ORIGINAL ARTICLE

SURVEY OF MEDICINAL PLANTS USED TO TREAT HUMAN DISEASES IN SEKA CHEKORSA, JIMMA ZONE, ETHIOPIA

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ABSTRACT

BACKGROUND: ***More than 80% of people in developing countries depend on traditional medicine for their primary health care. Ethiopia is home for a number of traditional knowledge on traditional medicine. Among resources utilized by indigenous knowledge traditional medicinal plants are key resources. This involves the use of plants to treat variety of diseases. In this regard people of Seka Chekorsa are not studied. Therefore, this study is aimed at the identification of those plant species having medicinal value to humans and document indigenous knowledge for further use.***

METHODS: ***survey was con ducted by ethno botanical approach as formulated by Martin (1995) during February to end of May 2003. By preferential sampling representatives local people of Seka Cheqorsa were involved in the study. A semistructured questionnaire was used to collect the specimens and knowledge on their medicinal uses. The collected specimens were identified and voucher specimens are deposited at Jimma Unverisity College of Agriculture.***

RESULTS: ***Thertynine medicinal plant were collected and identified for the treatment of 24 different kinds of diseases. Therty three of them are used as poly herbal prescription and 20 are used as single plant to treat diseases. The study indicated that leaves are the most commonly used (58%), roots (11%), completely plants and fruits (9%), stem and bark (2.6%) and (1.3%) respectively. Most of the medicines are taken orally (77%) followed by external application (topically on skin- bandaging or ointment (15.8%) and nasally inhaling (7%). Most of the plants are collected from the wild while very few are cultivated.***

CONCLUSION: ***The study showed that people of Saka Chekorsa have used medicinal plants to treat their ailments since long. Local people know which part of plant used to treat what type of diseases. Therefore, the documented plants should be further investigated for their efficacy and safety to be integrated into conventional medicine. Furthermore these plants need to be conserved for their sustainable utilization***

KEYWORDS: ***Traditional medicine, ethnomedicine, medicinal plant, ethnobotany***

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INTRODUCTION

In developing countries 80% of the population uses traditional medicine to meet their primary healthcare needs (1, 2). Most of human and livestock disease treatments are based on uses of medicinal plants. Ethiopia is believed to be home for a number of traditional knowledges. For a variety of sociocultural reasons, the majority of the Ethiopian population will continue to rely on indigenous remedies (2). Even today, plant medicines were the major available resource to maintain the health status of the people. To help them realize the remedies they often depend on their own knowledge or neighborhood for treatment that usually involves the use of plants in the vicinity (2).

Ethiopia has high diversity of plant species most of which are used in traditional medicine. It is often quoted as Ethiopia one of the six African countries where about 60% of the plants are said to be indigenous with their healing potential (3). The enormous demand for medicinal plants is generally met by indiscriminate harvesting of natural flora. Such indiscriminate and continued use of valuable plant species including medicinal plants accelerates the rate of their extinction from their habitats (4). Many useful indigenous plant species are, therefore, gradually disappearing, due to deforestation and over consumption during successive famines (5).Like many other countries, cultivation of medicinal plants is not yet widely practiced in Ethiopia. Thus, the scarcity of medicinal plant species cause traditional healers to travel long distances for collection (6).

Traditional medicine of knowledge is transferred from generation to generation through oral education especially in countries like Ethiopia, where there is little accessibility to written documents and records on medicinal plants. The knowledge of medicinal plant use is yet incomplete because there has not been a total inventory of medicinal plants that have been traditionally known to indigenous people (7). This is a challenge to ethno-medicinal investigations. Therefore, Ethnobotanical studies are useful in documenting, analyzing, and disseminating of knowledge on the interaction between medicinal plants and human society. In order to facilitate the sustainable utilization of medicinal plants and indigenous knowledge. There seems a coordinated worldwide activities, including phytochemical screening of ethnobotanical pharmacopoeia, clinical evaluation of traditional health practices and surgical procedures, and the census of traditional medical practitioners in many parts of the world (8). Nevertheless, ethnomedical beliefs and practices continue to be widely followed throughout urban and rural Ethiopia, reflecting considerable cultural continuity and the persistently poor accessibility and quality of most modern health services. The widespread recourse of the Ethiopian population to traditional medicine is attributed to variety of factors, including cultural consonance, the nature of the illness, attributed efficacy of treatment, geographical proximity, and economic affordability (7; 9).

MATERIALS AND METHODS

Description of the study area

Seka Chekorsa, is one of the districts (Wereda) that lies in the South Western Part of Jimma Zone. Topographically it is characterized by mountains . Altitudinally the district extends between 1580 and 2560 masl. Gojeb,Abono, Gibe, Anja, Gulufa and Meti perennial rivers as well as Harsu and Busho Seasonal streams are flowing through the district. Climatically, it is classified into dega (15%) and Woinadega

(85%) Zones. Major soil types found in Seka Chokorsa are Pellic Vertisols, Orthic Acrisols and Dystric Nitosols. High forest, Woodland, riverine and man-made forests are available in the district. Belete Gera forest (37,417 ha) is under government protection.

Ethno-medicinally people of 'Seka Chekorsa' Woreda in Jimma Zone,became important for this study due to the fact that most of the people are dependent on farming. This makes them intimate to natural resources of which plants occupy key position. It is also expected that they depend on plants one way or another way for their subsistence. It is a universal truth that ethno medicinal studies are yet at initial stage in most part of Ethiopia and studies made so far are not comprehensive. It is also accessible for investigation as it is nearby the main road to different towns. Therefore, there is a need to have a comprehensive account of their traditional medicinal practices. Moreover, the present study was aimed to identify those plant species having medicinal role for human and provide the description of parts of plants for medicinal purpose. On top of this, compile indigenous knowledge on plants of traditional medicinal value and contribute to the effort underway for sustainable utilization of medicinal plants.

Ethno medical data collection

The survey was conducted during February to May 2003. In this study, preferential sampling was employed. Representative sample of the local people of different age and social groups were included. Accordingly:

(1) Peasant living in villages of 'Seka Chekorsa' Woreda: namely: 'Shebe', 'ula-uke, 'Gibe- Boso', 'Qofe', and 'Bore' were sampled (2) by preferential sampling 62 farmers (51 men and 11 women) between the age of 20-76 years were involved from the five study sites based on their willingness. The conventional sampling method was not used as preferential sampling was used (3) collection of medicinal plant specimen and collection of information on medicinal uses of these plants were done by semi-structured interview. The questionnaire included information on medicinal plants such as vernacular name, plant habit, part of the plant used, medicinal values (uses) of the plant, preparation, dosage, route/mode of administration and frequency/duration.

Voucher specimens (Plants) were collected from each sample site, dried, identified, and deposited at College of Agriculture, Jimma University. Identification was performed by using flora books of Ethiopia and Eritrea, people who have experience in such work, and by comparing with the authentic specimens of the herbarium. Before filling the questionnaire, the local people were convinced about the importance of their knowledge and the need for its documentation for future generations, and the nation at large. Based on the information gathered, a list of diseases along with medicinal plants used for the treatment of these diseases was compiled following the methods of (8) and (9).

Data analysis and interpretation

Percentiles and tables were used to summarize the collected ethnomedicinal data .

RESULTS

Medicinal plants and their applications

A total of 39 plant species representing 31 families were reported by the informants for their medicinal use by the peoples in Seka Chekorsa (Tables 1-2). The families, Fabaceae and Asteraceae; Rosaceae and Rutaceae; Labiatae and Sapindaceae; Acanthaceae, Brassicaceae, Euphorbliceae,

Table 1. Plants used for the treatment of human ailments with single species prescription

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route / mode of administration	Frequency	Dosage
1	*Dicliptera Laxata* C.B.Cl	Acanthacea	Togo (OR)	Herb	Leaf	Eye infection	- Fresh Pulverized	Ointment	Once	-
2	*Pilea Bambusteti* Engl.	Urtacaceae	Surma (OR)	Shrub	Leaf	Broaken bone,	- Infusion is made from the leaves	Oral	Once a day for three days	-One coffee cup.
3	*Zheneria scabra*	Cucubitaceae	Hide-boge-befa (OR)	Climber	Leaf	Abdominal colic (Kurtet)	- Fresh pulverized	Oral	Once	- One coffee cup.
4	*Artemisia afra* Jacq . ex. willd	Asteracea	Godo guracha (OR)	Shrub	Leaf	Constipation (Yehode derqet)	-Infusion is made from the leaves	Oral	Once	-
5	*Nigella Sativa L.*	Ranumculaceae	Tikur Azmud (Am)	Habit	Fruit	Intestinal parasite (yehod- wuste-tilatel)	-Powder mixed with honey	Oral	Once a day for three days	One tea spoon
6	*Zingiber Officinal* Ross	Zingiberaceae	Zingible (Am)	Herb	Rhizome	Cough	-Rhizomes are freshly pulverized and then boiled; the decoction is taken while warm	Oral	Till cure	------
7	*Senna spp.*	Fabaceae	Cheka (OR)	Shrub	Leaf	Eye infection	-Fresh pulverized	Ointment	Once	---------
	Senna spp	Fabaceae	Cheka (OR)	Shrub	seed	Streptothricosis (Ekek)	-Juice prepared from the seeds are applied on skin	Ointment	Till cure	
8	Musa spp	Musaceae	Muze (AM.)	Herb	Pesudo-stem	Wound (Kusel)	-(latex) Juice prepared from the pseudostem	Bandaging	-Every other days, for three days	--------

Musaceae, and Zingiberaceae has six families, however, had one species each (10%); four (7%); three (5%); two (3%) (Tables 1-2). species, respectively. The rest of 25

Table 1. Continued

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route / mode of administration	Frequency	Dosage
15	*Bersama abyssinica*	Melianthaceae	Lochisa (OR) Sesa(OR)	Shrub	Leaf	Snake bite	Fresh pulverized	Oral	Once	½Tea cup
16	*Hypericum quartinianum* A. Rich	Hyericaeae	Mukefoni (OR)	Shrub	Leaf	Evel eye	Fresh pulverized	Oral	Once	1 tea cup
17	*Fagaropis angolensis* `	Rutaceae	Siglue (OR	Tree	Leaf	Abdominal Colic	Leaves are pounded and the Juice extracted	Oral	Once	1tea cup
18	*Eucalyptus globulus*	Myrtaceae	Nechi-barzaf (AM)	Tree	Leaf	Cough	Leaves are boiled and decoction taken when cold	Oral	Once a day in the morning for three days	1Tea Cup
19	*Artemisia afra* Jacq. ex willd	Asteracea	Godoguracha	Shrub	Leaf	Abdominal Colic	Leaves are boiled and decoction taken when cold	Oral	Once a day for three days	½ Tea cup
20	*Hagenia abyssinica* (Bruce) J.F Gmel.	Rosaceae	Kosso (AM) Hetto (OR)	Tree	Fruit	Tape worm	Dray flwers are pounded and resulting powder mixed with water.	Oral	Once	One glass
21	*Sphearanthus steetzii* oliv. & Hiern	Asteraceae	Qoricha -Cheffe	Shrub	Bark and leaf	Cutaneous leishmaniasis (Ye'wof beshita)	Leaves and bark are pounded while fresh and the concoction applied on the skin surface where wounds occur	Bandaging	Two days	-

Table 1. Continued

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method of preparation	Route / mode of administration	Frequency	Dosage
9	*Ruta chalepensis L.*	Rutaceae	Tenadam (AM)	Herb	Leaf, seed	Abdominal colic (Kurtet)	-Fresh leaves are pounded and then juice is prepared. seeds can also be used	Oral	Once	One tea cup
10	*Olea europeae L.* spp Cuspidata	Oleaceae	Ejersa (OR) Woyra(AM)	Tree	Leaf	Tooth ache (ye'tiris himem)	Leaves are boiled and decoction taken when cold	Oral	Once	1tea cup
11	*Salix subserrata*	Salicaceae	Alelu (OR)	Shrub	Leaf	Rabies (yebd wesha beshita)	Leaves are pounded and dried, and then mixed with milk	Oral	Once a day for three days	1 tea spoon powder
12	*Carica papaya* L.	Caricaceae	Papaya (AM)	Tree	Leaf	Malaria (Woba)	Leaves are pounded and then boiled; the decoction is taken while cold.	Oral	Once a day for three days	-
	Carica papaya	Caricaceae	Papaya (AM)	Tree	Seed	Intestinal parasite	Chewing of the seeds	Oral	Once	-
13	*Punica granatum* L.	Punicaceae	Roman (AM)	Shrub	Leaf	Snake bite	Fresh pulverized leaf	Oral	Once	
14	*Echinops macrochaetus*	Asteraceae	Qebericho (AM)	Shrub	Root	Snake bite	Chewing	Oral	Once	
	Echinops cacrochaetus	Asteraceae	Qeberich (AM)	Shrub	Stem	Diarrhea	Pieces of stems are pounded and the powder is taken	Oral	Once	

Table 1. Continued

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route /mode of adm.	Frequency	Dosage
30	*Pavonia vrens cavan*	Malvaceae	Metene(Or)	Herb	Root	Toothache (ye'tirs himem)	Roots are boiled and decoction taken when cold	Oral (gargling)	During pain	-
31	*Rumex nepalensis*	polygonaceae	Muca-araba (OR)	Herb	Root	Abdominal colic	Roots are washed and chewed while fresh	Oral (chewing)	Once	-
32	*Senna didymebotry* (Fresen) Irwin & Barneby	Fabaceae	Senemek (OR)	Shrub	Fruit,leaf	Snake bite	Fruits and /or leaves are pounded while fresh and the juice is taken	Oral	Once a day for three times	½Tea cup
33	*Prunus africana* (Hook.f.) Kalkm	Rosaceae	Tikur-zafe (AM) Homi(OR)	Tree	Bark	Wound	Fresh pulverized	Bandaging	Three days	

Table 1. Continued

Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route /mode of adm.	Frequency	Dosage
Citrus aurantifolia (Christm)	Rutaceae	Lommi (Am)	Tree	Fruit	Poison (lemerze)	Juice from ripe fruit is squeezed and taken	Oral	Once	-
Croton macrostachys Del.	Euphorbionce	Bisana Bakanisa (AM) (OR)	Tree	Leaf	Malaria	Heating the leaf on fire and inhaling the volatile vapour	Nasal	Once a day at night for three days	-
Croton Macrostachys Del.	Euphorbionce	Bisana Bakanisa (Am) (OR)	Tree	Leaf	Bloat (Ye'hode menefat)	Leaves are pounded and juice will be extracted by squizing	Oral	Once a day for thee day	
Croton macrostachys Del.	Euphorbionce	Bisana Bakanisa (AM) (OR)	Tree	Leaf	Wound	Juice prepared from the leaves are applied on the wound	Ointment	Till cure	
Ocimum lamifolium	Labiatae	Damakese (AM)	Shrub	Leaf	Headach (Ler asmitat)	Fresh leaves are pounded and the volatile substance will be inhaled	Nasal	Once a day for two days	
Ocimu lamifolium	Labiatae	Damakese (AM)	Shrub	Leaf	General body illness (Mich) Cough	Fresh leaves are pounded, and then juice is taken orally.	Oral	Once	1 Tea cup
Ocium lamifolium	Labiatae	Damakese (AM)	Shrub	Leaf		Fresh leaves are pounded; and then juice is prepared and drunk	Oral	Once	1 Tea cup
Cordia fericana Lam.	Boraginaceae	Wanza (AM) Wedessa (OR)	Tree	Leaf	Streptothr icosis	Fresh leaves are pounded; little butter is added and applied on the skin surface.	Ointment	Once a day every morning for three days	-

Table 2. Continued

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route /mode of adm.	Frequency	Dosage
6	*Negella sativa L.*	Ranumculaceae	Tikur azmud (AM)	Herb	Seed	Abdominal colic	Washing the seeds and chewing	Oral (Chewing)	Once	-
	Triqonella foeenum-graecum	Fabaceae	Abish (AM)	Herb	Seed					
7	*Echinops macrochaetus*	Asteraceae	Qebrichos (AM	Tree	Root	Pneumonia (Sale)	Root and seeds are pounded and juice is prepared	Oral	Once a day in the morning for three days	1Tea Cup
	Negella sativa L.	Ranumcutaeceae	Tikure azmude	Herb	Seed					
8	*Senna didymobotry* (Freser) Irowin & Barinely	Fabaceae	Senamek (OR)	Shrub	Leaf	Diarrhea	Leaves are pounded and juice is prepared	Oral	Once	-
	Echinops macrochoetus	Asteraceae	Qebericho (OR)	Tree	Leaf					
9	*Citrus aurantifolia* (christm.)	Rutaceae	Lommi (AM)	Tree	Fruit	Snake bite	Fruits and leaves pounded and juice is prepared	Oral		
	Senna didymobtry (Fresen) Irwind & Bornedy	Fabaceae	Senemek (OR)	Shrub	Leaf					
10	*Phytolocca dodecandra*	Phytolaccaceae	Endod (AM) Ebicha (OR)	hrub	Stem	Gonorrhoea (chebit)	Stem and leaves are pounded and concoction is taken	Oral		
	Vernonia amygodalina Del.	Asteraceae		Tree	Leaf					
11	*Phytolocca dodecandar*	Phytolaccaceae	Endod (AM)	Shrub	Root	Intestinal parasite	Root, leaves and barks are pounded and the concoction is taken after drinking butter	Oral		
	Nicotinai tabacum L.	Solanaceae	Tambo (OR)	Shrub	Leaf					

Table 2. Plants used for the treatment of human ailments with poly herbal prescription

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route /mode of adm.	Frequency	Dosage
1	*Croton Macrosachys* Del.	Euphorbioncec	Bakanisa (OR) Bisana (AM)	Tree	Leaf	Bloat (Le'tenefa hod)	Fresh leaves are pounded and juice is prepared	Oral	Once	-
	Ocimum Lamiifolium	Labiatac	Damakese (OR)	Shrub	Leaf					
2	*Allium sativam* Linn	Alliaceae	Neck shinkurt (AM)	Herb	Bulb	Malaria (Woba)	Fresh pulverized and the concoction is taken with food	Oral	Twice	-
	Carum copticum	Umbilliferae	Tikr azmud (AM)	Herb	Seed					
3	*Vernonia auriculifera* Hiern.	Asteraceae	Reje (OR) Grawa (AM)	Tree	Leaf	Streptothr icosis (Ekek)	Fresh leaves are pounded and applied on the skin surface	Ointment	Once a day in the morning for three days	
	Croton macrostachy s Del.	Euphorbioncae	Mekenisa (OR)	Tree	Leaf					
4	*Ocimum lamifolium*	Labiatae	Damakese (AM)	Shrub	Leaf	Abdomina l colic (Kurtet)	Fresh pulverized and the juice is taken	Oral	Once before meal in the morning	
	Ruta chalepensis	Rutaceae	Tenadam (AM)	Herb	Leaf,Fr uit	Headache	Fresh pulverized and the juice is taken	Oral	Once a day for three days	
5	*Ocimum basilicum L.*	Labiatae	Besobila (AM)	Herb	Leaf	Abdomina l colic	Pounding and squeezing the juice	Oral	Once	One Tea Cup
	Citrus aurantifolia (christm)	Rutaceae	Lommi (AM)	Tree	Fruit					

Table 2. Continued

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route /mode of adm.	Frequency	Dosage
17	Echinops macrochetus	Aseraceae	Qebericho (AM)	Tree	Root	Stabbing pain (Wugat)	Roasted coffee and the leaves are pounded and eaten	Oral	Once	-
	Coffea arabica L.	Rubaceae	Bunma (AM)	Tree	Fruit					
18	*Zingiber officinale* Rose *Allium sativamm* Linn	Zingiberaceae	Zingible (AM)	Herb	Rhizome	Cough	Rhizomes and bulbs are pounded and mixed with honey, then the concoction is taken before meal in the morning	Oral	Once a day till cure	1 Tea spoon
		Alliaceae	Nech-shinkurt (AM)	Herb	Bulb					
19	*Croton macrostachys* Del.	Euplorbionceae	Besana (AM)	Tree	leaf	Bloat	Leaves, seeds and bulbs are boiled together and the decoction is taken with teff bread	Oral	Once	-
	Negella Sativa	Ranumculaceae	Tikur-azmud	Herb	Seed					
	Allium Sativam Linn	Alliaceae	Nech-shinkurt	Herb	Bulb					
20	*Zheneria scabra* *Hypericum quartinianum* A. Rich Senna didymbotry (Fresen .) Irwin& Barnely	Cucurbitaceae	Hide buqe bofa (OR)	Climber	Leaf	Diarrhea	Leaves are pounded and juice is prepared	Oral	Once before meal in the morning	½Cup
		Hpericaeae	Mukefoni (OR)	Shrub	Leaf					
		Febaceae	Senamek (OR)	Shrub	Leaf					

Table 2. Continued

Sr. No	Scientific Name	Family	Vernacular Name	Habit	Part(s) used	Applied for	Method(s) of preparation	Route /mode of adm.	Frequency	Dosage
12	*Senna sp.*	Fabacea	Cheka (OR) Togo (OR)	Shrub	Leaf	Skin disease like strptothricosis	Fresh pulverized and the concoction is taken	Oral	Once	½Tea Cup
	Dicliptera laxata C.B.cl	Acanthaceae		Herub	Leaf					
13	*Ocimum Lamiifolium*	Labiatae	Damakese (AM)	Shrub	Leaf	Headache	Pulverized	Nasal (smelling)	Till cure	
	Nigella sativa L.	Ranumculaceae	Tikur azmud (AM)	Herb	Seed					
14	Ocimum lamiifolium	Labiatae	Damakese (AM)	Shrub	Leaf	Eye infection	Leaves are boiled together and the vapor is taken or inhaled	Nasal (smelling)	Till cure	
		Acanthaceae	Sensel (AM)	Shrub	Leaf					
	Justilia schimperans (Hochst. ex Nees)									
15	*Mentha sp.*	Labiatae	Nana (AM)	Herb	Leaf	Blood pressure (Le' dem bizat)	Fresh leaves are pounded and juice is prepared	Oral	Three times a day for three days	
	Ocimum Lamiifolium	Labiatae	Damakese	Shrub	Leaf					
16	*Dodonaea angustifdia L.f*	Sapindaceae	Etticca (OR)	Shrub	Leaf	Liver (Le' gubet himem)	Fresh leaves are pounded and juice is prepared	Oral	Once a day for four days	1 glass
	Pittosporum Obyssinicum	Pittosporaceae	Lola (AM)	Shrub	Leaf					

Plant part used

The result of the study indicated that leaves are the most commonly used and account for (58%) of the total recorded medicinal plants followed by roots (7.8%), whole plant and fruits (9%) each, stem (2.6%) and bark (1.3%) (Fig .2)

Habit of the collected medicinal plants

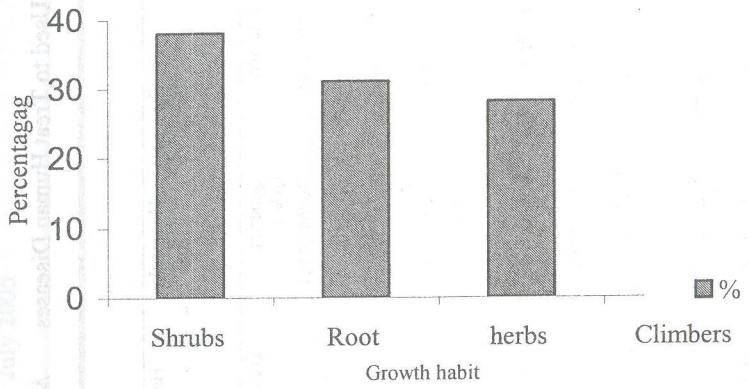

Figure 1. Percentage of medicinal plants based on their habits.

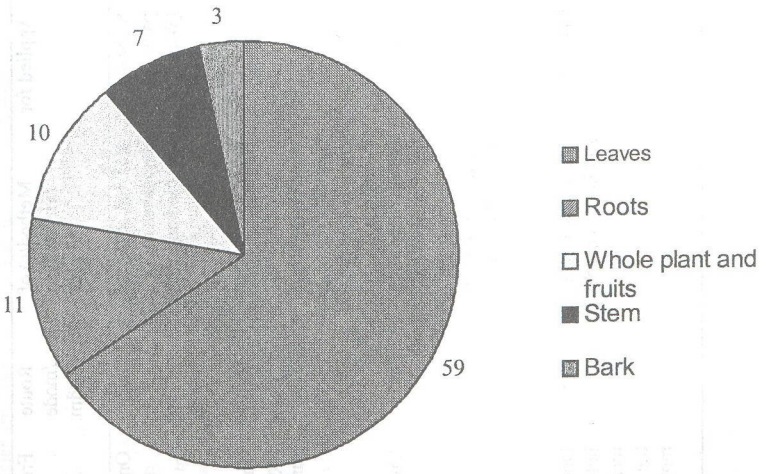

Figure 2. Percentage of medicinal plant parts used in Seka Chekorsa remedial system

Method of preparation

Most of the plant remedies are prepared as a decoction or concoction by pounding, boiling and/ or squeezing the plant parts either individually or in some cases by having the combination of them. Water is the major medium in which the decoctions are made. Sometimes, other additives like honey, milk, butter and salt mixed while preparing plant remedies (Table 1-2).

Route of administration and dosage

Most of the traditional medicines are taken orally accounting for (77%) of the medicinal plants, followed by external application (applied topically on skin-bandaging or ointment) (15.8%) and nasal application (7%). To improve the efficacy of certain remedies that are taken orally some additives are frequently used. For example, the bulb of *Allium sativum* and the rhizome of *Zingiber officinale* that are used as remedy for cough are mixed with honey and could be taken without difficulty (Table 3). Some informants indicated that restrictions are imposed when patients take certain types of remedies. For example, a patient who takes remedy against diarrhoea (prepared by mixing of *Senna didymobotry, Hypericum quartinianum,* and *Zheneria scabra*) should not take any food in the morning before the administration. The dose given to a patient depends on age, physical and health conditions. Lack of agreements was sometimes noted among the informants on doses of certain remedies prescribed. It the issue to be investigated further by other studies. Besides this, the units employed to measure the amount of the plant parts used in the preparation of most remedies are not precise.

Tables 3. Consistently used medicinal plants for treatment of more than one ailment across the study area and % of informants

Scientific Name	Ailments	No (%) of informants
Craton macrostachys Del.	Malaria, streptothricosis, wound, Stabbing pain, Abdominal colic Bloat	34(55)
Ocimum lamiifolium	Headache, Cough, Abdominal colic, Bloat, Eye infection	39(63)
Senna didymobotry	Snake bite, Diarrhea	26(42)
Nigella sativa L.	Malaria, Abdominal colic,	26(42)
Vevnonia auriculifera	Pneumonia, Headache, Malaria, Streptothricosis	20(32)
Ruta chalepensis L.	Abdominal colic, headache	33(53)

Current status and habitat of medicinal plants

The result of the study indicted that there is some practice of cultivating medicinal plants in the study area. It was noted that *Ocimum lamiifolium , Ruta chalempensis, Nigella sativa, Carica papaya, Naicstinia tabacum and Ensete Ventricosum* are some of the medicinal plants that are grown in home garden. Most of the medicinal plants are harvested from the wild. Those that are not easily found (example, *Hagenia abyssinica*) are purchased from markets.

However, about 15 % of the Seka Chekorsa's medicinal plants, believed to exist in the forest are becoming scarce because of over harvesting, overgrazing by domestic animals and degradation.

DISCUSSION

Traditional medicine and associated knowledge

Earlier studies in Ethiopia have shown that the utilization of traditional medicine for a variety of health and personal problems continues to be high. This is true not only in the more remote, rural areas modern health services are not available but also in the urbanized part of the country were a greater number of modern health facilities are available. The present study reported 31 traditional medicinal plant species as being used by the people of Seka Chekorsa. Knowledge of medicinal plants among the people of Seka Chekorsa, well preserved and it is conveyed to generation through apprenticeship. Younger people learn about traditional medicine from elders how they use herbs for treating themselves through observation, discussion, and consultation.

The families Asteraceae and Fabaceae are commonly used as remedies against a variety of complaints for human diseases in the area. The high frequency of use of medicinal plant species from these two families could be attributed to their relative abundance in the study area and theie assumed efficacy as reported by the key informants. For instance, O*cimum lamiifolium* (damakese) is used by the people living in of Seka Chekorsa Woreda to treat headache, cough and abdominal colic.

Most widely observed plant parts in the preparation of remedies are the leaves, roots, whole plant, fruits, stem & bark parts in that order. The popularity of these parts especially roots, barks, stem and whole plant has negative consequence from both ecological point of view and from survival of the medicinal plant species (10).The present study finding indicate roots, barks and whole plants of *Hagenia abysinica, Prunus africana,* Ricinus *communis* and *Sphaeranthus steetzii* that are used by inhabitants of Seka Chekorsa for treatment of diseases. The use of such plant parts threatens these plant species unless proper conservation and sustainable measures are taken.

Preparations, Dosage and administration of medicinal Plants

People of the study area use medicinal plants to cure human diseases and injures. They have developed several methods of application or administration of medicinal plants depending on the particular disease to be treated. Some of the of administration of plant materials as practiced by the community of Seka Chekorsa include intranasal, oral and external application (ointment, bandaging over the surface of the skin).

In some cases fresh plants are finely chopped, dried, pounded and mixed with drinking water, or food e.g. *Silix subserrata* leaf in treatment of rabies are prepared in such a manner. They also prepare an ointment for skin diseases e.g. seeds of *Senna spare prepared* an ointment for *the* treatment of strptothricasis. Infusions made from leaves of *Croton macrosatcyus, Ocimum lamiifolium* are applied intranasally for treatment of malaria, and headache respectively. Most of the preparations in the study area were drawn from both a single including plant and mixture of medicinal plants (Table 1-2). However, lack of precision in the determination of doses has been noted in the area. This is in agreement with similar other studies (10; 11).

Conclusions and recommendation

The study has indicated that, local people of Seka Chekorsa have used plants to treat human ailments for long period of time. Hence, plants have become the most revered and treasured friends of Seka Chekorsa people. The local people know which part of the plants should be taken and at which time. In preparation and administration of the dosages, other ingredients such as honey, salt, butter and soap water may be added. Loss of medicinal plants and the associated knowledge will hamper the existing healthcare system in the area. Therefore, in order to use traditional medicine as a valuable alternative to conventional Western medicine, further investigation must be undertaken to determine the validity, efficacy and dosage of the plants to make it available as an alternative medicine to human. The documentation and preparation of manual, as a means to preserve local knowledge and experience must be encouraged along with dissemination of information on appropriate cultivation methods for scarce medicinal plants in demand. Health problems that can be treated by the reported traditional medicines should be further studied for testing and recommend for the conventional healthcare system. Furthermore, training should be given to the local people on the use of standard measurements to reduce side effects due to improper dosage.

ACKNOWLEDGMENTS

We are highly indebted to Jimma University College of Agriculture Research and Publication Office for the positive encouragement funding the research, which helped us to investigate on this timely issue; much respect and thank to the local people of Seka Chekorsa and the Rural Development Office for providing as with valuable information and assistance respectfully.

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