

A Survey Of Attitude Towards Complementary And Alternative Medicine Among First Year Undergraduate Medical Students In Belgaum

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Abstract: Background: More than 90 % of Indians rely on the complementary and alternative medicine (CAM) for primary health care. However, physicians often fail to communicate with their patients about its use as CAM is not included in the medical curriculum in India. Hence, initial needs assessment for curricular change in the medical schools is the need of time. The aim of the present study is to determine the attitude towards CAM among first year undergraduate medical students in Belgaum. Methodology: A survey questionnaire was administered to first year medical students at JN Medical College, Belgaum. The questionnaire contained attitudes toward CAM and Integrative medicine (IM). All responses were scored on a 5- point Likert scale and the data was analyzed by using SPSS version 20.0. Results: Nearly 53% and 76% of the students (n=150) have showed positive attitude towards CAM and integrative medicine respectively. Coastal group of students showed more positive attitude towards integrative medicine compared to that of interior group (P=0.0002). Conclusion: In the context of the current upsurge of CAM practice worldwide, a survey is the need of time to gauge attitude amongst medical students. In the present study, students have showed positive attitude favoring inclusion of CAM topics in the medical curriculum in India. [Rajashree R NJIRM 2016; 7(1):83-87]

Key Words: Complementary and alternative medicine; integrative medicine; attitude towards CAM; Indian medical curriculum; CAM.

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Introduction: The increasing popularity of complementary and alternative medicine (CAM) among the global population has led an increasing number of medical educators to acknowledge the need to teach CAM to medical students and doctors^{1, 2}. In 2004, the World Health Organization (WHO) estimates that about 75% of the world's healthcare is technically "alternative". The global market for CAM is estimated at US\$ 83 billion annually in 2008 and is steadily growing at an exponential rate. In India, like any other developing countries more than 90% of population relies on the CAM for primary care, Ayurvedic medicine and yoga in particular³. However, physicians often fail to communicate with their patients about the use of CAM due to lack of its knowledge.

The National Center for CAM (NCCAM) at the National Institute of Health, USA has defined CAM as 'a group of diverse medical and health care systems, practices and products that are not presently considered to be part of conventional medicine'. NCCAM has identified the need to develop a consistent educational approach to the use of CAM. Hence, it has funded 15 CAM education projects at US medical schools in the last decade⁴. Integrative medicine (IM) is a new approach that embraces the concerns of the public and medical

professionals for more effective, patient-centered medicine. The public desire for the integration of "alternative" or "unconventional" treatment with conventional health care system has been well documented. However, the divergent nature of unconventional therapies poses a unique challenge in existing setting of medical education⁵.

In the context of the current upsurge of interest and practice of CAM worldwide and locally, a survey is the need of time to gauge the knowledge and attitude towards CAM amongst medical students. Many studies which were conducted in different countries have reported that medical students and faculty have a high level of interest in and positive attitudes toward CAM⁶⁻¹⁰. As the public use of various healing practices is accelerating, physicians' ignorance about these practices widens the communication gap with their patients. The encouraging fact is that majority of medical students and faculty recognizes the risk and is keen to bridge this knowledge gap.

In 1998, 75 of 125 US medical schools offered elective courses in CAM or included these topics in required courses¹¹. This number rose to 98 schools in the academic year 2002-03¹². However, until now there has

been no clear, consistent and acceptable educational approach to the incorporation of information about CAM into medical school curricula. Medical schools in India have barely made an effort to teach CAM topics since Medical Council of India (MCI) has not included those topics in the curriculum. In the present study, initial needs assessment for curricular change in the medical school was made by a survey to determine the level of interest, experience and enthusiasm regarding practice of CAM in medical students. The outcome of the present study may provide the rationale to introduce CAM topics in the foundation block for first year MBBS students as per the latest proposal made by the MCI¹³(2011).

The aim of the present study was to determine the attitude towards CAM among first year undergraduate medical students at Jawaharlal Nehru Medical College (JNMC) in Belgaum, Karnataka state, INDIA.

Material and Methods: A cross sectional survey was conducted by following 'best practices in survey' published by American Association for Public Opinion Research¹⁴. Survey research reporting was done by following the guidelines of Draugalis et al., in 2008¹⁵. The survey instruments were adapted from implementation guide for curriculum in integrative medicine developed by consortium of academic health centers for integrative medicine (CAHCIM)^{16,17}.

The questionnaire was divided into three major portions: Demographic information; Attitudes toward CAM and Integrative medicine attitude questionnaire (IMAQ) (Annexure-I). The survey tool includes totally 60 (29+31) statements. The self-assessment questionnaire was given to randomly selected first-year medical students at JNMC, Belgaum (n=150) after obtaining approval from Institutional Ethics Committee (MDC/DOME/857 dated 1/2/2013). The survey questionnaire was administered through an independent person and confidentiality was maintained. Participation in the survey was voluntary and anonymous. All responses were scored on a 5-point Likert scale (strongly disagree, disagree, neutral, agree and strongly agree). The results were expressed as means and standard errors (mean \pm SE) and scores were calculated by collapsing the 5-point Likert scale to 3-point Likert scale (agree, neutral and disagree). The between-group comparisons of interior and coastal group were assessed by Student's unpaired 't' tests.

Differences were considered significant at $P \leq 0.05$ with confidence interval (CI) of 95%. The data was analyzed by using SPSS version 20.0.

Results: Initially, the survey tool was given to 30 students of first year MBBS at JNMC, who were selected randomly for pre-validation. The data analysis of pre-validation results showed reliability of 81% and Cronbach's alpha value of 0.74 for questionnaire on attitude towards CAM (ATC). Further, pre-validation results showed reliability of 86 % and Cronbach's alpha value of 0.86 for questionnaire on attitude towards integrative medicine (IMAQ). Item analysis for questions numbered 4, 12, 14, 20, 21, 24 and 26 in ATC and 5, 6 and 13 in IMAQ showed reduced internal consistency and negative correlation, so those questions were modified accordingly.

The proportion of the first-year undergraduate medical student cohort that responded to the present modified survey was 92% (138/150). The results are expressed in percentiles and as means and standard errors (mean \pm SE). We compared the distribution of agree/neutral/disagree ratings for each of the statements and presented the response distribution comparisons for the two cohorts namely students from coastal areas (n=35) and interior part of India (n=103).

The overall percentile scores showed that about 53% of the students have positive attitude towards CAM and about 2.17% did not (Table-1).

Overall	Interior	%	Costal	%	Total	%
Disagree	3	2.91	0	0.00	3	2.17
Neutral	41	39.81	21	60.00	62	44.93
Agree	59	57.28	14	40.00	73	52.90
Total	103	100.00	35	100.00	138	100.00

Table 1: Distribution of samples by overall attitudes towards CAM

However, statistically significant difference was not found among coastal and interior cohorts ($P=0.1723$) (Table -2).

Table 2: Comparison of interior and costal groups with respect to attitude towards CAM

Group	n	Mean	SD	t-value	p-value
Interior	103	105.83	13.04	-1.3720	0.1723
Costal	35	109.06	8.33		

About 76% of the students showed positive attitude towards integrative medicine and 24% remained neutral ($P=0.1723$) (Table -3).

Table 3: Distribution of samples by overall attitude towards integrative medicine

Overall	Interior	%	Costal	%	Total	%
Neutral	16	15.53	17	48.57	33	23.91
Agree	87	84.47	18	51.43	105	76.09
Total	103	100.00	35	100.00	138	100.00

It was also found that coastal group of students were consistently more positive ($P=0.0002$) than those in interior in their responses when their attitude towards integrative medicine was compared (Table -4).

Table 4: Comparison of interior and costal groups with respect to attitude towards integrative medicine

Group	N	Mean	SD	t-value	p-value
Interior	103	95.26	8.06	-3.8715	0.0002*
Costal	35	101.17	6.96		

* Significant

Pearson's coefficient (r) between attitude towards CAM and integrative medicine showed significant correlation among interior cohort (0.25), but not significant in coastal group of students (0.08).

Discussion: India is known for its ethnic and cultural diversity. Alternative systems of medicine have been a part of our culture since centuries, Ayurveda and yoga in particular³. Most of the Indians seek CAM therapies to address their primary healthcare needs. The diverse practice of medicine necessitates the physicians to acquire basic knowledge of different modalities of CAM therapies. Hence, it is increasingly important to provide the medical students with cultural competency skills to effectively communicate with patients and to critically evaluate evidence for various CAM therapies. However, the institutional climate in India for incorporation of CAM topics in medical curriculum is yet to be established. Ultimately the beneficiaries of this move will be patients and the society.

The outcome of the present study may provide the rationale to introduce CAM topics in the foundation block for first year MBBS students as per the latest proposal made by the MCI. We can follow the footsteps of medical schools in U.S. and Europe^{11, 12}, who have been successful in integrating CAM topics in their

medical curriculum. We hope that the spectrum of needs assessment provided here is wide enough to be useful for educators in their approach towards introduction of CAM in to medical curriculum of India. However, the major challenge for the medical educators is the integration of new CAM topics into the already dense medical school curriculum. Understanding of CAM therapies within the modern medical environment, and claiming time is both politically and logistically challenging.

Results of our study generally echo earlier survey reports conducted in US¹⁸, and other countries¹⁹⁻²² for medical students. Similar results were also found in different cohort of students belonging to nursing, pharmacy and biomedical sciences^{23,24} and among other adolescent population²⁵. Study reflects that medical students show more positive attitudes toward CAM. Medical students are aware of the fact that CAM practices are being exercised by patients and so interested in the integrated medicine for effective clinical practice in their future. There is paucity in the literature regarding regional variation and attitude towards CAM or integrative medicine. Available reports suggest a trend towards more openness towards integration in the curriculum among students from coastal regions. The regional variation may be due to the profound use of CAM therapies among coastal people or their culture.

Given the increasing popularity and use of CAM therapies globally, it is relevant for future clinicians to have some knowledge about other systems of medicine. Students were enthusiastic in learning about CAM practices to be able to effectively communicate with patients about CAM and to critically evaluate evidence for various CAM therapies and also to advice patients about safety issues²⁶. The limitations of the present study include the smaller sample size and restriction to the local area. Large scale studies across medical schools in other parts of India may focus on the need to integrate the CAM topics in medical curriculum. Also attitudes of teaching faculty in medical colleges and practicing physicians may throw some more light on the addressed problem. In addition to the use of surveys, a small number of studies used qualitative approaches to assess attitudes, such as focus groups, interviews, student key informants, and reflective writing exercises. Additional studies both qualitative and quantitative are needed to compare

and contrast the conventional system with other systems of medicine in India.

The need for CAM and integrative medicine approaches in allopathic medical school curricula has been well articulated. In the future new, well-structured CAM curricula should focus on knowledge and skill acquisition, such as competencies for interviewing patients for CAM use and side effects and skills for searching evidence on CAM modalities.

Conclusion: In the context of the current upsurge of CAM practice worldwide, a survey is the need of time to gauge attitude amongst medical students. In the present study, students have showed positive attitude favoring inclusion of CAM topics in the medical curriculum in India.

Key Words: Complementary and alternative medicine; integrative medicine; attitude towards CAM; Indian medical curriculum; CAM

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