systems. Absence of a formal referral between the two systems adversely affects those patients who refer themselves from one system to the other. TMPs are usually informal, unrecognized by the government, and do not interact with the rest of the health system. Yet they can be a formal part of a system.

Attitudes towards TMPs range from uncritical criticism to uninformed scepticism. Public health policy formulators have concern about traditional medicine safety, efficacy and quality. Some MMPs have express strong reservation and often frank disbelief about the purported benefits of traditional medicine. This study therefore aims to identify the main causes of the problems by assessing the perceptions and attitudes of modern and traditional medical practitioners about traditional medical practice in Eritrea. It is hoped that this will help in promoting positive elements of traditional medicine and its integration with modern health care practices as well as in formulating a policy that includes both practices for optimum health care coverage.

Traditional medical practice in Eritrea

Most Sub-Saharan African countries at independence were inherited weak and dualistic health care structures-being almost perfect mirror images of the domestic economies, with the traditional and modern sectors coexisting side by side and Eritrea was not an exception. During independence, in 1993, Eritrea inherited weak health services, which were understaffed, distorted and located mainly in urban areas; in consequence, the bulk of the population, which resided in rural areas, relied on traditional medicine to meet its basic health care needs.

Traditional medicine has a long roots and a wide acceptance throughout Eritrea. It is compatible with prevailing health beliefs and practices in most parts of Eritrea.¹⁵ Traditional Eritrean pharmacopoeia mainly comes from the vegetable kingdom, and comprises the leaves, flowers, seeds, bark, sap, and roots of a wide variety of plants. The animal kingdom also provides four main articles of medicine: honey, butter, sheep's fat, and certain insects with medicinal properties. The practice of traditional medicine, in Eritrea, thus includes the use of herbs (or washing with various herbs and other substances), steam and smoke inhalation, oral medicaments (for e.g., inducing diarrhea and vomiting), spiritual healings, holy water (including thermal baths), bone-setting, and minor surgical procedures like bleeding, cupping, counter irritation and cauteries.¹⁵

In Eritrea traditional medical practice is performed by traditional medical practitioner/healer. A traditional medical practitioner is

a person who is recognized by the community in which he lives as competent to provide health care by using vegetable, animal and mineral substances and certain other methods based on the social, cultural and religious background, as well as on the knowledge, attributes and beliefs that are prevalent in the community, regarding physical, mental and social well-being and the causation of diseases and disability.^{16,17} TMPS such as bone-settlers, herbalists, animal bite healers, physiotherapists and traditional birth attendants have a significant contribution in the diagnosis and treatment of diseases in Eritrea.

In Eritrea traditional medical practitioners¹⁸ are classified into two groups: classical and contemporary. Classical traditional medical practitioners are of two types; Special healers in areas where other health facilities are lacking; and traditional medical practitioners who deliberately leave most complaints to modern medical practitioners and focus on those areas which are inadequately covered by modern medicine (e.g. female circumcision, uvula cutting, milk tooth extraction, bloodletting, etc.). Contemporary traditional medical practitioners are of also two types: traditional medical practitioners partially absorbed by the modern medical system (e.g. traditional birth attendants); and traditional medical practitioners who use modern and traditional medicine for the treatment of illness.¹⁸⁻²¹ Overall the Pharmaceutical Department, of the Ministry of Health, has identified twelve types of traditional medical practitioners in Eritrea: These are:

- i. Herbalists, those who use herbs and roots to treat illness;
- ii. Druggist, those who use animal and plant products, and mineral resources in combination or without to treat illness;
- iii. Hydrologist, those who use water, steam and smoke bathes to treat illness;

- iv. Physiotherapist, those who treat disease, injury or weakness in the joints or muscles by exercise, massage, and the use of light and heat;
- v. Traditional birth attendants, those who assist child delivery and perform other related treatments such as circumcision, uvula cutting, tooth extraction, bloodletting, etc.;
- vi. Magicians, those who treat illness through magic such as evil eyes, mental illness, epilepsy etc.
- vii. Spiritual healers, those who treat illness through religious inspirations;
- viii. Bone settlers, those who treat bone fractures and dislocations;
- ix. Animal bite healers, those who treat specially snake bites;
- x. Skin disease healers, those who treat skin disease such as fungus, wounds on the skin, itching etc.;
- xi. Traditional surgical practices like bleeding, cupping, counter irritation, cauteries, circumcision, uvulectomy, tooth extraction, etc.;
- xii. Home remedies/self treatment; include treatments that are made by households for simple and mild illnesses such as cough, diarrhoea, headache etc.

In Eritrea, there is at least one traditional medical practitioner for every 1200 people compared to one modern medical practitioner (physician) for every 13,000 people.¹⁵ In Eritrea there are about 4936.TMPs that specialized in ten types of TM practice.²² Table 1 illustrates the number of traditional medical practitioners across the six administrative regions of Eritrea.

Table 1 The distribution of traditional medical practitioners in the six Administrative Regions of Eritrea

Traditional medical practice	Number of traditional medical practitioners in each of the six administrative regions in eritrea						
	Anseba	Debu	Dehubawi qeih bahri	Semenawi qeih bahri	Maekel	Gash-barka	Total
Massage	9	18	31	16	6	9	89
Bone setting	62	177	64	81	36	103	523
Cupping	26	164	46	40	17	74	367
Circumcision (Female)	61	162	61	71	38	71	464
Circumcision (Male)	88	259	61	129	47	157	741
Use of medical plants to treat various ailments	34	173	53	52	19	101	432
Hydro-healing	8	12	11	26	4	24	85
Magic	30	41	10	31	22	55	189
Treatment of animal bite	0	16	18	10	6	18	68
Treatment of skin problems	18	42	22	25	23	27	157
Spiritual healing techniques	8	47	23	39	13	27	157
Treatment of snake bite	28	112	35	35	7	59	276
Traditional birth attendants	106	179	133	105	107	194	824
Thermal healing	10	20	11	49	6	40	136
Tooth extraction	5	43	18	17	11	15	109
Uvlectomy	34	98	25	73	15	74	319
Total	527	1563	622	799	377	1048	4936

Courtesy, Dr. Bereket Tewelde, Senior Researcher, MPDDR (cited in Senai W.Andemariam)²²

TMPs are concerned not only with the curing of diseases but also with the protection and promotion of human physical, spiritual, social, mental and material wellbeing.¹⁵ They deal with healing, prevention, as well as curative and surgical practices. In Eritrea, prevention and treatment of illness are an intrinsic part of the local belief system. A mixture of modern explanations and older forms are often combined to describe the process of becoming sick. In Eritrea, generally, there are four groups in the health care system: the first group purely appreciates the traditional medical system and seeks treatment from this system for all their health problems; the second group appreciates the modern health care system and relies in this system for their entire health problem; the third group seeks treatment first from the traditional medical system and if not satisfied refer themselves to the modern medical system; and the fourth group seeks treatment first in the modern medical system and if not satisfied refer themselves to the traditional medical system. Hence TM is complementary and alternative to modern healthcare system in Eritrea.

Modernity in traditional medicine

Modernity in traditional medicine can be thought as a marriage between modern medicine and traditional medicine. It is viewed as a transition from the primitive method of traditional medicine in to a more scientific-based approach in diagnosis and treatment of ailments. Modernity in traditional medicine takes into account four important points: autonomy, training, documentation, and evaluation.^{23–25} It has been argued that granting autonomy to traditional medicine practitioners would increase their self-awareness, highlight their central role in society, and enable them to exercise their rights as traditional practitioners and citizens. Furthermore training of traditional health practitioners will improve traditional knowledge systems, practices, capacities and capabilities. This will consequently improve the quality and efficacy of traditional medicine. Training of traditional medicine practitioners could involve identifying diseases that can be effectively cured by traditional medicine, so as to avoid making traditional medicine appear to be a panacea for all illnesses. Training will also help to preserve indigenous knowledge.

Documentation is essential for traditional medicine to gain its status in the National Health Service. It has the advantages of recording the treatment successes as well as failures of traditional health remedies. Evaluation is important to verify whether traditional medical practitioners are doing what they are suppose to be doing or how well they do the things they ought to do. It is worth noting that most traditional medical practices in developing countries are more diverse and undocumented, thus making it impossible for traditional medicine to be evaluated. Training and documentation can be enhanced by education of TMPs in the basic writing and numerical skills which is largely lacking amongst TMPs as most may be illiterate.

Modernity in traditional medicine can be promoted through integration of traditional medicine into the national health system. The WHO has suggested four healthcare models to depict the levels of integration of traditional medicine. These are *the monopolistic health care model*, *the tolerant (co-existence) health care model*, *parallel (inclusive) or dual health care model*, and *integrative health care model*.^{25,27} The monopolistic health care model allows only modern biomedical (allopathic) doctors and health practitioners to practice health care. In this type of health care model, traditional medicine and complementary and alternative medicine are not legal practices. This form of health care system may encourage the illegal practice of traditional medicine. This model was predominant in most African

countries during the colonial era. The monopolistic healthcare model is almost rare to find the world over with the increased popularity gained by traditional medical practice. In the tolerant health care model, the traditional health practitioners are allowed to practice but are not officially recognized. The practice is usually done under an unofficial capacity. The main national health care delivery system is based entirely on allopathic medicine or biomedicine. This is found in many countries with no regulatory or legal mechanism for the practice of traditional medicine.

The inclusive health care model comprises of two health care systems each operating independently but acknowledging and respecting the contributions of each system. The traditional and modern allopathic are separate components of the national health care system. In some cases, the national authorities are developing the appropriate frameworks for traditional medicine related policy, regulation, practice, health insurance coverage, research and education. Examples of countries practicing the inclusive system of integrating traditional medicine into their national healthcare systems are Benin, Burkina Faso, Cameroon, Equatorial Guinea, Guinea, and Cote d'Ivoire, the Democratic Republic of Congo, Equatorial Guinea, Niger, Nigeria, Madagascar, Mali, Mozambique, Swaziland, Tanzania, and Zimbabwe.^{15,25} traditional medicine is fully recognized and incorporated into all areas of health care delivery including national medicines policy, registration of traditional medicine products, regulation of traditional medicine practice, establishment of traditional medicine hospitals, inclusion of traditional medicine in national insurance schemes as reimbursable items, establishment of relevant research institutions on traditional medicine, and training of traditional medicine practitioners at all levels of education, including universities. Globally only four countries – the People's Republic of China, the Democratic Republic of Korea, the Republic of Korea, and Vietnam – have fully integrated traditional medicine into their national healthcare systems.²⁵ No country in the WHO African region has yet established this integrative system regarding the incorporation of traditional medicine into national healthcare systems.

Finding out the main hindrances for the integration of traditional medicine into the national health system is the prime objective of this study. The study hypothesizes that there is a great difference in perception and attitude between modern and traditional medical practitioners about traditional medical practice in Eritrea and this can be an obstacle for the recognition and integration of traditional medical practice into the national health system.

Data and methods of analysis

A cross-sectional study was carried out in 2005 in four administrative regions of Eritrea to assess the perceptions and attitudes of traditional and modern medical practitioners about traditional medical practice in Eritrea. The study was part of my Ph.D. thesis research project supervised by two Dutch professors from Tilburg University and financed by Tilburg University Development Research Institute. A sample of 100 Traditional Medical Practitioners (TMPs) and 100 Modern Medical Practitioners (MMPs) were selected for the study. The samples were drawn from the four administrative regions, i.e. Maekel (MAE), Debub (DEB), Semenawi Qeih Bahri (SQB), and Anseba (ANS). From each region four sub-zones (strata) were selected. These are Asmara, Ghindae, Dekemhare and Keren. The modern medical practitioners were contacted at their respective working places, while traditional medical practitioners were approached through the district and village administrators. Their names and addresses were obtained

in advance from the Pharmaceutical Department of the Ministry of Health. In this study data was collected from four sources: in-depth interviews with key informants, questionnaire data of modern and traditional medical practitioners, personal observation, and review of documents. The rationale for using multiple sources of data is

the triangulation of evidence. Triangulation increases the reliability of the data and the process of gathering. Ghauri et al.,²⁶ defined triangulation as the combination of methodologies in the study of the same phenomena (Table 2).

Table 2 Sample distribution: by type of practice and administrative region

Traditional medical Practitioners	MAE	DEB	ANS	SQB	Total	Modern Medical Practitioners	MAE	DEB	ANS	SQB	Total
Druggist/Herbalist	3	4	3	2	12	Physicians	12	8	5	5	30
Bone setting	3	4	4	2	13	Pharmacist	10	5	3	2	20
Cupping/Bleeding	2	2	1	1	6	Nurses	6	5	5	4	20
Traditional birth attendants Magic/spiritual	4	4	4	4	16	Health technicians	5	5	5	3	18
healing	2	2	2	2	8	Health Assistant	3	3	3	3	12
Massage	2	1	1	1	5	Total	36	26	21	17	100
Snake bite	2	3	2	2	9						
Skin disease	3	3	2	2	10						
Milk tooth extraction	3	3	3	3	12						
Uvulectomy	2	3	2	2	9						
Total	26	29	24	21	100						

Source, Field data, 2005

During the study period we approached ten types of traditional medical practitioners from the four administrative regions of Eritrea. About 32% of the traditional medical practitioners are located in *Zoba Debub*, which accounts about 29% of our sample. By type of practice traditional birth attendants take the largest share of our sample (i.e. 16%). This is because they have multifunction in the traditional medical system such as delivery assistance, female and male circumcision, uvulectomy, and self-medication. About 35% of the traditional medical practitioners claimed that they practice two or more types of traditional medication.

The sample for MMPs consists of 30% physicians, 20% pharmacist, 20% nurses, 18% health technicians, and 12% health assistants. Physicians and pharmacist are the principal sources of information for the study. Questionnaire and semi-structured interviews were used to collect data for the study. To assess recent developments interviews were conducted in 2015 with different health officials and key informants. Interviews allowed participants to provide rich, contextual description of events. The responses of key informants were used to substantiate questionnaire results and the information obtained from modern and traditional medical practitioners.

Methods of data analysis

Both qualitative and quantitative methods of data analysis were used to interpret the gathered data. Furthermore, Likert type scale of analysis was used for assessing the perceptions of MMPs and TMPs. In the Likert type scale of analysis each item was given a weight attached to it or a score attached to it. A person’s score on the final attitude scale was simply the sum of the weight of the alternative

he/she had checked. Weights with high score indicate favourable attitudes. The identified attitudes were weighted as:

Respondent’s	Attitude	Liker Scale Assigned
Strongly Disagree	(SDA)	1
Disagree	(DAG)	2
Neither Agree nor Disagree	(NAND)	3
Agree	(AG)	4
Strongly Agree	(SAG)	5

$$\bar{X} = \frac{\sum X}{N}$$

The Mean is computed as follows: Where:

X = Mean; Σ = Summation; X = Nominal value of response; N : Number of items

$$\bar{X} = \frac{1+2+3+4+5}{5} = \frac{15}{5} = 3.00$$

Using this as upper limit any item with a mean score of 3.00 or above regarded as effective and the one below 3.0 regarded as not effective. The mean score (XS) of each item would be completed by multiplying the frequency of each response pattern with it’s appropriate nominal value and dividing with number of respondents to the item. It was summarized as follows:

$$\bar{X}S = \frac{-\sum FN}{Nr}$$

Where:

$\bar{X}S$ = Mean score; \sum = Summation; F = Frequency of each response mode; N = Likert nominal value

Nr = Number of respondents to an item

The researcher conducted also *t-test for equality of mean* to analyse the difference in perceptions and attitudes of modern and traditional medical practitioners about traditional medical practice in Eritrea.

Results

Socio- demographic characteristics of MMPs and TMPs

As shown in Table 3, about 58% of the modern medical practitioners (MMPs) are men and 59% of them are more than 41years old; and about 38% of them are in the age range of 26-40 years. Most MMPs have more than 21years of work experience (45%) and about 35% of them have 11 to 20years of experience. 20% of them has less than 10years of experience; and 35% of them have less than 10years of experience. Physicians, nurses and pharmacist account about 70% of the study subjects. Physicians and pharmacists took a fair share in the sample (50%). The persons who provide an auxiliary service to the physicians constitute the remaining 50% of the sample.

Table 3 Socio-demographic characteristics of MMPs and TMPs

Socio-demographic characteristics of MMPs				Socio-demographic characteristics of TMPs			
Variable	%	Variable	%	Variable	%	Variable	%
Gender:		Qualification:		Gender:		Education Status:	
Male	58	Physicians	30	Male	71	Illiterate	23
Female	42	Pharmacist	20	Female	29	Read and Write	27
Age in Years:		Nurses	20	Age in Years:		Primary school	12
18-25	3	Health technicians	18	18-25	1	Secondary school	8
26-35	18	Health Assistant	12	26-35	3	Years of Service:	
36-40	20	Years of Service:		36-40	23	0-10	7
41-50	28	0-10	20	41-50	31	20-Nov	28
50	31	20-Nov	35	50	42	21	65

Source Field data, 2005

As shown in Table 3, about 71% of TMPs are male. This indicates that traditional medical practice is dominated by men. As a custom TMPs transfer their traditional medical knowledge to their sons not to their daughters. Because of this women are usually active in the assistance of child delivery, in uvula cutting, female and male circumcision. Furthermore, about 73% of the TMPs are above 41years old and 53% of them are illiterate and most of them have longyears of experience. About 65% of them have been serving as traditional medical practitioners for more than 20years and 75% of them practice traditional medicine on part-time basis. Most of them are farmers and priests who work in the informal sector. As most TMPs are getting older the continuity of indigenous traditional medical system is in uncertain future. The younger generation has little interest to learn or maintain the system.

Perceptions and attitudes of Traditional Medical Practitioners (TMPs)

Knowledge of Eritrean traditional healing method is based on oral tradition or medico-magical or medico-spiritual manuscripts. Though the country has a long history of written language, traditional medicine is not fully documented and is conveyed from one generation to the next through word of mouth. TMPs are always blamed by modern medical practitioners for being abnormally secretive with regard to their healing. Their secretiveness is so exaggerated that they can

even said to be unwilling to teach their knowledge to their own sons unless these sons swear never to reveal such knowledge to others. It is obvious that TMPs (in most of the cases herbalists) hide their knowledge regarding the collection, processing and administration of material medico, from the public, patients, and other healers, keep such information as a professional secret. However, TMPs defend themselves by arguing that most people with a western education undermine them and do not have confidence on their treatment. The views, attitudes and perceptions of TMPs about traditional medical practice are illustrated in Table 4.

Perceptions and attitudes of Modern Medical Practitioners (MMPs)

It is often generalized that modern health professionals consider traditional medical practice as a practice that serves no purpose and several times it has been stated that the continued existence of traditional medicine is merely because of lack of access to modern health care facilities. Such negative attitudes may possibly stem from misgivings about its biomedical values and probably from many other factors. To substantiate this idea the author presents, in Table 5, the views, attitudes and perceptions of modern medical practitioners about traditional medical practice in Eritrea. The results are presented in percentages with more descriptive analysis.

Table 4 Perceptions and attitudes of TMPs about traditional medical practice in Eritrea

Questions	Response rate	Descriptive analysis
How do you acquire the knowledge on traditional medication?		
Inherited from parent	62	Most knowledge about traditional medicine is obtained from parents and close relatives. About 78% of TMPs in this study acquired their knowledge from this source. Religious books found in the monasteries of Debre-Bizen, which are known as Etse Medhanit are also claimed to be a good source of knowledge on traditional medicine for priests and monks. In this study this source accounts about 12%. Priests, who are known as Debteras, are known for their spiritual (or magical) healing. Debteras are priests with high level of education in theological and magical inspirations. Because of their superior magical knowledge they command a high respect within their communities.
Learnt from a relative	16	
Learnt from a traditional medical practitioner	10	
Learnt from religious books and institutions	12	
Are you willing to convey your knowledge for research and other medical activity?		
Yes	34	Only 34% of TMPs are willing to convey their knowledge on traditional medicine. The remaining 66% want to keep their traditional medical knowledge secret. Herbalists and spiritual healers are very secretive and restrictive on the transfer of their traditional medicine knowledge. Most TMPs said that they don't want the Ministry of Health and MMPs to take away or steal their medicine from them without due recognition. The existence of excessive secrecy in the traditional medical system has resulted in a series setback to the credibility of the entire system.
No	66	
Which health care service system do you prefer more?		
Traditional	13	About 60% of the TMPs appreciate both traditional and modern health care systems and seek the complementarity of both systems. Many people in Eritrea utilize both health care systems because they are often complementary and balance their respective weaknesses. TMPs treat a broad spectrum of disease, including conditions which are not diagnosed, misdiagnosed, and incompletely diagnosed, or are no longer manageable by modern medical practitioners according to biomedical standards.
Modern	27	
Both	60	
Do you believe that traditional medicine is widely accepted by the community?		
Yes	73	About 73% of the respondents noted that TM is widely accepted by the Eritrean community, particularly by the rural poor. The study indicates that certain aspects of TM are found to be cheaper and more readily available to the people than the modern/orthodox medicine. The wide use of traditional medicine in Eritrea could be attributed to cultural acceptability, efficacy against certain types of diseases, physical accessibility, and economic affordability compared to modern medicine.
No opinion	27	
What are the main reasons for the acceptance of traditional medicine by the community?		
Effective	45	The respondents stated that TM is acceptable in Eritrea because it is effective in the treatment of various diseases (45%); because it is cheap (35%); and because lack of modern health services (20%). Many people, in Eritrea, believe that TMPs are effective in managing certain diseases such as mental illness, fractures and dislocations, epilepsy, yellow fever, hepatitis, cancer, snakebite, jaundice, and skin diseases [15]. Moreover, in most Eritrean villages there are no clinics or hospitals nearby, but TMPs are there, and people consult them as neighbors and identify with them culturally. TM is the first point of call to many people in the study area. This presupposes that most of the rural poor entirely rely on the TM for almost all their health care needs.
Cheap	35	
Lack of modern health service	20	
Do you have any collaboration with other traditional medical practitioners?		
Yes	12	Only 12% of the TMPs have some collaboration with other TMPs. Most of them don't know each other; and this blocks their chances for exchange of experience. The traditional birth attendants who constitute 16% in this study have collaboration with modern medical practitioners. They explained that usually they get training and medical kits from the Ministry of Health. About 95% of the TMPs stated that they don't maintain records of their patients this is partly because 53% of them were illiterate.
No	82	
No opinion	6	
Do you have any collaboration with modern medical practitioners?		
Yes	25	Experience. The traditional birth attendants who constitute 16% in this study have collaboration with modern medical practitioners. They explained that usually they get training and medical kits from the Ministry of Health. About 95% of the TMPs stated that they don't maintain records of their patients this is partly because 53% of them were illiterate.
No	75	
No opinion	6	
Do you have any collaboration with modern medical practitioners?		
Yes	25	About 75% of TMPs reported that they don't have any collaboration with MMPs. In Eritrea the main national health care delivery system is based entirely on modern medicine/biomedicine. Most TMPs contended that people with a western education, particularly MMPs, look down on them, and they have less interest on the indigenous traditional medical system. It has been observed that there are suspicions and mistrust between MMPs and TMPs. Only 25% of them had replied that they have some collaboration with MMPs. Most MMPs have some collaboration network with traditional birth attendants, massage, therapy, animal bite healers and bone-setters.
No	75	

Table Continued....

Questions	Response rate	Descriptive analysis
Have you ever treated patients referred by MMPs?		The study illustrated that there is no officially sanctioned referral system between traditional and modern health care systems in Eritrea. Almost all the referrals of patients occurred unofficially in an uncoordinated manner. About 62% of the TMPs stated that they had treated some patients who had referred by MMPs. This involved diseases of spiritual nature, broken bones, piles, rheumatism, boils, impotency, infertility, etc. In general, the degree of interaction between the MMPs and TMPs through referral cases is very low. This suggests that both practitioners compete for the clients. This development negatively affects the government's policy to integrate TM into the health care delivery system of the country ²³ and must be addressed before the attempt to achieve the integration of medical systems in Eritrea.
Yes	62	
No	38	
Do you provide free service for clients who can't afford to pay?		About 77% of the TMPs replied that they give free service for patients who can't afford to pay. The mode of payment in the traditional medical system is more flexible it could be in cash or in kind, or could it be on credit. Unlike modern health care service providers traditional medical practitioners usually use outcome-contingent contract, "pay when cure" system. ¹⁵ Remuneration involves sharing of risks between provider and patient. Payment is usually in kind, often no charge is made until a cure is achieved. Such arrangement clearly results in some sharing of medical cost risks between patients and TMPs.
Yes	77	
No	23	
Did you treat patients who visited modern medical practitioners for the same illness episode?		About 70% of the TMPs replied that they had treated patients who visited modern medical practitioners for the same illness episode. One of the reasons for patients' self-referral to TMPs is the lack of success of conventional western medicine in dealing with certain diseases. It is obvious that in most of the cases people use traditional medicines to treat common illnesses, if this fails they seek help from modern medical practitioners. Conversely people may visit modern medical practitioners in their first instance; if this fails they seek help from traditional medical practitioners.
Yes	70	
No	30	
Do you proscribe modern drugs along with traditional medicaments?		About 70% of TMPs reported that they don't prescribe modern drugs along with their traditional medicaments. Most TMPs advise their patients not to take any modern medicine together or concurrently with the traditional medicine. Only 30% of the TMPs prescribe modern medicine to their patients as a supplement to their traditional medicine, for example, pain killer, antibiotics, ointment, etc.
Yes	30	
No	70	
What measures do you take in case of failure of your clients to be treated by you?		About 33% of the TMPs replied that they provide additional dose or try other medicaments when failure is occurred on their treatment. 42%, however, replied that they referred their patients to the modern medical practitioners.
Attempt other medicaments or provide additional dose	33	
Give advice to visit MMPs	42	
Refer to other TMPs	25	
Could you tell us ailments that are treated more effectively by traditional medicine?		The study found that certain ailments are treated more effectively by traditional medical practitioners. This was evident in the treatment of such conditions as boils, piles, broken bones/fractures, impotency, infertility, sexual weakness and malaria, typhoid fever, mental disorder, hypertension, among others. Respondents claimed that as far as these diseases are concerned, the TM is more effective than the modern/orthodox medicine as they responded favourably to the various medicines use. ¹⁵ Most respondents are psychologically comfortable with the use of the TM because they perceived the system to be embedded in their own socio-cultural roots. ¹⁵ The advantage of traditional medical practitioners is that they communicate well with their patients and are able to explain diseases symptoms to their patients' satisfaction. TMPs refer also certain diseases to MMPs when they knew that such disease is outside their domain.

Perceptions and Attitudes of MMPs and TMPs: Likert type scales analysis

In the Likert type scales analysis the mean scores (XS) for agreement were measured using a five-point scales ranging from

(1) strongly disagree to (5) strongly agree. Overall, MMPs had the strongest levels of agreement with government support for TMPs (XS=3.48), training for TMPs (XS=3.68), research on TM (4.11), combined therapy (3.33), selective integration of TMP (3.66) and collaboration with TMPs (3.44). On the other hand TMPs had the

strongest level of agreement with government support for TMPs (XS=4.00), training for TMPs (3.28), introduction of a referral system (3.35), combined therapy (3.11) and selective integration of TMP (3.10). As shown in Table 6, about 49% of the TMPs support the idea of selective integration of traditional medical practice into the modern health system, and 30% of them opposed integration of both systems. Most TMPs stated that people with a western education, mainly MMPs, look down on them, and they have less interest on the indigenous traditional medical system. It has been observed that there are suspicions and mistrust between both practitioners. About 49%

of the TMPs agreed with the idea of training for traditional medical practitioners whereas 25% of them opposed to any sort of training. Undertaking training of traditional health practitioners will improve traditional knowledge systems, practices, capacities and capabilities. This will consequently improve the quality and efficacy of traditional medicine. Training of traditional medicine practitioners could involve identifying diseases that can be effectively cured by traditional medicine, so as to avoid making traditional medicine appear to be a panacea for all illnesses. Training will also help to preserve indigenous knowledge.

Table 5 Perception and Attitudes of MMPs about traditional medical practice in Eritrea

Question	Response (%)	Descriptive analysis
Do you accept traditional medical practice?		
Yes to all of it	0	About 87% of the MMPs have accepted some aspects of traditional medication. Most MMPs stated that traditional medicine has curative power to deal with many diseases, but most of the time it is not safe. Only 13% of the MMPs stated that they don't accept traditional medical practice. They complain that TMPs did not have standard and accurate dosage of medications. Furthermore they noted that TMPs prescribe medicines based on "trial and error" method. In an interview in 2015 a physician stated that: most TMPs are illiterate and hardly know the chemical composition of the herbs and other substances they use. This is dangerous and can be a threat to the health of their clients.
Yes to some of it	87	
Not to all of it	13	
Did you use TM at least once in your life?		
Yes	68	The study reveals that about 68% of MMPs have utilized traditional medicine at least once in their lifetime and 32% of them reported that they didn't use any traditional medicine. They have stated that they have worries about the lack of information in traditional herbal-based treatments regarding the composition of the remedy in many cases.
No	32	
Do you have any collaboration with TMPs?		
Yes	20	About 80% of MMPs replied that they don't have any collaboration or contact with TMPs. Despite being widely used in Eritrea, TMPs have been viewed with a lot of skepticism by MMPs and the practice faces challenges. There is mistrust between modern and traditional medical practitioners. TMPs are more secretive and are not willing to disclose their medicaments to MMPs.
No	80	
Did you treat patients who visited TMPs for the same illness episode?		
Yes	85	About 85% of MMPs pointed out that they had treated patients who visited TMPs for the same illness episode. Patients use both systems to balance their respective weaknesses. There is an informal referral system between modern and traditional health systems. Absence of a formal referral between the two systems adversely affects those patients who refer themselves from TMPs to MMPs.
No	15	
Have you ever treated patients referred by TMPs?		
Yes	367	About 67% of MMPs confirmed that they had treated patients who were advised by TMPs to visit MMPs. Most TMPs advise their patients to visit MMPs when they knew that the disease is outside their domain. It is obvious that in Eritrea most people try home remedies or self-treatment through traditional medicine first, before taking sick children and adults to health facilities for treatment. As there is no official referral system between both health care systems patient's self-referral is a common practice in Eritrea.
No	33	
Do you prefer modern medical treatment to traditional medical treatment for all situations?		
Yes	75	About 75% of MMPs prefer modern medical treatment to traditional medication for all situations. The importance of scientific research on traditional medicaments was stressed by most MMPs. Further about 42% of MHPs stated that scientific research is the only way for the promotion and development of traditional medicine in Eritrea.
No	25	
What do you recommend for the improvement of traditional medical practice?		
Scientific research	42	About 42% of MMPs stated that scientific research is the only way for the improvement of traditional medicine. Furthermore, they have noted that without scientific research TMP cannot be standardized and formal monitoring mechanisms cannot be introduced. 25% of the MMPs support the idea of training for TMPs. Training of TMPs was strongly felt to be important for the improvement of the service of TMPs. Many MMPs stated that training should focus on dosage determination and side effects, in hygienic preparation and administration of the medicaments as well as proper diagnosis of the health problems.
Training of TMPs	25	
Sustainable use of medical plants	6	
Government assistance to TMPs	22	
Provision of license to TMPs	5	

Table Continued....

Question	Response (%)	Descriptive analysis
Where do you think that TMPs are more effective?		
Treatment of mental illness and Epilepsy	8	
Treatment of fractures and dislocations/ Bone-setting	31	MMPs cherished TMPs in the treatment of fractures and dislocations (bone-setting) (31%), the treatment of skin diseases (18%) including cancer; and assistance in child delivery (30%). However, they have some reservations on certain surgical traditional medical practices such as cupping, female genital mutilation, uvulectomy, incision of eye-lid, tonsillectomy, cauterisation, counter irritation and milk tooth extraction.
Cupping	13	
Treatment of skin disease	18	
Delivery assistance/maternity	30	
How do you perceive the care given by traditional medical practitioners?		Most MMPs stated that both systems have characteristic strengths, some of which are potentially transferable to the other. TMPs can learn from MMPs sanitation and hygienic procedures; standardization of therapeutic procedures, drugs, and dosages; treatment of infectious diseases; and consultation and referral systems. MMPs on the other hand can learn from TMPs the practical knowledge of cultural and ethnic assumptions, psychosocial context of illness, expectations regarding disease causation, diagnosis, therapy and therapists, and outcomes of treatment.

Source, Field data, 2005

Table 6 Perceptions and attitudes of MMPs^a about traditional medical practice in Eritrea

Response of MMPs	Response of TMPs					
	SDA	DAG	NAND	AG	SAG	XS
Issues on traditional medical practice						
Selective integration of TMP into the national health system	0.00	0.11	0.18	0.65	0.06	3.66*
Training for TMPs	0.00	0.09	0.23	0.57	0.11	3.68*
Government support for TMPs	0.05	0.044	0.34	0.533	0.055	3.48*
Joint research activity between MMPs and TMPs	0.00	0.00	0.19	0.51	0.30	4.11*
Introduce a referral system between modern and traditional medical systems	0.29	0.38	0.23	0.09	0.00	2.12
Combined therapy of modern and traditional medical treatments	0.09	0.06	0.27	0.57	0.00	3.33*
Collaboration between MMPs and TMPs	0.00	0.09	0.37	0.53	0.00	3.44*
TMP is more useful than being harmful	0.14	0.47	0.25	0.14	0.00	2.38

Some TMPs maintained that they don't want to disclose their traditional medical knowledge for the sake of training or scientific research and as such 54% of them opposed the idea of a joint research activity with MMPs. But about 74% of TMPs agreed with the idea of government support for the development of traditional medical system. The idea for the introduction of referral system between modern and traditional medical system was supported by 48% of the TMPs. Similarly the idea for a combined therapy between modern and traditional medical system was supported by 45% of the TMPs. Of course some TMPs said that they don't want to mix their traditional medicaments with modern drugs and they were not interested in combined therapy.

Collaboration between modern and traditional medical practitioners was pervaded by mistrust and negligence. Only 26% of

the TMPs were agreed on the idea of collaboration between modern and traditional medical systems. 58% of TMPs stated that traditional medical practice is more useful than being harmful whereas 39% of them neither agree nor disagree on this idea. They didn't deny the fact that some traditional medical practices are harmful. About 3% of TMPs acknowledge the existence of harmful traditional medical practices. Many TMPs stated that there are differences in skill and knowledge among different traditional medical practitioners and such differences would results inaccuracy in diagnosis, dosage determination and preparation of medicaments. In the absence of standard written procedures the occurrence of error is high. Meanwhile 35% of TMPs replied that if illnesses are correctly diagnosed, and dosages and medicaments are well administered, traditional medicine would be less harmful.

Selective integration of traditional medical practice into the national health system was supported by 71% of MMPs. Integrated medicine is a combination of conventional (Modern) and alternative (Traditional) medicine (TM) which addresses the biological, psychological, social and spiritual aspects of patient's illness.¹⁹ The training and support provided to traditional birth attendants (TBAs) by the Ministry of Health (MOH) has been mentioned by many MMPs as a good example of selective integration. Officials in the MOH said that they don't oppose any sort of integration as long as the efficacy of the traditional medicine is proved scientifically. The experience of Southeast Asia countries shows that integration of traditional and modern healthcare systems has solved much of basic health care service problems of developing countries particularly the underserved rural community.^{15,20,24} The People's Republic of China, the Democratic Republic of Korea, the Republic of Korea and Vietnam have integrated traditional medicine into their national health care systems.¹⁵ No country in Africa has fully integrated traditional medicine into national health care systems.

MMPs argued that the MOH and other NGOs should play a role in the organization and training of TMPs. Some MMPs suggested for the formation of TMPs association. The association can be used to promote training and linkage activities with TMPs. About 58% of MMPs opted also for government support of TMPs with a focus on TBAs. Majority of MMPs (81%) support the idea of joint research activity with TMPs. However, most MMPs have a deep concern on the secrecy of TMPs especially herbalists. In an interview in 2015 a traditional medical practitioner stated that MMPs wants to know the elements in our medicines. If we disclose the type of plants and their components that we use, the knowledge will be robbed from us, he insisted that we should be assured of patent right before the disclosure of our medicaments. Excessive secrecy of TMPs is a hindrance for the development of traditional medicine. TMPs should be convinced to reveal their traditional medical knowledge and at the same time an incentive should also be given for their discoveries. Only through this

way traditional medicaments can be improved and used to the well being of the people.

About 67% of MMPs disagree with the idea of introduction of a referral system between traditional and modern medical systems although an informal referral system is common between the two systems. Most patients refer themselves to the traditional medical system if the treatment with the conventional modern medical system is unsatisfactory and vice-versa. In fact 57% of MMPs supported the idea of combined therapy (traditional and modern) for certain types of diseases, and 53% agreed to collaborate with traditional medical practitioners in research and in the treatment of certain diseases in which the traditional medical system is claimed to be effective. Both systems have characteristics of weakness and strengths and should work together to offset their respective weaknesses. MMPs are doubtful about the efficacy of traditional medical practice. About 61% of them do not agree with the idea that traditional medical practice is more useful than being harmful, only 14% agreed with this idea. We asked also MMPs to list down the major harmful traditional practices and to give their comments on the side effects of these medications. Their comments were focused on the surgical traditional medical practices such as milk tooth extraction, female genital mutilation, uvulectomy, bleeding and cupping, cauterisation, incision of eye-lid etc. MMPs explained that the side effects of such traditional medical practices are infection, HIV/AIDS transmission, serious illness and death.

Testing the differences in perceptions and attitudes between MMPs and TMPs

Much of the differences in perceptions and attitudes between modern and traditional medical practitioners are the results of educational gap between the two groups. The *West* for equality of means, in Table 7, shows that there are significance differences in age, education, experience, and sex composition between the two practitioners.

Table 7 Difference in perception of MMPs and TMPs about traditional medical practice in Eritrea

t-Test for equality of means					
Socio-demographic characteristics	T	Sig. 2-tailed	Mean difference	Std. error difference	95% CI of the differences
Sex	2.782	0.006	0.139	0.0502	(.041-.238)
Age	-12.405	0	-10.603	0.8548	(-12.28--8.92)
Education	57.308	0	14.095	0.2459	(13.61-14.57)
Year of service	-5.601	0	-3.496	0.6242	(-4.72--2.26)
Integration of traditional medical practice into the national modern health system	5.784	0	0.56575	0.09843	(0.372-0.759)
Training for traditional medical practitioners	4.476	0	0.40226	0.08986	(0.225-0.579)
Government support for traditional medical practitioners	-6.319	0	-0.51792	0.08196	(-0.679-0.357)
Joint research activity between modern and traditional medical practitioners	9.367	0	0.95278	0.10171	(0.753- 1.153)
Introduce a referral system between modern and traditional medical systems	-4.326	0	-1.22654	0.08562	(-1.394-1.058)
Combined therapy of modern and traditional medical treatments	1.987	0.048	0.21657	0.10899	(0.002-0.431)
Collaboration between traditional and modern medical practitioners	7.144	0	0.56385	0.7893	(0.408-0.719)
Traditional medical practice is more useful than being harmful	15.513	0	-1.48489	0.09572	(-1.673-1.296)

Source Field data, 2005

The huge differences in age and level of education between modern and traditional medical practitioners hampered the collaboration (or joint research activities) between the two groups. Both groups are pervaded by mistrust and suspicion. TMPs are very conservative and they don't trust MMPs, and MMPs in return look down on TMPs. Some biomedical doctors have expressed strong reservation and often frank disbelief about the purported benefits of traditional medicine.

There are also significant differences in perceptions and attitudes between modern and traditional medical practitioners over the issues of integration, collaboration, joint research activities, training, combined therapy, referral system, and the credibility of traditional medication. "t-test" for equality of mean show that the differences are statistically significant. The negative t-value indicates overwhelming support/ agreement of TMPs than MMPs over the issue and a positive t-value shows viceversa. A positive mean difference (with a high value) over the issues of joint research activities, collaboration, and selective integration implies that MMPs support (or agreement over these issues) is overwhelmingly surpassing TMPs. The study shows that there is a great difference in perception and attitude between modern and traditional medical practitioners about traditional medical practice in Eritrea. In this case the research hypothesis holds true. Without trust and common understanding between MMPs and TMPs recognition and integration of traditional medical practice into the national health system is highly unlikely in Eritrea. Therefore, there is a need for documentation, training and research to confront the skepticism over traditional medicine.

Discussion

The greatest hurdle over the development of closer working relationship between TMPs and MMPs is the level of distrust that exists between modern and traditional medical practitioners. Trust takes time to build, and when both parties are pervaded by distrust, cooperative arrangements are unlikely to emerge. In this study, however, we found that there are some respect and recognition between practitioners of both systems, and some of them are willing to collaborate with one another. Collaboration would produce a reciprocal benefit to each system, and both could exchange their experiences. Collaboration of both systems would also provide a patient a wide choice of a health care provider. Furthermore, it could help in the improvement of general health care knowledge, enhancement of the quality and number of traditional medical practitioners, dissemination of knowledge on health care, and most importantly it could bring the best possible health care for the underserved rural population at reasonable cost.

The involvement of MMPs and their collaboration with traditional counter parts has so far been found to be very limited. This stems mainly from persistent negative attitudes among the practitioners to one another though the present finding rather demonstrates the existence of some good will between both practitioners. Some TMPs have shown the interest to work in collaboration with MMPs and other researchers. Most health authorities, however, stated that in actual practice TMPs do not always reflect their orally expressed commitment. The main underlying reason behind the reluctance of the TMPs seems to relate to the fear that they will be out of business after revealing their healing techniques. However, many TMPs seem practically ready to work with researchers if they are provided incentives and convinced about the importance of their knowledge and its documentation for the coming generations and the country at large. In an interview in 2015 most of the TMPs expressed their desire of legitimisation and general willingness to work in closer collaboration with MMPs. Some of them have also expressed their interest to

participate in any health related training courses. The importance of scientific research on traditional medicaments was stressed by many MMPs. In most cases traditional medicine does not employ scientific principles in its approach and thereby neglecting proper and acceptable methods of doing things. Some practitioners of traditional medicine work in secrecy- they do not document their methods of preparation of drugs - so their knowledge is not passed on to the future generation in the event of their sudden demise. Making traditional knowledge available for future generations require documentation and scientific research to dispel the false and imperialistic notions that traditional medicine is backward, showing evidence of its safety, efficacy and quality.²¹ Establishment of research institutes could be another practical way of developing indigenous traditional medical technology and practice. The law setting up such institute for medical research should specify the functions of such institute to include the various aspects of local traditional medical practices.

Most TMPs suggest for the inclusive health care system whereby modern and traditional medical systems operating independently but acknowledging and respecting the contributions of each system. However, the reality in Eritrea is that traditional medical practitioners are allowed to practice but are not officially recognized. The practice is usually done under an unofficial capacity. The main national health care delivery system is based entirely on biomedicine. The difference between modern and traditional medical practitioners lies not only in their way of thinking, but also in their perceptions of man and health.¹⁵ The concepts they use are often different. TMPs explain diseases to patients, in a way that MMPs cannot, the mystery of life and death, of why ghosts, spirits, or evil eyes. MMPs in an interview (2015) stated that TMPs assess patients in the context of their family culture and environment and it is the scientific basis of such assessment that is mostly an area of controversy. Modern medical practitioners look traditional medical practice from medical side only. Certain surgical traditional practices that are considered wrong from the medical perspective are right in the traditional communities from the social and cultural perspectives. Social and cultural values play a great role in the traditional medical system. This is true in the case of female circumcision, uvulectomy, milk tooth extraction, cauterisation, spiritual healing and magic. People visit traditional practitioners for problems ranging from social dilemmas to major medical illnesses. Hence the use of traditional medication depends on the social and cultural values, and beliefs of local communities.²⁷⁻²⁸

Conclusion and policy implications

In Eritrea, most TMPs acquired their knowledge on traditional medication mainly from their parents and close relatives. Few practitioners acquired their knowledge from literature, particularly medico-religious manuscripts. This indicates that the knowledge is mainly transmitted through word of mouth from parents and TMPs to their successors. This information conveyance system will lead to distortion of original knowledge or even bring about the total demise of the practice and necessitates urgent documentation.

A number of social factors such as the apparently increasing acculturation, mobility, displacement of communities, habitat distraction as well as negligence of the contemporary generation to acquire the knowledge appear to re-enforce the threat to the continuity of the practice. In the present study it was found that about 73% of the healers are above 41 years old and about 63% are illiterate. As most of the practitioners are getting older an immediate action should be taken to explore, collect and document the information before it is irretrievably lost. Documentation is essential if traditional medicine

is to gain status in the National Health Service. Documentation has the advantages of recording the treatment successes as well as failures of traditional health remedies. It is worth noting that most traditional practices in developing countries are not documented thus making it impossible for traditional medicine to be evaluated.

Undertaking training of TMPs will improve traditional knowledge systems, practices, capacities and capabilities. This will consequently improve the quality and efficacy of traditional medicine. Training of traditional medicine practitioners could involve identifying diseases that can be effectively cured by traditional medicine, so as to avoid making traditional medicine appear to be a panacea for all illnesses. Training will also help to preserve indigenous knowledge.

Traditional and modern health care systems are complementary than competitive. Complementarities of both governance systems are a complex social dynamics in which one cannot function without the support of the other. Traditional medical system complements the modern health care system in the social, medical and economical dimensions. Hence there is a need for fully recognition and integration of traditional medicine into all areas of healthcare delivery including national medicines policy, registration of traditional medicine products, regulation of traditional medicine practice, establishment of traditional medicine hospitals, inclusion of traditional medicine in national insurance schemes as reimbursable items, establishment of relevant research institutions on traditional medicine, and training of traditional medicine practitioners at all levels of education, including universities.

Effective health agenda for Eritrean can never be achieved by modern biomedicine alone unless it is complemented by traditional medical practice. The most workable health agenda for Eritrea is the institutionalization of traditional medicine in parallel (not in complete fusion) with modern medicine, within the national health care scheme in order to move the health agenda forward. The Ministry of Health should use such findings as an insight for the modification of plans and policies for future development of healthcare services in Eritrea.

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Conflict of interest

The author declares no conflict of interest.

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