Original Research Article

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Awareness about complementary and alternative medicine among attendees of urban and rural health training centres of a medical college in North Karnataka

Chandan N.¹, Kiran Patil²*

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*Correspondence: Dr. Kiran Patil,

E-mail: kiranpatils@gmail.com

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ABSTRACT

Background: Complementary and alternative medicine (CAM) includes a wide range of practices that do not fit within the dominant biomedical model of health care and are not commonly provided within orthodox medicine settings. People might be attracted to and use CAM because they hold beliefs that are congruent with CAM. But safety and efficacy of these systems are not well established. So this study was done to assess awareness among patients attending UHTC and RHTC about CAM.

Methods: Cross sectional study was done in UHTC and RHTC of SDMCMSH, Dharwad, India. Data was collected by using pre designed interview schedule from 200 patients. Data was entered in Microsoft excel 2013 and analysed using IBM SPSS v20. Descriptive statistics and chi square test were applied. p<0.05 was considered statistically significant.

Results: 100 patients each from UHTC and RHTC were included in the study. 93% of UHTC and 98% of RHTC patients were aware about CAM. 74% in UHTC and 60% in RHTC were aware of advertisements about CAM. 96% of UHTC and 100% of RHTC patients said CAMs have no side effects. 45% from UHTC and 14% from RHTC preferred CAM. 43% from UHTC and 42% from RHTC patients had used CAM.

Conclusions: The awareness about CAM in our study is high, 93% among urban and 98% among rural study participants. Ayurveda was the most commonly used AMT.

Keywords: Allopathy, Ayurveda, Complementary and alternative medicine, Homeopathy, Traditional therapy

INTRODUCTION

Since time immemorial, mankind has developed unique indigenous health systems, practices, and products which are outside conventional scientific medicine collectively known as Complementary and Alternative Medicine (CAM). CAM has been defined as "a group of diverse medical and healthcare systems, practices and products that are presently not considered to be a part of conventional medicine". CAM is being increasingly used

by people all over the world.² The term CAM is used interchangeably with traditional medicine in some foreign countries. They refer to a broad set of health care practices that are not part of that country's own tradition and are not integrated into the health care system. It includes professionally regulated and unregulated practices, for example: Ayurveda, Yoga And Naturopathy, Unani, Siddha, Homeopathy, Acupuncture, Osteopathy, Reiki, Aromatherapy, Faith Healing.³ Complementary medicine is one that is used along with

¹Assistant Professor, Department of Community Medicine, Adichunchanagiri Institute of Medical Sciences, B.G. Nagara, Nagamangala, Mandya, Karnataka, India

²Medical Officer, RHTC, Devikoppa, Kalghatagi, Dharwad, Karnataka, India

conventional system of medicine, but the alternative medicine is used as an alternate to conventional system of medicine.⁴

India is the birth place of one of the oldest systems of medicines, Ayurveda, which had its origin around 2000 years back. Ayurveda, Yoga, Siddha and Unani and Homeopathy are recognized in India as the Indian systems of medicines. The increasing incidence of chronic diseases such as diabetes mellitus (DM) along with other chronic diseases, their serious complications and incurable nature may force people to use complementary and alternative medicine (CAM) either alone or in combination with modern medicines.⁵

Although CAM has been practiced in India for thousands of years, there is limited literature available on the extent of use, attitude and perception of patients utilizing CAM services. Since practitioners of modern medicines may have to encounter patients using CAM, it would be useful to know attitude and perception of patients towards CAM.² So this study was conducted to study the knowledge, attitude and practice regarding complementary and alternative medicines among attendees of urban and rural health training centres of SDM College of Medical Sciences & Hospital, Dharwad.

METHODS

Study design

Cross-sectional study.

Study area

Urban health training centre (UHTC) and Rural health training centre (RHTC), SDM College of Medical Sciences & Hospital, Dharwad, Karnataka, India.

Study period

The study was carried out from July 2016 to September 2016.

Study subjects

Patients visiting the urban and rural health training centres for consultation who are more than 18 years old were selected by simple random sampling technique after obtaining written informed consent.

Sample size

A total of 200 patients (100 from UHTC and 100 from RHTC) were selected for the study for convenience.

Study tools

Pre designed, semi structured interview schedule was used to collect the data. The questions related with their knowledge, attitude and practice about complementary and alternative medicine and such alternate home remedies sought.

Inclusion criteria

All patients aged more than 18 years and who gave voluntary written consent.

Exclusion criteria

Patients less than 18 years, patient attendants and patients who did not give consent.

Data collection was done after taking written informed consent from the patients attending UHTC and RHTC. Basic socio demographic data of the study participants such as age, sex, address, religion, education, occupation and socio economic status were collected. Then questions regarding knowledge, attitude and practice about CAM were recorded.

Statistical analysis

Data entry was done in Microsoft Excel 2013 and analysis was done using SPSS v20.0. The analysis was done separately for UHTC and RHTC participants and compared. Descriptive statistics like percentages, frequencies, mean and standard deviation was used. Chi square test was used to test association between two categorical variables.

RESULTS

Two hundred study participants, 100 from UHTC and 100 from RHTC were included in the study. Majority of the study participants in both UHTC (82%) and RHTC (83%) were aged between 21 to 60 years of age. In UHTC 40% of study participants were males and 60% were females in comparison with 62% males and 38% females in RHTC. In UHTC 81% were belonging to Hindu religion and 19% to Muslim religion, whereas in RHTC 85% were Hindus and 15% were Muslims which is fairly similar. With respect to education 73% in UHTC were educated from high school and above, whereas 69% in RHTC were educated till primary and high school. Majority of study participants 41% from UHTC were house wives and 63% in RHTC were involved in agriculture. Marital status was similar among study participants with 83% married in UHTC and 86% in RHTC.

The socio demographic factors age, religion and marital status were not significantly different between UHTC and RHTC study participants. Sex, education and occupation were significantly differently distributed among UHTC and RHTC participants (Table 1).

Table 2 shows knowledge of study participants towards alternative medical therapy. 93% in UHTC and 98% in RHTC were aware of getting treatment for illnesses apart from hospitals.

Table 1: Socio demographic characteristics of study participants.

Characteristics	UHTC (%)	RHTC (%)	Significance
Age			
<20 years	06 (06.0)	03 (03.0)	$\chi^2 = 1.116$
21-40 years	39 (39.0)	41 (41.0)	df=4
41-60 years	43 (43.0)	42 (42.0)	p=0.891
61-80 years	09 (09.0)	13 (13.0)	With Yate's correction
>80 years	03 (03.0)	01 (01.0)	
Sex		•	$\chi^2 = 9.684$
Male	40 (40.0)	62 (62.0)	df=1
Female	60 (60.0)	38 (38.0)	p=0.001
Religion			$\chi^2 = 1.073$
Hindu	81 (81.0)	85 (85.0)	df=1
Muslim	19 (19.0)	15 (15.0)	p=0.300
Education		•	
Illiterate	16 (16.0)	15 (15.0)	
Primary	11 (11.0)	35 (35.0)	$\chi^2 = 34.089$
High school	25 (25.0)	34 (34.0)	df=5
PUC	16 (16.0)	10 (10.0)	p<0.001
Graduate	31 (31.0)	05 (05.0)	
Post graduate	1 (1.0)	01 (01.0)	
Occupation			_
Unemployed	00 (0.0)	04 (04.0)	
House wife	41 (41.0)	18 (18.0)	$\chi^2 = 102.607$
Student	14 (14.0)	01 (01.0)	df=6
Agriculture	02 (02.0)	63 (63.0)	p<0.001
Business	12 (12.0)	14 (14.0)	With Yate's correction
Professional	17 (17.0)	0 (0.0)	
Others	14 (14.0)	0 (0.0)	
Marital status			2 0 244
Married	83 (83.0)	86 (86.0)	$\chi^2 = 0.344$ df=1
Unmarried	17 (17.0)	14 (14.0)	p=0.557
Total	100 (100.0)	100 (100.0)	p=0.337

Table 2: Knowledge of study participants about alternative medical therapy.

Question	UHTC (%)	RHTC (%)	Significance
Are you aware of any other way of getting treatment apart from the hospital?			$\chi^2=1.862$, df=1
Yes	93 (93.0)	98 (98.0)	p=0.1723 With Yate's correction
No	07 (07.0)	02 (02.0)	with rate s correction
Are you aware of any of the following types of therapy			
Ayurveda	79 (79.0)	35 (35.0)	$\chi^2 = 53.4127$
Homeopathy	67 (67.0)	49 (49.0)	df=3
Traditional therapy	25 (25.0)	78 (78.0)	p<0.001
Acupuncture	07 (07.0)	0 (0.0)	
Have you seen any advertisements or promotions about			.2 4 422
any complementary and alternative medicine?			$\chi^2 = 4.432$ df=1
Yes	74 (74.0)	60 (60.0)	p=0.035
No	26 (26.0)	40 (40.0)	p=0.033
If yes, source of information			$\chi^2 = 28.392$
TV	59 (59.0)	18 (18.0)	df=3
Radio	20 (20.0)	43 (43.0)	p<0.001
Newspaper	43 (43.0)	33 (33.0)	
Others	13 (13.0)	10 (10.0)	-

Continued.

Question	UHTC (%)	RHTC (%)	Significance
Are you aware of the side effects of alternative medical therapy?			χ^2 =2.296, df=1
Yes	04 (04.0)	0 (0.0)	p=0.1297 With Yate's correction
No	96 (96.0)	100 (100.0)	with rate s correction

Table 3: Attitude of study participants about alternative medical therapy.

Do you think that alternative medicine can cure all forms of illness? x²=9.28 df=1 Yes 19 (19.0) 05 (05.0) 31 (31.0) p=0.002 Don't know 16 (16.0) 64 (64.0) p=0.002 Don't know 16 (16.0) 64 (64.0) x²=14.48 df=3 Less effective than allopathy? 17 (17.0) 13 (13.0) p=0.002 Less effective to allopathy 17 (17.0) 13 (13.0) p=0.002 More effective to allopathy 20 (20.0) 07 (07.0) p=0.002 Don't know 30 (30.0) 54 (54.0) p=0.002 Don't know 30 (30.0) 54 (54.0) p=0.002 No 58 (58.0) 31 (31.0) p=0.002 No 58 (58.0) 31 (31.0) p=0.205 No 58 (58.0) 31 (31.0) p=0.205 Don't know 32 (32.0) 59 (59.0) p=0.205 Don't know 33 (33.0) 32 (32.0) p=0.001 No 58 (58.0) 31 (41.0) p=0.001 No 33 (33.0) 32 (32.0)	Question	UHTC (%)	RHTC (%)	Significance
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	I don't know	35 (35.0)	56 (56.0)	

Awareness about Ayurveda (79%), homeopathy (67%) and traditional therapy (25%) were present in UHTC study participants, as compared to 35% Ayurveda, 49% homeopathy and 78% traditional therapy in RHTC study participants. About 74% of UHTC and 60% of RHTC study participants had come across advertisements or promotions about CAMs. They had come across these

advertisements in 59% in TV, 43% in newspaper and 20% in radio among UHTC study participants, among RHTC study participants 43% had come across in radio, 33% in newspaper, 18% in TV, rest in posters at various places like buses, trains, bus stations etc., About awareness regarding side effects of CAMs 96% of UHTC and 100% of RHTC study participants were not aware.

There was statistically significant difference among knowledge about awareness of types of CAM, advertisements and promotions about CAM, source of advertisements between UHTC and RHTC study participants (Table 2).

While assessing the attitude of study participants 65% of UHTC and 31% of RHTC were of the opinion that CAM cannot cure all forms of illnesses. 64% of RHTC study participants did not know about curative aspect. 33% of the UHTC and 26% of RHTC study participants were of the opinion that CAMs were less effective than allopathy, 17% of UHTC and 13% of RHTC study participants opined CAMs were equally effective to allopathy, 20% of UHTC and 7% of RHTC study participants opined that CAMs are more effective than allopathy. Whereas 30% of UHTC and 54% of RHTC participants were not aware of the effectiveness difference. 58% of UHTC and 31%

of RHTC study participants were of the opinion that CAMs are not injurious to health. 45% of UHTC and 14% of RHTC study participants preferred CAMs over allopathy and 12% from UHTC and 54% from RHTC did not have preference to either. There was no particular reason for preference to CAMs among majority (87%) RHTC study participants when compared to 51% among UHTC study participants. 41% of UHTC study participants were of the opinion that allopathy can alone cure illnesses without CAM but 62% of the RHTC participants were against this opinion. When asked about their view towards advertisements of CAM 16% of UHTC and 4% of RHTC study participants said that they are true, 36% from UHTC and 15% from RHTC opined they may be true, 13% from UHTC and 25% from RHTC said they are false and 35% from UHTC and 56% from RHTC did not know anything about advertisements (Table 3).

Table 4: Practice of study participants about alternative medical therapy.

Question	UHTC (%)	RHTC (%)	Significance
Have you ever used complementary and alternative medicine?			$\chi^2 = 0.02$
Yes	43 (43.0)	42 (42.0)	p=0.887
No	57 (57.0)	58 (58.0)	p=0.887
Type of complementary and alternative medicine used before?*			$\chi^2 = 18.815$
Ayurveda	28 (28.0)	16 (16.0)	df=2
Homeopathy	17 (17.0)	10 (10.0)	p<0.001
Traditional therapy	02 (02.0)	19 (19.0)	
Do you go for complementary and alternative medicine before going to allopathic doctor if you are sick?			$\chi^2 = 43.161$
Yes	21 (21.0)	62 (62.0)	df=2
No	72 (72.0)	26 (26.0)	p<0.001
Don't know	07 (07.0)	12 (12.0)	

^{*} Multiple responses

Practice of CAM among study participants is presented in table 4. Among UHTC study participants 43% had used CAM before in comparison with 42% of RHTC participants. Among UHTC 28% had used Ayurveda, 17% homeopathy and 2% traditional therapy before, whereas 16% had used Ayurveda, 10% homeopathy and 19% traditional therapy among RHTC study participants. 62% of RHTC and 21% of UHTC study participants said they would go for CAM before consulting allopathy (Table 4).

DISCUSSION

Awareness about complementary and alternative medicine in our study was 93% among UHTC and 98% among RHTC study participants. 79% in UHTC and 35% in RHTC were aware about Ayurveda, 67% of UHTC and 49% of RHTC study participants were aware about homeopathy, 7% of UHTC study participants were aware about acupuncture and 25% in UHTC and 78% of study participants in RHTC were aware about traditional

medical therapy. In a study done in Riyadh, Saudi Arabia 89% of the study participants were aware about alternative medical therapy. In a study done in Osun state, Nigeria 90.4% of the study participants were about CAM.

In our present study source of advertisement information about CAM was TV in 59%, radio in 20%, newspaper in 43% and other than the above in 13% of study participants. Only 4% were about side effects of CAM. 10% of the study participants were of the opinion that CAM is injurious to health. 45% of the study participants preferred CAM over allopathic medical therapy. Reasons for preferring CAM were 14% as it was cheap, 25% as CAM was acceptable by them, 5% as it was easily accessible, only 3% because of delay that might happen in allopathic health facilities and 51% had not particular reason for their preferences. Only 41% of the opinion that allopathic medical therapy alone can cure their illnesses. In a study done in Osun state, Nigeria source of information about CAM in 70.9% was radio, 59.1% TV,

13.4% newspaper, 6.8% books and 13.1% by other means. 54.9% were aware of side effects of CAM. 47.3% of the study participants thought CAM is injurious to health. 35.7% who were aware about CAM preferred it over orthodox medical therapy. Reasons for preferring CAM over orthodox medical therapy were 21.4% cheap, 16.4% accessible and 13.4% acceptable by them. Only 50.0% were of the opinion that allopathic medical therapy alone can cure their illnesses.⁷

In the present study 43% had used CAM at least once in their lifetime. Among them 28% had utilized ayurveda, 17% homeopathy and only 2% traditional therapy. In a study done in Riyadh, Saudi Arabia 84.6% of the study participants had used CAM before. Usage of CAM increased with age. Among CAM 58.89% used medical herbs, 54% prayers, 35.71% Hijama and 22% medical massage therapy for various ailments. In a study done in Osun state, Nigeria 90.4% of the study participants were about CAM. Among them 94.2% used concoction (herbal preparation), 85% consulted herbalists/traditionalists and 59.9% went to traditional bone setters54.6% of the study participants had used CAM in the last 12 months and most used CAM was concoction (80.5%).

In a study done in New Delhi, ayurveda was the most commonly used CAM (36%), homeopathy 27%, unani 16%, yoga 8% and home remedies about 8%.²

In the present study 20% of the study participants thought that CAM was more effective than allopathic medical therapy and 17% as equally effective. In a study done in New Delhi 50% of the patients thought that CAM is more effective than conventional medical therapy. ²

The awareness about CAM in our study is high, 93% among UHTC and 98% among RHTC study participants. Ayurveda was the most commonly used CAM. Since safety and efficacy of CAM remain largely unknown and untested to have met the 'gold standard' therapy, advising patients and the general public who use or seek alternative medical therapy presents a professional challenge.

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