

## Interfering factors with prescribing herbal medicines by medical practitioners in Isfahan

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### Abstract

Although remarkable advances in modern medicine have brought about new strategies to cure diseases, there are still many people who tend to take herbal remedies to regain their own wellbeing. Despite this tendency among the ordinary Iranian patients, the issue is somehow controversial between medical practitioners. Today it is known that physicians' attitude towards efficiency of herbs affects their decision to recommend and prescribe such remedies for their patients. In the present study we aim to unearth underlying factors of physicians' attitude towards phytomedicine in Isfahan. A questionnaire was prepared and validated by a gallery of relevant experts. The questions were including physicians' demographic characteristics and their knowledge and attitude about herbal therapy. Participants (either general practitioners or specialists) were randomly selected and were asked to fill in the questionnaires. The analyzed data revealed that the tendency towards the use of herbal remedies is greater among general physicians. It was found that physicians' knowledge of phytotherapy is not satisfactory and this was an important factor in considering phytomedicine as an unreliable therapeutic approach. Very few physicians claimed that they knew standard herbal products available in the market. Most of the physicians believed in the importance of herbal random clinical trials and scientific evidences for the herbal drug regimens on the credence of phytotherapy among medical practitioners. Physicians' interest in phytomedicine was much affected by their knowledge of this issue. Therefore, changing the existing pessimistic attitude requires coordination between physicians and academic centers. Also preparing herbal medicine into standard dosage forms by pharmaceutical companies is an important measure to make herbal remedies more reliable prescriptions.

**Keywords:** Phytotherapy; Herbal medicine; Isfahan

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### INTRODUCTION

Herbal therapy, also called phytomedicine or botanical medicine, is an important branch of complementary and alternative medicine and is in fact a traditional therapeutic system which takes advantage of herbal plants to prevent and cure maladies and improve general health (1). Herbal therapy has longly been of great interest amongst traditional health professionals and was considered to be the most reliable therapeutic approach until the early 16th century (2).

Herbal therapy in Iran also dates back to a long time ago and a number of writings regarding this issue are left by great physicians e.g.

Avicenna and Rhazes. Today, in spite of remarkable advances in modern medicine, we are confronted with an increasing tendency towards herbal remedies among those seeking for traditional therapies. Evidences show that the number of patients visiting practitioners of traditional medicine in United States is increasing and Americans' use of herbal medications continues to rise (3). Approximately \$20.1 billion was spent on herbal preparations in 2003, with about 16% of Americans reporting that they were using both herbals and prescriptive medications at the same time (3).

Many factors may be involved in such eagerness; among them, every day discovery

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of adverse effects of chemicals also their risk for pollution of environment and on the other hand poverty may be considered as the most important cause. Based on the World Health Organization statistics, more than 80% of people in developing countries resort to herbal remedies to provide their therapeutic needs (4). Approximately 50% of patients benefit from some types of traditional medicine and many of them do not inform their physicians about such interventions (5). Despite this tendency towards herbal medicine among patients, this issue is somehow controversial between practitioners.

In a study by Mousavizadeh, it was revealed that physicians' attitude towards the efficacy of herbal medicine affects their decision to recommend such remedies to patients and that their resistance to change their viewpoints is the main reason for failure of phytotherapy (6). Thus focusing on factors influencing physicians' attitude and resolving the existing problems may modify their unreliability leading to acceptance of phyto-medicine as an approach beside chemotherapy (7). In current study we aimed to identify interfering factors and problems ahead of herbal medicine in Isfahan and evaluate physicians' critical points of view towards this matter. To our knowledge this is the first study to consider underlying factors of physicians' attitude towards phyto-medicine in Isfahan but there is only one study published in 2006 about survey of the attitude of Sanandaj (Kurdistan-Iran) medical society members and the extent of their knowledge about herbal drugs and their prescription. According to the above mentioned study, medical society of Sanandaj had an average awareness and positive attitude towards herbal medicine (8).

## MATERIALS AND METHODS

The present work was a cross-sectional study fulfilled in Spring 2008 in Isfahan. Using Pubmed/Medline as a secondary database a literature survey was performed to identify probable problems and believes about phytotherapy in the world and Iran. Phytotherapy, Herbal medicine, Attitude and Physician were used as the key words. A

questionnaire was then prepared by a gallery of relevant experts and was targeted for measuring knowledge and attitude of the target population about routine herbal drug regimens in Iran. The questionnaires were also including the demographic characteristics (age, nationality, geographic, location, and specialty) of physicians and questions dealing with physicians' attitude and opinion about the hindrances for their private practice of herbal therapy. Each physician was also interviewed with related open ended questions as well.

Sample size was estimated by the following statistical formula.

$$n = \frac{z^2 \times p \times (1 - p)}{d^2}$$

n = Sample number

p = Estimated prevalence

d = Acceptable accuracy

$\alpha = \%5$   $z = 1.96$   $d = \%5$   $p \approx \%20$

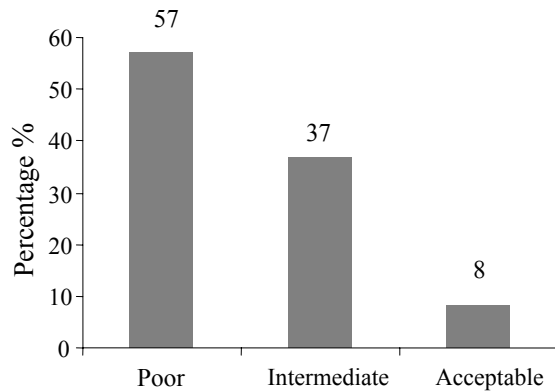
$$n = \frac{(1.96)^2 \times 0.20 \times (1 - 0.20)}{(0.05)^2} = 247$$

Thus 247 participants (either general physicians or specialists) were randomly selected. With reference to clinics and offices, the physicians were informed of the research objectives and were asked to fill in the forms and then being interviewed. The inclusion criterion for including physicians in the study was active practice of medicine in Isfahan. Questionnaires were collected and data were analyzed using Chi-square test SPSS™ software (Version, 10.0) and  $P < 0.05$  was considered to be statistically significant (9).

## RESULTS

As a result of diversity in the age of participants, sample size was not large enough to find a significant correlation between the age and tendency of physicians towards taking advantage of phytotherapy. 42% of interested physicians were male and 58% were female. In our study no distinct relationship was detected between physicians' interest in herbal therapy and their geographic location ( $P > 0.05$ ).

Random sampling and analyzing data revealed that the tendency towards the use of



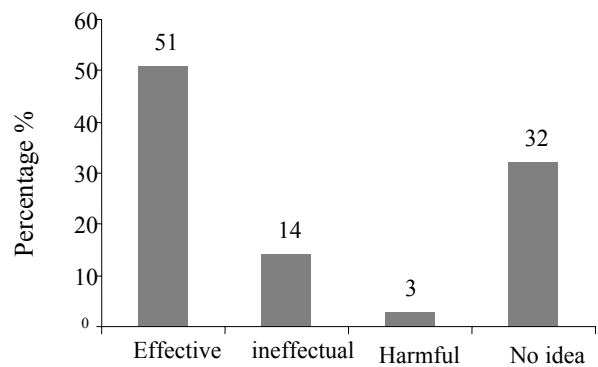
**Fig. 1.** The frequency of physicians' knowledge on herbal therapy. It shows that 57 percent of the studied samples, had limited knowledge about treatment with herbal drugs.

herbal remedies was greater among general physicians than in specialists and in fact less than 1% of specialists accept phytomedicine as a therapeutic approach. Among them, mostly internists and urologists offered herbal remedies to their patients but they considered of it to be a complementary approach in treating diseases. Data showed that physicians' knowledge of phytotherapy was not satisfactory. Fifty seven percent were at poor level, 37% were at intermediate stage while only 8% were well informed of therapeutic effects of herbs since most of them had not received any academic education or other courses related to this field (Fig. 1).

The data showed that 51% of practitioners believed in positive effects of herbs in treatment of diseases and 3% considered it to be detrimental to patients' health due to their adverse effects (Fig. 2).

As shown in (Fig. 3), only 9% of physicians claimed that they knew herbal products in the market but most of them had no idea about the products presented in standard dosage forms in Iranian pharmacies. Ninety three percent were agreed in the presence of adverse effects in herbal remedies. Of this physicians 41% believed on herbal therapy only for minor health problems and 33% opposed this idea.

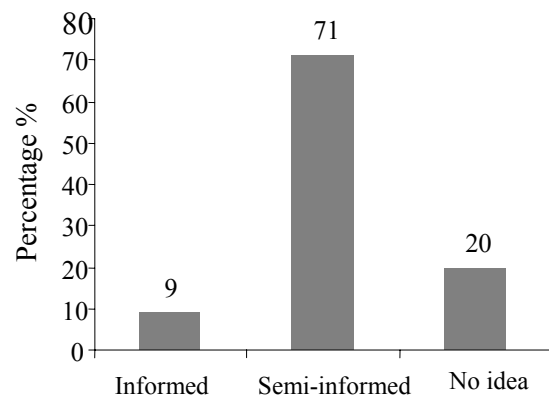
Our data showed that 83% doubted about application of herbal drugs unless their efficiency has been approved by random clinical trials. Also, 85% believed that the presence of scientific evidences on herbs' safety is a requi-



**Fig. 2.** The frequency of physicians' general idea about the effectiveness of herbal drugs. 49 percent of studied samples did not believe in positive effects of herbal therapies.

site to their acceptance.

Seventy two percent of the physicians expressed that the herbal drugs are more expensive than chemical drugs and have not support of Iranian insurance companies. Besides, 84% believed that herbal drugs and even spiceries are not standard and hygienic; therewith some patients have not fondness to phytotherapy.



**Fig. 3.** The frequency of physicians' information about herbal formulations in Iran. Ninety one percent of studied samples were not well enough informed about available dosage forms of herbal drugs in Iran.

## DISCUSSION

Despite remarkable advances in modern medicine, there are still many patients who

resort to herbal remedies seeking cure and health promotion. Unfortunately many of these patients are referred to nonprofessional business grade natural product providers and thus they are put innocently in a real health hazard. This patient-led trend creates new challenges for physicians and emerges the need to train interested and educated professionals to avoid causative health problems.

Our study implies that many general practitioners are interested in phytomedicine and get benefit of it for their patients but due to insufficient academic education in that field and no available comprehensive and available references, they are hesitated to recommend such therapies to their patients. On the other hand many specialists have a negative attitude towards this matter therefore they do not rely on herbal remedies and avoid prescribing them. We found that physicians' interest in phytomedicine was much affected by their knowledge in this issue. Thus changing these pessimistic viewpoints requires coordination between physicians and relevant academic centers.

In order to prescribe medications properly and safely, sufficient information about therapeutic effects of herbal medicines, their adverse effects and interactions with chemical drugs and supplements is needed (10).

Several key points contribute to understanding the potential interaction between herbal products and many prescriptive medications (11). Therefore investigation of these points by establishing clinical trial studies will provide reliable evidences to be referenced. Launching these studies requires close scientific collaboration between physicians and pharmacists.

On the other hand it seems that doubts about the standardization of available herbal drugs regarding to pharmacognostic issues and easy to dose formulations remains among the major causes of concern for medical practitioners in prescribing herbal drugs. Therefore, preparing herbals into dosage forms by authorized pharmaceutical companies is an important measure to make herbal remedies more reliable for prescribing physicians. The important role of pharmacy practitioners should also be mentioned here because they are routinely trained a considerable amount of information on the

correct usage of herbal drugs here in Iran. A new educational discipline same as "clinical pharmacognosy" may also be helpful to publicize herbal drug prescription and utilization.

Also putting herbal remedies under support of insurance companies will make them more cost benefit for patients.

The last but not the least issue is for medical insurance organizations. Unfortunately, the main burden of costs for the health expenditures here in Iran is on the shoulders of government sector. This means that most of non-herbal drugs are paid by about 70% by means of the above mentioned government associated institutions. Many people are financially dependent to the payment by these organizations and unluckily most of herbal drugs are not covered by them. As a result, many physicians are hesitated to impose this amount of out of pocket money to their patients. It seems that a wholistic approach to the scientific, technologic and sociologic aspects of herbal drug utilization is essential for getting the society be benefited by the advantages of valuable natural products and herbal drugs.

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