Original Article

Knowledge, attitude and practice of complementary and alternative medicine: A patient's perspective

Abstract

Background: Complementary and alternative medicine (CAM), includes a wide range of approaches such as herbal medicine, traditional therapies, mind-body intervention, etc. Although CAM is a common practice in India, it is not being integrated into the conventional medical system. There is a paucity of data regarding the usage and acceptance of CAM by patients. **Objective:** The aim was to determine the knowledge, attitudes, and practice toward CAM among patients and to correlate these findings with their demographic and professional characteristics. **Materials and Methods:** A cross-sectional, questionnaire-based survey conducted in 100 patients attending out-patient department of a tertiary care teaching hospital. **Results:** Among the respondents, 79.0% were aware of CAM and 46.0 used it. Most common system used was Ayurveda (71.73%), and most common ailment for which it is used was arthritis (30.43%). Majority consulted quacks (43.47%); physicians (23.91%), friends and relatives (19.56%), and 15.21% took CAM as a self-medication. Thirty percent felt that CAM was based on scientific evidence, 25% felt it was safer than modern medicine that is significantly more in women when compared to men. Twenty-five percentage opined that CAM is more efficacious than modern medicine that is significantly more in respondents >40 years age. The most common advantages reported were complete cure, easy availability and no side-effects, whereas disadvantages include food restriction, expensive medication, symptomatic relief and effective for limited diseases. **Conclusion:** Majority of patients use CAM along with modern medicine without physician's advice. Hence, healthcare professionals should be aware of this while taking clinical history and treating patients that may reduce drug interactions due to use of CAM particularly in the elderly population.

Key words: Ayurveda, conventional therapies, traditional complementary and alternative medicine

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INTRODUCTION

Complementary and alternative medicine (CAM), includes a wide range of approaches like herbal medicine, traditional therapies, mind-body intervention etc., and has gained its popularity worldwide in recent years.[1] CAM is defined by the National Center for CAM, United States as "a group of diverse medical and health care systems, practices, and products that are not generally considered part of Conventional Medicine." "Complementary Medicine" refers to use of CAM together with conventional medicine. "Alternative Medicine" refers to use of CAM in place of conventional medicine. CAM therapies such as traditional Chinese medicine, chiropractic, homeopathy and Ayurveda are officially identified.[2] The use of CAM by people may vary, some patients do not trust conventional medicine and believe that it has more side-effects, while some are dissatisfied with conventional medicine that they had used previously, and they shift to CAM. Yet, others consider CAM well-suited with their values or beliefs of healthiness.[3] The increased utilization of CAM has created a growing interest toward CAMs that have been researched in many countries[4,5] There is documented evidence that the use of CAM in western society is high[6-8] and that its use is increasing worldwide[7,9-11] Researchers have accredited the use of CAM in patients with cancer, arthritis, diabetes.[12-16]

In India there is a vast diversity of CAM practices, which can be traced back to many centuries However the Indian system of traditional medicine is not being integrated into the conventional medical system. In India with a rural population of 68.8%, affordable and effective health care is still beyond the reach of vast sections of the population. In November 2009, the Government of India has taken a step to promote "Indian Systems of Medicine" by the promotion of Ayurveda, yoga and naturopathy, unani, siddha and homeopathy. It illustrated the motivation of the government in approving CAM as part of an effort to implement the ideology of a holistic approach in patient care. India is characterized by cultural diversity hence, there is a need to identify the most preferred CAM treatments, how often they are being used by patients and what factors influence the use. Although CAM is a common practice in India, there is a paucity of data regarding the use and acceptance of CAM by patients.[17]

Hence, the present study was undertaken with the following aims and objectives:

- To determine the knowledge, attitude and practice of CAM among patients and
- To determine factors influencing the use of CAM.

MATERIALS AND METHODS

Study design

This was a cross-sectional, questionnaire-based study conducted in a tertiary care teaching hospital after approval from the Institutional Ethics Committee. Respondents were patients of 18 years and above, of either gender, attending the out-patient department (OPD). The study instrument was a self-developed, prevalidated, semi-structured questionnaire consisting of both open and close-ended items. The questions were framed to obtain information about respondents' knowledge, attitude and practice about CAM along with their sociodemographic details. Patients meeting the inclusion criteria were briefed about the trial and informed consent obtained from those willing to participate.

Respondents were also allowed to offer their own suggestions/remarks apart from answering the questions. Information was obtained by a direct face-to-face interview. The questionnaire was first pretested in five participants, and suitable modifications were accordingly done.

Statistical analysis

At the end of the study, all the data were pooled and expressed as counts and percentages. Univariate analysis, which explores each variable in the data set separately, was carried out by using the fisher's exact test. Graph pad prism software version 5.01 was used to analyze data. A $P < 0.05$ was considered as statistically significant.

RESULTS

Among the 100 respondents, 49 were men, and 51 were women. Forty-three patients were aged <40 years, and 57.0% were >40 years of age, with a mean age of 45.24 years. Seventy-two percent respondents were residing in urban and 28.0% in a rural locality. Twenty-four percent were educated below 12th standard, and 76.0% were educated up to or above 12th standard. Fifty-five percent were employed, whereas 45.0% were unemployed. Seventy-nine percent of the respondents were aware of CAM and 46.0% used it. Only 20.0% had family history of use of CAM. The results of knowledge and practices of respondents regarding CAM in relation to their demographics is presented in Table 1. The respondents main source of information about CAM was friends/relatives 44 (95.65%) and only 2 (4.34%) referred to media while none of them went through text books. Majority (43.0%) of respondents consulted quacks for using CAM [Figure 1]. Only 8.69% (4/46) respondents experienced side-effects which were mild in nature. Among the users 52.17% (24/46) CAM stated the reason for use of CAM as good previous experience while 32.60% (15/46) mentioned as less treatment complications. Thirty percent felt that CAM

Table 1: Knowledge and practice of CAM among respondents (*n* = 100)

Variables	Groups	CAM		
		Awareness	Users	Nonusers
		n (%)	*n* (%)	*n* (%)
Age	<40 years (*n*=43)	35 (81.39)	17 (36.95)	26 (60.46)
	>40 years (*n*=57)	44 (77.19)	29 (63.04)	28 (49.12)
Gender	Men (*n*=49)	40 (81.63)	21 (42.85)	28 (57.14)
	Women (*n*=51)	39 (76.47)	29 (56.86)	22 (43.13)
Residence	Urban (*n*=72)	60 (76.92)	38 (52.77)	34 (47.22)
	Rural (*n*=28)	19 (67.85)	15 (53.57)	13 (46.42)
Education	<12th standard (*n*=76)	57 (75.0)	36 (47.36)	40 (52.63)
	>12th standard (*n*=24)	22 (91.66)	11 (45.83)	13 (54.16)
Occupation	Employed (*n*=55)	47 (85.45)	28 (50.90)	27 (49.09)
	Not-employed (*n*=45)	29 (55.55)	22 (48.88)	23 (53.33)

CAM = Complementary and alternative medicine

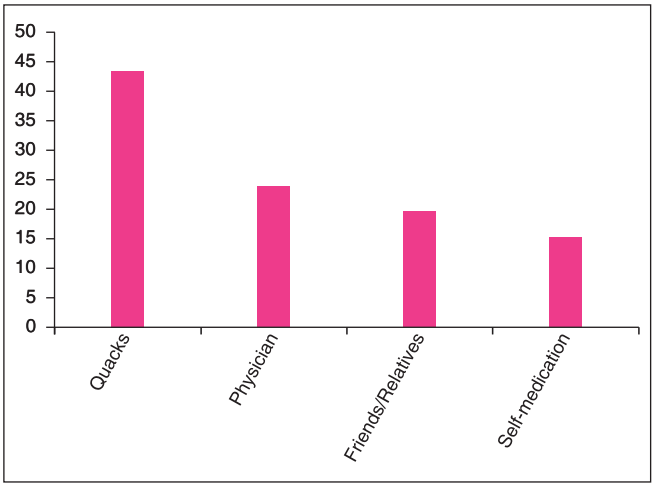

Figure 1: Consultation for complementary and alternative medicine by the respondents

was based on scientific evidence, 25.0% felt it was safer than modern medicine that is significantly more in women when compared to men. Twenty-five percentage opined that CAM is more efficacious than modern medicine which is significantly more in respondents above 40 years of age [Table 2]. When asked for previous outcomes 13 (28.26%) reported complete cure, 24 (52.17%) symptomatic relief, no relief in 9 (19.56%) and disease aggravation in none of them. The various advantages and disadvantages of CAM as quoted by the patients is presented in Table 3. Most common alternate system used was Ayurveda 71.73% (33/46), followed by homeopathy 30.43% (14/46) as illustrated in Figure 2. The most common ailments for which CAM practiced was arthritis 30.43% (14/46), followed by chronic pain 21.79% (11/46) and diabetes mellitus-17.39% (8/46) [Figure 3].

DISCUSSION

To the best of our knowledge, this is the first study done in Indian scenario. In the present study,79.0% respondents were aware of CAM, while 46.0% used it which is comparable to that reported elsewhere in the world.[6,8] It has been reported in the literature that demographics influences CAM use.[18] In the present study, 50.87%, elderly patients used CAM and also opined that it is more efficacious than modern medicine. The findings are analogues to that reported earlier.[11] Similarly, alternative medicine was frequently utilized by the older age group, and they had a positive belief about the fewer side-effects and long-term effects of CAM.[3] Although, some studies report that greater the age less is the probability of CAM use.[16] In the present study, use of CAM is more in women that correlates with previous studies carried out in different countries.[15,19] The cultural circumstances and differing health beliefs between the genders may be the likely reason for this observation. In a wide range of studies, it has been found that educated patients tends to have higher incomes and can better meet the expense to use CAM.[20] However in the present study educational, residential and socioeconomic status did not influence the use of CAM. Disease states also influence the use of CAM.[18] The use of CAM is more common among patients with chronic conditions for which patients had already tried allopathic medicine.[21] In the present study also the most common ailments for which CAM practiced was arthritis, chronic pain, diabetes mellitus, gastrointestinal conditions and HIV. The reason for this might

Table 2: Respondents' attitude about CAM

Variables	Groups	Has scientific evidence (*n* = 30)		Safer than modern medicines (*n* = 25)		Efficacious than modern medicines (*n* = 25)	
Age	<40 years	11	*P*=0.509	9	*P*=0.488	5	*P*=0.032*
	>40 years	19		16		20	
Gender	Men	11	*P*=0.129	6	*P*=0.035*	13	*P*=0.818
	Women	19		19		12	
Education	<12th standard	20	*P*=0.201	19	*P*=0.785	16	*P*=0.114
	>12th standard	10		6		9	

CAM = Complementary and alternative medicine

Table 3: Advantages and disadvantages of CAM stated by respondents (*n* = 100)

Advantages and disadvantages of CAM	Percentage
Advantages	
Natural and no side effect	30.0
Complete cure	25.0
Easy availability	17.0
More efficacious	14.0
Rapid symptomatic relief for mild ailments like cough, constipation	10.0
Disadvantages	
Useful for few diseases	21.0
Symptomatic relief only	12.0
Costlier	12.0
Food restriction	10.0
Side effects	4.0

CAM = Complementary and alternative medicine

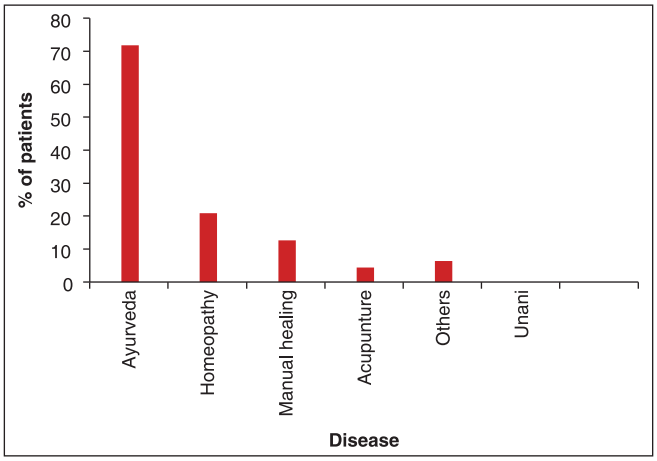

Figure 2: Use of complementary and alternative medicine for various diseases

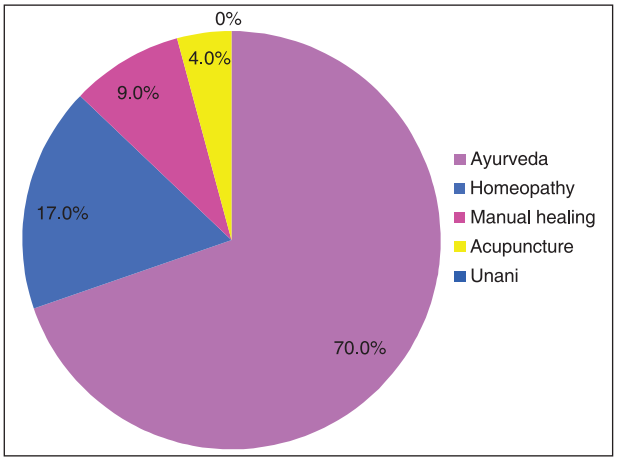

Figure 3: Use of different systems of complementary and alternative medicine by respondents

be only symptomatic relief and lack of complete cure produced by conventional medicines for these conditions. Similarly, poor compliance and side-effects on long-term conventional therapy encourages the use of CAM.[22] Good previous experience and less treatment-associated complications were the common reasons stated by respondents for their use of CAM, which is similar to that reported earlier.[5] In previous studies study, it has been found that disappointment to the conventional medicine and the improved sense of wellbeing were the main reasons for the use of CAM.[22,6] In the present study, Ayurveda was used most commonly, followed by homeopathy. Similarly in the study from Nepal Ayurveda and yoga were common modalities of CAM use.[21] Homeopathy is frequently utilized alternate system of medicine in Far East countries, Pakistan and UAE.[3] The system of the CAM selected depends on the accessibility and affordability, the profile of the disease states, awareness, past experience and beliefs about CAM and their social acceptance.[23] One of the important findings from the present study is that themajority of CAM users did not consult any physician, but used it with nonmedical resources like a quack or friends/relatives. This can further add to the problems because the respondents were attending the OPD of tertiary care teaching hospital hence it is obvious that they used the CAM and the modern medicine at the same time for same or different disease episodes. However, if the physician is unaware of the alternate medicine use by the patients, the possibility of side-effects and drug interactions would add to particularly in female and elderly patients. Similarly, patients should be encouraged to share this information with their health care professionals through a talk that should be performed carefully and should be made to feel that they are taken seriously and are not criticized for using CAM.[24]

It was noted that only 30.0% of the respondents felt that CAM was based on scientific evidence and rest were unsure of its scientific basis. Twenty-five percent felt it was safer than modern medicine that is significantly more in women as compared to men. 25.0% opined that CAM is more efficacious than modern medicine that is significantly more in elderly patients. This finding recommends that patients should be made aware to consult specialist in a particular field for this alternative therapies. There is inadequate data of randomized clinical trials in CAM-associated therapies, which is a serious issue and needs immediate attention. The most common advantages of CAM reported by the respondents were no side-effects, complete cure and easy availability whereas disadvantages include effective for limited diseases, expensive medication, food restriction and only symptomatic relief. Some patients have suggested that alternative therapies should be available at tertiary care hospitals, and there should be health insurance coverage for these therapies also. In the present study patients attending the OPD of cancer, tuberculosis and psychiatry were not interviewed hence we could not comment on the use of CAM in these conditions. In conclusion, majority of patients use CAM along with modern medicine without physician's advice. Hence, healthcare professionals should be aware of this while taking clinical history and treating patients, which may reduce drug interactions due to use of CAM particularly in elderly population.

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