

## Complementary and alternative medicine: A new vista in dental management

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### Abstract

**Introduction:** Since the dawn of civilization, mankind has been plagued by pathogen and its ensuing disease process and to overcome the outcome of the disease, various medical therapies have been formulated over the time. With the evident of medical therapies various side effects of the drugs used have come up and to overcome those side effects complementary and alternative medicine (CAM) has evolved.

**Aim:** The goal of this study is to examine the relationship between the disease condition and the usage of the CAM therapy among the general population.

**Materials and Method:** The CAM encompassed number of therapies so, the survey instrument is a self modified designs questionnaire based on previous studies carried out in the literature. Questionnaire will be filled by the patients visiting a dental school with any dental problem. First part of survey instrument incorporates questions regarding demographic characteristics. While the second part of survey consisted of 17 medical /dental conditions for which the patient visited a dental college and have approached for the management of these diseases.

**Results:** More than half respondents were females(53.8%)with the common age group of 61-80 year old. The most frequent oral health problem was tooth ache (70.3%), followed by other problems and most frequently used CAM therapy was herbals.

**Conclusion:** A large proportion of dental patients reported use of CAM- therapies .Gender and the age group was significant factor. A more refined instrument should be used for the future studies for understanding how CAM usage is associated with dental problems.

**Keywords:** Complementary and alternative medicine (CAM), Dental school clinic, Dental problems, Self-medication, Prevalence.

### Introduction

It is conspicuous from the history of palliate through medicines that traditional therapies have been thriving used for the treatment of various medical and dental condition in contrast to the conventional therapies due to its many positive impact in the history.

Complementary and alternative medicine (CAM), as defined by the National center for complementary and alternative medicine (NCCAM), "is a group of diverse medical and health care system, practices and products that are not presently considered to the part of conventional medicines".<sup>(1)</sup> The National Center for Complementary and Alternative Medicine (2004) differentiates five domains of complementary therapies: alternative medical systems, biologically based therapies, manipulative and body-based practices, mind – body therapies, and energy medicine.<sup>(2)</sup> The most common reason individuals choose to utilize CAM is prevention. Several additional reasons may include: ineffectiveness or dissatisfaction with biomedical medicine, enhancement of the immune system, the need for personal control over health care decisions, and lastly more accessibility than biomedical medicine.<sup>(3)</sup> In 2002 National Health Interview Survey (NHIS), conducted by the Centers for Disease Control and Prevention (CDC), illustrated that 62% of the population used a CAM therapy.<sup>(1)</sup> Although there are numerous studies regarding medical patients using CAM therapies, there is an absence of studies

examining the impact of CAM remedies on dental patients.

The underlying objective of this study were as follows:

1. To determines the prevalence of CAM usage among patients of a dental school.
2. To assess the usage of CAM in the management of dental /medical conditions
3. To assess whether there were association between the presence of certain dental condition and usage of CAM therapies.

Based on the results of these objectives, it would be easy to see the recommendations and side effects of CAM usages by patients coming to dental school.

### Materials and Method

The participants for the study were randomly selected from the department of oral medicine and radiology, ITS-CDSR, Muradnagar, Ghaziabad. Ethical clearance was obtained from the institutional ethical committee. A total of 320 participants were enrolled. The participants were asked to complete a three page self structured questionnaire on complementary and alternative medicine usage. The first part of questionnaire consists of demographics data, in which the name, age, gender, eduction and annual income were incorporated. The second part consists of dental and medical conditions for which patients have been taken complementary and alternative medicine which

encompasses 17 conditions (medical/dental). The third part consists of different types of complementary and alternative therapies for which the patient have ever taken for above mentioned conditions.

SPSS software was used to analyse the results of the questionnaire and the association between the demographics data, dental/ medical conditions, CAM usage and percentage of recommendation to others.

## Results

Table 1, summaries the demographic characteristics of survey respondents more than half of the respondents were female (53.8%), nearly 30.0% who were housewives recorded as higher percentage in income category. The common age group was 61-80 years old with 31.9% who have never taken no education.

**Table 1: Characteristics of CAM Survey Respondents**

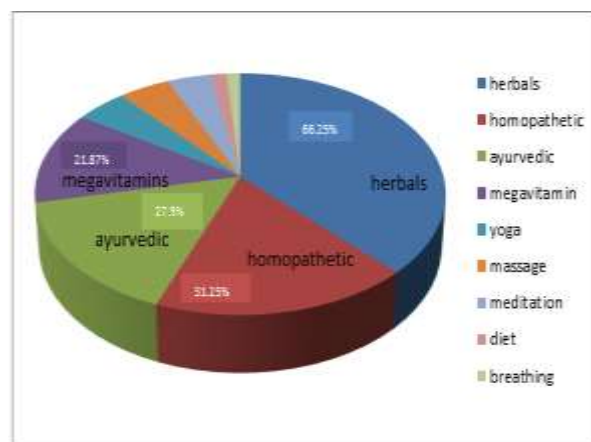
Characteristics	Count	Percent
<b>Gender</b>		
Females	172	53.8%
Males	148	46.2%
<b>Education</b>		
None	102	31.9%
10 <sup>th</sup> passed	25	7.8%
12 <sup>th</sup> passed	55	17.2%
Trade/Diploma	24	7.5%
Bachelor Degree	52	16.2%
Master Degree	62	19.4%
<b>Income</b>		
Students	76	23.8%
Below 50,000	19	5.9%
51,000-1,00,000	25	7.8%
1,10,000-5,00,000	76	23.8%
More than 5,00,000	28	8.8%
Housewives	96	30%
<b>Age</b>		
0-20 years	57	17.8%
21-40 years	83	25.9%
41-60 years	62	19.4%
61-80 years	118	36.9%

Table 2, lists the medical/dental condition for which CAM therapy was sought. The most commonly reported reason for seeing CAM therapy was tooth ache (70.3%) while dental decay was cited by 50.9% of subjects. Other conditions that were frequently reported included were bleeding from gums, fever/cold and other health conditions.

**Table 2: Medical/Dental condition for which CAM therapy is used.**

	Conditions	Count	Percent
1	Tooth ache	225	70.3%
2	Bleeding from gums	151	47.2%
3	Pain in joints	14	4.4%
4	Burning sensation in mouth	2	0.6%
5	Mobility in teeth	53	16.6%
6	Swelling	11	3.3%
7	Dental decay	163	50.9%
8	Facial pain	32	10%
9	Back pain	14	4.4%
10	Anxiety /depression	14	4.4%
11	Neck pain	7	2.2%
12	Hypertension	13	4.1%
13	Migraine	6	1.9%
14	Fever /Cold	101	31.6%
15	Allergy	8	2.5%
16	Diabetes	9	2.8%
17	Gastritis	41	12.8%

Fig. 3, shows the CAM therapy most frequently used for one or other dental/medical condition in the pie chart form, in which herbal with the highest frequency rate is used, followed by Ayurveda, homopathic, megavitamins, meditation, massage therapy.



**Fig. 1: Showing % of CAM therapies used**

Out of 320 respondents 310 respondents were satisfied with the CAM therapy and reported no side effects. Only 10 respondents reported side effect with CAM therapy while 298 respondents recommended other people CAM therapies.

## Discussion

CAM is gaining popularity rapidly in the field of medical science and is now considered an important branch of the health care system.<sup>(2)</sup> In our study, 68.8% of respondents reported using at least one CAM treatment in the past one years. This sixty eight percent

usage of CAM therapy within 1 year is higher than that reported by Eisenberg et. al. in 1993 (34%), in 1998 (42%) also more than the 2002 CDC data; as well as the 2007 CDC data. The higher prevalence of reported use in our study may be due to differences in survey design of the studies.<sup>(1)</sup> Our study also recognizes that the study sample size (320) is modest compared to the other studies.

In the present study it was found that the majority of users of herbal medicines for oral problem were females between the ages 61-80 years; with fewer than 8 years of schooling and family income less than minimum wages. In comparison with descriptive data in another Brazilian study, Santos et.al.,<sup>(3)</sup> observed that the prevalence results were similar, most of the sample were women with family income of fewer than minimum wages.

In the present study, toothache (70.3%) was the main oral health problem for which people sought CAM therapies, as in several studies.<sup>(4)</sup> As illustrated in table 2, tooth pain was the most frequently reported dental condition (70.3%) motivating CAM use, followed by dental decay (50.9%) which has agreement with other previous studies. Among all CAM therapies, herbals with 66.25% were used for one or other dental/medical condition due to the family tradition as stated in Paule et. al.<sup>(5)</sup> The present study included the question about patient satisfaction with the use of CAM therapies along with their view to recommend CAM therapies to others. The data from the present study concur with previous studies<sup>(1-5)</sup> that dental and medical patients are using herbals and vitamin supplements.

## Conclusion

In this study usage of CAM in a dental patient population, was highly prevalent. Gender and the age group was a significant factor impacting CAM usage. Based on these data from the current study, it would appear logical that future studies should use a more refined survey instrument as described by Spector et.al.,<sup>(6)</sup> have a large number of participants and pursue a multi-center approach in order to more accurately measure CAM therapy usage in patients seeking dental care. The collection and assessment of future data will be important to better understand how CAM usage is associated with dental problems of the public.

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