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Collection and identification of medicinal plants used by the indigenous people of Mobarakeh (Isfahan), southwestern Iran

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ABSTRACT

Background & Aim: Knowledge of the traditional application of plants is declining faster than the plants themselves; this study was conducted to record and store the local knowledge and cultural outcomes for using the medicinal plants in treating diseases in Mobarakeh region, Isfahan, Iran.
Experimental: This study has done based on applying the desert survey, information of local people, and identification, classification and introducing these plants. Then the plant species were collected and transferred to the department of botany in Isfahan Research Center for Natural Resources in order to be identified after drying and preparing their herbarium.
Results & Discussion: Finally, 200 plant species were identified; from which 75 ones, belonged to 73 genera, and 33 families with medicinal properties, were identified. From this number, 75% are herbaceous, ten percent shrubby and 15 percent are arboreous. The highest number of medicinal species belongs to the Lamiaceae family with nine species, Asteraceae family with eight species, Rosaceae family with six species, and the families Apiaceae, Papilionaceae, and Brassicaceae with five species. These plants are used in traditional medicine for treatment of gastrointestinal ailments, relaxation, cough, diarrhea, low blood sugar, and hyperlipidemia.
Recommended applications/industries: According to results of this study, the preservation and conservation of some herbs species is essential. This document can play a role in preserving the indigenous knowledge of using these plants.

1. Introduction

Since the beginning of civilization, humans have used plants as the medicine. Neanderthal humans might also believe that the plants had the healing powers. The history of medicine in our country dates back to the Aryan period and Avesta, 6500 BC, was the first book introduced the medicinal plants. Medicinal plants are the herbs with interesting and outstanding history. In addition to the ancient history, these plants are so noteworthy in the history of religions and nations, so that they have been taken into account in all important historical, political, social and religious events or have caused important events (Ziaei, 2002).

Study of medicinal plants species is so important in terms of increasing trends and willingness to use medicinal plants due to the fewer side effects, lower cost and easier access compared with the chemical drugs (Siadaty & Siadaty, 2007). Therefore, identifying the medicinal plants in the field of natural resources in each region is one of the fundamental steps in the sustainable development of medicinal plants. In recent years, the results of ethnobotany studies have played a remarkable role in research of medicinal plants and herbal therapy around the world. Ethnobotanic studies have been used in order to discover and develop new drugs (Hayat *et al*., 2008; Ghasemi Pirbalouti, 2009; Ghasemi Pirbalouti et al., 2013).

Several surveys have been done on medicinal plants in Iran, including collection, identification and conservation of important medicinal plants seeds in Isfahan province. These surveys have been conducted in Natural Resources Research Center of Isfahan province. 150 medicinal species were collected in this study (Esmaili Sharif, 2002). During the recent years, Iranian researchers have conducted several studies in the field of identification, introduction and consumption method of medicinal and aromatic plants in different regions (Ghorbani, 2005; Ghasemi Pirbalouti, 2009; Sharififar et al., 2012; Abbasi et al., 2012; Mosaddegh et al., 2012; Ghasemi Pirbalouti et al., 2013). Given that the use of medicinal plants has different customs, traditions and ways in different regions, the methods and applications of these plants are different in various regions.

Studied region, Mobarakeh, is considered as one of the industrial and agricultural hubs of Isfahan province, Iran. Development of this city dates back to the Safavid era. Due to the history of people's knowledge in this land and the lack of reliable scientific sources in this regard, conducting the research about the traditional medicine in this region is essential. The objective of this study is to identify some of the important medicinal plants widely used by locals in the treatment of diseases.

2. Methods

2.1. Studied region

Mobarakeh city is located in 65 kilometers southwestern of Isfahan, Iran with longitude between 51º 13´ to 51º 48´ E, latitude between 32º 03´ to 32º 28´ N. The city has an area of 1018 square kilometers. Maximum temperature has been recorded 36 to 39 º C in summers and -9 to -7 º C in winters. Its annual rainfall is about 150 mm.

Mountains, rugged topography and climate are among the factors which have changed the vegetation. Classification of vegetation is classified into the cultivated areas, gardens and steppes. The region has no forest cover and the steppe part of shrubs growth is dominant. Its plants are one year old and some of them have bulbs, and few herbaceous species can be seen around the agricultural lands. Based on the climatic condition, the major part of city has dry climate with dry summers according to Koppen classification method (Mobarakeh municipality, 1996).

2.2. Plant samples collection method

First, the regional geographical maps at scale 1:3000000 were prepared and examined for initial investigations from GIS unit of Agricultural Research Organization of Isfahan province. Type of vegetation cover and its density were identified in the region and the region was visited according to the time schedule during the vegetative season 2009-2010 and the location of plant growth and collecting each plant were identified and recorded after determining the height of place by the help of GPS. In some cases, the indigenous people's experience was gained due to the application of a local name for a specific plant. The experienced people in the traditional medicine were questioned about these plants. Local names of plants were recorded as well as the application, method and the applied part of plants. The cases with more than three reports were cited in order to ensure and consider the repetitions. Finally, the plants were transferred to the department of Botany in Isfahan Research Center for Natural Resources, Iran in order to be identified and classified scientifically. The plants were identified by the help of the book "flora and authoritative sources" (Asadi *et al*., 1998-2008; Ghahreman, 1975-2002; Ghahreman, 1990-1994; Mobin, 1975-1979; Mozaffarian, 2004; Mirheidar, 1993-1994; Rechinger, 1962-1988), and medicinal plant books (Zargari, 1968-1999; Ghasemi Pirbalouti, 2010; Davazda Emami, 2003; Dini, 2005; Salehi Sormaghi, 2006; Samsam Shariat, 2006).

Table 1. Medicinal plants used by the people of Mobarakeh

Row	Scientific name	Family	Persian name	Local name	Useable organ	Growth type	Local consumption cases Applications shown in italics were not reported in the scientific resources
1	*Mentha spicata* L.	Lamiaceae	Nana	Nana	A.P , L Es	Herbaceous	timpanists -Anti-stress -Soothe nerves -Intestinal inflammation - Cold - Strengthen the hear - Itchy throat - Gallbladder disorders -Headache -Blood pressure -Bladder infection -diarrhea -Swelling of the joints -*Diabetes* - *Cholesterol*-*Obesity*
2	*Echium amoenum* L.	Boraginaceae	Golegavzaban	Golegavzabon	Fl , L L	Herbaceous	Against inflammation -Kidney inflammation -Soothe nerves -cold -Sexual power -Sinusitis -Foot Pain -Lumbago-hypnotic -Blood purification -Asthma - Ease of delivery -cold - Depression -*Palpitations* -*Stomach ache*- *Skin disease*
3	*Sisymbrium irio* L.	Brassicaceae	Khakshir	Khakshir, Khakiji	A.P, Se	Herbaceous	Body pain-Stomach ache -Anti-nausea -diarrhea -febrifuge -Laxative -cold -- Blood purification -Thirst
4	*Thymus daenensis* Celak.	Lamiaceae	Avishan	Oshom, Oshom, Afshen	L , A.P	Herbaceous	Stomach ache- Strengthen the stomach - Strengthening the Eyes- Carminative - Colic -Lung disease -Soothe nerves -diarrhea -Facilitate menstruation - Muscle cramps - Pectoralgia -Anti-parasite
5	*Matricaria chamomilla* L	Asteraceae	Baboneh	Baboneh	Fl	Herbaceous	Anorexia- - Face congestion -Soothe nerves- - Hair Loss -diarrhea- Strengthen the stomach- diarrhea - Laxative -Cramping -Influenza -Hypertension - Radiation protection - *Kidney stone*-*Headache* - *Sinusitis*-*Laxative* -*Abscesses* - *Lumbago*
6	*Achillea santonici*	Asteraceae	Bomadaran	Gole zardi brenjas- Brenjasf	A.P	Herbaceous	Febrifuge -diarrhea -Hemorrhoids -Epiphora -Stomach ache- Menstrual pain- Anti-nausea -*Kidney stone* - *Laxative* -*Itchy skin* -*Rheumatic*- *Bone pain*
7	*Glycyrrhiza glabra* L.	Papilionaceae	Shirin baian	Rishe mejo Shirin bnan	R	Herbaceous	Stomach discomfort - Abscesses- Cough -Asthma - Soothe nerves-diuretic - Laxative -Menopause Symptoms - Blood pressure -Insomnia -*Sinusitis*
8	*Anethum graveolens* L.	Apiaceae	Shevid	Shevid	Herbaceous	F A.P ,	Reduce blood fat
9	*Cydonia oblonga* Mill.	Rosaceae	Beh	Beh Beh daneh	Arboreous	F,Se	Sore throat - Abscesses-Cough -Soothe nerves -diarrhea -*Asthma* -*Blood pressure*
10	*Valeriana officinalis* L.	Valerianaceae	Sonboletib	Sonboletive	Herbaceous	R , Rh L	Cold- Foot Pain - Hand pain - Menstrual pain - Depression -Dizziness Vessels and muscle cramps - General weakness
11	*Cichorium intybus L*	Asteraceae	Casni	Casni	Herbaceous	A.P,R L	Liver disease - febrifuge -Joint pain -Against cancer- Antimicrobial--Jaundice- Blood purification -Stomach ache- Hepato-splenomegaly Skin whitening - Anemia - Laxative -Abscesses-Strengthen the stomach -*Hiccup*- *Liver disease*
12	*Allium cepa* L.	Alliaceae	Sir	Sir	Herbaceous	Rh,A.P	Against cancer - Lung disease - Blood pressure -Rheumatic-Anti-parasite- Foot Pain - Ointment - *Low senses* - *Amnesia* - *Wart*-*Headache* -*Diabetes* - *Gangrene*

Table 1. *Continued*

Row	Scientific name	Family	Persian name	Local name	Useable organ	Growth type	Local consumption cases Applications shown in italics were not reported in the scientific resources
13	*Ziziphus jujube* (L) H.Karst	Rhamnaceae	Ennab	Ennab	Arboreous	F	Sedative -Diuretic -Expectorant-Blood purification -Skin rash Asthma - *febrifuge- Strengthen the heart - Cholesterol-Jaundice-Blood purification - Anti-itch*
14	*Carum carvi* L.	Apiaceae	Zireh sabz	Zireh	Herbaceous	F, Se Es- F	Obesity - Facilitate digestion - Sour stomach- *Obesity -Blood pressure - Diarrhea*
15	*Fumaria vaillantii*	Fumaricaceae	shatreh	Shahtareh	Herbaceous	A.P	Eczema - Diuretic- Anti-biliousness-Blood purification-*Febrifuge - Strengthen gums - Bone pain- Stomach ache*
16	*Alcea biennis* Mill	Malvaceae	Khatmi	Gole khatmi	Herbaceous	Fl, L R	Cutaneous stimulation- Expectorant -Laxative -Gingivitis - Skin disease - Infection - Joint pain- Pectoralgia -Itching - cold -Asthma
17	*Rosmarinus officinalis* L	Lamiaceae	Aklil, Rosmary	Aklil kohi	Herbaceous	A.P, L	Menstrual symptoms - Foot Pain - Lumbago -Migraine - Jaundice -Joint pain - Disinfection - cold– *Oral Diseases*
18	*Trigonella foenum graecum* L.	Papilionaceae	Shanbalileh	Shanbalileh	Herbaceous	Se , L	Blood sugar -Cholesterol -Abscesses-Cough -Against inflammation
19	*Mentha pulegium*	Lamiaceae	Poneh	Poneh Podoneh	Herbaceous	A.P , L	Diarrhea -Stomach ache - Throat infection - Asthma -Abscesses-Cough - Asthma- Expectorant -Appetizing
20	*Eucalyptus camaldulensis* Dehnh	Myrtaceae	Ocalyptus	Barge bid	Arboreous	L	Influenza -Headache -epiphora-*Earache - Effective Skin Cancer*
21	*Plantago lanceolata* Soejarto	Plantaginaceae	Barhang	Bartang Kardi	Herbaceous	Se, L	Abscesses-Cough -Chest discomfort - Spleen problems - cold -Laxative - *malaria - diarrhea*
22	*Salvia nemorosa* L	Lamiaceae	Maram goli	Maram goli	Herbaceous	L , A.P	Disinfectant-Anti-aphthus - Menstrual pain – Ant-bilious -Abscesses
23	*Olea europaea* L	Oleaceae	Zeytun	Zeytun	Shrubby	F, Es L	Hypertension - Pancreatic disorders - Swelling of the colon - Gallbladder disorders -*Thyroid -Cholesterol*
24	*Nigella sativa* L.	Ramnanculaceae	Siahdaneh	Siah doneh	Herbaceous	Se Es-Se	Wart Increase in blood- *Blood flowing - Hair Loss- Sore throat - Kidney stone-calmative*

Table 1. *Continued*

Row	Scientific name	Family	Persian name	Local name	Useable organ	Growth type	Local consumption cases Applications shown in italics were not reported in the scientific resources
25	*Brassica napus* L.	Brassicaceae	Shalgham	Shalgham	Herbaceous	R, Se L	Abscesses-Cough -Sore throat
26	*Rosa damascena* Mill	Rosaceae	Gol adpar	Gole mohamady	Shrubby	Fl, L Rose water	Sedative -Anemia - *Strengthen the heart - Lumbago -Laxative -Sinusitis*
27	*Ocimum basilicum* L	Lamiaceae	Reihan	Reihon, Tokhm sharbati	Herbaceous	L,Se Es	Sedative -Diarrhea-Expectorant -Thirst -Heatstroke- Cold - Oral and dental disease
28	*Petroselinum crispum* Mill	Apiaceae	Jafari	Jafari	Herbaceous	R, L F, Es	Kidney disease - Bladder disease - Gout- Diuretic - *Blood pressure-Blood sugar -Varicocele*
29	*Lavandula angustifolia* Mill	Lamiaceae	Ostokhodos	Ostaghodos	Herbaceous	A.P, Es	Soothe nerves -Headache -Cold - Spasm- Sedative- -hypnotic -Relieve menstrual - *Lumbago -Hyperemia*
30	*Viola tricolor* L	Violaceae	Banafsheh	Banafsheh	Herbaceous	Fl Wh.P	Cold -Ulcer - Skin Cancer - *Diarrhea*
31	*Gundelia tournefortii* L	Asteraceae	Cangar	Cangar	Herbaceous	A.P	Blood fat - Stomach tonic - Clear intestine
32	*Juglans regia* L.	Juglandaceae	Gerdo	Gerdo	Arboreous	Se ,L	Blood sugar- Blood purifier- Angina - Gout
33	*Amygdalus communis*	Asteraceae	Baba adam	Fil goshi	Herbaceous	R, L	Toothache -Rheumatic -Joint pain - Abscesses
34	*Cotoneaster nummularium*	Rosaceae	Shir khesht	Shire khesht	Herbaceous	Wh.p	Improve liver - Bladder inflammation - cold- *Increase milk - Freckle*
35	*Elaeagnus angustifolia* L	Elaeagnaceae	Senjed	Senjed	Arboreous	F, L Fl	*Osteoporosis - diarrhea- Varicocele-Anti aphthus - diarrhea-Swelling of the joints-Jaundice*
36	*Arctium minus*(Hill) Bernh	Asteraceae	Baba adam	Fil goshi	Herbaceous	L, R Se	Toothache -Rheumatic -Joint pain - Abscesses

Table 1. *Continued*

Row	Scientific name	Family	Persian name	Local name	Useable organ	Growth type	Local consumption cases Applications shown in italics were not reported in the scientific resources
37	*Malus domestica* Borkh.	Rosaceae	Sib	Sibe golab	Arboreous	F, Ba L, R	Obesity-febrifuge -Osteoporosis - - *febrifuge Obesity*
38	*Hordeum vulgare* L.	Poaceae	Jo dosar	Jo dosar	Herbaceous	Se, Br	Blood sugar - Blood fat Reduce-febrifuge-Jaundice - Headache
39	*Coriandrum sativum* L.	Apiaceae	Geshniz	Geshniz	Herbaceous	F, A.P	Febrifuge-and Blood fat Blood sugar
40	*Raphanus sativus* L	Brassicaceae	Torob siah	Trob	Herbaceous	R, L Se	Gallbladder disorders -Kidney stone
41	*Plantago psyllium*	Plantaginaceae	Esfarzeh	Esparzeh	Herbaceous	Se	Disinfection- Expectorant-Laxative -*febrifuge -Kidney disease*
42	*Calendula persica*	Asteraceae	Gol hamish beh bahar	hamisheh bahar	Herbaceous	Fl, L	Sedative -Leg ulcers - Varicocele
43	*Tribulus terrestris* L.	Zygophyllaceae	Kharkhasak	Horva	Herbaceous	R, F L	Sexual power - Kidney and Bladder stone- Diuretic
44	*Alcea biennis* Mill	Liliaceae	Sabr zard Aloea vera	Aloea vera	Shrubby	L	Abscesses - Order to maintain body - Hair Cream
45	*Alyssum bracteatum*	Brassicaceae	Ghodomeh	Ghodomeh	Herbaceous	F	Chest pain- Cold
46	*Apium graveolens*	Apiaceae	Karafs	Karafs	Herbaceous	Se, L St	Loss of appetite - Rheumatic-Lumbago
47	*Alhagi camelorum* Fisch	Papilionaceae	Khar shotor	Taranjebin Tarangebin	Herbaceous	Man Sweat	Stomach ache - Neurological disease - Kidney stone
48	*Cannabis sativa* L.	Cannabiaceae	Shahdaneh	Shahdoneh	Herbaceous	A.P,Se	Neurological disease - *Baldness - Earache*

Table 1. *Continued*

Row	Scientific name	Family	Persian name	Local name	Useable organ	Growth type	Local consumption cases Applications shown in italics were not reported in the scientific resources
49	*Rumex crispus* L.	Polygonaceae	Torshak	Torshak	Herbaceous	R, L F	Diarrhea -*Blood fat Reduce -Blood pressure - Kidney stone*
50	*Melissa officinalis* L.	Lamiaceae	Badranjboyeh	Varang bo	Herbaceous	A.P Es	Stomach ache - Soothe nerves-Sedative-Diaphoretic
51	*Punica granatum* L	Punicaceae	Anar	Anar	Herbaceous	R, Se	Anti-parasite -Diarrhea -Stomach ache
52	*Solanum nigrum* L.	Solanaceae	Tajrizi siah	Tajrizi	Herbaceous	F, L	Toothache - Anti-parasite
53	*Prunus cerasus* L.	Rosaceae	Albalo	Albalo	Arboreous	Peduncle	Kidney stone -Headache
54	*Cucurbita pepo* Mill.	Cucurbitaceae	Kado halvai	Kado	Herbaceous	S e,F	Diabetes-Anti-parasite
55	*Peganum harmala* L.	Zygophyllaceae	Espand	Esfand	Herbaceous	Se	*Allergy elimination- Anti-parasite -Toothache-hypnotic*
56	*Ficus carica* L.	Moraceae	Anjir	Anjir	Arboreous	F, La L	Laxative-Pectoralgia
57	*Malva neglecta* Wallr	Malvaceae	Panirak	Nin kalaghi Mamapir	Herbaceous	L, R Fl ,Wh.p	Jaundice -Ulcer-Irritation of the urethra -Hoarseness – Abscesses-Cough
58	*Ricinus communis* L.	Euphorbiaceae	Karchak	karchak	Shrubby	Se- oil	Laxative -Wart - *Earache*
59	*Myrtus communis* L.	Myrtaceae	Mord	Mort	Shrubby	LEs	Anti aphthus- Soothe nerves -Abscesses – Foot crack
60	*Astragalus verus* Olivie	Papilionaceae	Gavan Katira	Katira	Semi-shruby	Gum	Laxative -*Toothache*
61	*Linum usitatissimum*	Linaceae	Katan	Barzak	Herbaceous	Se, Es-Se	Blood circulation - Hair growth -*Liver problems*
62	*Tragopogon graminifolius*	Asteraceae	Shang	Alaleh shang	Herbaceous	L. Extract Fl R	Gastric lavage- *Anti-parasite*

Table 1. *Continued*

Row	Scientific name	Family	Persian name	Local name	Useable organ	Growth type	Local consumption cases Applications shown in italics were not reported in the scientific resources
63	*Papaver macrostomum* Boiss	Papaveraceae	Shaghayegh	Shaghayegh Tariak kohi	Herbaceous	Fl F	Respiratory problems - Calmative
64	*Centaurea depressa* M. Bieberstein	Asteraceae	Gol gandom	Gole gandom Alaf talkheh	Herbaceous	Fl A.P	Diuretic-cold -Inflammation of the eyelid - Febrifuge -Blood purification - Rheumatic-Jaundice
65	*Melilotus officinalis* (L.) Pall.	Papilionaceae	Yonjeh zard Aklyolmolk	Yonjeh zard	Herbaceous	A.P	Pectoralgia-Diuretic -Facilitative digestion -Neuralgia - Rheumatic-Liver colic
66	*Capsella bursa-pastoris* (L.) Medik.	Brassicaceae	Kiseh keshish	Khakiji talkh	Herbaceous	A.P, La	Haemostatic -Astringent -Sortable for epilp
67	*Laurus nobilis* L.	Lauraceae	Barg boo	Barg bo	Shrubby	L, F Es	Tympanites-Expectorant-diuretic -Anti-convulsion -Weakness of stomatch -Hemorrhoids -Rheumatic
68	*Fraxinus rotundifolia Mill.*	Oleacae	Zaban gonjashk	Zabon gongish	Arboreous	Ba, L Se, R	Astringent -febrifuge -Expectorant-Laxative -Rheumatic -Gout
69	*Polygonum aridum* Boiss	*Polygonaceae*	Haft band	Haft band	Herbaceous	A.P La	Astringent-diuretic - Diarrhea -Kidney stone -Bladder ailment
70	*Vitis vinifera* L.	Vitaceae	Mou	Angor-Mou	Shrubby	F La	Astringent -diarrhea-diuretic-Jaundice
71	*Zea mays* L	Poaceae	Zorat	Balali	Herbaceous	Stigma Se	Cold -Kidney stone
72	*Satureja hortensis* L	Lamiaceae	Marzeh	Marzeh	Herbaceous	L , A.P	Facilitative digestion- Diarrhea
73	*Salix alba* L.	Salicaceae	Bid	Sefid bid	Arboreous	Ba, F L	Splenitis -Tympanites
74	*Allium cepa* L.	Alliaceae	Piaz	Piaz	Herbaceous	A.P Onion	Antimicrobial -Toothache
75	*Oryza sativa* L.	Poaceae	Berenj	Shaltok	Herbaceous	Br	Hair growth

R, root ; L, leaf ; Fl, flower; Fr, fruit; Se, seed; A.P, apical parts; Wh.P, whole plant; La, latex; Ba, bark; Es, Essence; Br, Bran

Different plants were classified based on the local application and the effectiveness separation into the effective plants for treatment of the gastrointestinal diseases, dermatology, allergy-infection, blood circulation, pain, urinary, neurological, respiratory, muscular, hormonal and metabolic, and mouth-dental problems and other diseases.

3. Results & Discussion

In present study, 200 plant species were identified; from which 75 ones, belonged to 73 genera and 33 families with medicinal properties. In total, 75% are herbaceous, 10% shrubby, and 15% are arboreous. The highest number of medicinal herbs species belongs to the family Lamiaceae with nine species, Asteraceae with eight species, and Rosaceae family with six species, and the families Apiaceae, Papilionaceae, and Brassicaceae with five species are classified in the next ranks.

The results obtained from the survey of indigenous knowledgeable people in the region indicated that the medicine consumption of species, including mint, sisymbrium, thyme, chamomile, yarrow, licorice, dill, quince, valerian, chicory and garlic were higher than other herbs.

Table 1 represents the information such as scientific name, family name, Persian name, local name, growth type (habit), useable organ, and local consumption cases. Applications shown in italics were not reported in the scientific resources. Survey of medicinal plant covering revealed the families of Lamiaceae and Asteraceae have a better spread in the region compared to other plant families. So, it is predicted in steppe regions of implementation area that the multi-year bush plants have good spread. According to the conducted studies on the medicinal plants in other provinces of Iran, these families were also in the first or second rank in terms of medicinal plants (Akbarinia *et al*., 2006; Mirdavodi & Babakhanlo, 2007). Due to the diversity and spread of this family in the flora of Iran, this is not unexpected (Asadi *et al*., 1998-2008).

The results indicated that the highest application of medicinal plants in the region is related to the treatment of gastrointestinal problems with frequency of 17 percent and the reason can be considered and investigated. The frequency application of medicinal plants for treating the skin and hair was 14%, as anti-inflammatory and infection was about 11%, affecting the circulatory system was 9%, as an analgesic was 8%, for urinary and kidneys system was 8%, for treating the endocrine and metabolism problems was 7%, for treating the neurological problems was 6%, for the respiratory problems was 5%, for treating the mouth and dental problems was 3%, and for treating the muscle problems was 2%. Moreover, these plants are used for other diseases with frequency of 10%.

4. Conclusion

Most of the plants mentioned in Table 1 have been used as medicinal herbs in folkloric medicine in present and past; however, some of the applications of these plant, like applying the mint for treatment of diabetes and hyperlipidemia, borage for treatment of palpitations, chamomile and yarrow for treatment of kidney stones, licorice for treating the sinusitis, quince for treating the hypotension, and garlic for treating the amnesia have not been observed in the available scientific resources. This can be as a guide for further research in order to achieve new medicinal applications or prevent from wrong local applications of these plants. Several species of the families are cultivated in the region, while others are disappearing due to the uncontrolled exploitation and semi-arid climate of region. Thus, the preservation and conservation of these species is essential. This first report can play a role in preserving the indigenous knowledge of using these plants.

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