

AWARENESS AND USE OF COMPLEMENTARY ALTERNATIVE MEDICINE IN PATIENTS WITH ASTHMA

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ABSTRACT

Objective: To compare awareness and usage of various complementary alternative medicine (CAM) modalities in patients with asthma.

Methodology: An observational cross sectional study conducted at Pulmonology clinics on 452 male and female patients. Their age ranged from 10 till 50 years. An interview based questionnaire tested knowledge and use of CAM by intake of; tea, coffee, soups, joshanda, misri and honey, involvement by; yoga, swimming and breathing exercises along with application of CAM modalities like Vicks and steam inhalation.

Results: It was found that males had greater awareness and used modalities of CAM more than females. The age stratum reflecting maximum awareness was shown by the age group of 31-40 years with the females significantly having more knowledge ($p=0.01$). The knowledge was significant in patients who had family predisposition of seasonal allergies and had frequently been using inhalers. Application of CAM was seen with modalities of homeopathic and herbal medicines, coffee intake, steam inhalation, breathing exercises and use of multivitamins ($p\text{ value}<0.05$). The knowledge of use of swimming was found in 56% of asthmatics. A high ratio of respondents had knowledge of role of honey, soups, yoga exercises and application of Vicks vaporub but practices of these modalities were not found to be significant. Practice of swimming, intake of tea, soup/broth, honey; and application of Vicks was not found to be popular among patients with asthma.

Conclusion: Patients with asthma were acquainted and used some adjuvants together with prescribed medicines as component of CAM; however its awareness was greater as compared to its usage.

Key Words: Complementary alternative medicine, Knowledge, Asthma.

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INTRODUCTION

Complementary alternative medicine (CAM) is a group of diverse medical and health care systems, practices, and products that are generally not considered to be part of conventional medicine¹. Complementary medicine is used together with conventional

medicine whereas Alternative medicine is applied in place of conventional medicine. The concept of CAM is based on the belief that a medical care provider has to treat the whole person's body, mind, as well as spirit; which cannot be exclusively provided by conventional medicines.

The use of CAM has enhanced since 1990s, due to increased frustration with the cost of conventional medicine and relatively greater side effects however very few patients share their knowledge and experience unless questioned by health care practitioners². Most frequently used complementary treatments employed globally are: Acupuncture, Chiropractics, Hypnosis, Massage, Homoeopathy, Herbal Medicine, Nutritional factors, Breathing exercises and Swimming etc³. In 1990, 60 million Americans were treated with alternative therapies; just seven years later 83 million people used herbal and botanical products to treat their symptoms spending more than 27 billion US dollars on alternative medicine⁴. A recent study also identified use of CAM in paediatric

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units for management of asthma⁵.

Advancements in daily life technology is encroaching upon the healthiness of our population since multifaceted allergens are prevalent and the allergic conditions like Asthma are on the rise⁶. It is one of the recognized chronic disease of children and adults that has added to an economic burden on patients, their families, healthcare providers as well as on the community⁷. In the battle against Asthma, complementary medicines and therapies can be experimented and used in place of or in addition to conventional medicines. Without published research it is however difficult to say how helpful a particular complementary medicine or therapy is likely to be⁸. With this background, objective of our study was to test knowledge and application of CAM in asthmatic patients. The research results obtained can then be used as a step to build true collaboration between conventional medicine and CAM.

METHODOLOGY

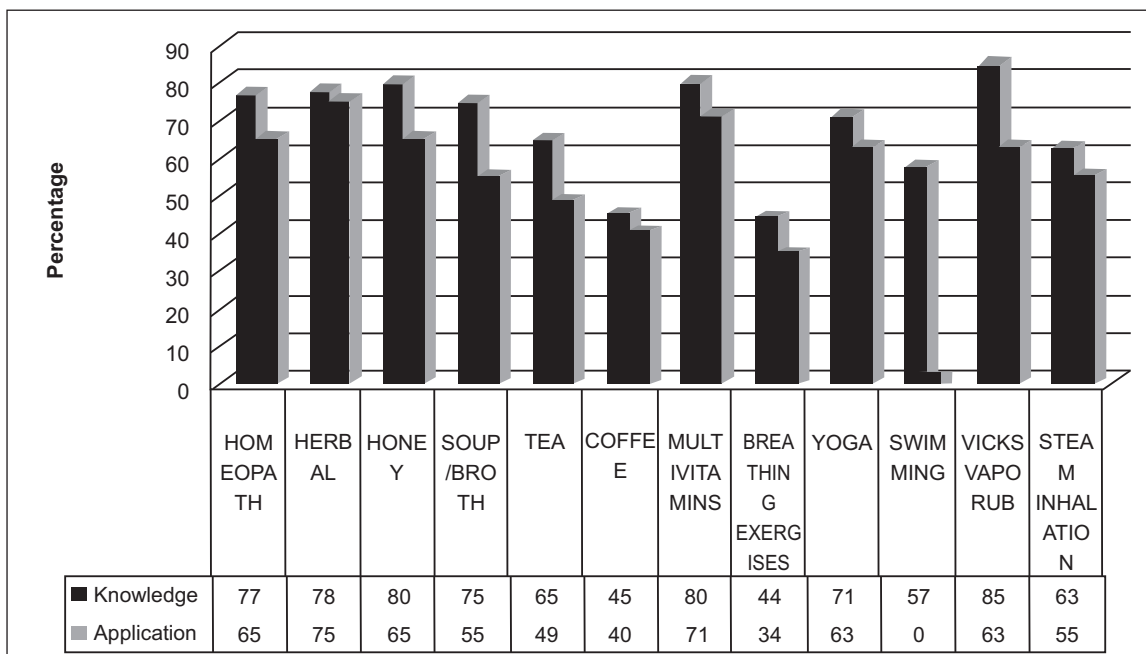
It was a cross sectional, observational study conducted at Dr Mossavir Ansari’s Chest clinic in two different hospitals of Karachi. The study conducted from January till December 2010 was focused on response of known asthmatic patients on knowledge and use of CAM by a questionnaire given in annexure. The selection of 452 patients was made possible after taking verbal consent from the patients or their attendants (especially children). A face-to-face interview based questionnaire originally scripted in English later on translated into the national language

Urdu was used. It was specifically designed to evaluate views on awareness and use of the remedies like homeopathic and herbal medications, physical supportive measures (breathing exercises, yoga, swimming) and supplementes via intake of honey, misri, soup, tea, coffee and multivitamins together with questions on application of vicks vaporub and steam inhalation. Male and female asthmatics regardless of their ethnicity, aged ten to fifty years (4 strata of a decade difference) were recruited. Cases of status asthmaticus, tuberculosis and lung malignancies attending pulmonology clinic were excluded from our study.

Data was analyzed by SPSS (version 15). Frequencies of knowledge and practices for the use of CAM and their correlations were analyzed. Responses were compared by Chi square test and results declared significant with a p value<0.05.

RESULTS

The data was collected from 452 respondents; 136 males and 316 females. We formulated our results on the asthmatic patients with mean age 30.46±10.47 year. The gender predisposition showed that males had better knowledge of CAM as compared to females (p value < 0.002). The age stratum reflecting maximum awareness was shown by the age group of 31-40 years with the males significantly having more knowledge(p= 0.01). Least number of respondents falling in both categories were found in the stratum of 10-20 years. Significant number of males and females having knowledge were found among



*: CAM- Complementary Alternative Medicine

31-40 years in which males had more knowledge than females.

In the enrolled asthmatics, those individuals who had seasonal allergies and who had been using nebulizers during recurrent attacks had significant knowledge ($p < 0.000$) of CAM. Figure 1 shows significant knowledge as well as application of herbal medications, multivitamins, Vicks vaporub and steam inhalation. ($p \text{ value} < 0.05$). Breathing exercises was known only to 44% of people out of whom 34% ($p \text{ value} < 0.005$) practiced it regularly (figure 1). The knowledge of tea being a remedy during acute attacks was practiced by a greater number of respondents as compared to the ingestion of coffee ($p \text{ value} < 0.01$). Swimming was thought to be a helpful modality of CAM by 57% but was not used at all.

DISCUSSION

Traditional medicine refers to health practices, approaches, knowledge and beliefs for use of all techniques applied individually or in combination to treat, diagnose and prevent illnesses for well-being of an individual⁸. Healthcare is actually provided by health seeking attitude which is a combination of physical, socioeconomic, cultural and political factors⁹. Recent reports of WHO after the catastrophic events of floods and earth quakes in Pakistan, show that traditional health facilities of Pakistan which were never up to the level of addressing the needs of the urban and rural sections have become even more devastated. Emerged here is the need of CAM as an adjuvant or substitute to traditional medicine in order to curtail expenditure and minimize the side effects of medicines.

The National Center for Complementary and Alternative Medicine (NCCAM), part of the National Institute of Health (NIH) is committed to educate both consumers and health care providers about CAM with the aim to convey evidence-based information required for health care provision. In the light of NCCAM program and considering the economic burden on health care system on our nation, researchers thought to enquire knowledge and application of CAM in known asthmatic patients.

CAM remedies employed most frequently for asthma were found to be massage, relaxation exercises, diet therapy and vitamins⁰. The preference for the usage of CAM in asthmatics seems to be on the rise as depicted in the study done by Shenfield et al owing to the poor efficacy and control of the symptoms by the conventional medications such as bronchodilators, inhaled or oral steroids and conventional drug therapies imparting side effects¹¹. A study conducted by Sandor and Martin on CAM for bronchial asthma acknowledged its use by; 59%, 41%, 26.5% and 27.2% of the patients in United

Kingdom, United States, Germany and Singapore⁹.

Asthma is a disease of considerable social magnitude that affects both genders and all age groups. In addition to conventional medications, many parents use CAM to treat their child's asthma symptoms. Poor management and non adherence to treatment may end up in poor asthma control leading to high morbidity and mortality rates¹². The utmost apprehension augmenting increased use of CAM is the discontent about conventional therapies and side effects of steroid therapies. In a study, great majority of the respondents rated CAM to be same in efficacy as conventional pharmacotherapy and employed it¹³.

In Pakistan, a questionnaire based survey in "Shifa College of Medicine Islamabad" revealed the awareness of CAM in general practitioners, medical students and asthmatic patients. Herbal medicine also called botanical medicine or phytomedicine refers to using a plant's seeds, berries, roots, leaves, bark, or flowers for medicinal purposes¹⁴. The knowledge of herbal medications especially joshanda was detected in more than half of our study group and its use was found to be highest in the edible variety of CAM. High use of herbal medication in pediatric and inner city population was seen by others¹⁵.

A large number of subjects (80 %) had knowledge of various multivitamin preparations having Vit C and Zinc etc while 71% used it as a regular remedy along with their other medications. Honey for asthma is considered to be good as it has a wide range of amino acids, antioxidants, and vitamins and its use during acute conditions was found to be 65% in comparison to a study conducted in Turkey where honey was used in asthmatic patients¹⁶. Swimming though thought to be effective was not applied by majority of our respondents. This is in contradiction to a study carried out in asthmatic children and adults where the knowledge and use of swimming was highly significant¹⁷.

Department of internal medicine in Medical Polyclinic University Hospital Zurich, Switzerland documented that breathing techniques by yoga improved control of breathing and reduced number of asthmatic attacks. Slow and steady exercises break cycle of negative thoughts and help to relax tense muscles which eventually improve ventilation. A survey released in December 2008 by the United States declared that yoga was the 6th most commonly used alternative therapy in the United States during 2007, with 6.1 percent of the population participation¹⁸. Yoga breathing exercises were found to improve lung compliance by decreasing airway resistance hence decreasing frequency of asthmatic attacks¹⁹. In our research group, 71% and 63% had knowledge and practices respectively of the traditional system of yoga practice. The importance of

breathing exercises was known to 44% but out of them only 34% practiced it on a regular basis.

Clinical experience in integrative medicine is structured to provide best practices, with suggestions to upgrade practitioners and consumers for health and safety of the patients. Amalgamation of CAM in clinical medicine depends on recognition, education, awareness, willingness and its acceptance both by patients and physicians²⁰. Keeping in mind the importance of CAM and the difficulties encountered to bring spectrum of change in attitudes, NCCAM has launched “*Time to talk*”; an educational campaign to encourage patients and their health care providers to openly discuss CAM. Despite the limitation of small sample size and absence of a randomized control trial it is hoped that research will provoke people to talk about “CAM”, its use, effects and side effects. Moreover, CAM techniques such as breathing exercises and yoga can promote healthier lifestyles which can help in prevention of disease and promotion of overall well being.

In our social set up, the doctors although prescribe bronchodilators for allergic asthmatic attack, suggestions for addition of steam inhalation and intake of soups, will give them time to talk, add to awareness of patient and will enhance doctor’s acceptability.

CONCLUSION

Asthmatics know and use some adjuncts together with prescribed medicines as component of CAM. Our study shows that greater than half of asthmatic patients had knowledge of CAM and a about half of the respondents were regularly using its different modalities as an adjuvant therapy hence it can be concluded that asthmatics had more knowledge as compared to the usage of CAM.

RECOMMENDATIONS

Awareness of masses about use of CAM, training facilities for providers, back-up for referral and regular follow up is required to bring into practice effective use of this modality. Randomized, double-blind, placebo-controlled, phase II studies for all identified adjuvants should be carried to know their effects and side effects. Perception and feedback of good or bad effects by the patients should be conveyed to concerned authorities by health-care practitioners in order to make the best use of CAM in addition to conventional medicine.

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CONTRIBUTORS

RR conceived the idea and supervised the study. ASN, RK, FH, YE helped in acquisition of data, its analysis and gave input in the manuscript. All the authors contributed significantly to the research that resulted in the submitted manuscript.