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Knowledge, Attitude, Practice and Management of Traditional Medicine among People of Shopa Bultum, Southeast Ethiopia.

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ABSTRACT

In addition to the health care provided by the health facilities in developing countries, the population still largely depends on traditional healing systems for majority of diseased conditions. Traditional medicine covers a wide variety of therapies and practices which varies from country to country and region to region. It should be used rationally to get health benefits with minimized adverse effects without delay in healing from poor knowledge, attitude, practice and management. The study was conducted to assess the knowledge, attitude, practice and management of traditional medicine among the community of Shopa Bultum Kebele, Arsi Negele, West Arsi Zone, Southeast Ethiopia**.** A cross-sectional study was conducted on a total of 151 sampled individuals out of a total of 1113 population who lives in the community by using structured questionnaire from January 28- february8 2013. A total of 151 study populations were interviewed and (69.53%) had knowledge on more than three types of traditional medicine. Most of the respondents (71.52%) preferred traditional medicine for its affordability, accessibility and acceptability. The most common traditional practice was medical herbalism (79.47%). some (35.76%) of the respondents prefer to keep their knowledge as a secret. (72.85%) of the respondents manage their acute/ chronic illness by both self- medication and visiting TMP. The study has identified different types of traditional medicine and their usage which may be important part of health care system if they are integrated to modern health care system after having further study results on their constituents.

Keywords: Traditional medicine, Traditional Medical Practitioner, Herbal medicine, Shopa bultum, Ethiopia.

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INTRODUCTION

The World Health Organization (WHO) defines traditional medicine as health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses and maintain well-being. In 1986, Over 6000 practitioners of traditional medicine were registered with the Ethiopian Ministry of health [1].

In developing countries all over the world, especially Africa, all the countries have certain features in common, that is extremely limited resources, poor communication and lack of education. There are wide spread systems of traditional and complementary /Alternative medicine which includes Ayurvedic-Medicine in South Asia, especially in Bangladesh, India, Nepal, Pakistan and Sirlanka. In China, Traditional herbal preparations account for 30% - 50% of total medicinal consumption [2]. In Africa, Up to 80% of the population uses traditional medicine for primary health care. In Ghana, Mali, Nigeria and Zambia, used widely for treatment of fever resulting from malaria. Traditional birth attendants are commonly assisting in many African countries [1].

The majority of Ethiopians depends on Medicinal plants as their only source of health care, especially, in rural areas where access to modern health care is limited [3, 4]. One of the greatest challenges facing the country is determining how best to narrow the gap between the existing services and the population whose access to them is very limited [5, 6]. In Ethiopia traditional medicine practitioners don't ignore modern medicine practices but negative attitude of MMPs may stem from misgiving about its biomedical values and probably from many reasons [7].

A study conducted in a Caribbean Horticultural village shows that knowledge of traditional Medicine varies with age sex and educational level of the individuals [9]. In Bangladesh in 1998 it was revealed that the practice of traditional medicine in this country has flourished tremendously in the recent years along with that of modern medicine [10].

According to a study in Chile, in 2009, at Makewe Hospital the majority (60%) of patients used both the Mapuche (TM) and the biomedical systems, 30% used only biomedicine, and 10% sought care exclusively from Mapuche healers, suggesting that the hospital's intercultural emphasis was successfully promoting the use of biomedical care while still respecting Mapuche practices [11]. From the study done in Nigeria contemporary community, it was observed that (44.7%) had knowledge of traditional medicine and what it entails. However, only 8.3% advocated the replacement of western medicine by traditional medicine [12].

The ethno medical heritage in Ethiopia has been influenced by historical developments related to prolonged immigrations from the southern Arabian Peninsula, the influence of Green culture, and the introduction of Christianity and Islam [8]. Most traditional practices in Ethiopia rely on an explanation of disease that draws on both the "Mystical" and "natural" causes of an illness and employ a holistic approach to treatment [13]. In Ethiopian traditional medicine, they may cause an increased likelihood of adverse interactions with conventional medicines, including anti-arrhythmic, anti-seizure, anti-diabetic and anti-coagulant medications [14].

Some plants used in TM such as taenicides are widely known to be toxic. For example, blindness and changes in CNS function have repeatedly been found in people who took over dosage of *Hagenia abyssinica* [15]. Traditional healers may cause delay in treatment of communicable diseases such as TB if they fail to refer patients to modern health service [16]. Moreover, a number of harmful practices have been traced to healers, including female genital mutilation, Uvulectomy, and milk tooth extraction [17].

A study done in shirka district, Arsi Zone revealed that 84% Traditional health Practitioners supported integration of modern medicine with traditional medicine to improve health care coverage in Ethiopia [18]. Despite Western medicine becoming more wide spread in Ethiopia, Ethiopians tend to rely more on traditional medicine. Ethiopian people's reliance on traditional medicine is also reflected by the fact that Ethiopian migrants in developed countries continue using them [19].

The main body of Ethiopian TM is based on the use of ethno botany of some of the ailments that are ordinarily treated with medicinal plants include abscess, arthritis, ascariasis, burns, colds, colic, constipation, diabetes, dysentery, eclapsia, gastritis, gonorrhea, heart burn, headache, hemorrhoids, hepatitis, herpes simplex, kwashiorkor, leprosy, malaria, measeals, rabbis, rheumatism, scabies, syphilis, schistoseomiasis, toothache [8].

Many herbal substances that are used in Ethiopian traditional medicine are also used as ingredients and spices in Ethiopia food and when these herbs and spices are utilized for medicinal purposes there may be an increased likelihood of adverse interaction because these drugs are typically monitored with serum levels and serum markers. e.g.warfarin, digoxin the risk is increased because of the chemical composition of these medicines and because they treat some of the most common illnesses in the Ethiopian population [20]. In many countries notably Ethiopia spices are used specifically for their medicinal value and are consumed in quantities far exceeding how they would be used as a normal food additive, not just in terms of volume but in frequency of dosing [21].

Therefore, it would be of important value to assess the knowledge, attitude and practice and Management of TM among communities who already have access to modern health care system.

METHODOLOGY

Study area, period, population and design

A descriptive cross-sectional study was done on all residents of shopa bultum kebele located in Arsi Negelle woreda, west Arsi Zone, 27 Kms away from Arsi Negelle town. Systematic random sampling technique was used. Every 5^{th} house in the community was interviewed.

Data Collection, Data quality Control, Data analysis and interpretation

Data was collected by 3 persons, interviewing the individuals, using both closed and open ended questionnaires. Data collectors were briefed on the objective and relevance of the study on terms and how to collect the data. The collected data was first being cleaned and checked for completeness. Statistical significance of association was tested using chi-square. Result was analyzed, interpreted and presented in writing, tabulation and figurative presentations. Comparison with other studies was done and results were discussed.

Sample size and sampling technique

Systematic random sampling technique will be used. And every 5^{th} house in the community will be interviewed. The sample size was determined by using the formula.

$$n = \frac{z^2 p_q}{d^2}$$

$$n = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 384$$

Where,

n = desired sample size from the population
Z= confidence interval at 95% (1.96)
p = population prevalence=0.5
q =1-p= 1-0.5 =0.5
d= degree of accuracy desired at 5% (0.5)

For population size less than 10,000, nf computed as:-

$$nf = \frac{n}{1 + \frac{n}{N}}$$

Where,

nf=final sample size
N= size of source population=1113(all residents of shopa bultum kebele)

Ethical Issues

Letter of permission was written from Jimma University pharmacy department to the chairman of shopa bultum kebele community and explanation about the objectives and use of the study was given to the community. Informed consent was taken from each person after explaining the purpose of the study. Respondents were assured for the confidentiality of their responses. The interviewers were advised to be as polite as possible and respect the response of the person what so ever it was.

RESULTS

Socio demographic Distribution of respondents

A total of 151 respondents were interviewed. Among them 86(56.95) were female and 65(43.05) were male. The age of respondents 15-19(10), 20-29(46).30-39(47), 40-59 (31) and >60(17). Most of respondents were Oromo (98.01%) and Muslims (68.21%) Most of the respondents were Grade 1-6(24.50%) and Illiterate (22.52%) in their educational status level. (Table1)

The result of the study has shown that all respondents (100%) were aware about the existence of traditional system and all of them had promotional information on TM practice only from informal sources like family member and friends (100%). The common types of traditional medicine that were known by the respondents were medical herbalism (99.34%), spiritual/Faith healing (86.76%) Tooth extraction (47.02%) was the most preferred. Most of the respondents knew harmful effects of TM (75.50%) more than half of the respondents were aware that Diarrhea and vomiting (63.58% and 62.25%) are the most harmful effects of using TM (Table 2).

The study has shown that 55(36.42%) of respondents were under the category of fair knowledge and 46(30.46%) were poor in knowledge about TM (Figure 1).

The table below shows good knowledge is higher along with elder age and lower educational level. In addition to this the percentage of male roughly increases from poor to good knowledge whereas that of the females decreases (table 3).

The study illustrates that the majority of the respondents 101 (66.89%) were selecting both TM and MM for curing illness. (Table 4)

The study also shows that from the total of 151 respondents 120(79.47 %) respondents believes that TMP can cure diseases better than modern Doctors (Figure 2).

The results of the study shows that Hemorrhoids 120(79.47%) and Jaundice (100) 66.25% are among common illness which were better treated by TMP (Table 5).

The following figure 3 shows that more than two third of the respondents 108(71.52%) prefer TMP to visit first whenever they fall sick.

The table below shows that the majority of the respondents prefer TM to MM due to affordability, accessibility, acceptability (71.52%) and efficacy (50.99%) respectively (table.6)

Majority of the respondents had positive attitudes towards integration of TM and MM 139(92%) which was illustrated in figure 4.

With respect to the respondents practicing traditional medicine in the last 2years, (79.47%) practices and traditional medical practices were most commonly given to the children 92(60.93%) and only a few respondents use combination of TM with MM in their Life time 10(6.6%) and also more than half of the respondents advice sick person first for TMP 96(63.58%) whereas (36.42%) did not advice to visit TMP first (table.7).

The result of the study also revealed that the majority of respondents 110(72..85%) manage their acute/chronic illness by both self-medication and visiting TMP for fever, Ascariasis, malaria, cough and diarrhea(76.82%74.17%70.20%74.83%and 56.95%) the most commonly managed illness respectively. Medical herbalism was the most commonly used type of TM (79.47%) and followed by spiritual /faith healing (70.86%), 35.76% of the respondents select time to collect herbal medicine, 64.90% of the respondents seeks kalicha in the last two years.(Table8)

The results of the study has shown that most of respondents store their prepared drugs in pieces of cloth 117(77.48%) and bottles 109(72.18%). (Figure 5). In the community there were more than 80 different plants used as single preparation, some of them listed below with their preparation method (table 9) and some of the medicinal plants used in combination of different parts of the plant (table 10) and also different animal products used in the community (table11).

As shown in the above table 12 there is significant association between age and practices of TM (p=0.001) and also there is association between educational status and practices of TM (p=0.031).

Table 1: Socio-demographic distribution of respondents in ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Variable	Attributes	Number of respondents	Percent (%)
Age	15-19	10	6.62
	20-29	46	30.46
	30-39	47	31.13
	40-59	31	20.53
	>60	17	11.26
Sex	Female	86	56.95
	Male	65	43.5
Ethnicity	Oromo	148	98.01
	Amhara	3	1.99
Religion	Muslim	103	68.21
	Protestant	19	12.58
	Orthodox	16	10.60
	Adventist	13	8.61
Marital status	Married	123	81.46
	Single	21	13.91
	Widowed	5	3.31
	Divorced	2	1.32
Level of education	Illiterate	34	22.52
	Reade &write	19	12.58
	Grade1-6	37	24.50
	" 7-8	24	15.89
	" 9-12	26	17.22
	" >12	11	7.29
Occupation	Farmer	74	49.01
	House wife	41	27.15
	Student	26	17.22
	Government Employee	10	6.62
Average monthly income	<100	52	34.44
	101-200	46	30.44
	201-300	26	17.22
	301-400	5	3.31
	401-500	5	3.31
	>500	17	11.26

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Table 2: Knowledge of respondents on Traditional Medicine (TM) in ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Variables	Attributes	Number	Percent (%)
Aware of any way of getting treatment apart from the hospital	Yes	151	100
	No	0	0
Forms of therapy aware of	Medical herbalism	150	99.34
	Spiritual/faith healing	131	86.76
	Tooth extraction	71	47.02
	Cauterization	62	35.10
	*TBA	61	33.78
	Others	53	29.12
Had promotional information on traditional medicine	Yes	51	100
	No	44	0
Source information	In formal	151	100
	Formal	0	0
Aware of harmful effect of TM	Yes	151	75.50
	No	0	24.50
Reported harmful effects	Diarrhea	114	63.58
	Vomiting	37	62.25
	Abdominal pain	96	44.37
	Skin reaction	94	14.57
	Others	67	49.01

*Traditional Birth Attendance.

Table 3: Association between levels of knowledge of respondents observed in relation to age, sex and educational status among the respondents of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Age sex educational status		Level of knowledge		
		Poor	Fair	Good
Age	15-19	9	1	0
	20-29	37	9	0
	30-39	0	45	2
	>40	0	0	48
Sex	Male	15	22	28
	Female	37	27	22
Educational status	Illiterate	0	7	27
	Read & write	1	9	9
	Grade 1-6	9	23	5
	Grade 7-8	15	5	4
	Grade 9-12	16	7	3
	>12	5	4	2

Table 4: Attitude towards curing illness by traditional medicine (TM) and modern medicine (MM) among the respondents of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Rate of curing illness	Number	Percent (%)
Traditional Medicine alone	18	11.92
Modern Medicine alone	32	21.92
Both TM and MM	101	66.89

ISSN: 0975-8585

Table 5: Diseases cured by traditional medicine practitioners (TMP) rather than modern doctors-perception of respondents of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Diseases that cured by TMP	Frequency	Percent (%)
Hemorrhoid	120	79.47
Jaundice	100	66.25
Rabies	28	18.54
Others	15	9.93
Disease that TMP fail to cure		
TB	31	20.53
DM	19	12.58
Others	16	10.60

Table 6: Reasons to prefer traditional medicine to modern medicine among respondents of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Reason	Frequency	Percent (%)
Affordability	108	71.52
Accessibility	108	71.52
Acceptability	108	71.52
Effective	77	50.99
Delay in hospital	41	28.46

Table 7: Practice of traditional medicine by the respondents of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Variable	Attributes	Number	Percent (%)
Used *TM in the last 2 years	Yes	120	79.47
	No	31	20,53
TM mostly given for	Children	92	60.93
	Elder	50	33.11
	Pregnant women	8	5.30
	Adult	5	3.32
Combines *TM and **MM in their life time	Yes	10	6.62
	No	141	93.38
Advise a sick person to go firstto traditional medical practitioner	Yes	96	63.58
	No	55	36.42

*TM – traditional medicine and **MM – modern medicine

Table 8: Management of traditional medicine among respondents of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Variable	Attributes	Frequency	Percent (%)
How to manage acute or chronic illness	Self-medication with traditional medicine only	5	3.31
	Visit TMP only	5	3.31
	Both	120	72.85
	Fever	116	76.82
	Cough	113	74.83
Type of illness managed by TM	Ascariasis	112	74.17
	Malaria	106	70.20
	Diarrhea	86	56.95
	Others	28	18.54
Type of TM used	Medical herbs	120	79.47
	Spiritual faith healing	107	70.86
	Bone setting	42	27.82
	Animal product or minerals	35	23.18
	Others	26	17.22
Select time to collect and use herbal medicine	Yes	54	35.76
	No	66	43.71
Reasons to seek select time to collect and use herbal Medicines	Income purpose only	26	17.22
	Psychological purpose only	1	0.66
	Both	27	17.88
Type of spiritual healer in the community(faith)	"Kalicha" (Spiritual healer)	98	64.90
	"Debtera"(Spiritual healer)	78	51.66
Type of illness managed by spiritual healer in the community	Evil eye	105	69.54
	"Golfa" (Disease caused by bad spirits)	33	21.85

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Table 9: Medicinal plants used in single preparation to treat human and livestock around ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

S.No	Local name of plant	Scientific name	Plantpart used	Illness treated	Preparation method	Route of administration
1.	Appilii (O)	*Malussylvestris*	Fruit	Tuberculosis,cold,ulcer,cough, hemorrhoids, eye disorder, expel poisons-substances from the blood and heart failure.	Eating the fruit	O
2	Hexo(O)	*Hageniaabyssinica*	Flower	Ascariasis	Dried flower is powdered, mixed with milk and then drunk in the morning	O O
3	Mokkonniisa(O)	*Croton macrostachyus*	Leaf	Tape worm Ascariasis	Fresh leaves pounded and squeezed the juice is drunk	O
				Rabies	Fresh leaves are squeezed and the juice is drunk	O
				Scabies	Fresh leaves are squeezed and the juice is applied on skin	T
			Bark	Male sexual organ infection	Inner barkpeeledand ground,keep aside for 2 days, mix with “Hexo”and drunk	O
				Bloating of animal stomach	The bark is peeled, pounded and juice is given	O
			Root	Tuberculosis	The bark is peeled, dried; and powdered then juice is drunk	O
				Tooth ache	The root is pounded and kept between teeth	S
4	Chironta (O)	*Brucea antidysenterica*	Flower	Tooth ache	Keep fresh flowers between the teeth	S
				Kwashiorkor	Fresh leaves are pounded, and juice is drunk	O
				Skin disease (Scabies)	The flower is pounded, and juice is applied on the affected area	T
				Anemia	Fresh leaves are pounded, Juice is drunk	O
				Civil eye	The flower is pounded boiled and fumigated	N
			Leaf	Snake bite	The leaves are pounded; and juice is drunk or applied on affected area	O or T
5	Damakase(O)	*Ocimumbaxic folium*	Leaf	“Mitch” (Inflammation)	Fresh leaves are pounded, and juice is drunk	O
6	Hargisa (O)	*Aloe* Spp.	Leaf	Malaria	Fresh leaves are squeezed in a cup , salt is added and then the juice is drunk	O
				Ear disease	The leaves are squeezed and juice is instilled in to ear	Ear
				Diarrhea	Fresh leaves are squeezed in a cup, salt is added, and the juice is drunk	O

ISSN: 0975-8585

				Trachoma	Fresh leaves are squeezed and juice is instilled to the eye	Eye
7	Handode (O)	*Phytolaccadodecandra*	Leaf	Male organ infection	Fresh leaves are pounded and dispersed in water and taken after taking butter.	O
				Rabies	Fresh leaves are pounded, small amount of its juice is drunk	O
8	Fiti (O)	*Clematis* spp.	Leaf	Skin diseases of domestic animals	Leaves are ground and with bandage on affected area of skin	T
			Root	Toothache	Chewing the fresh root and keeping in the mouth	S
9	Kulubiadi (O)	*Allium sativum*	Bulb	Common cold	Holding the bulb in the nostrils	N
				Malaria	Eating the raw bulb	O
			Leaf	"Mitch" (Inflammation)	Boiled with tea and drunk	O
			Flower	Wound	Five bulbs are ground and bandages on wounds	T
				Hemorrhoid	Pounded bulb boiled with tea and drunk	O
10	Banji (O)	Unidentified botanically	Leaf	Rabies	Fresh leaves are pounded and added in water and its solution is drunk	O
			Fruit	Peripheral Edema	Leave are groundjuice is bandaged on area	T
				Skin disease (Scabies)	Fresh flowers are pounded ,mixed with butter, and applied on in sun light	T
				Tooth ache	Fresh flowers are boiled and fumigated	N
11.	Basobila (A)	*Ocimumbasillcum*	Leaf	Uses as spices	Uses as spices	O
					The leaves are boiled with butter and fumigated	N
12	Lomi(O)	*Citrus Limon*	Fruit	Scabies	Fresh fruit is squeezed and juke is applied on skin	T
				prevent vomiting, Headache	The fruit is fumigated	N
					The fruit is squeezed. juice is drunk	O
13	Hadami (O)	*Euphorbia abyssinica*	Leaf	Male organ infection	The fresh leaves are squeezed and its juice is drunk.	O
			Bark	Hemorrhoids, Skin diseases Domestic animal	The leaves(bark) are pounded, juice is applied on	T
14	Mukkure (O)	Unidentified botanically	Leaf	Strengthen the body	The leaves are squeezed, juice is drunk.	O
				Kwashiorkor	The fresh leaves are pounded boiled added butter juice is used to wash the children's bodies	T
15	Wodesa (O)	*Cordia Africana*	Leaf	Male organ infection	The fresh leaves are pounded and Juice is drunk	O
16	Komana(O)	*Haplosciadium Abyssinia*	Leaf	Stomach disorder	The fresh leaves are pounded and Juice is drunk	O
				Prevent menstrual bleeding	The fresh leaves are pounded and Juice is drunk	O
17	Hadhesa(O)	Unidentified botanically	Leaf	Abdominal bloating of domestic animal	The fresh leaves are pounded and Juice is drunk	O

ISSN: 0975-8585

18	Oromo (O)	*Solanumspp.*	Leaf	Wound	The fresh leaves are pounded and Juice is applied on wound	T
				Prevent bleeding	The fresh leaves are pounded and Juice is applied on bleeding area	T
19	Ajessa (O)	Unidentified	Leaf	Kwashiorkor	The fresh leaves are pounded and Juice is drunk	O
20	Absudaa(O)	*Nigella sativa*	Fruit	Intestinal parasite	Dry fruit is pounded and taken with butter	O
				Asthma	The fruit is powdered, mixed with honey and drunk	O
21	Kara(O)	*Erythrinaabyssinica*	Fruit	Abdominal pain	The fresh fruits are pounded and ate or decoction is made	O
				Malaria	The fresh fruits are pounded and ate or decoction is made	O
22	Barbare(O)	*Capsicum abyssinicum*	Fruit	Abdominal pain	Dried fruit is pounded, mixed with salt and sugar and its solution is drunk	O
23	Ebicha(O)	*Vernoniaamygdalina*	Leaf	Diarrhea	Fresh leaves are pounded and juice is drunk	O
24	Ara (O)	Unidentified botanically	Leaf	Cancer	Fresh leaves are pounded ,bandaged on area or dissolved in water and drunk	O
25	Ananno(O)	Unidentified botanically	Leaf	Hemorrhoid	Fresh Leaves are squeezed Juice is drunk	O
			Bark	Skin diseases	The fresh barks are pounded, and squeezed, Juice is applied on	T
26	Sariti(O)	*Asparagus racemosus*	Root	Male organ infection	Roots are pounded boiled and decoction is made	O
				Abdominal pain	Fresh rout, pounded, dissolved in small water, juice is drunk	O
27	Diddissa (O)	Unidentified botanically	Leaf	Snake bite	Fresh, leaves are pounded and bandaged to affected area	T
28	Guna(O)	Unidentified botanically	Leaf	Scabies	Leaves are boiled, and bandaged on skin	T
				Wound	Leaves are pounded and bandaged to affected area	T
				Tooth ache	Fresh Leaves are kept within the mouth	S
29	Dambi (O)	*Cadabafarinosa*	Bark	Male sexual organ infection	Bark are peeled, cooked its inner part and juice is drunk	O
30	Dado(O)	Unidentified botanically	Leaf	Malaria	Fresh leaves are pounded and squeezed Juice is drunk	O
31	Hobe-mada(O)	Unidentified botanically	Leaf	Tooth ache	Leaves crushed and its juice is kept in Mouth	S
32	Kininzaf(A)	Unidentified botanically	Leaf	Diarrhea	Fresh leaves are pounded dissolved in a cup of water and drunk	O
33	Shabe (O)	*Rumexnepalensis*	Root	Skin disease	Fresh routes are pounded and bandaged on skin	T
34	Hirkamu (O)	Unidentified botanically	Bark	Diarrhea of animal	Bark peeled .pounded and boiled (cooked) and juice, is given	O
35	Korakka (O)	*Bersamaabyssinica*	Flower	Skin disease	Fresh lowers pounded, boiled and applied on skin	T
36	Timatima (O)	*Lysopersi com esculentum*	Fruit	cancer prevent bad smell strengthening of the stomach	Fresh fruit washed and ate without cooking	O
37	Muzi(A)	*Musa sapientum*	Fruit	improves appetite prevent renal wounded damage	Eating the fruit	O
38	Garbuu (O)	*Hordeum* spp.	Seed	Diarrhea	In the form of basso	O

ISSN: 0975-8585

39	Boba hare(O)	Unidentified botanically	Flower	Skin disease	Flower pounded mixed with butter then applied on skin	T
40	Abayyi (O)	*Myricasalicifolia*	Flower	Scabies	Dried flower is powdered and mixed with butter then applied on skin	T
41	Cekata (O)	*Calpurnia aurea*	Leaf	Ear discharge	Fresh leaves are pounded. mixed with butter. Juice is taken	EAR
				Itching	Fresh Leaves are pounded and squeezed and its juice is applied on body	T
				Skin diseases	Fresh leaves are pounded. mixed with butter, applied on skin	T
42	Charota(O)	*Rutachalepensis*	Leaf	Evil eye	Fresh leaves are boiled mixed with butter, fumigated	N
43	Dhummuga (O)	*Justiciaschimperi*	Leaf	Skin diseases	Fresh leaves are boiled, juice applied on skin	T
44	Fayo (O)	*Meliaazedarach*	Leaf	Hypertension	Leaves are pounded and juice is drunk	O
				Diarrhea of human	Leaves are pounded and juice is drunk	O
			Bark	Prevent irregularity of menstrual cycle	Bark is chewed ,and used as a brush	S
45	Janjibelo(O)	*Zingiberofficinale*	Rhizome	Cough	Boiled with tea and drunk	O
				Constipation, liver problems, impotency	Rhizomes pounded. boiled and decoction is made	O
46	Kobbo (O)	*Ricinuscommunis*	Seed	Headache	Seed powdered, cooked with oil	O
				Expel placenta after delivery	Seed powdered, cooked with oil and taken	O
47	Bargamoadi(0)	*Eucalyptus globulus*	Leaf	Burning urine, Headache	Fresh in Leaves are pounded ,boiled and decoction is made	O
48	Kararu(0)	*Amionguriaaltussima*	Leaf	Scabies	Fresh leaves are pounded juice is applied on skin	T
49	Maxxanne (0)	*Achyranthesaspera*	Route	Tongue disorder	Fresh routes are pounded and squeezed and its juice is drunk	O
50	Sunfa(O)	*Lepidiumsativum*	Seed	Skin diseases	Seed is powdered, and applied on skin ,	T
				Abdominal pain, cough, “Mitch”	Seed is boiled juice is drunk	O
51	Tsigereda (A)	*Rosa* Spp	Leaf	Cleansing the stomach	Leaves are pounded, powdered mix with honey &drunk	O
				Bloating of abdomen	Leaves are pounded ,boa lot and juice is drunk	
52	Shuko(O)	*Trigonella foenum graecum*	Seed	Uterotonic	Seed is powdered, boiled and sat on	T
				Expel placenta	Seed is powdered, boiled and juice is drunk	O
53	Bursa (O)	*Echinopskebericho*	Root	Flank pain, back pain, and kidney disease	Roots are pounded, boiled and juice is taken	O
54	Talba (O)	*Linumusitatissimum*	Seed	Tuberculosisswell, Liver diseases, spleen diseases	Seed are powdered, boiled and decoction is made	O
55	Rafu (O)	Unidentified botanically	Leaf	Hemorrhoids and constipation	Cooked and eaten or decoction is made	O

Local name: O=Afan Oromo; A=Amharic
Route of administration: O=Oral, T=Topical, S=Sublingual, N=Nasal

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Table 10: **Herbal medication with two different plant partsin prescription used to treat human ailments inShopaBultum,West Arsi Zone, Southeast Ethiopia, 2013.**

S.No	Local name of plants (Afan Oromo)	Scientific name of plants	Plant parts used	Illness treated	Method of preparation	Route of administration
1.	Chekata Fiti	*Calpurnia aurea* *Clematis spp.*	Leaf Root	Animal lice	Fresh leaves and routs are pounded, mixed with little butter and applied on affected skin	Topical
2	Dhumuga Hindheessa Garamba	*Justicia schimperiana* Unidentified botanically 	Leaf Leaf Leaf	Jaundice	The leaves are pounded and juices drunk	Oral
3	Chironta Balbaletti	*Brucea antidysenterica* Unidentified botanically	Root Root	Cancer	The fresh routs are pounded and juices drunk	Oral
4	Gorxa Hexo Sukkeor Marachisa	*Caesalpinia decapetala* *Hagenia abyssinica* Unidentified botanically	Root Flower Bark or root	Anthrax	Fresh roots, flower and bark or routs are pounded together and Juice is drunk	Oral
5	Handode Chironta Mokonnisa	*Phytolacca dodecandra* *Brucea antidysenterica* *Croton macrostachyus*	Leaf Leaf Leaf	Rabies	The leaves are pounded together, and its juice, is drunk	Oral
6	Charota Ganjibelo Kulubiadii	*Ruta chalepensis* *Zingiber officinale* *Allium sativum*	Leaf Bark Bulb	Cough	Boiled together and juice is taken	Oral
7	Marachisa Banjii	Unidentified botanically 	Leaf Leaf	Rabies	The fresh leaves are pounded together juice is drunk	Oral

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Table 11: Animal products or minerals used treat human ailments around the community of ShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

S. No	Animal	Product	Use	Preparation method	Route of administration
1	Tiger	Meat	skin diseases hemorrhoids, Evil eye	Cooked and decoction is made	Oral
		Fat (Mora)	Kwashiorkor	Cooked and decoction is made	Oral
2	Pig	Meat	Kwashiorkor	Cooked and decoction is made or eating cooked meat	Oral
			Evil eye	Boiled, mix with butter and decoction is made	Oral
3	Hodge	Meat	Kwashiorkor Asthma	Cooked and decoction is made	Oral
4	fish	Meat	Giardia, Colds	cooked and eaten	Oral
5	Bee cow	Honey Butter	Malaria Colds	Honey and butter boiled, decoction is made	Oral
6	Fox	Meat	Rabies	The meat is burnt and fumigated	Nasal
7	goat	Bile	Malaria	The fresh bile is taken and drunk	Oral
8	Cow	Butter	Nose bleeding Ear discharge	The butter is boiled, administered	Nasal Ear
9	Columbus monkey	Bone marrow	Skin diseases	The bone is broken and its marrow is taken, then applied	oral
10	Sheep Bee	Tail meat Honey butter	Asthma	Tail meat, Honey, butter boiled together and decoction is used	oral
11	Tortoise	Meat/bone	Horse which can't urinate	Attach meat/bone on the neck	Topical

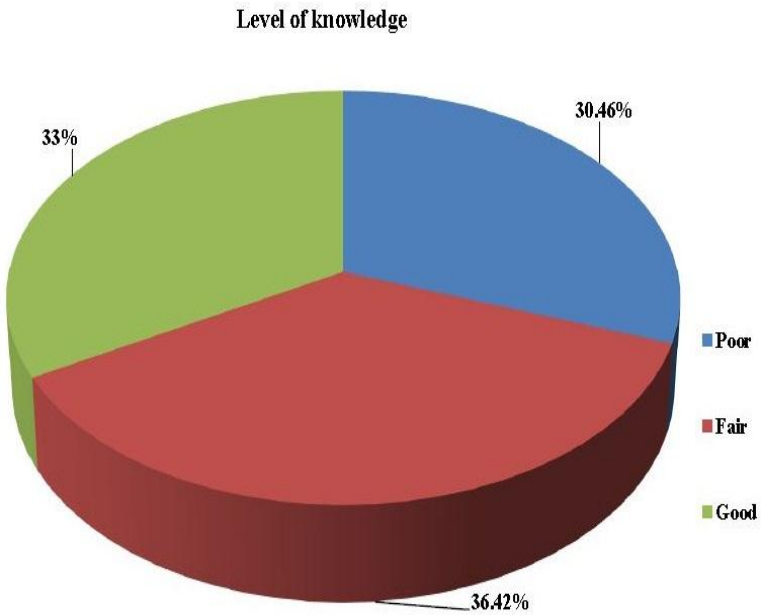

Figure 1: Level of knowledge of the respondents according to the criteria value of knowledge preset in Shopa Bultum, West Arsi Zone, Southeast Ethiopia, 2013.

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Table 12: Chi-square (cross - tabulating) of Traditional medicine practice by the community in relation to age, sex, educational status and Income of the respondents inShopaBultum, West Arsi Zone, Southeast Ethiopia, 2013.

Age, sex, educational status, monthly in come	Practice of Traditional Medicine						
	Yes	%	No	%	Total	%	P-value
Age							X^2=13.3 Df=4 P=0.001
15-19	4	2.65	6	3.97	10	6.62	
20-29	35	23.18	11	7.28	46	30.46	
30-39	38	25.17	9	5.96	47	31.13	
40-59	27	17.88	4	2.65	31	20.53	
>60	16	10.60	1	0.66	17	11.26	
Total	120	79.47	31	20.53	151	100	
Sex							X^2=1.17 Df=1 P=0.28
Male	49	32.45	16	10.60	65	43.05	
Female	71	47.02	15	9.93	86	56.95	
Total	120	79.47	31	20.53	151	100	
Educational status							X^2 =12.3 Df=5 P=0.031
Illiterate	31	20.53	3	1.99	34	22.52	
Read& write	16	10.60	3	1.99	19	12.58	
1-6	31	20.53	6	3.97	37	24.50	
7-8	18	11.92	6	3.97	24	15.89	
9-12	19	12.58	7	4.64	26	17.22	
>12	5	3.31	6	3.97	11	7.28	
Total	120	79.47	31	20.53	151	100	
Monthly Income							X^2 =6.75 Df=5 P=0.240
<100	44	29.14	8	5.30	52	34.44	
101-200	38	25.17	8	5.30	46	30.46	
201-300	21	13.91	5	3.31	26	17.22	
301-400	4	2.65	1	0.66	5	3.31	
401-500	3	1.99	2	1.33	5	3.31	
>500	10	6.62	7	4.64	17	11.26	
Total	120	79.47	31	20.53	151	100	

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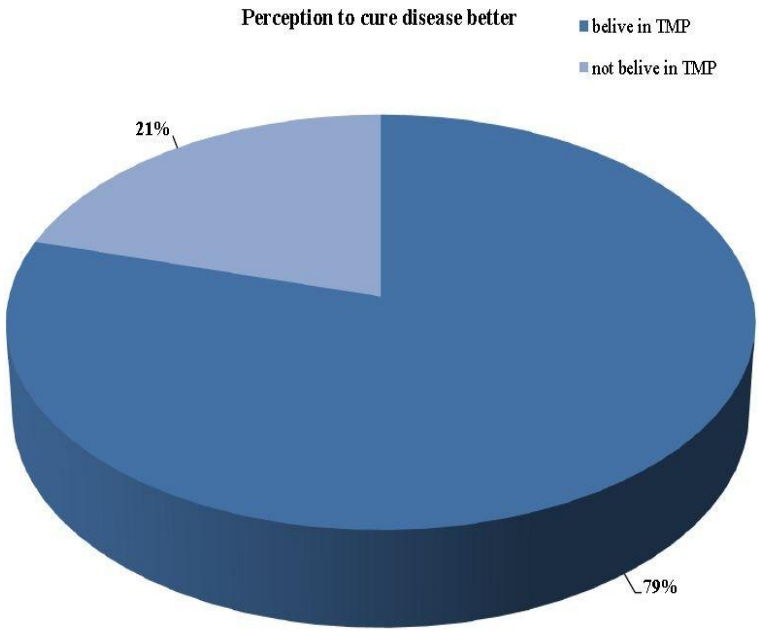

Figure 2. Opinion of the respondents about disease cures by traditional medicine practitioners in Shopa Bultum, West Arsi Zone, Southeast Ethiopia, 2013.

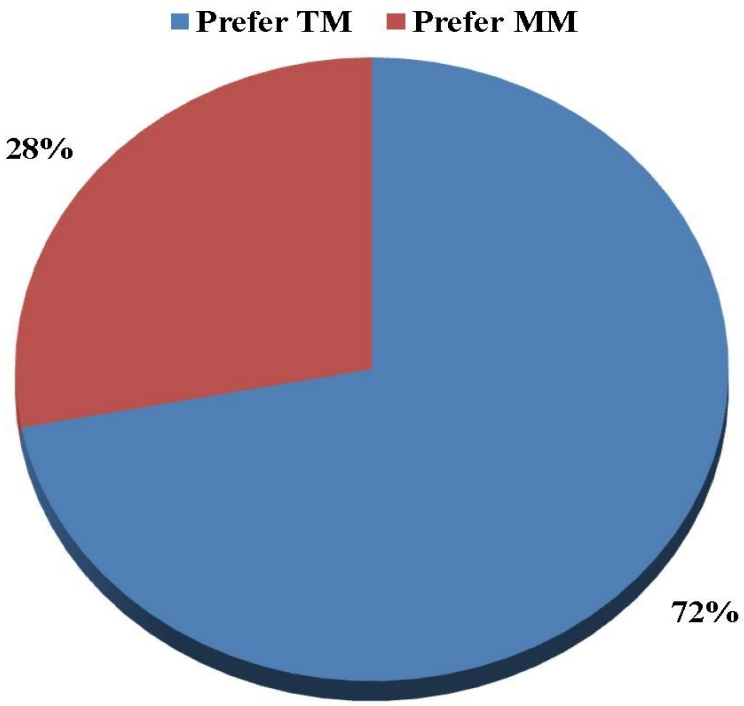

Figure 3. First preference to visit a medical practitioner in acute or chronic illnesses among respondents of Shopa Bultum, West Arsi Zone, Southeast Ethiopia, 2013.

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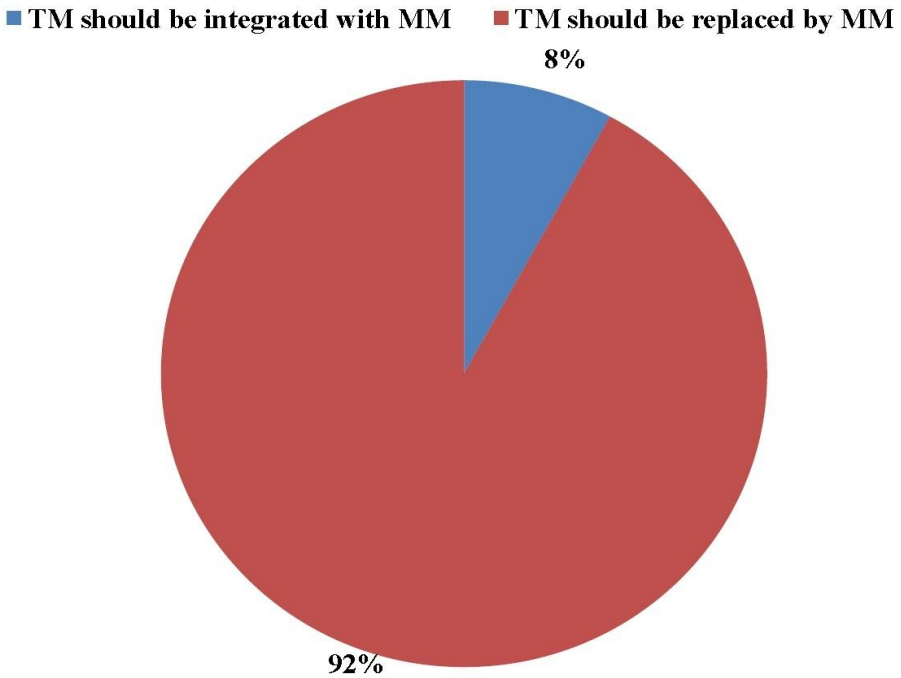

Figure 4. Attitude towards integration of traditional medicine (TM) with modern medicine (MM) among respondents of Shopa Bultum, West Arsi Zone, Southeast Ethiopia, 2013.

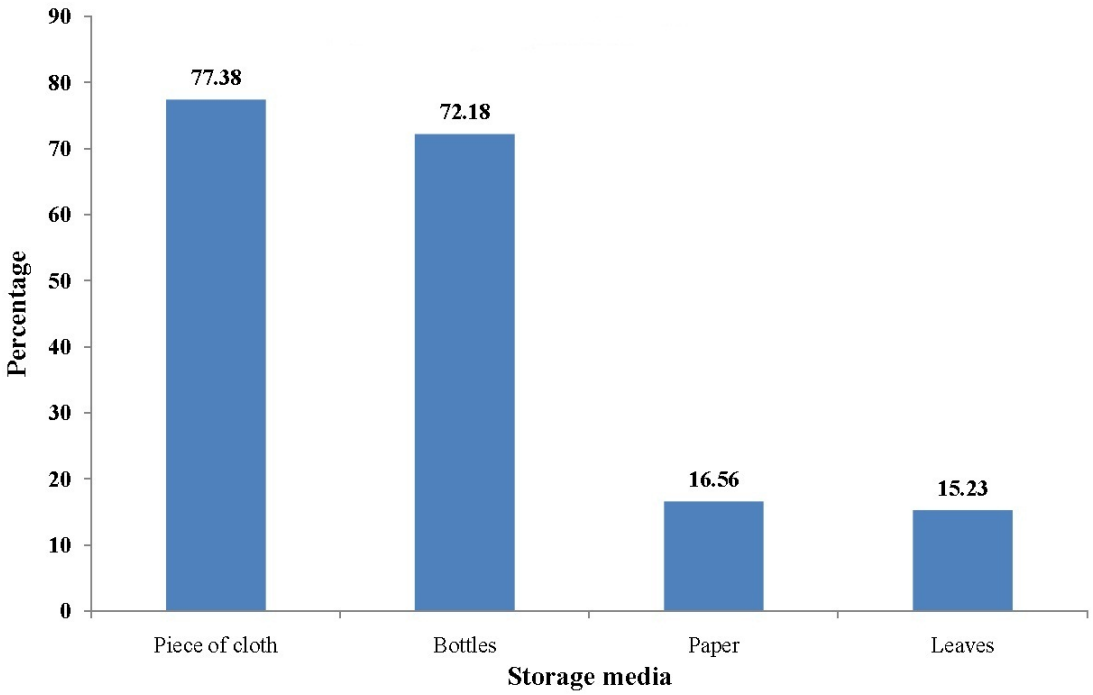

Figure 5. Storage of traditional medicinal preparations among respondents of Shopa Bultum, West Arsi Zone, Southeast Ethiopia, 2013.

DISCUSSION

The results of this study revealed that overall practice of TM in the community is 79.47% which is in line with previously reported studies, where in Ethiopia up to 80% and in most African countries greater than

80% of the population uses traditional medicine [2]. This similarity might be due to the belief or acceptance of traditional medicine being accessible and affordable to the community.

The result of this study revealed that overall knowledge of TM in the community is 69.53%. However, this result is in consistent with the finding obtained from Nigerian Contemporary community which is 44.7% had a knowledge of TM and what it entails [12]. This difference is might be due to age of the respondents in our study, educational level and religion of the respondents slightly differ.

In the study area the most widely known forms of traditional medicine was medical herbalism which is in line with previously reported studies, where the majority of Ethiopians depend on Medicinal plants as their only source of health care especially in rural areas access to modern health care is limited, hence medicinal plants and knowledge of their use provide a vital contribution to human and Livestock health care needs throughout the country [3, 4]. This similarly is might be due to the studied community was rural area, in which availability of d/t species of plants is high and accesses to modern health care is limited.

From the Results of the study the knowledge on traditional medicine is good among the elders of the community and sources of the knowledge on TM for all of the respondents in Shopa Bultum community were their family and friends. This finding is similar with the most scenarios, the traditional knowledge in Ethiopia is passed verbally from generation to generation and Valuable information can be lost whenever a TMP passes without conveying his traditional knowledge [22]. This similarity might be due to lack of documentation of knowledge and the valuable information may lose from generation to generation as it passes through without documental evidence.

From the study the majority of the respondents (66.89%) were selecting both traditional medicine and modern medicine using to cure their Illness well. This finding of the study agrees with study done in Chile in 2009, between Torri and mapuche patients, doctors and Nurses which was 60% of the patients used both traditional healing and biomedical treatment to cure their illnesses [11].

In the study area most of the respondents believes that TMP can cure diseases better than modern doctors (79.47%). This result shows slight difference with study done in Dembia district North western part of Ethiopia which is that 60.9% of Modern health practitioners believed in the importance of TMP maintain sufficient health care services to the Community [23]. This is might be due to the studied population was highly rely on TM whereas the study in Dembia District was done on modern health practitioners w/c may not rely on TM [23].

In this study Hemorrhoids and Jaundice (79.17% and 66.25%) respectively were among common illness better treated by TMP than modern Doctors whereas TB (20.53%) TMP fail to treat. This is consistent with a study done in Addis Ababa to determine the utilization of TM among hospital patients shows wef bashite (Jaundice), initial for which traditional treatment is used; Uvulectomy and Hemorrhoids were treated almost exclusively by the traditional practitioner [24]. This consistency is due to efficacy and experience of TM to treat such disease.

According to this study the majority of the respondents (71.52%) prefer TMP to visit first whenever they were sick. This result is in line with the study done in Dembia District, Northwestern part of Ethiopia, which is 78.3% of modern health practitioners were encountered patients who come soon after visiting traditional healers for their present complaint [23].

This similarity might be due to availability and acceptance of Traditional healer. The study also agree with the results from Bangladesh (1998) where (75-80%) of the population of the country particularly in the rural and semi urban areas still prefer to use TM even though MM facility is available [10]. This agreement may be due to due to the studied area is rural area which is rich in medicinal plants and acceptance of TM practice.

The results of the study show, due to afford ability, accessibility acceptance and (50.99 preferred due to efficacy of TM however this result is inconsistent with the finding obtained from a study done in Addis Ababa to determine the utilization of TM among hospitals patients, that is 8.8% prefer due to afforded ability 47.4% due to accessibility and 53 5%due to efficacy 5.8% due to decisions by parents and failure of modern treatment [24]. This difference might be due to the studied area is not urban as Addis Ababa, where there is no problem of TM is low.

In this study nearly all of the respondents had positive attitudes towards integration of TM and MM (92%). This result is in line with the survey conducted in shirka District Arsi zone, which 84% of modern health practitioners supports integration of modern and traditional medical system to improve health care coverage of the country [18].

In this study the traditional medical practice was most commonly used for the treatment of children illness (60.93%). This finding is consistent with previously reported studies, which are in developing worlds like Ghana, Mali, Nigeria and Zambia where the first line of treatment at home for 60% children with high fever resulting from malaria [1]. This consistency might be due to children's immune system is weak in resisting many illness.

According to this study only 6.62% of respondents use concomitant TM and MM in their Life time. However, study done in shirka district, Arsi zone revealed that about 24% of the respondents had used the combination of TM and MM in their life time [18]. This difference might be due to the current health policy and increased number of health extensions in the country.

The study illustrates that the community were seeking both self-Medication of TM and visiting of TMP to manage their acute/ chronic illnesses (72.85%). This result is consistent with study done in shirka District. Arsi zone, which is about 79% of the modern health practitioners have visited traditional healers atleast once in their life time to seek treatment [18]. This similarly may be due to cultural acceptability of healers, the respect they have and their easy accessibility to client's hierarchy of the knowledge.

In the studied area some of the ailments TM is used for include Mitch (76.82%) cough (74.83%) ascariasis (74.17%) Malaria (70.20%) diarrhea (56.95%) rabies, cancer. Jaundice, skin diseases, wound. Hemorrhoids, Headache, Male genital organ infection, constipation, toothache. Snake bite, Anemia, colds, ulcer, HF, HTN, TB and evil eye. This results consistent with previously reported studies In Ethiopia [1]. This similarity might be due to the evolution of curative practices closely follows the path of the diseases.

The result of this study revealed that about 79.47% of the community was medical herbs for management of most of their diseases. This is consistent with WHO estimation, i.e., 80% of world's population presently uses herbal medicine for some aspects of PHC [3]. This consistency might be due to easily accessibility and affordability of medical herbs.

According to results to this study 35.76% of the respondents seeks secrete time to collect and use herbal medicine. The value is in line with study done in Dembia district, where 26.3% of traditional health practitioners preferred not to talk about their healing power and also many traditional healers consider their medical knowledge as personal property which they protect by keeping it secret [18,26]. This might be due to income and psychological purpose. Some of the healers believe that if secrecy broken, the treatment loses its efficacy. And the payment contributes to the efficacy of the treatment. Despite the wide use of traditional medicinal practices in the community, we haven't come across any traditional healers working together with the health care system of the country

CONCLUSION

The present study signals the information and identification of different types of traditional medicines and their Usage for the treatment Illnesses in the study area nearly more than two thirds of the respondents

had knowledge regarding the traditional medicine. The community believes in effectiveness of small number of medicinal plants over modern Medicine for specific condition. In this study area some of the respondents prefer keeping their knowledge as a secret. But unless further study conducted and necessary measures taken; the useful traditional medicines may be lost due to Lack of responsible and more trained human power. In addition to this focus should be given to traditional medicine knowledge to promote their use and for their research should be encouraged on the issue. Thus, documentation of traditional medicine should be encouraged to preserve knowledge of traditional medicine.

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