



EVALUATION OF THE ATTITUDES AND PRACTICES OF PATIENTS REGARDING THE USE OF HERBAL PRODUCTS

HASTALARIN BİTKİSEL ÜRÜN KULLANIMINA İLİŞKİN TUTUM VE UYGULAMALARININ DEĞERLENDİRİLMESİ

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ABSTRACT

Objective: Herbal products are commonly used in public as a part of complementary and alternative medicine. The aim of our study is to evaluate the patients' attitudes and practices towards herbal products' uses.

Material and Method: This study was a cross-sectional descriptive study conducted at two community pharmacies in Istanbul (Turkey) in December 2017-February 2018. Sociodemographic characteristics of the participants were recorded and a self-structured questionnaire was applied.

Result and Discussion: A total of 200 patients were included in the study. The mean age of the patients was 34.6 years. Over sixty percent of the patients were using herbal products and approximately half of them believed that herbal products use was completely harmless ($p<0.05$). It was determined that the rate of using herbal products was statistically higher in female, adults, patients with low educational level, patients with chronic diseases, and non-smokers ($p<0.05$). Patients with chronic illnesses commonly used herbal products and most of the patients believed that these products were harmless. It is important to provide reliable information for the community via pharmacists as health counselors.

Keywords: Attitudes, herbal products, patient, pharmacist

ÖZ

Amaç: Bitkisel ürünler, tamamlayıcı ve alternatif tıbbın bir parçası olarak toplumda yaygın olarak kullanılmaktadır. Çalışmamızın amacı, hastaların bitkisel ürünlerin kullanımına yönelik tutum ve uygulamalarını değerlendirmektir.

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Gereç ve Yöntem: *Bu çalışma, Aralık 2017-Şubat 2018 tarihlerinde İstanbul'da (Türkiye) iki serbest eczanede gerçekleştirilen kesitsel tanımlayıcı bir çalışmadır. Katılımcıların sosyodemografik özellikleri kaydedilmiş ve kendi kendine yapılandırılmış bir anket uygulanmıştır.*

Sonuç ve Tartışma: *Çalışmaya toplam 200 hasta dahil edilmiştir. Hastaların ortalama yaşı 34,6'dır. Hastaların yüzde altmışından fazlası bitkisel ürün kullanmakta olup, yaklaşık yarısı bitkisel ürün kullanımının tamamen zararsız olduğuna inandığını belirtmiştir ($p<0,05$). Kadın, yetişkin, eğitim düzeyi düşük, kronik hastalığı olan ve sigara içmeyen hastalarda bitkisel ürün kullanım oranının istatistiksel olarak daha yüksek olduğu belirlenmiştir ($p<0,05$). Kronik hastalığı olan hastaların yaygın olarak bitkisel ürünleri kullandığı ve hastaların çoğunun bu ürünlerin zararsız olduğuna inandığı tespit edilmiştir. Sağlık danışmanları olarak eczacılar aracılığıyla topluma güvenilir bilgi sağlanması önemlidir.*

Anahtar Kelimeler: *Bitkisel ürünler, eczacı, hasta, tutum*

INTRODUCTION

Herbal products are a part of complementary and alternative medicine (CAM) and have been used over thousands of years [1]. Approximately 40% of adults in the United States (U.S.) use CAM therapy and 1 in every 5 adults report taking an herbal product [2-5]. In Turkey, it was found that 48.8% of people use herbal medicine in a study conducted in a hospital [6]. In another study in Turkey, it was showed that almost half of women use at least one herbal product during pregnancy [7]. Also, Tulunay et al. (2015) found approximately one-third of patients with chronic diseases had used herbal products for treatment [8].

Pharmacists have critical roles in prevention of adverse effects of short- and long-term use of herbal products via patient education, counseling and monitoring. The perspectives of patients and pharmacists regarding the use of herbal products can be different. According to Gelayee et al. (2017) majority of pharmacists think that use of herbal products has beneficial effects. In the same study most of pharmacists reported that there is a significant interaction between drug and herbal products [9]. In another study the most of pharmacists were stated that they dispense herbal products in their pharmacies and 36% of pharmacists are "always" counseling patients about the use of herbal drugs [10]. According to Shraim et al. (2017); pharmacists' recommendations on the use of herbal products include the following issues; herbal drug use in pregnancy and children, consultation about herb- drug interactions, side effects, and evidence-based effectiveness of herbal drugs. [11].

Bhat et al. (2019) reported that patients mostly prefer herbal products over conventional medicines since they think that these products are more efficacious and have minimal side effects. In the same study, patients' major sources of information regarding herbal medicines were friends and advertisements [12]. A study from Turkey showed that participant's knowledge on herbal products depends on advertisements through media and herbal products are usually purchased from herb sellers [13]. In the same study, it was revealed that most of the participants (84%) did not know that the herbal products could interact with other drugs.

Peltzer et al. (2017) reported that 43.6% percent of patients with chronic diseases were using herbal products and their sources of information about the herbal products were family members [14]. In a cross-sectional study, 44% of participants were found to be using herbal drugs and 45% of those were also using conventional drugs [15].

Herbal products are frequently used and easily accessible to the public. Evaluation of the profile of people who use these products may contribute to their rational and safe use. Therefore, the aim of our study is to evaluate the attitudes and practices of the patients regarding the use of herbal products.

MATERIAL AND METHOD

This cross-sectional descriptive study was conducted in two community pharmacies in Istanbul (Turkey) between December 2017-February 2018. The ethical approval was taken from a local ethic committee (Marmara University Medicine Faculty School of Medicine Ethics Committee Protocol code: 09.2017.644). All respondents were asked for their consent before participation in the study. All data was collected by the authors vis a vis.

Data Collection Method for the Patients to Evaluate the Attitudes and Practices of Patients Regarding the Use of Herbal Products

The patients' sociodemographic characteristics (age, gender, graduation status, smoking, alcohol consumption, chronic diseases and herbal product use) were recorded via a standard form.

A structured questionnaire was adapted from previous studies [13,14]. The questionnaire consists a total of 9 questions (closed-ended) for evaluating the patients' attitudes and practices towards the use of herbal products (belief on herbal medicines are harmless; where they obtained; reasons to use herbal products; expectations from the use of herbal products; when to use herbal products; whether or not they informed their doctors/pharmacists about using herbal products; recommendation for the use of herbal products to relatives with similar complaints; the most reliable information sources regarding the use of herbal product and the factors that affect the use of herbal products).

Statistical Analysis

Statistical Package for Social Sciences (SPSS) version 15.0 for windows (SPSS Inc., Chicago, IL) was used for analysis of data. Descriptive statistics (frequencies, percentages, and means), Pearson's Chi-square test of independence and Fisher's exact test were used to assess correlations between sociodemographic factors and items of the questionnaire. *P* value <0.05 was considered significant.

RESULT AND DISCUSSION

Sociodemographic Characteristics of Patients

The mean age of the patients was 34.6 ± 1.1 (18-83) and 68% of patients were female. The other sociodemographic characteristics of patients are given on Table 1.

Table 1. Characteristics of patients

	N	%	
Gender	Female	136	68
	Male	64	32
Educational level*	Low educational level	112	56
	High educational level	88	44
Chronic disease status	No	68	34
	Yes	132	66
Smoking status	No	140	70
	Yes	60	30
Alcohol consumption	No	184	92
	Yes	16	8
Herbal products use	No	65	32
	Yes	13	68

N: number of patients; * Educational level: Low educational level (illiterate, Primary school, Secondary school, High school); High educational level (University and postgraduate degree)

Sixty-eight percentage of the patients stated that they had used herbal products. It was determined that the rate of using herbal products was statistically higher in patients with female gender, younger adults, low educational level, patients with chronic diseases and non-smokers ($p < 0.05$) (Table 2).

Attitudes and Practices Towards the Use of Herbal Products

Sixty two percentage of patients believe that the use of herbal products is not completely harmless, 74% of patients stated that they buy herbal products from herbalists, 69% of patients stated that they use herbal products due to believe that they are beneficial, 38% of patients stated that they use the herbal drugs to reduce of the symptoms, 46% of the patients stated that they started using herbal products when the symptoms first appeared, 52% of the patients stated that they notify the doctor or pharmacist that the usage herbal products report the information about previous or current herbal product use to the doctor or pharmacist and 76% of the patients stated that they recommend the use of herbal products to relatives with similar complaints (Table 3).

Table 2. Comparison of sociodemographic characteristics of patients using herbal products

	n*	%	P value
Gender	Female	95	>.05
	Male	41	
Age	<26	49	<.05
	26-45	40	
	>45	47	
Educational level**	Low educational level	90	<.05
	High educational level	46	
Chronic disease status	No	36	<.05
	Yes	100	
Smoking status	No	87	<.05
	Yes	49	
Alcohol consumption	No	13	>.05
	Yes	123	

n*: number of patients using herbal products; ** Educational level: Low educational level (illiterate, Primary school, Secondary school, High school); High educational level (University and postgraduate degree)

A majority of patients (68%) stated that they use herbal products and about half of these patients (use herbal products) stated that they believed that herbal products were completely harmless (48%) ($p < 0.05$).

According to the report of World Health Organization (WHO), traditional and complementary medicine continues to be widely used in most countries [1]. Majority of the world population use or benefit from herbal products as primary health care applications. Although herbal products are widely used for different reasons in the community, the attitudes and practices towards the use of herbal products could be differed between the patients and the pharmacists. This study is the one of the studies which evaluates the attitudes and practices of both towards the use of herbal products.

In our study it was found that the prevalence of the use herbal products as 68%. The frequency of using herbal products was determined as 35-85% in other studies [6, 13, 15, 16, 17]. Additionally, it was emphasized that the herbal medicine uses in Africa reaches up to 90%, in Saudi Arabia 94% and in India 70% of the population [18].

It was determined that the majority of the patients using herbal products were women (70%) in our study. In many studies it was found that the use of herbal products is higher in women than in men [3, 6, 13, 15, 16, 19].

In our study, the rate of herbal products use is higher in patients with low education levels (%66). It was determined that similar results (respectively 70% and 40%) were obtained in other studies [13, 15].

The majority of patients (69%) stated that they use herbal products due to the belief that herbal products were beneficial. This ratio is higher than the other similar studies (respectively, 58% vs 57%) [13, 18]. Approximately half of the patients believed that herbal products were harmless in our study while Nur (2010) reported this ratio as 21% [13].

Table 3. Patients' attitudes and practices towards the use of herbal products

	N	%
Believing that the use of herbal products is completely harmless		
No	123	62
Yes	77	38
Patients buy herbal products from		
Herbalist	149	74
Gathering from nature	73	36
Pharmacy	43	21
Websites	8	4
Television	3	1.5
Reasons to use herbal products		
Believe in they are beneficial	139	69
Fail in treatment with conventional drugs	21	10.5
Public influence	28	14
Feeling Desperate	9	4.5
Not believe in effects of drugs	5	2.5
Don't want to go to the doctor	3	1.5
Other	23	11
Expectations from the use of herbal products		
To reduce of symptoms	76	38
To cure the disease/s	73	36
To support the treatment	52	26
To prevent recurrence	31	15
Starting time to use herbal products		
When symptoms appear	93	46
Using even though there is no symptom	60	30
After the using prescription drugs	26	13
When the symptoms increase	26	13
Notifying the doctor or pharmacist about the use of herbal products		
No	96	48
Yes	105	52
Recommending the use of herbal products to relatives with similar complaints		
No	49	24
Yes	151	76

n: number of patients (some patients have given more than one answers)

Forty-two percentage of the patients stated that the most reliable source of information regarding the use of herbal products was the recommendation of their relatives while 19% of patients stated that the pharmacist (Figure 1). In parallel with this result, the most common factor that affect herbal product use was determined as "the relatives" with a rate of 46% (Figure 2).

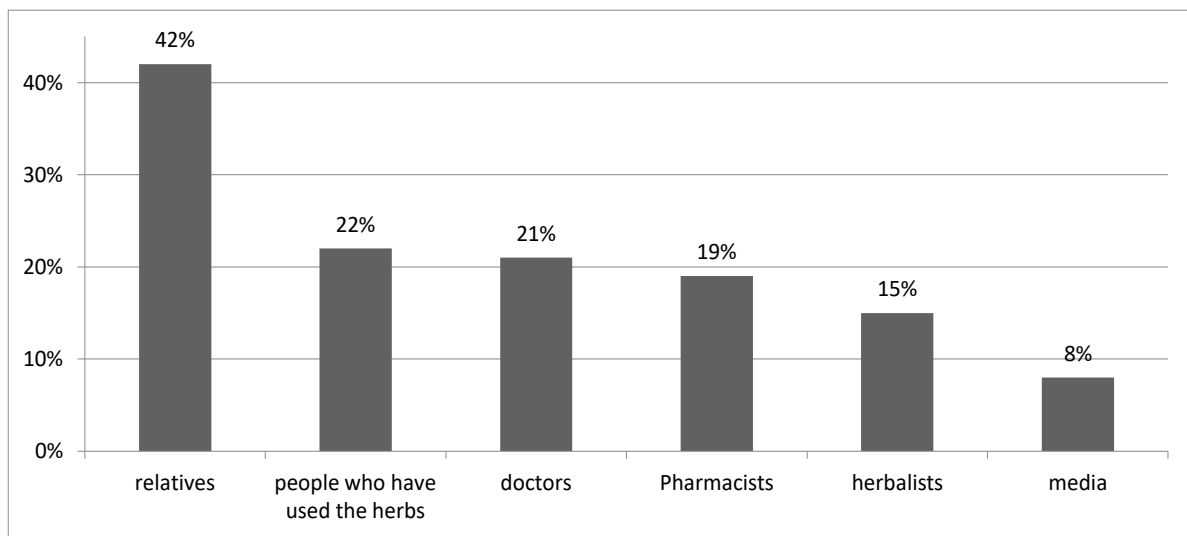


Figure 1. Percentage of the information sources regarding the use of herbal products

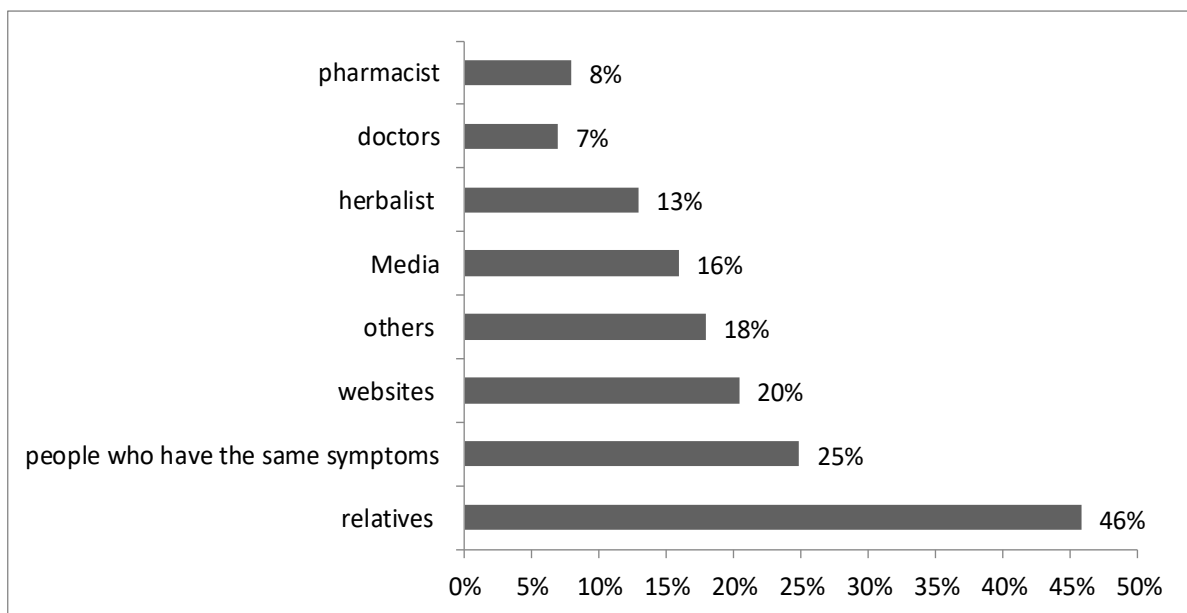


Figure 2. Percentage of factors that affect patients' use of herbal products

In this study, over half of the patients (52%) stated that they gave information about using herbal products to the doctor or pharmacist while Nur (2010) reported a lower rate of 37.9% [13].

In our study it was found that approximately 73.5% of the patients with chronic disease use herbal products. Peltzer et al. (2019) and Tulunay et al. (2015) reported lower ratios compared to our study (44% and 29%, respectively) [8, 20]. In another two studies it was determined that approximately 40% of patients with chronic disease used herbal medicine [16,20]. On the other hand, about 40% of patients with chronic diseases stated that they use herbal products due to the benefices [8].

In the literature, it has been determined that the 34-62% of patients believe that relatives are the reliable information source about herbal products [8, 19]. Similarly, in our study it was found that 44% of the patients stated that the most reliable source of information regarding the use of herbal products was the recommendation of their relatives.

Twenty percent of patients stated that they get information about using herbal products from the doctors in our study. This result is similar to the study of Nur (2010) with thirty percent [13].

The rate of informing the doctor or pharmacist about the use of herbal products was found to be 52% in our study. This ratio was found to be in the range of the other studies (50-80%) [15, 21].

In our study, approximately half of the patients (42%) stated that they used herbal products with the advice of their relatives, and the majority (76%) said that they recommended herbal products to people with the same symptoms. Less than half of the patients (46%) stated that they started the use of herbal products via recommendations of relatives. Several studies revealed similar results between the range of 44-75% [13, 15, 20].

In our study, the approaches towards on using herbal products of patients were evaluated. This study showed that a majority of patients use herbal products and advise the use of these products to their relatives. In addition, majority of patient believe that the use of herbal products is completely harmless and approximately half of the patients stated that they did not give information about using herbal products to the doctor or pharmacist. According to the results of our study, patients prefer herbal products especially in minor ailments. For this reason, we think that pharmacists, who are the closest health consultants, will contribute positively to the rational and safe use of these products, especially through patient education.

AUTHOR CONTRIBUTIONS

Conception: *S.T., M.B.*; Design: *S.T.*; Supervision: *S.T.*; Resources: *S.T., M.B.*; Materials: *S.T., M.B.*; Data Collection and/or processing: *S.T., M.B.*; Analysis and/or interpretation: *S.T., M.B.*; Literature search: *S.T.*; Writing manuscript: *S.T.*; Critical review: *S.T.*; Other: -

CONFLICT OF INTEREST

The authors declare that there are no actual, potential or perceived conflicts of interest for this article.

ETHICS COMMITTEE APPROVAL

The ethical approval was taken from a local ethic committee (Marmara University Medicine Faculty School of Medicine Ethics Committee Protocol code: 09.2017.644).

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