

## Level of Knowledge and Attitude of the Medical Educated People About Medicinal Herbs

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### Abstract

**Objectives:** Lack of existence of traditional medicine based on the academic sciences and lack of a study on the knowledge of the community about the indication and contraindications and drug interactions with herbal remedies, we decided to investigate the attitudes and knowledge of people with medical education.

**Materials and Methods:** In this cross-sectional study, people from medical, nursing and pharmacy groups were selected randomly. Implicit consent was obtained from individuals. The questionnaire consisted of demographic characteristics and four parts of the questions were as following, the first part consisting of people's attitude, the second part containing questions related to indication, the third part of questions related to contraindication and the last part was about drug interactions.

**Results:** In this study, 388 participants were enrolled. The mean age of the participants was  $29.66 \pm 8.37$  years. 180 were female (46.4%). Most patients (66%) rarely or occasionally recommend herbal remedies. Most participants (68%) occasionally or rarely recommend herbal medicines as an alternative for common medicine. 256 participants (66%) believe that the use of herbal remedies has increased and 112 (28.9%) declare unawareness and 20 (5.2%) believe that Consumption has not increased. The reason for increased use is often that people think these drugs are natural.

**Conclusion:** Most participants do not have enough information about herbal remedies and medications and often claim that because herbal remedies are natural, cheaper and less risky, the tendency to herbal remedies and medicines has increased but the participants themselves often do not recommend replacing prescription medicine with them.

**Keywords:** Knowledge, Attitude, Herbal Remedies

### Introduction

Much of what is considered today as 'alternative medicine' in developed countries. A large part of the world's population, including many developed countries, consider alternative therapies rather than chemical treatments for most health-related problems<sup>1</sup>. In most cultures, medicinal herbs have been a key component of these alternative therapies for a long time. The historical role of herbal drugs in the treatment and prevention of disease and their role as catalysts in drug development do not guarantee their safety for use by a community without control<sup>1</sup>. Concerns about the current expansion of herbal remedies and uncontrolled use and largely unawareness or misinformation of them were the subject of a recent editorial in the New England J Medical Journal (NEJM)<sup>2</sup> and a series of articles in the Journal of the American Medical Association. (Jama)<sup>3</sup>

The marketing and use of these 'natural' options were greatly facilitated by the approval of the 1994 Diet Supplement Health and Education Act (DSHEA)<sup>4</sup>.

According to the Presidential Commission's estimates of dietary supplements, about 1,500-1,800 herbal products are

sold in the United States as dietary supplements or clanship drugs. Estimates of the market value of herbal medicines vary, but all sources agree that this is a multi-billion dollar industry<sup>5</sup>. Thus, considering the tendency of the people of our beloved country and the existence of non-academic Atari (name of job, who offers traditional treatment agents) and traditional medicine at the community, and lack of existence of traditional medicine based on the academic sciences and lack of a study on the knowledge of the community about the indication and contraindications and drug interactions with herbal remedies, we decided to investigate the attitudes and knowledge of people with medical education.

### Material and Methods

This is a cross-sectional study, participants were randomly selected and enrolled from medical, nursing and pharmacy departments. Considering the available medical, nursing and pharmacy groups of about 20,000 with Cochran formula, data is about 376 obtained in the field and 388 individuals

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were enrolled to improve the results. Also, those with experience in herbs and related field or Atari pharmacies and doctors with a Ph.D. in traditional medicine were excluded.

The questionnaire consisted of demographic characteristics and four parts of the questions, the first part consisting of people's attitude, the second part containing questions related to indication, the third part of questions related to contraindication and the last part was about drug interactions. It should be noted that this questionnaire is based on common medicinal herbs common among people and common herbal drinks in the market and does not include all medicinal herbs, as there is certainly no sufficient information on non-common medicinal herbs.

Then data including age, gender, individual awareness score and score obtained of each section were entered into SPSS 20.0 statistical software. For inside group analysis, descriptive statistical method and for comparison of quantitative data t-test and qualitative data Chi-square method was used. The level below 0.05 is significant.

**Ethics:** this study was approved by local ethic committee of Tabriz University of medical sciences with no.: IR.TBZMED.REC.1398.835

## Results

388 subjects were enrolled in the study, which did not follow the normal distribution according to the Kolmogorov-Smirnov method. ( $PV \leq 0.0001$ )

The mean age of participants (28.83-30.50, 95% CI) was  $29.66 \pm 8.37$  years with a minimum age of 20 years and a

maximum of 60 years. The median is 26 years and the mode is 23 years.

Among participants, 104 (26.8%) were pharmacists, 152 (39.2%) were nurses, and 132 (34.0%) were physicians.

356 (91.8%) Of the participants had work experience under 5 years. Sixteen (4.2%) were between 5 and 10 years, and eight (2.1%) were between 10 and 15 years and eight (2.1%) were 30 years. 180 (46.4%) were female and 208 (53.6%) were male.

Most participants obtained information on herbal remedies from university-related courses.

208 participants (53.6%) had prior information on herbal remedies and 180 (46.4%) had no information. 180 (46.4%) had new information on herbal remedies and 208 (53.6%) had no new information added to the previous information.

Most participants (66%) rarely or occasionally recommend herbal remedies (Figure 1).

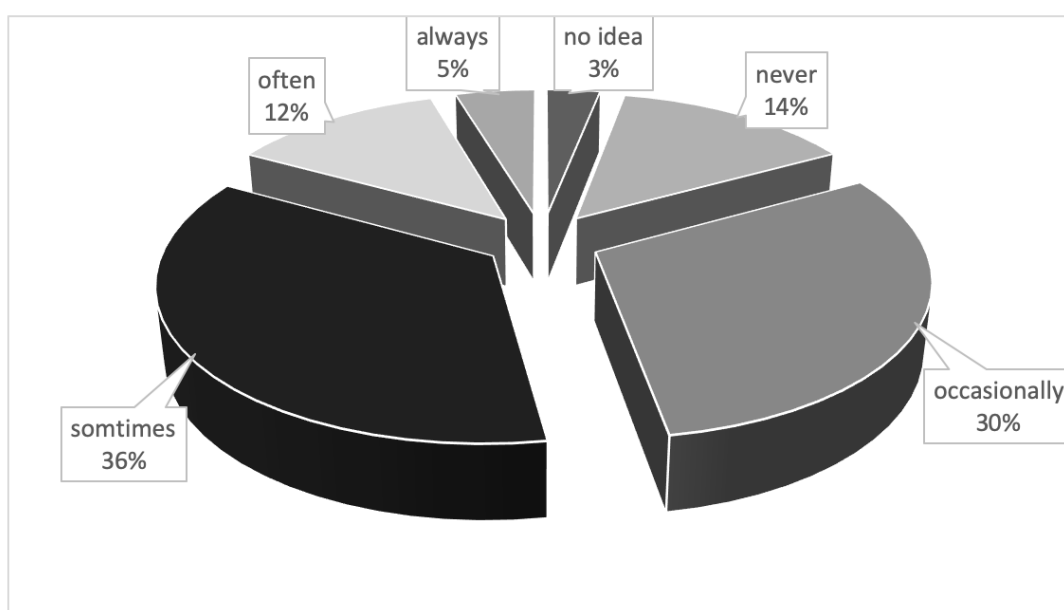
Most participants (68%) occasionally or rarely recommend herbal medicines as an alternative for common medicine.

256 participants (66%) believe that the use of herbal remedies and drinks has increased and 112 (28.9%) declare unawareness and 20 (5.5%) believe that Consumption has not increased.

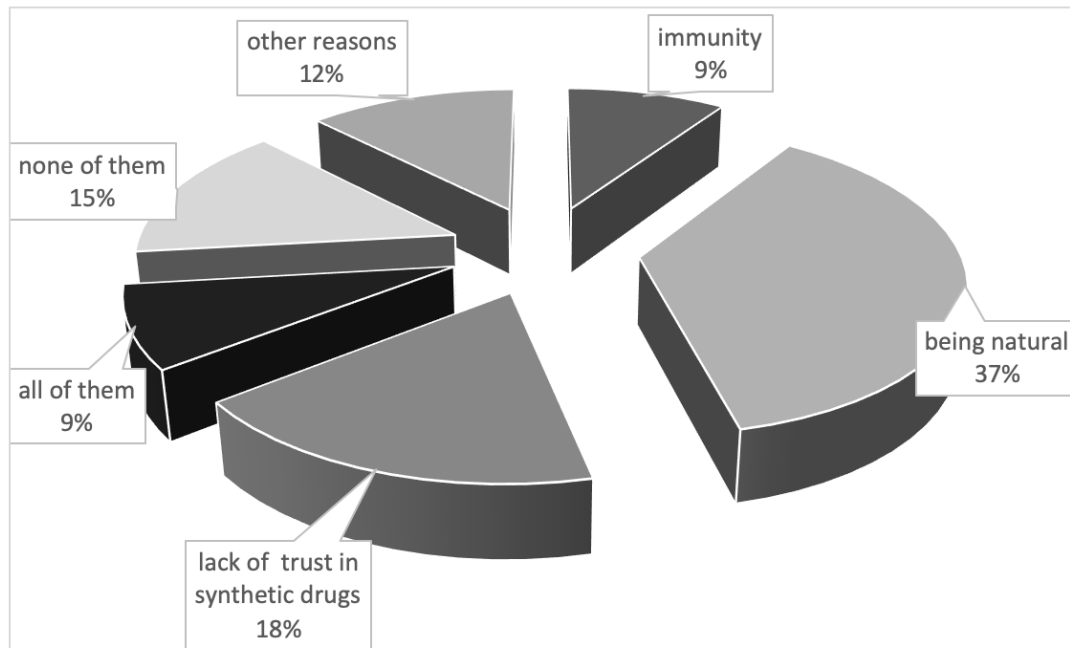
The reason why use has increased is often said that the drugs are natural (Figure 2).

In answer to how they would decide if participants were asked strongly to prescribe herbal medicines, 152 said they would decide by considering the situation and 94 said they will not prescribed under the any condition.

39.6% of participants considered the risk of herbal medicine to be low and 49.1% of participants disagreed and considered it harmful (Figure 3).



**Figür 1.** Level of participants' recommendation for taking herbal remedies



**Figür 2.** Frequency of beliefs about the causes of increasing or not increasing the use of herbal medicines

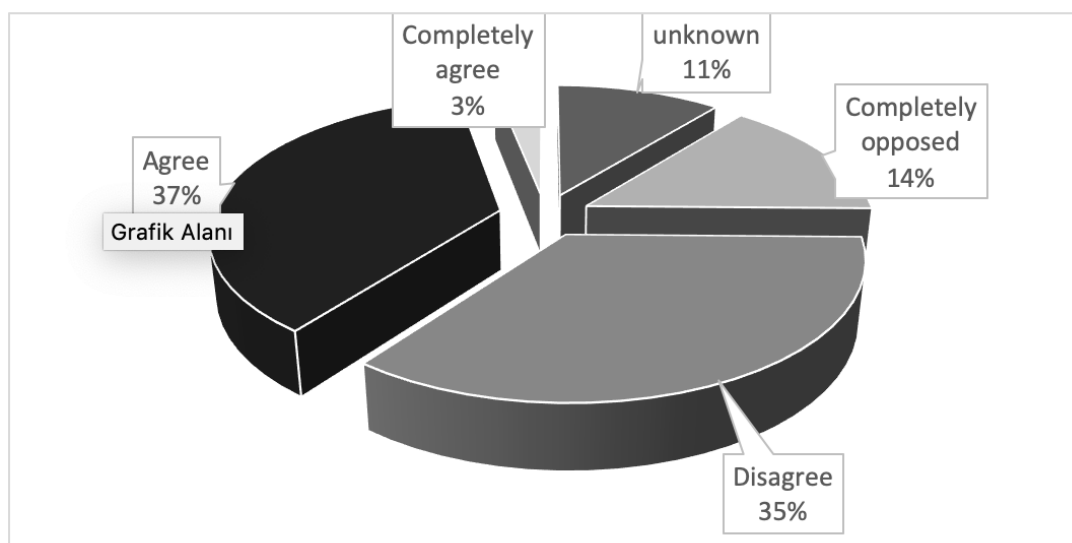
45.9% believe that herbal remedies are cheap for patients but 49.5% disagree. 51% believe that herbal remedies are cheap for health system but 41.3% oppose this. 28.4% of participants believe that herbal remedies are effective in treatment and 53.6% disagree. 59.8% of participants believe that herbal remedies are compatible with people’s culture and 29.4% disagree. 43.8% of the participants find it easy to take herbal remedies, but 48.8% disagree.

39.7% believe that complications of using herbal remedies are less common and 54.6% disagree and consider it to be a high (Figure 4).

### Discussion

388 volunteers participated in this study. The mean age of participants was  $29.66 \pm 8.37$  years with a minimum age of 20 years and a maximum of 60 years. Among participants, 104 (26.8%) were pharmacists, 152 (39.2%) were nurses, and 132 (34.0%) were physicians.

356 (91.8%) Of the participants had work experience under 5 years. Sixteen (4.2%) were between 5 and 10 years, and eight (2.1%) were between 10 and 15 years and eight (2.1%) were over 30 years. 180 participants were female and 208 were male, and most of the participants were educated at



**Figür 3.** Participants' beliefs about the harmlessness of herbal remedies for patients

Tabriz University of Medical Sciences. 124 had a history of working in a pharmacy, often working in a private pharmacy. Most of the participants in this study obtained information on herbal remedies from university-related courses, and 208 participants had prior information on herbal remedies and 180 had no information. Many herbs have preventive or curative effects. Therefore, like any therapeutic agent, they can cause side effects if the drug is overused or misused. The likelihood of producing side effects increases when the production and sales of such goods are largely uncontrolled and the consumer is not aware of its proper use. Recent articles (2 and 3) focus on discussing the importance of the growing use of medicinal herbs in the United States in their editorial at NEJM, Angel, and Kasser. They expressed concern about the potential risks associated with the widespread use of medicinal herbs and their scientifically unproven preparation methods<sup>2</sup>.

In our study, 256 participants (66%) believe that the use of herbal remedies and drinks has increased and 112 (28.9%) declare unawareness and 20 (5.5%) believe that Consumption has not increased. The reason why use has increased is often said that the drugs are natural.

In answer to how they would decide if participants were asked strongly to prescribe herbal medicines, 152 said they would decide by considering the situation and 94 said they will not be prescribed under any condition.

39.6% of participants considered the risk of herbal medicine to low and 49.1% of participants disagreed and considered it harmful. 45.9% believe that herbal remedies are cheap for patients but 49.5% disagree. 51% believe that herbal remedies are cheap for the health system but the rest oppose this.

In a study by Angel and colleagues, they noted that although most herbal remedies are probably harmless, some may be quite toxic and the consumer is largely oblivious to its potential side effects<sup>2</sup>.

Wayne Jonas, former director of the National Institute for Alternative Drug Medicine Health, tried to evaluate both sides of the issue in his JAMA editorial and emphasized the fact that there is the possibility to replace common medicine in positive and negative aspects<sup>6</sup>.

He noted that common medicine has the advantage of confirming the benefits of scientific methods, while traditional and alternative medicine largely depends on informal reports.

He warned that due to lack of standardization in harvesting and processing, the beneficial effects of medicinal herbs may vary. Thus, while acknowledging the beneficial effects of alternative medicines, Jonas calls for increased research to confirm the useful and safe applications and to further investigate the mechanisms that underlie the therapeutic effects of alternative medicines. In our study, 28.4% of participants believe that herbal remedies are effective in the treatment and 53.6% disagree. 59.8% of participants believe that herbal remedies are compatible with people's culture and 29.4% disagree. 43.8% of the participants find it easy

to take herbal remedies, but 48.8% disagree. 39.7% believe that complications of using herbal remedies are less common and 54.6% disagree and consider it to be high.

61.3% of the participants believe that society has a strong belief in the usefulness of herbal remedies and 32% disagree.

In a study by Fontanarosa and Lundberg, they noted: Although millions of patients are using these methods, the tests and studies that have been accidentally performed on these materials have not been right and regular.

Therefore, consumers spend billions of dollars annually on treatments that may be effective and, in most cases, do not have insurance reimbursement.

Fontanarosa and Lundberg also point out that in some cases, the methods used as alternatives are contraindicated and worsen the condition. The use of medicinal herbs was quite common in the United States in the nineteenth and early twentieth centuries.

## Participant awareness

Most participants do not have enough information about herbal remedies and medications and often claim that because herbal remedies are natural, cheaper and less risky, the tendency to herbal remedies and medicines has increased but the participants themselves often do not recommend replacing prescription drugs with them.

## Conclusion

Most participants do not have enough information about herbal remedies and medications and often claim that because herbal remedies are natural, cheaper and less risky, the tendency to herbal remedies and medicines has increased but the participants themselves often do not recommend replacing prescription drugs with them.

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