ATTITUDE TOWARDS THE USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE BY PATIENTS IN SAUDI ARABIA

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ABSTRACT

Introduction: Complementary and Alternative Medicine (CAM) covers a wide range of over 100 healing approaches, philosophies and therapeutic modalities that are not provided by conventional medicine. Complementary and Alternative Medicine (CAM) covers a wide range of healing approaches not provided by conventional medicine. The study was aimed at identifying sources of information about CAM that patients usually depend upon, estimating common diseases for which patients use CAM, reasons of using CAM, attitudes towards using CAM and its relation to patients' socio-demographic characteristics.

Methods: This was a hospital based cross – sectional study. Data was collected using random sampling during March 2010 from patients attending the outpatient clinics of King Saudi Medical complex and King Khalid university hospitals. All patients aged ≥ 18 years were included in the study using pre-tested questionnaire, after execution, the data was available for 399 patients out of 409 distributed questionnaires.

Results: After execution the response rate was 399 (97.5%). The percentage of patients who used CAM before for the treatment of any disease was 348 (87.4%); Abdominal pain 195 (48.9%) and common cold 195 (48.9%) were the most common conditions for CAM use, followed by evil eye 110 (27.6%). Most of patients 286 (71.7%) supported that CAM helps conventional medicine and majority of them also don't consider it as a myth 278 (69.7%). Fever, abdominal pain and acne were treated more commonly among manhood (25 – 59 years group) by using CAM ($p < 0.01$), while treatment of headache using CAM was more commonly reported in adulthood (18 – 24 years group) ($p < 0.006$). No significant association was observed between CAM usage and socio-economic status ($p > 0.05$). Majority of the patients 296 (74.2%) used internet as the main source of CAM knowledge.

Conclusions: CAM is commonly used by all age groups, different educational levels, singles, married, and all socio-economic standards for many diseases. It should be investigated more thoroughly in this community. Internet websites addressing CAM should also be considered. This emphasizes the role of having official locally directed Arabic websites that target the use of CAM in Saudi Arabia.

Key words: Complementary and Alternative Medicine, attitude, Saudi.

INTRODUCTION

Complementary and Alternative Medicine (CAM) covers a wide range of over 100 healing approaches, philosophies and therapeutic modalities that are not provided by conventional medicine.[1] CAM was classified according to the National Center of Complementary and Alternative Medicine into five main domains: mind – body therapies, biologically – based therapies, manipulative and body – based methods, energy therapies and whole medical systems.[2] In Riyadh, the capital of Saudi Arabia, the most commonly used CAM practices are reciting Quran, honey, bee products, herbal medicine, hijama and cauterization.[3]

Patients may seek CAM because of perceived failure of conventional treatment,[3,4] higher costs of treatment, long waiting time to meet doctors[5] and perceived success of CAM in recovering, healing, and improving health due to personal or others' experience.[6,7] Lack of side effects were also reported for CAM especially in those undergoing cancer radiotherapy or chemotherapy.

Diseases for which CAM are used vary with the variety of human illness. In the United States CAM is mostly used for back or neck pain or other musculoskeletal complaints, anxiety, depression and sto-

mach illness.[8] It has also been for acute mild illnesses e.g. upper respiratory tract infection,[9] and for severe and long term illnesses like cancers.[10-12]

Patients may depend on different sources of information regarding CAM like family and friends, internet, printed materials (magazines, newspapers, etc), visualised media (TV, Radio), CAM providers, and medical doctors are usually the sources of information. CAM users usually rely on these sources regarding its use.[13-16] Many CAM users usually base on limited data not reaching scientific evidence, usually relying on others' personal experience of treating a similar problem.[14,15]

This study was aimed at identifying sources of information about CAM that patients usually depend upon, estimating common diseases for which patients use CAM, reasons of using CAM, attitudes towards using CAM and its relation to patients' socio-demographic characteristics.

MATERIAL AND METHODS

This was a hospital based cross – sectional study. Data was collected using simple random sampling during March 2010 from patients attending the out-patient clinics of King Saud Medical complex and King Khalid University Hospitals. All patients aged ≥ 18 years were included in the study using pre-tested questionnaire, after execution the data was available for 399 patients out of 409 distributed questionnaires.

Age was grouped into (adulthood 18 – 24), manhood (25 – 59), and elderly (≥ 60). Educational status was grouped into (Up to middle school, up to high school and university degree). Marital status was grouped into (Single or Married) – married included the widows and the divorced. Socio-economic status was classified into low, middle and high (Table 1).

The survey tool was a standardised questionnaire having close – ended questions relevant to the study objectives. The questionnaire included 36 questions divided into four sections. The first section included questions on socio-demographic characteristics. In second section patients were asked to tick a condition that they used CAM for according to the diseases. The third section included questions about patients' attitudes towards CAM. In the fourth section patients were asked to tick sources of CAM information they used.

To enhance validity, the questionnaire was piloted on 20 adults who were not included in the study. Based on the results of the pilot survey the questionnaire was revised and reconstructed to make it more relevant according to objectives. All patients were encouraged to participate and were informed about the importance of study, also ensuring them that anonymity will be practiced. Verbal consent from the patients was also taken. The enumerators were physically present when patients filled in the questionnaires in order to clarify items if any.

Statistical Analysis

The data was entered and analysed using SPSS 17.0. Mean + SD is reported for quantitative variables. Frequencies and percentages are given for qualitative variables. Pearson chi square and Fisher Exact test were applied to observe associations between qualitative variables. A p-value of < 0.05 was considered as statistically significant.

RESULTS

In a total of 409 questionnaires 399 were able to get filled with response rate of 97.5%. The mean age of patients was 37.97 ± 14.49 years, with 78 (21.08%) of patients aged between 18 – 24 years, majority of the patients i.e 257 (69.46%) belonged to the age group of 25 – 59 years and 35 (9.46%) belonged to the age group of ≥ 60 years. Majority of the patients i.e 286 (71.7%) were married, and almost half of

Table 1: *Socio-demographic characteristics of respondents.*

Characteristics	*Total number = 399*
	n (%)
Age (Mean ± S.D)	37.97 ± 14.49
18 – 24 years	78 (21.08)
25 – 59 years	257 (69.46)
≥ 60 years	35 (9.46)
Residence	
Inside Riyadh city	315 (78.9)
Outside Riyadh city	77 (19.3)
Marital Status	
Single	107 (26.8)
Married	286 (71.7)
Educational Level	
Up to middle school	70 (17.5)
Up to high school	137 (34.3)
University degree	183 (45.9)
Socio-economic status	
Low	97 (24.3)
Middle	177 (44.4)
High	125 (31.3)

Table 2: *Common diseases for which CAM was used in relation to different socio-demographic characteristics.*

Diseases	*Used CAM*	*Not used CAM*	*Age*	*Education*	*Residence*	*Marital Status*	*SES*
	n (%)	*n (%)*	*p-value*	*p-value*	*p-value*	*p-value*	*p-value*
Abdominal pain	195 (48.9)	204 (51.1)	0.01*	0.03*	0.04*	0.28	0.64
Common cold	195 (48.9)	204 (51.1)	0.14	0.009*	0.125	0.95	0.64
Evil eye	110 (27.6)	289 (72.4)	0.01*	0.07	0.21	0.29	0.75
Wounds	106 (26.6)	293 (73.4)	0.40	0.15	0.06	0.04*	0.37
Headache	98 (24.6)	301 (75.4)	0.006*	0.67	0.32	0.002*	0.55
Fever	93 (23.3)	306 (76.7)	< 0.01*	0.85	0.14	0.008*	0.96
Back pain and sciatica	71 (17.8)	328 (82.2)	0.16	0.71	0.02*	0.75	0.46
Asthma	63 (15.8)	336 (84.2)	0.73	0.88	0.94	0.29	0.91
Impotence	51 (12.8)	348 (87.2)	0.16	0.41	0.28	0.09	0.09
Hypertension	44 (11.0)	355 (89.0)	0.13	0.21	0.47	0.87	0.42
Hypercholesterolaemia	41 (10.3)	358 (98.7)	0.09	0.10	0.95	0.03*	0.64
Acne	38 (9.5)	361 (90.5)	0.002*	0.58	0.82	< 0.01*	0.61
Diabetes mellitus	26 (6.5)	373 (93.5)	0.04*	0.04*	0.70	0.08	0.38
Depression	20 (5.01)	379 (94.99)	0.27	0.15	0.97	0.02*	0.83
Tumour and malignancy	12 (3.0)	387 (97.0)	0.33	0.18	0.10	0.84	0.33

*Statistically significant result

Table 3: *Attitude of respondents towards CAM.*

Statement	*Strongly Agree*	*Agree*	*Don't Know*	*Disagree*	*Strongly Disagree*
	n (%)	*n (%)*	*n (%)*	*n (%)*	*n (%)*
Help the conventional medicine	83 (20.80)	203 (50.88)	83 (20.80)	18 (4.51)	12 (3.01)
I don't consider CAM a myth	131 (32.83)	147 (36.84)	93 (23.31)	20 (5.01)	8 (2.01)
Treat diseases failed to be treated by the conventional medicine	72 (18.05)	147 (36.84)	121 (30.33)	41 (10.28)	18 (4.51)
Offer lesser waiting time than the conventional medicine	67 (16.79)	151 (37.84)	114 (28.57)	48 (12.03)	19 (4.76)
Lesser costing than the conventional medicine	56 (14.04)	141 (35.34)	119 (29.82)	64 (16.04)	19 (4.76)
Lesser side effects than the conventional medicine	36 (9.02)	87 (21.80)	143 (35.84)	101 (25.31)	32 (8.02)
Replace the conventional medicine	22 (5.51)	86 (21.55)	95 (23.83)	131 (32.83)	65 (16.29)
Provide confidentiality more than the conventional medicine	32 (8.02)	68 (17.04)	165 (41.35)	94 (23.56)	40 (10.03)
Shorter duration of treatment than the conventional medicine	22 (5.51)	71 (17.79)	205 (51.38)	81 (20.30	20 (5.01)

Table 4: *Sources of data about CAM in relation to different socio-demographic characteristics.*

Source of Data	*Used CAM*	*Not used CAM*	*Age*	*Education*	*Residence*	*Marital Status*	*SES*
	n (%)	*n (%)*	*p-value*	*p-value*	*p-value*	*p-value*	*p-value*
Internet	296 (74.19)	103 (25.81)	0.001*	0.037*	0.358	0.243	0.366
TV and Radio	227 (56.89)	172 (43.10)	0.104	0.001*	0.718	0.298	0.502
Printed materials	182 (45.61)	217 (54.38)	0.006*	< 0.001*	0.449	0.207	0.005*
Patients in waiting area in hospital	153 (38.35)	246 (61.65)	0.045*	0.291	0.779	0.015*	0.551
My physician	151 (37.84)	248 (62.16)	0.400*	0.016*	0.111	0.762	0.027*
CAM provider	136 (34.09)	263 (65.91)	0.458	0.175	0.409	0.668	0.040*
Family and Friends	102 (25.56)	297 (74.44)	0.048*	0.002*	0.780	0.001*	0.275

*Statistically significant result

them 183 (45.9%) had a bachelors of higher degree (Table 1).

Ninety (22.6%) patients never used CAM for treatment of any disease. Abdominal pain 195 (48.9%) and common cold 195 (48.9%) were the most commonly reported diseases for which CAM was used, followed by evil eye 110 (27.6%). The patients also used CAM for treating diabetes in 25 (6.5%), depression 20 (5.01%) and tumours and malignancies 12 (3.0%). Significant association was observed between fever treatment by using CAM among age group of 25 – 59 years (p = < 0.001) as well as acne (p = 0.002). Similarly, treating headache using CAM was significantly associated among age group of 18 – 24 years (p = 0.006). Significant association was observed between patients education level and CAM usage in treatment of abdominal pain (p = 0.033) and also with common cold (p = 0.009), level being high among those with higher education. Treating diabetes using CAM was significantly associated with patients whom education level was up to middle (p = 0.04). It was observed significantly that patients who were single used CAM more for treating acne, fever, wounds, headache, and depression (p < 0.001, p = 0.008, p = 0.04, p = 0.002 and p = 0.02 respectively). However, CAM usage to treat hypercholesterolaemia was observed to be significantly more amongst married patients (p = 0.03) (Table 2).

According to patients, 286 (71.68%) were of the view that CAM helps conventional medicine in treating various diseases whereas majority 277 (69.67%) also didn't consider it as myth in treating. Almost half of the patients 219 (54.89%) believed that CAM helps in treating diseases that have failed to be treated by conventional medicine. Some patients i.e 99 (25.06%) agreed upon that treatment through CAM provides more confidentiality than conventional medicine. Hundred and two (27.06%) patients thought that CAM has replaced conventional medicine and 92 (23.30%) supported that CAM has less treatment duration than conventional medicine (Table 3). Patients belonged to adulthood and manhood age – groups considered CAM as treatment of different diseases that were failed to be treated by conventional medicine (p<0.001). High school and university degree holders significantly agreed more that CAM is not a myth and it helps conventional medicine in the treatment process (p < 0.001).

Majority of the patients 296 (74.19%) consulted internet as a source of knowledge for CAM usage, followed by TV and Radio 227 (56.89%). Only 101 (25.56%) patients used CAM as a source of knowledge on advice of family and friends. Majority of the patients 250 (62.7%) among the age groups of 18 – 24 and 25 – 29 years got aware of using CAM by consulting internet and printed materials. Among elderly age group (≥ 60 years) the most common sources of CAM knowledge were patients available at waiting areas in hospital 153 (38.35%) and also through their family and friends 191 (47.87%).

Significant association was observed between patients education level and usage of various sources for CAM knowledge, it was observed that those having high school and university degree more commonly consulted internet (p = 0.037), TV and radio (p = 0.001), printed materials (< 0.001), their physicians (p=0.016, and family and friends (p=0.002) as compared to other education levels. It was also significantly observed that for CAM knowledge the patients who were single consulted patients who were present at waiting area in the hospital (p = 0.015) and also their family and friends (p = 0.001) (Table 4).

DISCUSSION

This hospital based survey with a high response rate of 97.5% was supervised by trained enumerators to make sure that the questionnaires have been filled with optimum precision. The high percentage of CAM users in this study (77.4%) may be related to the study setting (hospital based) with only including patients in the study. Including healthy subjects would probably decrease the incidence of CAM use, in spite of Al-Faris et al, 2008 in their household survey in Riyadh region, Saudi Arabia reported that 73% of the respondents used CAM before.[3] Australian data, published in 2007, reported that 69% of the population had used one or more forms of CAM in the past 12 months. However, the use of CAM varied with age, sex and a range of other factors.[17]

CAM is used by the people in the management of chronic conditions that are costly to society, such as chronic pain and arthritis, and more life – threatening diseases, such as heart diseases and cancer.[9] Abdominal pain was the commonest problem for which CAM was used in this study. This information is the same for a house hold survey done in Riyadh by Al-Rowais et al, 2010.[14] Abdominal pain was followed by common cold; these are common conditions that people seek medical care for. This may be explained by the higher incidence of gastrointestinal side effects which majority of over – the – counter pain relieving drugs had. This might be the reason why people consider CAM as an alternative choice of relief.[18] Common cold is viral in origin, and there is really no evidence that any medication produces relief more than minimal.[19] Malignancies and depression were the least problems for which CAM was consulted. However, this result for depression was not compatible with the house hold survey by Al-Rowais et al, (2010).[14] The use of CAM for medical conditions in relation to their prevalence should be more investigated due to the limitation of the setting of the present study.

It was noticed that 80% of those who considered CAM a myth themselves had used CAM. This raises the question whether the use of these CAM modalities has really shown an effect on the patients' disease or not. The higher percentage of patients agreed that CAM helps conventional medicine; it treated those diseases that were failed to be treated by conventional medicine and offer less waiting time and lower costs. These may reflect the positive attitude of Saudi patients towards CAM usage. Al-Faris et al, 2008 reported that Saudi population may seek CAM because of perceived failure of conventional treatment.[3] Lee et al, 2004 found that patients may seek CAM treatment due to higher costs of conventional medicine and long waiting time to meet doctors.[5]

Internet usage has become very common in Saudi Arabia reaching subscribers about 9.8 million – 38.3% of the population in 2009.[20] In this study, 71.3% patients used the internet as a source of CAM knowledge and it was also used by people of different age groups and educational levels. Many studies showed that patients' education using the internet improves awareness about their health, disease and possible treatment.[21,22] This emphasizes the role of having official locally directed Arabic websites that specifically targets the use of CAM in Saudi Arabia. Moreover, these websites have to provide the possible treatment strategies like the internet website powered by the National Institute of Health in the United States. In this study the role of family and friends is the least used source of CAM while in a similar study in South Korea the main source of advice about CAM therapies use was most likely from family and friends.[16]

The limitation of the present study is that it was carried out in one area of Riyadh city only and hence results cannot be generalised to even itself to Riyadh city and also to all Saudi regions due to different cultures, habits and believes in different regions of the Kingdom. In addition the results of hospital based studies cannot be generalized to healthy population.

It is *concluded* that CAM is commonly used by all age groups, different educational levels, singles, married, and all socio-economic standards for many diseases. It should be investigated more thoroughly in this community. Internet websites addressing CAM should also be considered. This emphasizes the role of having official locally directed Arabic websites that target the use of CAM in Saudi Arabia.

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