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Original Article

Ethno-pharmaceutical Formulations in Kurdish Ethno-medicine

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Abstract

Kermanshah is a city in west of Iran with a specific customs and cultures between the people who are living here. According to historical documents these cultures are very ancient and belong to more than one thousand years. The climate condition in this place forces people to find the solution of their problems using the plants and natural facilities. Therefore traditional healers were so active in Kermanshah. From 8000 of plant species in Iran more than 1200 species has grown in Kermanshah. The ancient customs, cultures, traditional medicine and formulations generally used by rural populations was transfer from ancient to modern people. Documentation of these traditional methods was studied in this research in order to compare and certified the traditional medicine with modern methods and find new dosage forms of drug with botanical source. It was established that about 50 plant species and 8 types of diseases were distinguished and cured by these people. It is also concluding that utilization of these plants approximately the same as application of plants in recent publications.

Keywords: Ethno-pharmaceutical; Traditional medicine; Complementary therapy; Natural plants.

Introduction

During the last decade, use of traditional medicine has expanded globally and has gained popularity. It has not only continued to be used for primary healthcare of the poor in developing countries, but has also been used in countries where conventional medicine is predominant in the national health care system. With the tremendous expansion in the use of traditional medicine worldwide, safety and efficacy as well as quality control of herbal medicines and traditional procedure-based therapies have become important concerns for both health authorities and the public (1).

Traditional medicine has a long history. It is the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses. The terms complementary/ alternative/non-conventional medicine are used interchangeably with traditional medicine in some countries (2). Traditional medicine is recognized as being important for safeguarding traditional livelihoods and supporting the well-being of people in all regions of the developing world (3, 4). According to World health organization (WHO), traditional medicine refers to "Health practices, approaches, knowledge and beliefs incorporating plant, animal, and mineralized medicine, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-

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being" (5). The common wisdom is that poor and marginalized people are highly reliant on traditional medicine for their healthcare (6), but recent global quantitative estimates of the prevalence of the use of traditional medicine do not exist. In 1982, the WHO estimated that 80% of the world's population relied exclusively or principally on traditional medicine for their healthcare (7).

More recently, increased attention has been focused on specific CAM therapies; including traditional East Asian medicine (8). Burke *et al.,* studies showed that in comparing the two medicines, the patient samples in both countries were significantly more satisfied with Traditional Medicine (TM) than Alternative Medicine (AM) (8).

The area of Kermanshah district is about 2463600 hectare located between North latitude 33º 36' and 35º 15' and between 45º24' and 48 º 30' East longitudes in west part of Iran (Figure 1). From 8000 of plant species in Iran more than 1200 species has grown in Kermanshah (9-13). The people who are living in Kermanshah in west part of Iran has different customs, cultures and climate conditions using traditional medicine, formulations generally are made by rural populations and transferring from ancient to modern people. According to historical documents these cultures are very ancient and belong to more than one thousand years (14). As the person to person information transferring is not relative, it is necessary to study different ancient medical procedure and document them. In this region medicinal plants are often the only easily accessible health care alternative for most of the population in rural areas and in fact folk herbal medicine is the most used remedy to cure common diseases. In this paper we present the most frequently used native species and the most common ethno-pharmaceutical preparations made from them, in order to preserve the plant popular knowledge, which has traditionally been only an oral one.

Experimental

Methods

In this study, several field trips were undertaken to different localities of rural and urban community in Kermanshah. During the survey, the plants medicinal knowledge about usage and treating various diseases were gathered from local healers via questionnaires and interviews Table 1. The snowball sampling method helps to find more relevant ancient healers. The traditional formulations, consumed materials and natural plants or animal components were registered in order to encourage them to give procedure of product preparation in detail.

Different type of disease and plant materials used in these methods and formulations were categorized and compared with modern scientific information.

After data gathering it will be possible to evaluate the registered information in comparison to modern therapeutic methods by making contemporary dosage forms. It is also possible to modify these formulations and verify the clinical effects by special physicians in the future. The plants used in the Kurdish ethno-medicine were identified by using floristic, taxonomic references in Agricultural and Natural Resources Research Center, Kermanshah (Iran).

Result

The results collected from about130 traditional physicians in 70 rural and district show in the following tables (Tables 2, 3). As it is showing in the Figure 2, 48 person of practitioner were female and the other healers were male. The distribution of different practitioner with different ages has shown in Figure 2. It was established that a large number of them had more than 50 years old. It is established that there is no affinity in young people in these rural to learn and also know about traditional medicine and also the ethno pharmaceutical formulation preparation.

According to the above tables it was established that in the traditional treatment in Kermanshah the most popular types of dosage forms that made by practitioner is restricted to some topical and oral dosage forms. But in some instances it is very important that refer to some specialized dosage forms like vaginal suppository and some elementary inhalants. It was established that about 50 plant species and 8 types of diseases and symptoms were distinguished by these people.

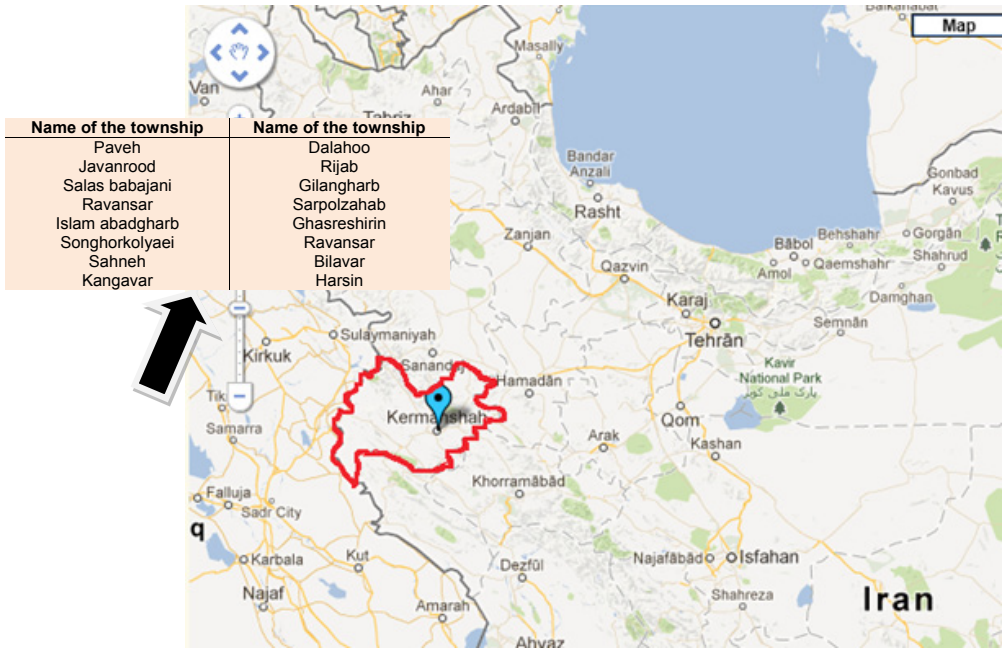

Figure 1. Study area map kermanshah Iran.

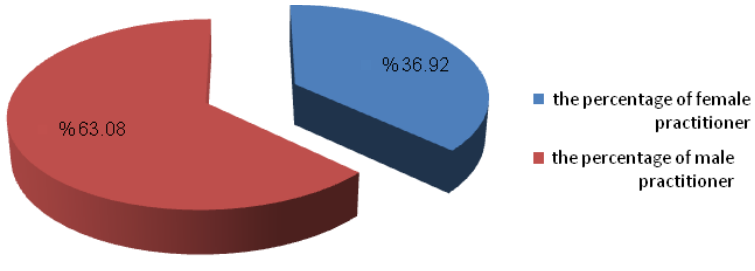

Figure 2. The sex distribution of practitioners.

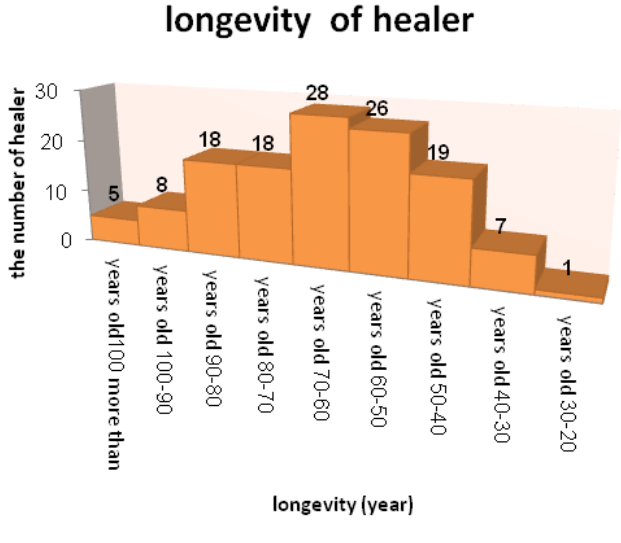

Figure 3. The longevity of practitioner.

Table 1. The sample of questionnaire.

		In the name of God		
Name:	**Family:**		**Job:**	**Education level:**
job history:	**Age:**		**Address:**	**gender:**
1.	What is the name of your therapeutic method?			
2.	What are the constituents of your formulation?			
3.	If you have any type of plants in your formulation please declare the name of plant, parts of used and the time of harvesting and the method of herbal preparation?			
4.	What is the method of making traditional preparation and storage?			
5.	What are the application methods?			
6.	What are the traditional indications of your preparation?			
7.	Have seen any side effects from this preparation?			
8.	Does your preparation have any interaction with other chemicals or natural materials?			
9.	What is your advice for duration of drug application?			
10.	What are the results of drug application for your formulation?			
11.	How many people have used this formulation until now?			
12.	Would the subjects like to use this formulation again?			

Table 2. Plants consumed in Kermanshah province, along with ethno-medicine formulations.

Row	**Scientific name**	**Family name**	**Common name**	**Parts used**	**Traditional application for clinical symptoms and diseases**	**Dosage form**	**The consumption**
1	*Adiantum capillus-veneris* L.	Pteridaceae	Ghitaran	Leaf	Dissolves renal calculi	Infusion	Oral
					Abdominal pain control	Infusion	Oral
					Dysuria relief	Infusion	Oral,
					Bechic	Decoction	Oral
2	*Alium colchicifolium* Boiss.	Alliaceae	Koul	Whole plant	Reduce blood cholesterol	Decoction	Oral
3	*Arum conphalloides* Ky.exschott	Araceae	Ghaz or Haz	Leaf	Laxative	Soup	Oral
					Anti helmintic	Soup	Oral
					Hypotensor	Decoction	Oral
					Tonic for pregnant women	Soup	Oral
4	*Astragalus hamosus* L.	Leguminosae	Gochaneh-gia	Fruit	Dissolves renal calculi,	Decoction	Oral
					Headache relief	Moist fumigation	Inhalation
					Anti gastric,	Decoction	Oral
					Treatment of vaginitis	Moist fumigation	Vaginal
5	*Capparis spinosa* L.	Capparaceae	Kalak-Maraneh	A: Root B: Fruit	Analgesic	Fresh paste	Topical
					Diabetes control,	Powder	Oral
					Dissolves renal calculi	Decoction	Oral
6	*Cardaria draba* (L.) Desv	Brassicaceae	Ghenavleh	Leaf	Laxative,	Decoction,	Oral
					Anti-headache,	Plaster	Topical
					Anti gastric	Soup	Oral
7	*Carthamus oxyacantha* M.B	Asteraceae	Zarde-siri	Aerial parts	Burn healing	Paste	Topical
8	*Cephalaria dichaetophora* Boiss	Dipsacaceae	Meroor	Seed	Diabetes control	Decoction	Oral
9	*Coriandrum sativum* L.	Apiaceae	Geshnij	Seed	Diabetes control	Powder,	Oral,
					Carminative	Decoction,	Oral
					Gout control	Decoction	Oral

Table 2. (Continued).

10	*Dorema aucheri* Boiss.	Apiaceae	Zou	Root	Burn healing,	Fresh paste	Topical
					Cornicide	Fresh paste	Topical
11	*Echinophora platyloba* DC.	Apiaceae	Keravi	Aerial parts	Dissolves renal calculi,	Sweat	Oral
					Bechic,	Infusion	Oral
					Anti aphthous	Decoction	Mouth wash
12	*Euphorbia helioscopia* L.	Ehphorbiaceae	Shir-khoshi	Aerial parts	Antiseptic environment	Dry fumigation	Smoke spread in the environment,
					Purgative	Fresh latex	Oral
13	*Falcaria vulgaris* bernh.	Apiaceae	Paghaze	Leaf	Carminative	Decoction	Oral
					Febrifuge	Decoction	Oral
					Vulnerary	Powder	Topical
					Stomachic	Decoction	Oral
					Hemostatic	Powder	Topical
14	*Ferulago angulata* (schlecht.) Boiss.	Apiaceae	Chenour	Aerial parts	Oil preservative	Powder	Oral
15	*Fritillaria imperialis* L.	Liliaceae		Bulb	Cure wounds	Powder	Topical
16	*Glycyrrhiza glabra* L.	Leguminosae	Balak Common name	Root	Treatment of vaginitis	Decoction	Vaginal
					Quit smoking	Decoction	Oral
					Anti-ulcer,	Decoction	Oral
					Anti-aphthous	Decoction	Mouth wash
17	*Gundeliato urnefortii* L.	Asteraceae	Ghenger	Root	Burn healing	Paste	Topical
18	*Hyoscyamus niger* L.	Solanaceae	Barazha	Aerial parts	Anti-eczema,	Dry fumigation,	Topical
					Burn healing	Ointment	Topical
19	*Johernia aromatic* Rech. F.	Umbelliferae	Baraza	A: Leaf B: Root	Dissolves renal calculi	Decoction	Oral
					Cornicide	Decoction	Topical
20	*Marrubium cuneatum* Russell.	Lamiaceae	Now sake	Aerial parts	Anti-migraine	Moist fumigation	Inhalation
21	*Melilotus officinalis* Lam.	Fabaceae	Shaoudar	Aerial parts	Vulnerary	Fresh paste	Topical
					Dissolves renal caculi	Infusion	Oral
22	*Melissa officinalis* L.	Lamiaceae	Fatmah darou	Aerial parts	Anti-histamine and anti-pruritus	Decoction	Oral
					Diabetes control	Decoction	Oral
23	*Mentha longifolia* (L.) Hudson.	Lamiaceae	Ponah	Aerial parts	Anti-diarrhea	Powder	Oral
					Abdominal pain control	Decoction	Oral
					Pectoral	Decoction	Oral
24	*Nasturtium officinale (L.) R. Br.*	Brassicaceae	Kouzalah	Leaf	Treatment of vaginitis	Decoction	Oral
25	*Nigella sativa* L.	Ranunculaceae	Siya-sonoy	Seed	Galactogogue	Decoction	Oral
					Anti-hyperpigmentation	Powder	Topical
					Anti-scar	Powder	Topical
26	*Onopordon heteracanthum* C. A. Mey	Compositae	Kar-koul	Flower	Anti-hemorrhoid	Ointment	Rectal
					Anti-spot	Paste	Topical
					Hypotensor	Decoction	Oral
					Dissolves renal caculi	Juice	Oral
27	*Onosma rostellatum* Lehm.	Boraginaceae	Asalak	Root	Burn healing	Ointment	Topical
					Vulnerary	Ointment	Topical

Table 2. (Continued).

28	*Papaver rhoeas* L.	Papaveraceae	Kasa-shekan	Flower	Anti-acne	Extract mixed with yogurt	Topical
					Bechic	Infusion	Oral
					Ocular anti inflammatory	Infusion	Ophthalmic drop
					Anti-cold	Infusion	Oral
29	*Peganum harmala* L.	Zygophyllaceae	Espan	Seed	Antiseptic environment	Dry fumigation	Smoke spread in the environment (air)
					Hemostatic	Inspissated juice	Topical
30	*Phlomis olivieri* Benth.	Lamiaceae	Gobarekhe	Leaf	Vulnerary	Soft extract	Topical
31	*Plantago lanceolata* L.	Plantaginaceae		Leaf	Overcoming infertility in women	Suppository	Vaginal
32	*Plantago major* L.	Plantaginaceae	Hara-kishah	Leaf	Analgesic	Fresh paste	Topical
					Vulnerary	Powder	Topical
					Maturative	Fresh paste	Topical
33	*Portulaca oleracea* L.	Portulacaceae	Degan-tijkar	Seed	Gout control	Decoction	Oral
					Anti-acne	Decoction	Oral
34	*Rheum ribes* L.	Polygonaceae	Revas	Aerial parts	Dissolves renal caculi	Fresh juice	Oral
					Rheumatic pains control	Decoction	Oral
					Anti-diarrhea	Powder	Oral
35	*Rumex elbursensis* Boiss.	Polygonaceae	Tourshakeh	Flower	Burn healing	Powder mixed with	Oral
					Diabetes control	yogurt, Fresh fruit	Oral
					Anti-diarrhea	Decoction, Soft	Oral
					Anti-ulcer	Extract	Oral
36	*Rumex ephedroides* Bornm.	Polygonaceae	Tourshak	Leaf	Bechic	Decoction	Oral
37	*Scrophularia striata* Boiss.	Scrophulariaceae	Zengla-bechek	Aerial parts	Vulnerary	Decoction	Topical
					Burn healing	Decoction	Topical
					Anti-ulcer	Decoction	Oral
					Anti- dandruff	Decoction	Topical
					Bechic	Decoction	Oral
38	*Sesamum indicum* L.	Pedaliaceae	Konji	Seed	Burn healing	Ointment	Topical
39	*Smyrnium cordifolium* Boiss.	Apiaceae	Gonour	Root	Anti- helmintic	Decoction	Oral
40	*Solanum nigrum* L.	Solanaceae	Rezleh	Fruit	Anti- eczema	Dry fumigation	Skin contact with the smoke
					Anti-toothache	Dry fumigation	Mouth contact with the smoke
41	*Stachys lavandulifolia* Vahl.	Lamiaceae	Goula-chay	Aerial parts	Carminative	Infusion	Oral
					Abdominal pain control	Infusion	Oral
					Dysuria relief	Decoction	Oral
					Anti- diarrhea	Decoction	Oral
42	*Tragopogon collinus* DC.	Asteraceae	Sheng	Leaf	Digestive	Powder	Oral
43	*Thymus kotschyanus* Boiss. et Hohen	Lamiaceae	Azbovah	Aerial parts	Anti-ulcer	Decoction	Oral
					Treatment of vaginitis	Moist fumigation	Vaginal
					Bechic	Decoction	Oral
44	*Tribulus terrestris* L.	Zygophyllaceae	Pey-kol	Fruit	Dissolves renal caculi	Decoction	Oral
45	*Trifolium repens* L.	Fabaceae	Shoudar	Aerial parts	Treat neonatal jaundice	Fresh juice	Oral

Table 2. (Continued).

46	*Trigonella monatha* G. A. Mey	Fabaceae	Shemlieh	Seed	Burn healing, Calamative	Powder, Decoction	Oral, Oral
47	*Urtica dioica* L.	Urticaceae	Gazanah	Leaf	Control of nasal bleeding	Fresh juice	Nasal drop
					Diabetes control	Decoction	Oral
					Anti-hemorrhoid	Soft extract	Rectal
48	*Vicia sativa* L.	Fabaceae	Gayanah	Fruit	Diabetes control	Decoction	Oral
49	*Viscum album* L.	Viscaceae	Mowkherr	Fruit	Anti-acne	Paste	Topical
50	*Ziziphora cliniopodioides* Lam.	Lamiaceae	Azbovah	Leaf and Flower	Vulnerary	Powder	Topical
					Ocular anti inflammatory	Decoction	Ophthalmic drop
					Anti-headache	Moist fumigation	Inhalation
					Anti-diarrhea	Decoction	Oral
					Calamative	Decoction	Oral

Table 3. Ethno-pharmaceutical formulations in Kermanshah traditional medicine.

Row	Illness	**Formulation components**	**Forms of drug**	**The consumption**
1	Ulcer	A:*Punica granatum* L. fruit powder *Pistacia mutica* Fisch.et My. gumtree *Quereus persica* J.&SP fruit powder White tragacant Honey	Mixed	Oral
		B: *Falcaria vulgaris* bernh. leaf *Astragalus hamosus* L. fruit *Tribulus terrestris* L. fruit *Ziziphora cliniopodioides* Lam. aerial parts *Glycyrrhiza glabra* L. root *Alcea* spp.flower	Decoction	Oral
2	Headache	A: *Nerium oleander* L. leaf *Salix alba* L. leaf *Persica vulgaris* L. leaf	Moist fumigation	Inhalation
		B: *Apium petroselinum* L. leaf *Ocimum basilicum* L. leaf *Allium cepa* L. bulb	Juice	Topical
3	Diarrhea	A: *Quereus persica* J.&SP fruit powder *Vitis* spp. leaf powder *Rhus coriara*L. fruit powder Eggshell powder Yoghurt	Mixed	Oral
		B: *Mentha longifolia* (L.) Hudson. aerial parts *Stachys lavandulifolia* Vahl. leaf *Ziziphora cliniopodioides* Lam. leaf *Matricaria chamomilla* L. flower Candy	Decoction	Oral
		C: *Mentha longifolia* (L.) Hudson. aerial parts *Pistacia mutica* Fisch.et My. unripe fruit powder *Punica granatum* L. fruit powder Yoghurt	Mixed	Oral
4	Diabetes	A: *pistaciamutica*Fisch.et My.Leaf *Cerasus microcarpa* (C.R.Mey) Boiss. leaf *Rosa canina* L. fruit *Capparis spinosa* L. fruit *Crata gus pseudoheterophylla* Pojark. fruit *Juglans regia* L. leaf	Decoction	Oral

Table 3. (Continued).

5	Renal caculi	A: *Astragalus hamosus* L. fruit *Capparis spinosa* L. fruit *Tribulus terrestris* L. fruit *Echinophora platyloba* DC. aerial parts *Melilotus officinalis* Lam. aerial parts	Decoction	Oral
		B:*Rheum ribes* L. aerial parts *Onopordon heteracanthum* C. A. Mey. flower *Crataegus pseudoheterophylla* Pojark. leaf *Johernia aromatica* Rech. F. leaf	Juice	Oral
6	Wound	A: *Falcaria vulgaris* bernh. Leaf *Scrophularia striata* Boiss. aerial parts *Alcea* spp.flower *Quereus persica* J.&SP leaf *Rubus sanctus* L. leaf & root *Amygdalus eburnean* spach. Leaf	Decoction	Topical
		B: *Falcaria vulgaris*bernh. leaf powder *Plantago major* L. leaf powder *Pistaciamutica*Fisch.et My. gumtree Bee wax Rump	Mixed	Topical
		C: *pistacia mutica* Fisch.et My. gumtree *Ziziphora cliniopodioides* Lam. aerial parts powder *Matricaria chamomilla* L. flower powder *Smyrnium cordifolium* Boiss. root powder Honey	Mixed	Topical
7	Burn	A: *Scrophularia striata* Boiss.. aerial parts *Onosmaro stellatum* Lehm. root *Rubus sanctus* L. leaf & root *Pistaciamutica*Fisch.et My. gumtree Butter	Ointment	Topical
		B: *Onosmarostellatum*L. Root *Pistacia mutica* Fisch.et My. gumtree *Alcea* spp.flower White tragacant Bee wax Butter	Ointment	Topical
		C:*Sesamumindicum* L. fruit *Quercus infectoria* Oliv. galle powder *Hordeum vulgare* L. ash *Zizyphus vulgari*s Lam. Fruit Yoghurt	Mixed	Topical
8	Infertility	A: *Eryngium thyrosoideum* Boiss. Root *Phoenix dactylifera* L. fruit Rump	Suppository	Vaginal
		B: *Plantago laonceolata* L. *Crocus sativus* L. Rump	Suppository	Vaginal
		C: *Nasturtium officinale* (L.) R. Br. aerial parts *Ziziphora cliniopodioides* Lam. Leaf *Ulmus carpinifolia* Gleditsch.	Moist fumigation	Vaginal

The types of diseases that were treated in traditional medicine are related to some simple diseases that possible to distinguish or problems caused by trauma.

According to the new investigations some of these plants with most consumption in these places are certified in modern or traditional Iranian medicine that some of these plants are discussed at the following:

Punica granatum L. or pomegranates

This plant is cultivated in the west part of Iran and used in the Kurdish traditional medicine as an anti-diarrhea and ulcer healer. It was used in different preparation mixed with other plants for treating the above diseases in oral dosage form. In modern medicine it is also used as a proper plant for removing the bacterial and fungal infections as a mouthwash (15, 16). The presence of active constituents like tannic acid or alkaloids certifies that it could be useful as an anthelmintic or the antiviral drug (17). Other Investigators have established that, Juice consumption may also inhibit viral infections while pomegranate extracts have antibacterial effects against dental plaque (18-20). Table 3 showed that in traditional Kurdish medicine, pomegranate application for treating ulcer may be related to its antibacterial and anti-fungal effects which has also established in modern medicine. The anti-diarrheal effect of this plant is also similar between traditional Kurdish and modern medicine because the presence of the tannins could have an important role in diarrhea prevention (row 1and 3 Table 3).

Glycyrrhiza glabra L. or Liquorice

This is a self-grown plant medicine in the area under the investigation in Kermanshah. Usually the farmers get rid of a large amount of this herb as weeds. Liquorice grows best in deep valleys, well-drained soils, with full sun, and is harvested in the autumn, two to three years after planting (21).

This plant was used in the treatment of diseases and symptoms like vaginitis, Quit smoking, Anti-ulcer, Anti-aphthous in local traditional medicine. These findings are in accordance with the modern medicine. Recent studies indicate that glycyrrhizic acid disrupts latent Kaposi›s sarcoma (as also demonstrated with other herpesvirus infections in the active stage), exhibiting a strong anti-viral effect. The Chinese use liquorice to treat Tuberculosis. It was reported that liquorice inhibits *Helicobacter pylori*; therefore, it is used as an aid for healing stomach and duodenal ulcers and in moderate amounts may soothe an upset stomach. Liquorice can be used to treat ileitis, leaky gut syndrome, irritable bowel syndrome and Crohn›s disease as it is antispasmodic in the bowels (22-24).

Plantago major L. («broadleaf plantain» or «greater plantain»)

Plaintain is found all over the world, and is one of the most abundant and accessible medicinal herbs (25). It contains many bioactive compounds, including allantoin, aucubin, ursolic acid, flavonoids, and asperuloside (26-28). Scientific studies have shown that plantain extract has a wide range of biological effects, including wound healing activity, anti-inflammatory, analgesic, antioxidant, weak antibiotic, immuno modulating and antiulcerogenic activity (28). In this study the medicinal effects of plaintain was used for wound treating. It is obvious that some types of plantago local applications are compatible with modern medicine.

Juglans regia L. the constituents of this plants are quinones, oil, tanin, fatty acids like cis- linoleic acid and linoleic acid. It is also contains folic acid, furural, einositol, Juglone, triptophan, catechictanins and flavonoides derivatives like hyperoside and jouglanin, and vitamin C. According to the presence of the above constituents, anti-fungal, antimicrobial, insecticide, anti-tumor and weeds growth inhibition effects have been established for this plant (29, 30).In modern medicines similar to traditional medicine in Kermanshah, the preparations prepared from leafs of juglans showed an anti-diabetic effects (30).

Quercus Spp. Or Oak

According to modern investigation, Oak has shown good effects on viral and bacterial infections. It has also shown a proper application in wound healing (31-33). As it is mentioned in the Table 3, this plant is used in burn treating as a wound healing and antibacterial agent in

traditional medicine in Kermanshah province.

Discussion

As it is shown in Figure 3 the maximum number of healer has more than 50 years old. This is proved that there is no affinity in young people in these rural to learn and also know about traditional medicine and also the ethno pharmaceutical formulation preparation. Therefore it is necessary to continue studies like this research and document different type of ethno pharmaceutical formulations. This matter is similar to the results of other researches about the ethno-pharmaceutics in other places in Iran. Abdolbaset Ghorbani, were established that there is same problems in documenting the ethno-pharmaceutical formulations in Turkeman society (34).With changes in the environment and life conditions it is common that in most of the ethno-botanical works informants believe that more medicinal plants were in use in past than now (35) and this work is no exception in this regard. This is as a result of the modern care system expansion and using synthesized medicines. Also the continued environmental degradation of medicinal plant habitats has brought the depletion of medicinal plants and the associated knowledge. Knowledge of medicinal plants is disappearing because most of the people with medicinal plant knowledge are passed away without properly passing their knowledge to the next generations. Today there are few professional healers (Tebibs) in the area, which regularly serve the community. Most of the knowledge of medicinal plants is owned by elders, who use the plants for their own families. Also elder women and traditional midwifes have important role in keeping home remedies, but they have fear to use their knowledge for the other families because the modern medical care system has banned them from using these practices. Unlike to Ghorbani›s investigation in this work, we could properly record the knowledge of women because there was no any problem to get information from woman›s healers (34). Unlike to other studies the common name of different plants in the rural and villages of Kermanshah are different and in some cases the plants with the same name had different common name and vice versa. Therefore, after sampling we tried to find the scientific name of the plants which mentioned in Table 2.

The most interesting point that exploited from the healers responses to the questionnaire, was that the reported side effects from those therapeutic methods were seldom. They also mentioned that, they haven't seen any interaction with other materials and they were suggesting confidentially those methods to patients. In some cases they were some volunteers that concerned to continue the treatment. The number of people who used the ethno pharmaceutical formulations was more than thousands of subjects.

Although, according to novel methods of medicinal treatment, all of these procedures are not fully acceptable, but it is necessary to start investigating on the evaluation of these formulations on different type of diseases, using modern procedure of clinical trials and laboratory instruments in order to established or reject the efficacy of these therapeutic methods.

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