

## Herbal use among hypertensive patients in Basra, Iraq

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### Abstract

**Background:** Herbal medicines, include herbs, herbal materials, herbal preparations, and finished herbal products containing active ingredients parts of plants.

The study aimed to determine the rate of herbal use, to identify the reasons for herbal use and the types of herbal use by hypertensive patients.

**Methodology:** the study was a descriptive one, including 200 patients with hypertension attending outpatient clinics in Basra city south of Iraq.

**Results:** 81 (40.5%) of the participants used herbal remedies. Herbs usage was found to be higher among females 42 (42%), among married 73 (42.2%), and among those who live in districts 72 (63.2%). It was found to be significantly higher among those less than 54 years of age and those with institute /college level of education, and 32% of the participants used more than one herb at the same time. Garlic was the most commonly used by 28.4%. Majority 71.6% use herbal remedies on a regular basis. Friends and media were the main sources for recommendation to use herbal remedies (29.3%, 23%) respectively. Being more effective and harmless was the main reason for using herbal remedies (43.2%, 34.6%) respectively.

**Keywords:** Hypertension, patients, use, herbal remedies, Basra

### Introduction

Herbal medicines include herbs, herbal materials, herbal preparations, and finished herbal products containing active ingredients parts of plants<sup>(1)</sup>. Alternative medicine is commonly used in hypertension management<sup>(2)</sup>. The trend of using complementary alternative medicine in the control of blood pressure is growing<sup>(3)</sup>. Herbal medicines considered as natural or traditional may lead to many people believe that these remedies are safe<sup>(4)</sup>. Recently according to the World Health Organization, 80% of people rely on herbal medicines worldwide for some part of their primary health care<sup>(5)</sup>. The creation of awareness about how safe and effective traditional medicine/complementary and alternative medicine therapies among the public is included in efforts and priorities for promoting the use of traditional medicines by the World Health Organization<sup>(6)</sup>.

In Baghdad, Iraq in 2018 a study aimed to assess hypertensive patient's attitudes towards complementary alternative medicine. Complementary alternative medicine was used by 65.5% of respondents and a favorable attitude towards it was related to gender and the patient's educational level<sup>(3)</sup>.

Study in Kerman, Iran to determine the rate of medicinal plants used in hypertensive patients. The results were out of 612 participants 29.4% used herbal medicine, higher frequency of use of herbal medicines among females and no significant relationship was found between marital status and length of education and the use of herbal medicines<sup>(7)</sup>.

To determine the frequency of herbal medicine use among patients with chronic diseases, the results of a study in Ankara showed that 29% of 217 patients participated in the

study used herbal medicine. And the use of herbal medicine was significantly higher among females. The most frequently used herb by the participants was garlic<sup>(8)</sup>.

In Palestine, a study was conducted to investigate the use of herbs in the treatment of hypertension in humans. Out of 83 patients who were interviewed 59% use herbs. The study concluded that the prevalence of herbal use among patients with hypertension in Palestine was appreciable<sup>(9)</sup>.

The result of the study conducted in Ghana showed that among 203 hypertensive patients the prevalence of use of herbal medicine was 66%. And Prevalence among females was higher than males. The most common herbal medicine used is garlic<sup>(4)</sup>.

A study including 258 hypertensive patients in Uganda concludes that the use of alternative medicine was common among patients with hypertension and usage was underpinned by the patient's belief that alternative medicine is effective<sup>(2)</sup>.

Another study in South African showed that out of 135 traditional herbal medicine users, 21% used traditional herbal medicine to treat hypertension. The majority of 82.1% of the users were females<sup>(10)</sup>.

A recent study in Sierra Leone, aimed to measure showed that among 260 participants, more than half 56.9% reported using herbal medicine. Garlic was the commonest used herbal medicine. And no significant difference found between users and non-users of herbal medicine with socio-demographic and health-related factors<sup>(11)</sup>.

### **Objectives of the study**

- 1- Determine the rate of herbal use among hypertensive patients.
- 2- Identify reasons for herbal use among hypertensive patients.
- 3- Identify types of herbs used by hypertensive patients.

### **Methodology**

1- Design of the study: Descriptive, cross-sectional study.

2- Setting of the study: The outpatient clinics in Al-Basra teaching hospital and Al-zubair hospital.

3- The sample of the study: The number of samples is 200 hypertensive patients 100 patients from each hospital divided into 50 males and 50 females.

For data collection structured questionnaire was used; a collection of data was carried out from October 2018 to December 2018. The questionnaire contains two parts the first part consists of 6 items related to demographic characteristics of the patients and 1 question related to hypertension, the second part consist of 11 questions related to herbal use. Data were collected by face-to-face interview by two senior nursing students. Each interview took 5 to 7 minutes.

Approval to conduct the study was obtained before the attempt of data collection from Basra general health directorate. Also, each participant (patient) was informed orally about the study aim, they have the right refuse to participate in the study, and confidentiality of the information gathered.

4- Statistical analysis: SPSS version 23 was used for analyzing data that was presented in the form of (frequency and percentage). To examine the association between the groups. A chi-squared test was used and a probability of less than 0.05 was considered to be statistically significant.

## Results

### 1 -Socio - demographic characteristics of the patients.

Out of 200 patients 81(40.5%) used herbal remedies, 108(54%) were younger than 54years of age, 173(86.5%) were married, 101(50.5%) had secondary school level of education. Regarding the area of residence 114(57%) of patients live in district areas. Herbal remedies usage was found to higher among females 42(42%), among married patient 73(42.2%), those who live in Districts 72(63.2%) and it was found to be significantly higher among those under 54 years of age ( $p=0.001$ ), and among those with institute /college level of education ( $P = 0.046$ ) as shown in Table 1.

Table1. Socio-demographic characteristics and the use of herbal remedies

Variable	Category	Total ,n (%)	Consumers of Herbal Remedies		X <sup>2</sup>	Df	P-Value
			Yes, n (%)	No, n (%)			
	Hypertensive patients	200(100%)	81(40.5%)	119(49.5%)			
Age	20-54	108(54%)	55(50.9%)	53(49.1%)	10.591	1	0.001*
	55+	92(46%)	26(28.3%)	66(71.7%)			
Gender	Male	100(50%)	39 (39%)	61(61%)	0.187	1	0.666
	Female	100(50%)	42(42%)	58(58%)			
Marital state	Married	173(86.5%)	73(42.2%)	100(57.8%)	1.531	1	0.216
	Single	27(13.5%)	8(29.6%)	19(70.4%)			
Education	Primary school	78(39%)	24(30.8%)	54(69.2%)	6.168	2	0.046*
	Secondary school	101(50.5%)	45(44.6%)	56(55.4%)			
	Institute /college	21(10.5%)	12(57.1%)	9(42.9%)			
Area of residence	City center	86(43%)	39(45.3%)	47(54.7%)	1.472	1	0.225
	Districts	114(57%)	72(63.2%)	42 (36.8%)			

\*  $P<0.05$  considered as statistically significant

### 2 - Types of herbal remedies

As reported by the participants, 32% use more than one herb at the same time. Garlic was the most commonly used 28.4%, Basil use was reported by 9.8%, Cumin 7.4%, as shown in Table 2.

Table 2. Herbal remedies used according to the patients (n=81)

Items	Traditional local name	No.	%
Garlic	Thom	23	28.4
Basil	Ryhan	8	9.8
Cumin	Kamon	6	7.4
Cardamom	Heil	5	6.2
Ginger	Zengabel	5	6.2
Cinnamon	Darcein	4	5
Fenugreek	Helba	2	2.5
Celery	Krufes	2	2.5
More than one type		26	32

### 3 Attitude and pattern of use of herbal remedies

Majority 71.6% use herbal remedies on a regular bases. The ultimatedecision to use herbs is a personal decision, Friends and media were the main sources for recommendation to use herbal remedies (29.6%, 21%) respectively. Being more effective and harmless was the main reason for using herbal remedies (43.2%, 34.6%) respectively. Regarding informing the doctor about the use of herbal remedies only (40.7%) of the patients did so, and the majority of them were encouraged by the doctors (93.9%). The main reason for not informing the doctor was that patients think it is not important to tell the doctor as reported by 54.2% as shown in Table 3.

Table 3: Attitude and pattern of use of herbal remedies (n=81)

Item	Categories	No.	%
Pattern of use herbal remedies	Regular	58	<b>71.6</b>
	Irregular	23	28.4
Sources of recommendation for the use of herbal remedies	Self-influenced	9	11.1
	Family	16	19.8
	Friends	24	<b>29.6</b>
	Health care personnel	10	12.3
	Herbalist	5	6.2
	Media	17	<b>21</b>
Reasons for using herbal remedies	Available	16	19.8
	Cheap	2	2.5
	More effective	35	<b>43.2</b>
	Harmless	28	<b>34.6</b>
Did you Inform your Doctor?	No	48	59.3
	Yes	33	<b>40.7</b>
What is the Response of the doctor when you inform him	Encourage you	31	93.9
	Discourage you	2	6.1
Reason for not informing your doctor	Didn't know doctor should be informed	12	25
	Afraid of doctor response	10	20.8
	I think it is not important to tell the doctor	26	54.2

#### Discussion:

This is the first study in Basra that identified the rate of herbal remedies use was as common as (40.5%) among hypertensive patients. The rate observed in our study falls within the range from 24.4% to 67.8% which was reported inPrevious studies in Iraq and other countries <sup>(1,7, 8,9,10,12, 13,14, 15)</sup>

The reported differences in herbal rates used might be due to differences in socio-demographic features of the study population even in the same country.

In our study, it was found that as patients get older the rate of the use of herbal remedies declines, a similar pattern in other studies<sup>(13,14,16)</sup>. This might be due to that older patient's daily activity will be limited so they become more dependent on their surroundings to purchase these products, also become more dependent on health care facilities and intake of conventional drugs.

Although in our study, there were no statistically significant differences between the rate of herbal remedies use and gender, marital status, or place of residence (district) among the hypertensive subjects. Herbal remedies tend to be used by females more than males. This finding was compatible with other studies<sup>(7,8, 9,10,17)</sup>, this could be due to that large proportion of women in our community are housewives and they spend more time watching television and other media especially programs directed toward women, herbal medicines are mentioned a lot on these kinds of programs and women found to pay greater attention to their health. Also being the traditional caretakers of the family's health and their knowledge on medicinal plants exceeds those of men as mentioned by many studies<sup>(8,14, 16)</sup>. Also, this study showed that the rate of herbal use was higher among married than among unmarried patients this could be to the influence of females regarding this aspect. Patients who were living in districts use herbs more than those in the city center similar pattern was found in other studies<sup>(2, 8, 9)</sup>.

In contrast to the studies<sup>(3,4,7,9,15,17)</sup>, this study found that people with high education levels were more likely to use herbal medicines. This may be due that educated people have more access to literature and media and try to search more about what is new in the management of their disease.

Herbs used in our study were relatively safe plants and are commonly used daily as food or beverage. The most common herb used was garlic 28.4% which didn't differ much than the study done in Baghdad (31.0%)<sup>(12)</sup>, but higher than the studies done in Turkey (15%)<sup>(17)</sup>, Jordan (16%)<sup>(18)</sup>.

Our study showed that the majority of the patients use herbs on regular bases, this could be due to the benefits that patients found after the usage of herbal remedies in the management of hypertension.

Friends as Sources of recommendation for the use of herbs as mentioned by 29.6% of the sample, lower than what was found for studies done in Iraq and other countries<sup>(12, 14, 19,20)</sup>.

The main reason for using herbal remedies as reported by those patients it is to be more effective, other study mentioned that using herbal remedies most users believed that herbal remedies were either equally or more efficacious than conventional medicines<sup>(4)</sup>.

In our study, 59.3% of patients did not inform their doctor about their herbal remedies use. This rate was lower than the study done in the university of Ghana 91.0%<sup>(4)</sup>, Sierra Leone (85.1%)<sup>(21)</sup>, Palestine (79.5%)<sup>(7)</sup>. The reason for not informing the doctor about using herbal remedies 54.2% of patients say I think it is not important to tell the doctor and this was higher than the study done in the university of Ghana 18.4%<sup>(4)</sup>.

In Iraq, the availability and relatively low cost of herbs in the markets with cultural acceptability and the traditional use of herbs for several health conditions increase patient's confidence to use them in the management of hypertension.

#### Conclusions

The use of herbal remedies found to be a common practice among hypertensive patients in Basra city. It was found to be higher among females, married, and those who live in districts and significantly higher among those with institute /college level of education. Garlic was the main type of herbs that have been used. And the main source of recommendation for the use of herbal remedies was friends. The main reason for using herbal remedies was the belief in being more effective.

## Recommendations

- 1-Health care providers should make a comprehensive assessment to identify complementary therapies used by their patients.
- 2-Herbal medicine information regarding their effect on blood pressure should be provided to the hypertensive patients this can be done through media, journals and health talks at health facilities.

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