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آموزش مهارت های کاربردی در تدوین و چاپ مقاله
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 According to historical documents these cultures are very ancient and belong to more than one thousand years.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-
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 about 130 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.

**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).
Figure 1. Study area map kermanshah Iran.

| Name of the township | Name of the township |
|----------------------|----------------------|
| Paveh                | Dalahoo              |
| Javanood             | Rijab                |
| Salas babajani       | Gilangharb           |
| Ravansar             | Sarpozahab           |
| Islam abadgharb      | Ghasreshrin          |
| Songhorkolyaei       | Rijab                |
| Sahveh               | Bilavar              |
| Kangavar             | Harsin               |

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 | Rool | 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 | Gochanegia | Fruit | Dissolves renal calculi, Headache relief | Decoction | Oral |
|     |                     |            |            |           | Anti gastric, Treatment of vaginitis | Moist fumigation | Inhalation |
| 5   | Capparis spinosa L. | Capparaceae | Kalak-Maraneh | A: Root B: Fruit | Analgesic, Diabetes control, Dissolves renal calculi | Powder | Oral |
|     |                     |            |            |           | Fresh paste, | Decoction | Oral |
| 6   | Cardaria draba (L.) Desv | Brassicaceae | Ghenavleh | Leaf | Laxative, | Plaster | Topical |
|     |                     |            |            |           | Anti-headache, |            |     |
|     |                     |            |            |           | Anti gastric | Soup | Oral |
| 7   | Carthamus oxyacantha M.B | Asteraceae | Zarde-siri | Aerial parts | Burn healing | Paste | Topical |
| 8   | Cephalaria dichaeaphora Boiss | Dipsacaceae | Meroor | Seed | Diabetes control | Decoction | Oral |
|     |                     |            |            |           | Diabetes control | Powder, | Oral, |
| 9   | Coriandrum sativum L. | Apiaceae | Geshnij | Seed | Carminative | Decoction, | Oral |
|     |                     |            |            |           | Gout control | Decoction | Oral |
Table 2. (Continued).

| No | Plant Name                          | Family       | Part   | Ethnopharmacological Use                        | Preparation          | Route    |
|----|------------------------------------|--------------|--------|-----------------------------------------------|----------------------|----------|
| 10 | *Dorema aucheri* Boiss.            | Apiaceae     | Root   | Burn healing, Cornicide                       | Fresh paste          | Topical  |
|    |                                    |              |        |                                               | Fresh paste          |          |
| 11 | *Echinophora playaloba* DC.        | Apiaceae     | Aerial parts | Dissolves renal calculi, Bechic, Anti aphthous | Infusion, Decoction  | Oral     |
|    |                                    |              |        |                                               |                      |          |
| 12 | *Euphorbia helioscopia* L.         | Elphorbiaceae| Aerial parts | Antiseptic environment                         | Dry fumigation       | Smoke wash |
|    |                                    |              |        |                                               |                      |          |
| 13 | *Falcaria vulgaris* bernh.         | Apiaceae     | Leaf   | Carminative                                    | Decoction            | Oral     |
|    |                                    |              |        |                                               |                      |          |
| 14 | *Ferulago angulata* (schlech.)     | Apiaceae     | Aerial parts | Treatment of vaginitis                        | Powder               | Oral     |
|    | Boiss.                             |              |        |                                               |                      |          |
| 15 | *Fritillaria imperialis* L.        | Liliaceae    | Bulb   | Cure wounds                                    | Powder               | Topical  |
|    |                                    |              |        |                                               |                      |          |
| 16 | *Glycyrrhiza glabra* L.            | Leguminosae  | Balak Common name | Treatment of vaginitis                        | Decoction            | Vaginal  |
|    |                                    |              |        | Quot smoking                                   |                      |          |
|    |                                    |              |        | Anti-fae,                                      | Decoction            | Oral     |
|    |                                    |              |        | Anti-aphthous                                  |                      |          |
| 17 | *Gundeliatro urnefortii* L.        | Asteraceae   | Root   | Burn healing                                   | Paste                | Topical  |
|    |                                    |              |        |                                               |                      |          |
| 18 | *Hyoscyamus niger* L.              | Solanaceae   | Aerial parts | Anti-eczema, Burn healing                      | Dry fumigation, Ointment | Topical  |
|    |                                    |              |        |                                               |                      |          |
| 19 | *Johernia aromatic* Rech. F.       | Umbelliferae | Baraza A: Leaf B: Root | Dissolves renal calculi                        | Decoction            | Oral     |
|    |                                    |              |        | Cornicide                                      |                      |          |
| 20 | *Marrubium cuneatum* Russell.      | Lamiaceae    | Aerial parts | Anti-migraine                                  | Moist fumigation     | Inhalation |
|    |                                    |              |        |                                               |                      |          |
| 21 | *Melilotus officinalis* Lam.       | Fabaceae     | Aerial parts | Vulnerary                                      | Fresh paste          | Topical  |
|    |                                     |              |        | Dissolves renal calculi                        | Infusion             | Oral     |
| 22 | *Melissa officinalis* L.          | Lamiaceae    | Fatmah darou | Anti-histamine and anti-pruritus               | Decoction            | Oral     |
|    |                                     |              |        | Diabetes control                               |                      |          |
|    |                                     |              |        |                                               |                      |          |
| 23 | *Mentha longifolia* (L.) Hudson.   | Lamiaceae    | Aerial parts | Anti-diarrhea                                  | Powder               | Oral     |
|    |                                     |              |        | Abdominal pain control                         | Decoction            | Oral     |
|    |                                     |              |        |                                               |                      |          |
| 24 | *Nasturtium officinale* (L.) R. Br.| Brassicaceae | Leaf   | Treatment of vaginitis                         | Decoction            | Oral     |
|    |                                     |              |        |                                               |                      |          |
| 25 | *Nigella sativa* L.               | Ranunculaceae| Siya-sonoy | Galactogogue                                   | Decoction            | Oral     |
|    |                                     |              |        | Anti-hyperpigmentation                         | Powder               | Topical  |
|    |                                     |              |        | Anti-scar                                      | Powder               | Topical  |
| 26 | *Onopordon heteracanthum* C. A. Mey| Compositae   | Kar-koul | Anti-hemorrhoid                                | Ointment             | Rectal   |
|    |                                     |              |        | Anti-spot                                      | Paste                | Topical  |
|    |                                     |              |        | Hypotensor                                     | Decoction            | Oral     |
|    |                                     |              |        | Dissolves renal calculi                        | Juice                |          |
| 27 | *Onosma rostellatum* Lehmann.      | Boraginaceae | Aasalak | Burn healing                                   | Ointment             | Topical  |
|    |                                     |              |        | Vulnerary                                      | Ointment             | Topical  |

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| No. | Plant Name                  | Family            | Part          | Action 1                  | Composition          | Application                      |
|-----|-----------------------------|-------------------|---------------|---------------------------|----------------------|----------------------------------|
| 28  | *Papaver rhoes L.*          | Papaveraceae      | Kashekan Flower | Anti-acne                 | Extract mixed with yogurt | Oral                            |
|     |                             |                   |               | Bechic                    | Infusion             | Ophthalmic drop                 |
|     |                             |                   |               | Ocular anti inflammatory  | Infusion             | Oral                            |
|     |                             |                   |               | 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    | Harakishah Leaf | Analgesic                 | Fresh paste          | Topical                          |
|     |                             |                   |               | Vulnerary                 | Powder               | Topical                          |
|     |                             |                   |               | Maturative                | Fresh paste          | Topical                          |
| 33  | *Portulaca oleracea L.*     | Portulacaceae     | Degantijkar 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   | Powder               | Oral                            |
|     |                             |                   |               | Anti-diarrhea             | Decoction            | Oral                            |
| 35  | *Rumex elbursensis Boiss.*  | Polygonaceae      | Tourshakeh Flower | Burn healing              | Powder mixed with yogurt, Fresh fruit | Oral |
|     |                             |                   |               | Diabetes control          | Decoction, Soft      | Oral                            |
|     |                             |                   |               | Anti-diarrhea             | Powder               | Oral                            |
|     |                             |                   |               | Anti-ulcer                | Extract              | Oral                            |
| 36  | *Rumex ephedroides* Bornm.  | Polygonaceae      | Tourshak Leaf | Bechic                    | Decoction            | Oral                            |
| 37  | *Scrophularia striata* Boiss.| Scrophulariaceae | Zangla-bechek Aerial parts | Anti-ulcer              | Decoction            | Oral                            |
|     |                             |                   |               | Anti-dandruff             | Decoction            | Oral                            |
|     |                             |                   |               | Bechic                    | Decoction            | Oral                            |
| 38  | *Sesamum indicum L.*        | Pedaliaceae       | Konji Seed    | Burn healing              | Ointment             | Topical                          |
| 39  | *Smyrnium cordifolium* Boiss.| Apiaceae         | Gionour 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 | Arzovah 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 |
| 48 Vicia sativa L. | Fabaceae | Gayanah | Fruit | Diabetes control | Decoction | Oral |
| 49 Viscum album L. | Visceae | Mowkherr | Fruit | Anti-acne | Paste | Topical |
| 50 Ziziphora clinopodioides | 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, Querues persica J.&SP fruit powder, White tragacant, Honey | Mixed | Oral |
| | | B: Falcaria vulgaris bernh. leaf, Astragalus hamousus L. fruit, Tribulus terrestris L. fruit, Ziziphora clinopodioides 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 |
| | | A: Querues persica J.&SP fruit powder, Vitis spp. leaf powder, Rhus cotigraed. fruit powder, Eggshell powder, Yoghurt | Mixed | Oral |
| | | B: Mentha longifolia (L.) Hudson. aerial parts, Stachys lavandulifolia Vahl. leaf, Ziziphora clinopodioides Lam. leaf, Matricaria chamomilla L. flower, Candy | Decoction | Oral |
| 3 | Diarrhea | A: Querues persica J.&SP fruit powder, Vitis spp. leaf powder, Rhus cotigraed. fruit powder, Eggshell powder, Yoghurt | Mixed | Oral |
| | | B: Mentha longifolia (L.) Hudson. aerial parts, Stachys lavandulifolia Vahl. leaf, Ziziphora clinopodioides 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: pistaciamuticaFisch.et My. Leaf, Cerasus microcarpa (C.R.Mey) Boiss. leaf, Rosa canina L. fruit, Capparis spinosa L. fruit, Craita gus pseudoheterophylla Pojark. fruit, Juglans regia L. leaf | Decoction | Oral |
| Renal calculi | Oral Decoction | Oral Juice |
|---------------|----------------|------------|
| A: Astragalus hamosus L. fruit | Decoction | Oral |
| Capparis spinosa L. fruit | Decoction | Oral |
| Tribulus terrestris L. fruit | Decoction | Oral |
| Echinophora platyleoba DC. aerial parts | Decoction | Oral |
| Melilotus officinalis Lam. aerial parts | Decoction | Oral |
| B: Rheum ribes L. aerial parts | Juice | Oral |
| Onopordon heteracanthum C. A. Mey. flower | Juice | Oral |
| Crotaegus pseudoheterophylla Pojark. leaf | Juice | Oral |
| Johernia aromatica Rech. F. leaf | Juice | Oral |

| Wound | Topical Decoction | Topical Mixed |
|-------|------------------|---------------|
| A: Falcaria vulgaris bernh. Leaf | Decoction | Mixed |
| Scrophularia striata Boiss. aerial parts | Decoction | Mixed |
| Alcea spp. flower | Decoction | Mixed |
| Quereus persica J & SP leaf | Decoction | Mixed |
| Rubus sanctus L. leaf & root | Decoction | Mixed |
| Amygdalus eburnean spach. Leaf | Decoction | Mixed |
| B: Falcaria vulgaris bernh. leaf powder | Decoction | Mixed |
| Plantago major L. leaf powder | Decoction | Mixed |
| Pistacia mutica Fisch. et My. gumtree | Decoction | Mixed |
| Bee wax | Decoction | Mixed |
| Rump | Decoction | Mixed |
| C: pistacia mutica Fisch. et My. gumtree | Decoction | Mixed |
| Zizyphora clinopodioides Lam. aerial parts powder | Decoction | Mixed |
| Matricaria chamomilla L. flower powder | Decoction | Mixed |
| Smymnium cordifolium Boiss. root powder | Decoction | Mixed |
| Honey | Decoction | Mixed |

| Burn | Topical Ointment | Topical Mixed |
|------|------------------|---------------|
| A: Scrophularia striata Boiss. aerial parts | Ointment | Mixed |
| Onosmaro stellatum Lehm. root | Ointment | Mixed |
| Rubus sanctus L. leaf & root | Ointment | Mixed |
| Pistacia mutica Fisch. et My. gumtree | Ointment | Mixed |
| Alcea spp. flower | Ointment | Mixed |
| White tragacant | Ointment | Mixed |
| Bee wax | Ointment | Mixed |
| Butter | Ointment | Mixed |
| C: Sesamun indicum L. fruit | Ointment | Mixed |
| Quercus infectoria Oliv. galle powder | Ointment | Mixed |
| Hordeum vulgare L. ash | Ointment | Mixed |
| Zizyphus vulgaris Lam. Fruit | Ointment | Mixed |
| Yoghurt | Ointment | Mixed |

| Infertility | Vaginal Suppository | Vaginal Suppository |
|-------------|---------------------|---------------------|
| A: Eryngium thyrosoideum Boiss. Root | Suppository | vaginal |
| Phoenix dactylifera L. fruit | Suppository | vaginal |
| Rump | Suppository | vaginal |
| B: Plantago lanceolata L. | Suppository | vaginal |
| Crocus sativus L. | Suppository | vaginal |
| Rump | Suppository | vaginal |
| C: Nasturtium officinale (L.) R. Br. aerial parts | Suppository | vaginal |
| Zizyphora clinopodioides Lam. Leaf | Suppository | vaginal |
| Ulmus carpinifolia Gleditsch. | Suppository | 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»)**

Plantain 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 plantain 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 midwives 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 women’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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