

# Knowledge, Attitude and Practice of General Practitioners toward Complementary and Alternative Medicine: a Cross-Sectional Study

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**Abstract-** Orientation of public and physicians to the complementary and alternative medicine (CAM) is one of the most prominent symbols of structural changes in the health service system. The aim of his study was a determination of knowledge, attitude, and practice of general practitioners in complementary and alternative medicine. This cross-sectional study was conducted in Qazvin, Iran in 2013. A self-administered questionnaire was used for collecting data including four information parts: population information, physicians' attitude and knowledge, methods of getting information and their function. A total of 228 physicians in Qazvin comprised the population of study according to the deputy of treatment's report of Qazvin University of Medical Sciences. A total of 150 physicians were selected randomly, and SPSS Statistical program was used to enter questionnaires' data. Results were analyzed as descriptive statistics and statistical analysis. Sixty percent of all responders were male. About sixty (59.4) percent of participating practitioners had worked less than 10 years. 96.4 percent had a positive attitude towards complementary and alternative medicine. Knowledge of practitioners about traditional medicine in 11 percent was good, 36.3% and 52.7% had average and little information, respectively. 17.9% of practitioners offered their patients complementary and alternative medicine for treatment. Although there was little knowledge among practitioners about traditional medicine and complementary approaches, a significant percentage of them had attitude higher than the lower limit.

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## Introduction

Today, because of the volume of new issues about health, health development, cultural and philosophical changes of modern medicine and deficiency in it; emotional needs of patients with chronic diseases are undergoing fundamental changes. Increasing public and physicians' attention to the complementary and alternative medicine (CAM) is one of the most prominent symbols of structural changes in the health service system. Several factors affect this tendency in different cultures. Focus of these holistic methods to lifestyle, emotional and spiritual aspects of patients is one of the most important supportive factors of these methods (1). Alternative medicine is getting more popular during the time and is estimated that one of

three persons uses these treatments for a common illness such as back problems, headache, anxiety, and depression in his lifetime (2). In many regions of Africa, Asia and South America, this type of medicine is the only way to cure and treat. Using of complementary and alternative medicine is growing in Australia, Europe, and North America. According to data at 2007, 38% of adults (4 persons of 10), as well as 11.8% of children (1 person of 9), used complementary and alternative medicine (3-5).

In Canada, 48% of responders visited doctors at first and then visited a complementary and alternative medicine expert (6). Forty four percent of British people used at least one of complementary and alternative medicine methods in their lifetime (7). Sixty six percent of people in Australia used at least one of

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complementary and alternative medicine methods during the past 12 months (8). 76% of Japanese used at least one of complementary and alternative medicine methods during the past 12 months (9). In this regard, research in Iran shows that 35% of 625 patients suffering cancer used complementary medicine (10). In another research, 83% of persons older than 15 years old in Tehran knew at least one method of complementary medicine. 42% used at least one method of complementary medicine methods (11). Talking about traditional, complementary and alternative medicine always stimulates many reactions (from an attitude of unnecessarily excessive and beyond criticism to an unconscious denial). Nevertheless, traditional medicine in developing countries and at the same time using complementary and alternative medicine in developed countries is expanding increasingly. In many parts of world, politicians, health authorities and public are faced with many questions about safety, efficiency, quality, accessibility, manner of maintain, preserve and expanding these health care methods (12).

Today, these methods are being used besides current medicine widely to treat and return health to patients and disease prevention. Studies in other countries show these methods to be used significantly and despite all progress and advertising on classical medicine, more people are becoming interested in complementary medicine daily (13-15). There are some patients in Iran who finally visit traditional medicine experts after the failure of modern medicine methods. This issue is a due to Iranians dependency to believe and old traditions and maybe it's also because of some achieved successes (16).

Iranian traditional medicine, without considering the east and west world, is really unknown for Iranians and especially Iranian's doctors. Azin *et al.*, showed most of the doctors have little information about common methods of complementary medicine such as acupuncture, homeopathy, yoga and etc. (17). Public utilization analysis of complementary and traditional medicine is the first step towards program using practical methods of complementary and traditional medicine and limit using ineffective and harmful methods (18-22).

It is really important that doctors know complementary medicine. The educational program system of medicine courses in other countries consider helping both doctors and patient to choose the best treatment method with minimum symptoms with the inclusion of CAM education (23,24). Physicians and medical students must have comprehensive information about this regard as be able to help patients well, know

possible symptoms and dangers, be able to provide advice to patients, and answer patient's questions (25-28). There are many physicians that don't have enough information about this kind of medicine or don't believe it, but against that there are many doctors or other than doctors who take advantage of this medicine (15).

So in addition to public reception of these methods, physicians' knowledge, and attitude is a matter of high importance (29). Due to the increasing use of this medicine in our country, especially some types of acupuncture and Ayurveda, evaluation of physicians' knowledge and attitude about this case is necessary to determine the need for training in this area like many other countries (30). Since studies show that short-time courses at students' schedule can make them familiar to the CAM (31), so performing a research about practitioners' knowledge, attitude and practice of CAM is one of the priorities. Thus, decisions can be made about including CAM training courses in an educational system based on the achieved results of these researches.

## Materials and Methods

This cross-sectional study was conducted among general practitioners in Qazvin, Iran in 2013. To collect data, self-administered questionnaires were used and completed by scientific resources. Questionnaires included four parts:

-Demographic characteristics including age, sex, marital status and the number of years of employment

-Questions about practitioners' attitude towards complementary and alternative medicine that were answered as "agreed, do not matter, disagreed."

-Questions about practitioners' knowledge towards complementary and alternative medicine including Iranian traditional medicine, Acupuncture, and Homeopathy.

-Questions about how practitioners get the information and their practice towards "refer patients to CAM experts and discuss usage and possible damages in CAM treatments" which is a complementary and alternative medicine. To determine level of knowledge, after collecting information, practitioners were classified into three groups: with little knowledge (answered correctly by the less than 30% of questions), average (answered correctly by the 30-70% of questions) and good (answered correctly by the more than 70% of questions).

## Data collection

All physicians in Qazvin were considered as a

population of this study including 228 ones according to a report from deputy treatment of Qazvin province. A total of 150 physicians were selected randomly to be enrolled in the study. This study was conducted in 2013. All practitioners had to get score of rated retraining courses to work and licensed, for sampling co-operation with Qazvin medical university, rated retraining courses related to complementary and alternative medicine were used and qualified practitioners in each field were studied. A self-administered questionnaire was used to collect data and information including 36 questions in 4 pages. Questionnaires were filled by practitioners in one day. Questionnaires were designed as multiple-choice questions to be easy and less time consuming.

Non-identifying personal information was requested to respect moral principles. A total of 146 questionnaires were collected in overall. All questionnaires data was entered into a computer using SPSS statistical program. Results were analyzed as descriptive statistics and statistical analysis Chi2 with significant statistical level defined as  $P < 0.05$ .

## Results

Among 146 participants 60.3% were male. Practitioners in this study were between 25-70 years old (Table 1). A number of 135 cases (96.4%) had positive, and 5 cases (3.6) had a negative attitude towards complementary and alternative medicine (Table2).

Between participating, 45.9% didn't know complementary medicine methods (Table 3).

11% of participating had good information about Iranian traditional medicine, and 7.5% of them had good information about Homeopathy (Table 4). In total Knowledge of 75.3% of practitioner about homeopathy was weak (Table 5).

26 participating (17.9%) suggested their patient to use complementary and alternative medicine during their practice (Table 6). 82.1% of practitioners had never suggested their patients CAM. About 76% of practitioners talked to less than ¼ their patients about CAM benefits or dangers. Patients started talking about CAM benefits or dangers in 77% of cases. 63.2% of practitioners said that they don't suggest CAM to their patients with chronic diseases. Media had a major role in obtaining information about complementary medicine techniques (Figure 1).

**Table 1. Distribution of practitioners participating in the study in terms of sex, age, marital status, and years of employment (N=146)**

		Percent	Number
Sex	Female	60.3	58
	Male	39.7	88
Age (year)	<35	38.2	55
	35-45	48.6	70
	>45	13.2	19
Marital status	Unmarried	82.8	25
	Married	17.2	120
Employment (year)	<10	59.4	85
	>10	40.6	58

**Table 2. Practitioners' attitude towards complementary medicine methods (n=146)**

	Agree	No Difference	Disagree
More use of CAM in recent years	79.2	14.6	6.3
Potential of classical medicine in use of CAM approaches	83.3	6.9	9.7
CAM has placebo effect	32.9	8.2	58.9
Education of CAM for medical students and postgraduate is necessary	80.1	9.6	10.3
CAM methods stimulate vital capacity	75.9	10.3	13.8
Refer of patients to CAM centers is increased because of inability of classical medicine in many diseases	63.7	13	23.3
Combination of classical medicine and CAM increased patients satisfaction	86.3	7.5	6.2
Combination of classical medicine and CAM increased patients refer to medical centers	84.2	11	4.8
Scientific research and evidence base medicine only confirmed the effect of CAM	90.4	6.2	3.4
the official justification for the use of CAM by practitioners is necessary	81.5	11	7.5
Use of CAM methods is accepted by people that are not practitioner	13.7	3.4	82.9
Control of Ministry of Health and Treatment and Education is necessary	89.7	9	1.4
Insure policy must be considered for CAM approaches	65.8	24	10.3

**Table 3. Knowledge and practice of participating about complementary medicine (n=146)**

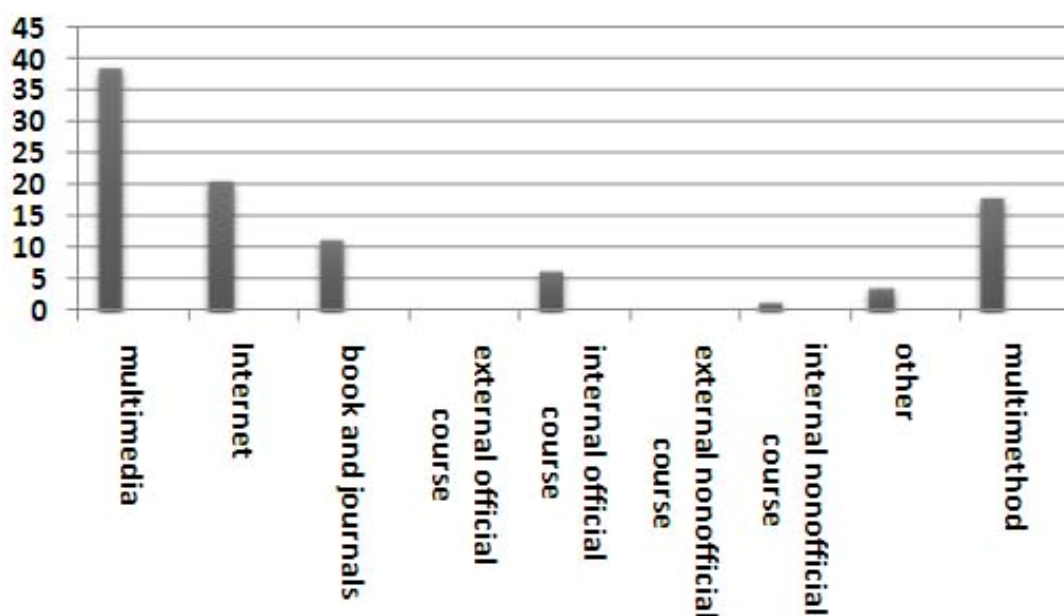
	Homeopathy	Acupuncture	Traditional
No information and no tend to learn	24.7	19.9	16.4
No information and tend to learn	38.4	39.7	29.5
Generality information and no tend to learn	13	9.6	11
Generality information and tend to learn	21.9	28.8	38.4
Complete information with method	0.7	0.7	0.7
Use in practice	1.4	0	4.1

**Table 4. Knowledge of participating about complementary medicine in terms of sex, age and employment years (n=146)**

		Homeopathy			Acupuncture			Traditional		
		Good	Intermediate	Weak	Good	Intermediate	Weak	Good	Intermediate	Weak
Sex	Male	72.7	48	61.8	56.1	63.4	60	68.8	50.9	64.9
	Female	27.3	52	38.2	43.9	36.6	40	31.3	49.1	31.5
Total		7.5	17.1	75.3	39.9	28.7	31.5	11	36.3	52.7
			0.30			0.76			0.21	
Age	<35	72.7	29.2	36.7	37.5	42.5	37.8	20	41.5	39.5
	35-45	27.3	54.2	49.5	53.6	50	42.2	60	49.1	46.1
	>45	0	16.7	13.8	8.9	7.5	20	20	9.4	14.5
Total		7.6	16.7	75.7	39.7	28.4	31.9	10.4	36.8	52.8
			0.14			0.36			0.52	
Employment (year)	<10	72.7	40	62.6	66.1	55	54.5	50	56.6	63.5
	>10	27.3	60	69	33.9	45	45.5	50	43.4	36.5
Total		7.7	17.5	74.8	40	28.6	31.4	11.2	37.1	51.7
			0.75			0.41			0.52	

**Table 5. Distribution of practitioners' knowledge about complementary medicine types (n=146)**

	Good	Intermediate	Weak	Total
Homeopathy	7.5	17.1	75.3	146
Acupuncture	39	28.1	30.8	143
Traditional	11	36.3	52.7	146



**Figure 1. Basic information sources about complementary and alternative medicine**

## Discussion

In current study, 79.2% of practitioners believed that in recent years, notice to complementary medicine methods and applying them are growing and 80.1% had the opinion that is necessary to present courses in complementary medicine principles at educational courses of medicine. 86.3% of practitioners believed that combination of complementary medicine methods with prevalent treatments can result in more patient satisfaction. More than 80% disagreed with applying complementary medicine procedures by unskilled people and were of the opinion that supervision from the ministry of health and medical education is required.

Previous studies reported prominent percent of practitioners believe that these methods are being taken into consideration in recent years and practitioners had a positive opinion about beneficial effects of some of these methods. They emphasized the need for adequate monitoring of the use of this technique but disagreed with applying complementary medicine procedures by unskilled people. This finding is consistent with the results of the other studies (4,6,10,11,17,20,22).

The result of preceding studies showed most of the practitioners participating doesn't have enough information about complementary medicine and do not apply it, but they are interested in learning that, and they believe it. This finding is consistent with the results of the other studies (17,32-34).

In the current study, practitioners had more information about acupuncture, traditional medicine, and homeopathy, respectively. Nevertheless, 39% had enough information about acupuncture, 11% about traditional medicine and just 7.5% had satisfactory knowledge about homeopathy.

Most of the participants were interested in learning acupuncture more than other methods and, in general, 60% of practitioners were known of learning more about CAM.

Results showed there is a significant association between age and knowledge about homeopathy method as practitioners younger than 35-year-old had most information and the minimum information was about ones older than 50. This finding is consistent with the results of the other studies (32-34).

There was no significant association between any kind of complementary methods such as traditional method, acupuncture or homeopathy with age, sex and years of employment.

Based on one of preceding researches, at least 9.9%

of practitioners used one or more of complementary methods and 24% of them suggested their patients to follow complementary medicine in past six months (17).

In this study, 82.1% of practitioners never suggested their patients to use CAM. 76% of them talked less than ¼ of their patients about CAM benefit or dangers

4.1% of study participants used traditional medicine and 1.4% used homeopathy to treat patients and no one used acupuncture.

Due to the need and desire to learn complementary medicine and since one of effective factors to develop complementary medicine methods is awareness of the medical community, it is suggested that Ministry of Health and Medical Education implement a comprehensive program to train graduate physicians and medical students and establish research settings for universities to discover scientific dimensions of these methods.

Complementary medicine regulation by health care system adjusts all medicine methods regulates CAM methods; therefore, it validates all processes in the current health care system.

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