COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) USE AMONG PATIENTS ADMITTED IN TERTIARY CARE HOSPITALS OF PESHAWAR DETERMINING ITS PREVALENCE AND RISK FACTORS.

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ABSTRACT

Objectives: The use of Complementary and Alternative Medicine (CAM) by the general population and admitted in hospitals has been on the increase. The study was carried to find out the prevalence of CAM use among patients admitted in the tertiary care hospitals of Peshawar.

Methods: This was a cross sectional study. The investigators administered a structured questionnaire to 400 patients admitted in tertiary care hospitals of Peshawar. Data were analyzed using statistical package for social sciences version 13.0.

Results: It was found that 189/400 (47.25%) patients had used CAM. There was association between chronic diseases and CAM. The association between illiteracy and CAM use was significant. There seemed to be a preference for use of Hakimi medicine over other forms of CAM being studied i.e. homeopathic, herbal, nutritional supplements. Most of the patients turned to CAM use on advice from their friends and family. Hence peer pressure was an important factor in increasing CAM use.

Conclusion: In conclusion, CAM use is prevalent in our in-hospital population, and its undisclosed use can have important medical and peri-operative Implications.

Keywords: CAM Use, Patients, Tertiary Care Hospitals, Prevalence.

INTRODUCTION

Global sales of herbal medicines now exceed a staggering US\$40 billion a year¹. This traditional medicine sector has become an important source of health care, especially in rural and tribal areas of the country². Around 70-80% of the population, particularly in rural areas, uses CAM. Pakistan is the only country in the eastern Mediterranean region where formal Unani teaching institutions are recognized³. The relationship between the conventional allopathic physician and the CAM provider is of rivalry and animosity⁴. Orthodox medicine has never been in favor of traditional medicine; therefore, these practices are denounced vigorously by restricting their access, labeling them as unscientific and imposing penalties on their practice. Some understandable factors for this

rejection include lack of education, training, regulation and the evidence base for CAM practitioners.

Moreover, lack of accountability in the medical profession, both modern and complementary, results in untrained quacks practicing medicine in different names, thus giving CAM practitioners a bad name. With this attitude of looking down on the indigenous systems has been coupled with an established antagonism between the practitioners of the two systems⁵. Current evidence, although limited, suggests that physicians may reasonably accept some CAM therapies as adjuncts to conventional care and discourage others.

The National health policy of Pakistan just mentions a plan to bring amendment to the existing law on *tibb* to recognize the post-graduate level

education; however, the stance on its integration or development is unclear⁶. Other policy documents bear certain lacunae on profit sharing, intellectual property rights, registration of herbal products and other related legislation⁷. The CAM therapies being used have not been thoroughly researched.

According to WHO survey, in some Asian and African countries, 80% of the population depends on traditional medicine for primary health care. It has always been an 'invisible mainstream' within the health care delivery system. However, only limited research regarding this important aspect of medicine exists in our country.

This study will help us to determine the extent of CAM use prevalent in our society. Most of the chemicals, herbs or botanicals used in various CAM remedies may have important drug drug or drug food interactions. They may also have important peri-operative implications, and finally many have an important psychological effect. The patients may prefer to use these products which they consider "Natural", and delay the visit to the allopathic doctor. This delay in seeking appropriate medical help may have disastrous effects on later prognosis. Another important consideration is that most of the times this important aspect is ignored i.e. the health care provider does not specifically ask about CAM use and the patient does not disclose the use on his own for fear of the doctors' judgmental attitude. This behavior may cause several unsuspected problems later on. Hence this study may prove helpful in determining the prevalence of CAM use in society and important factors predisposing to CAM use.

METHODS AND MATERIALS

This was a cross sectional observational study. A structured questionnaire was administered to 400 patients admitted in the three tertiary care hospitals of Peshawar over a 12 week period from 1st April 2010 to 1st July 2010. These were Khyber Teaching Hospital (KTH), Lady Reading Hospital (LRH), and Hayatabad Medical Complex (HMC). KTH is a 700 bedded hospital. LRH has bed strength of 1500 and HMC is a 650 bedded hospital. The response variable i.e. status of use of CAM was

measured as Dichotomous i.e. a person using or not using CAM. Informed consent was sought at start of each interview and confidentiality was assured; each patient was interviewed for about ten minutes.

Data was analyzed using Statistical Package for Social Sciences Version 13 (SPSS v. 13, Chicago, IL, USA).

RESULTS

Mean age of the patients was 35.18 ± 8.3 years, 218 (54.5%) were females, whereas 182 (45.5%) were males. Out of 400 patients, 167 were suffering from acute diseases while 233 were suffering from chronic disease. 290 patients were illiterate, whereas 110 patients were literate. 248 patients were married, 132 patients were unmarried and 20 were widowed. Majority (56%) were poor earning less than Rs. 10,000 p.m. Another 107 (25%) were earning up to Rs. 20,000 p.m. Finally 68 patients had monthly income of Rs. 20,000 p.m. or more. Average number of family members was 11.

The Prevalence of CAM was found in 189 (47.25%) patients. The frequency of CAM use among females was 43% while among males it was 52.2%. Using chi square test it was determined that the association between gender and CAM use was not significant ($\chi^2 = 2.926$) (p value = 0.0872). Out of the 167 patients who were suffering from acute diseases, 63 patients had used CAM. It was found that the association between chronic disease and CAM use was significant ($\chi^2 = 9.791$) (P value = 0.0018).

The association between illiteracy and CAM use was found significant. ($\chi^2 = 12.048$) (P value = 0.0005), hence illiteracy was associated with increased CAM use.

Table

Factors		CAM users	Non users	Totals	χ^2	P - value
Education	Illiterate	153	137	290	12.048	0.0005
	Literate	36	74	110		
Nature of disease	Chronic	126	107	233	9.791	0.0018
	Acute	63	104	167		
Gender	Male	95	87	182	2.926	0.0872
	Female	94	124	218		

DISCUSSION

Our study shows the prevalence of CAM use among patients admitted in a Tertiary care Hospital in Peshawar as 47.25%. The use of CAM has always been an invisible mainstream within the health care delivery system⁸. The prevalence of CAM use varies across the different regions of the world, from 43% to 71%^{9,10}. Studies from Pakistan show that prevalence of CAM use ranges from 36.4% to 96.5%^{11,12}.

Several factors have been associated with increasing use of CAM. These include gender, low education status, nature of illness (chronic vs. acute) and socioeconomic background. In our study it was observed that the association between chronic diseases and CAM use was statistically significant. Hence, patients suffering from chronic diseases have a greater trend towards using CAM. According to a study by Gilani¹², CAM seems to be the treatment of choice for many people suffering from chronic diseases. The most common reason was the high cost of conventional therapy and hearsay. In our study patients suffering from long standing Diabetes and its complication had highest prevalence of CAM use (21%). It was a commonly held belief of the patients that CAM is "natural" and hence carries fewer side effects as compared to long term use of conventional medicine for treatment of chronic disease. This is in good agreement with several international studies. According to a study from India¹³, 67.7% of the diabetic patients attending Tertiary care hospital were using CAM for treatment of Diabetes Mellitus. In another study from India¹⁴, it was observed that CAM use was highly prevalent among the study population despite high levels of disappointment after its use.

In our study it was observed that there was significant association between illiteracy and CAM use since 80.95% of the patients using CAM were illiterate. However, this was in contrast to some of the available literature showing little or no association between a poor education background and CAM use^{10,11}. In fact few studies demonstrated positive correlation between higher education and CAM use^{12,13}. In our study the reason may be that

educated persons have greater interaction with the society and a broader intellectual horizon. They may be aware of the possible adverse effects of CAM, and had greater faith in the efficacy of conventional medicine. Hence these patients turned more towards conventional medicine for treatment rather than providers of CAM.

As opposed to common belief, poor economic background is not statistically significant in predisposing to CAM use. This is in good agreement with several other studies. According to a study from Rawalpindi, Pakistan¹¹, the use of CAM was not associated with family income. Similarly in a study from India¹³, the use of CAM was not associated with socioeconomic status.

It was also observed that peer pressure was the most important predisposing factor for CAM use observed in 56.8% cases. Hence we can conclude that advice from friends and family members regarding efficacy of a particular CAM modality or CAM provider is an important stimulus. Peer pressure has been found to be an important factor in several studies. In a study from Rawalpindi¹¹, 83% of patients using CAM had advice from family and friends. Similarly, in a study from India¹³ regarding use of CAM by diabetic patients, knowledge of CAM was gained mainly from friends and neighbors. In a study from Nigeria¹⁵, 76% parents of chronically ill children started CAM use following advice from relatives, friends and neighbors.

CONCLUSION

Our study showed that the prevalence of Complementary and Alternative Medicine use among patients admitted in the three tertiary care hospitals of Peshawar was high. There is association between chronic diseases, illiteracy, Peer pressure and CAM use.

RECOMMENDATIONS

It is important that health care providers should specifically ask their patients about CAM use during hospital stay. This is important because there is a very high prevalence of undisclosed

CAM use among in patients, which may have important clinical implications.

The common misconception that CAM drugs are "natural and hence safe" should be removed. A campaign should be launched by health care providers in collaboration with media, to create public awareness regarding CAM use. Mass awareness is important because a great number of people first consult CAM providers regarding a health problem and later approach the allopath. This delay in seeking medical help can have disastrous implications.

Further research is necessary to determine the prevalence of CAM use in the general population and the numerous factors associated with it.

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