

Knowledge, awareness, and practices of complementary and alternative medicine for oral health-care management among dental students

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ABSTRACT

Objective: The objective of this study is to assess the awareness and practices of complementary and alternative medicine (CAM) for oral health-care management among dental students.

Materials and Methods: A cross-sectional study was conducted in 200 dental students of final year and internship selected by simple random sampling using a close-ended questionnaire.

Results: Among the total respondents, 52% were females and 48% were males. Nearly, 14% of the students were not aware of the different categories of the CAM and 12% of them were not aware of its implication in oral health-care management.

Conclusion: Majority of the students was aware of CAM, yet they do not follow the use of the same for their patient's oral health-care management. Hence, a small provision regarding the knowledge of CAM should be imposed under the undergraduate curriculum for the dental students so that it should be implemented in their practice in future.

Key words: Awareness; complementary and alternative medicine; dental students.

INTRODUCTION

Complementary and alternative medicine (CAM) represents a group of diverse medical and health-care systems, practices, and products that are not considered to be part of conventional medicine. Biofeedback, acupuncture, herbal medication, massage, bioelectromagnetic therapy, meditation, and music therapy are examples of CAM treatments. These systems are often cheaper and are also considered as much safer than conventional medicines. Dentistry is the unique field of medicine in which various orofacial problems are treated.^[1]

The treatment of patients with orofacial pain and dysfunction can be troublesome few times. Pharmacologic control may prove ineffective or be contraindicated. When


patients request a "natural" treatment for their oral health problem, what can reasonably be offered as an alternative? What will be safe and effective? Is there evidence to support its use? For orofacial pain, research does exist in the literature on the use CAM. The use of traditional medicine in dentistry is common, and it has been used widely to treat dental problems since a long time. A dental example of a complementary medicine procedure is using aromatherapy before, during, or after dental procedures. An example of an alternative medicine procedure is using hypnosis instead of drugs or medication for pain/anxiety control.^[2]

The purpose of this study was to assess the knowledge, awareness, and practices of CAM for oral health-care management among dental students.

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MATERIALS AND METHODS

A cross-sectional study was conducted in 200 dental students of final year and internship selected by simple random sampling using a close-ended questionnaire. All students agreed to participate in the study and therefore they did sign the consent form. Data were gathered with a self-administered questionnaire. Internal consistency of these sections of the questionnaire was calculated using Cronbach's alpha technique (0.84 for knowledge, 0.76 for attitude, 0.79 for perceived benefits, 0.64 for perceived barriers, 0.78 for perceived threat, 0.79 for self-efficacy, and 0.87 for cues to action). To assess the knowledge of dental students regarding CAM, there were 18 questions with yes/no response options. Each correct answer was given a score of 1 and each wrong answer a score of 0. It consisted of attitude (10 items), perceived benefits (5 items), perceived barriers (5 items), perceived threat (5 items), self-efficacy (5 items), and cues to action (5 items). For scoring this section of questionnaire, 5-point Likert scale (0 = strongly disagree, 1 = disagree, 2 = no opinion, 3 = agree, and 4 = strongly agree) was used. For negative questions, reverse scoring was done. After completion of the questionnaire by the nurses, the obtained data were analyzed by SPSS version 16.0 (SPSS Inc., Chicago, IL, USA) using statistical tests (descriptive, Pearson correlation, and independent *t*-test) at the significance level of $\alpha = 0.05$.

RESULTS

The demographic characteristics of the 200 dental students including final year and interns who responded to the questionnaire are presented in Table 1. As shown in able, of the 200 interns participating in the study,

72% were females. Nearly, 14% of the students were not aware of the different categories of the CAM and 12% of them were not aware of its implication in oral health-care management. The Pearson correlation test showed that the knowledge of the interns had a direct relationship with their attitude, perceived benefits, self-efficacy, and cues to action. However, knowledge had a reverse relationship with perceived barriers and perceived threat. The same test (Pearson correlation) also indicated that their attitude regarding use CAM had a direct relationship with perceived benefits, self-efficacy, and cues to action, but it had a reverse relationship with perceived barriers and perceived threat. Independent *t*-test showed that the mean scores of model variables in the two sexes had no significant difference ($\alpha > 0.05$). In other words, no relationship was observed between the two sexes.

DISCUSSION

Literature reports about appreciable CAM knowledge among medical student and recommends curricular review in medical education.^[3] However, in the dental faculty, it is still in a lesser amount. In India, there is a high degree of reliance and cultural acceptability of Ayurveda medicine in favor of traditional systems of medicine. Majority of students in our study agreed that relaxation techniques increase well-being and thus may contribute to controlling pain, and Ayurveda is a popular method. Participants exhibited appreciable knowledge, interest, and attitudes toward CAM. This may suggest that they are not well equipped with knowledge of the efficacy and safety of CAM, and hence they are afraid to advise and encourage their patients who suggest the use of CAM. Nevertheless, most students agree that

Table 1: Questionnaire answered by dental students

	Strongly agree		Disagree		No opinion	
	n	Percentage	n	Percentage	n	Percentage
Should the use of CAM be asked about during a regular history taking?	166	83	32	16	2	1
Encouraging patients using CAM in conjunction with conventional medicine	30	15	90	45	80	40
Importance of CAM practices available to dental patients	48	24	120	60	32	16
Patients should inform/consult their doctors about their use of CAM	32	16	120	60	48	24
Advice by dentists for their patients about commonly used CAM methods	24	12	148	74	28	14
Discouraging CAM therapies which are not tested in a scientific manner	38	19	54	27	108	54
Spiritual/religious beliefs influence your attitudes towards CAM	24	12	28	14	148	74
Ayurveda is a popular method in India	62	31	130	65	8	4
Use herbal medicines personally	28	14	80	40	92	46
Herbal-based mouth rinses reduce gingival inflammation	10	5	46	23	144	72
Use of acupuncture as an analgesic and anesthetic, to treat facial pain, postoperative pain, and temporomandibular dysfunction syndrome	16	8	36	18	148	74
Use chiropractic specialty practice in dentistry	4	2	32	16	164	82
Use of Reiki and aroma therapies to create an environment that is more soothing and relaxing	8	4	32	16	160	80
Use relaxation techniques may contribute to controlling pain?	12	6	36	18	152	76
Use of biofeedback to treat tension headaches, bruxism, and anxiety	6	3	34	17	160	80
Use of hypnosis dentistry for anxious patients	20	10	20	10	160	80
Necessity of formal training or mandatory CAM course dental undergraduate curriculum	144	72	46	23	10	5

CAM = Complementary and alternative medicine

patients should inform doctors about CAM use and that it should be inquired about during history taking. This is in accordance with earlier literature since these are the sources which increase one's general knowledge. A previous study reported that nursing students have a more positive attitude than medical students'. The results showed that student's attitudes are in line with their interests and limited knowledge.^[4]

The majority of the students in our study agreed that having knowledge of CAM is important for their professional careers although they were reluctant to incorporate the CAM courses into their medical curriculum. This was a less welcoming approach for the future of CAM in Saudi Arabia compared to other countries.^[5] To promote the learning of CAM, high-quality content that is easier to learn should be incorporated into medical courses, as suggested by Gaster *et al.*^[6] Student learning could be enhanced by a combination of lectures and direct shadowing. Many professionals use traditional medicine as self-care because there is a wide misconception that "natural" means "safe." Use of CAM, without any scientific knowledge, by patients may confuse their treating doctors, which may affect diagnostic and treatment decisions resulting in misleading or unknown treatment outcomes. Beneficial effects associated with CAM, if any, should also not be ignored without scientific evaluation. Limitation of our study was the involvement of only final year students and interns of the dentistry, whereas future research is warranted on a large scale with detailed knowledge of CAM and its depth in practical implications in day-to-day dental practice.

CONCLUSION

Nowadays, a lot of emphasis is being given to CAM; however, many questions remain regarding the proper use of CAM, particularly with regard to dosage and contaminants in dentistry. At present, much CAM is still opinion based. Many providers of CAM argue that it is individualized, holistic, intuitive, etc., and call for a "paradigm shift" in research. However, a lot of research is warranted on its utilization in dentistry.

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Conflicts of interest

There are no conflicts of interest.

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