

Knowledge, Attitude and Perception of Undergraduate Health Science Students towards Complementary and Alternative Medicine: A Cross-Sectional Study in Nepal

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INTRODUCTION

Traditional medicine is defined by the World Health Organization (WHO) as "the sum total of knowledge, skill,

and practices based on theories, beliefs, and experiences traditional to different cultures, whether explicable or

ABSTRACT

Introduction: Apparently, Complementary and Alternative Medicine (CAM) is a recognized medical practice that precisely makes use of multiple treatment therapies and techniques in the prevention and management of variety of human disorders. Having a glance at the future, health science students belonging to different universities would take the lead in hospitals and health centers thus this study aims to analyze the level of knowledge, attitude and perception of them towards CAM in Nepal, also aims at awakening students about CAM therapies, related side effects, risks and possible complications.

Methods: A cross sectional descriptive study was organized by enlisting 385 undergraduate students, pharmacy(107) and non-pharmacy (278) which encompasses demographic characteristics, source of information, knowledge, attitudes and perception towards CAM.

Results: Report indicated that predominance of students had good knowledge regarding homeopathy (Pharmacy:81.3%, NP:71.9%, P-value:0.044), herbalmedicine (Pharmacy:62.5%,NP:56.5%, P-value:0.008, acupuncture (Pharmacy:72.9%, Non-Pharmacy:62.2%,P-value:0.073),gingko(Pharmacy:52.3%, Non-Pharmacy:40.6%), ginseng (Pharmacy:52.3, Non-Pharmacy:34.9%, P-value:0.001). In spite employing non reliable origin of CAM information and their mindset that CAM is proceeded by quacks, the preponderance of students had positive attitudes and perception regarding CAM management. However, few non pharmacy students believe that CAM should be adapted by legislation (Pharmacy: 78.5%, Non-Pharmacy: 66.2%, P-value: 0.032), only few believe that CAM is a convenient appendage via traditional medication (Pharmacy: 84.1%, Non-Pharmacy: 70.5%, P-value: 0.018).

Conclusion: Disregarding scanty knowledge in the matter of CAM, students possess forward-looking attitudes and opinion regarding CAM, also express eagerness to increase their knowledge about CAM.

Keywords: Attitude; Complementary and Alternative Medicine; Health Science Students; Knowledge; Perception.

not, used in the maintenance of health as well as the prevention, diagnosis, improvement, or treatment of physical and mental illnesses, whether explicable or not." Complementary medicine, on the other hand, is defined by WHO as "a broad group of healthcare practices that are not fully integrated into the dominant healthcare system and are not part of that country's own tradition or conventional medicine."¹¹ The holistic concept is an imaginary foundation underlying integrative medicine (IM)/ traditional medical systems, which comprises long-established Chinese and Japanese medication, ayurveda, yoga, homeopathy together with prognostic therapy.² There are three types of complementary and alternative medicine (CAM). The first is codified medical systems, which include illustrious traditions that have developed over three to four millennia, such as acupuncture, Chinese medicine and Ayurveda (an alternative medicine discipline with Indian origins that includes a comprehensive system of the spiritual, breathing, exercise, dietary, and herbal methods). The second is folk medicine, which is not officially recognized and is unique to specific groups and geographical regions, such cauterization in the Arabian Peninsula. The third category is allied forms, which includes breathing exercises, meditations, yoga, tai chi, and other health practices.³

One-half to two-thirds of people take CAM, according to many population-based studies conducted in industrialized nations including Australia, UK, Taiwan, Singapore, and the United States of America.³ In developing countries more than 70% of populations still depend on the complementary and alternative systems of medicine.⁴ The Alma-Ata statement from 1978 specifically said that mobilizing traditional medical systems is a crucial step toward achieving health for all.^{5,6} Evidence-based complementary and alternative medicine therapies have shown exceptional success treating both acute and chronic illnesses.⁷

In Nepal, traditional healers see roughly 85% of all patients, according to a WHO survey.⁴ The three main traditional medical systems used in Nepal are Ayurveda, Amchi, and homeopathy along with Unani medicine. Ayurveda is one of them and has been practiced for ages.⁸ According to some prior research, more than 50% of the population in Nepal uses CAM due to cultural reasons, a lack of health facilities, and the high cost of contemporary allopathic medication. CAM practices are widespread in both rural and urban parts of Nepal.⁵ The public's interest in complementary and alternative medicine (CAM) is rising globally, yet doctors and pharmacists appear to know little about CAM and lack the confidence to respond to patient

questions since they have little to no formal training in CAM.⁹ Students have acknowledged the development in the demand for CAM education as practitioners seek to understand the rising role of CAM treatments.¹⁰ A large amount of attention is being paid to CAM at medical, pharmacy, and nursing schools, and there is rising interest in its introduction and integration into undergraduate curricula as a result of the huge rise in its use in recent years around the globe. Nowadays, a lot of schools in Western nations provide instruction in CAM.¹⁰ Numerous research on CAM knowledge and attitudes among medical, pharmacy, and nursing students and academic staff have been carried out in industrialized nations, and the results indicate that students have a keen interest in and favorable attitudes toward CAM. Data from poor nations, where traditional medicine is frequently used, is scarce in comparison.¹¹ There is a lack of information on students' and/or healthcare professionals' attitudes and perceptions toward complementary and alternative medicine (CAM), despite the fact that it is well acknowledged that CAM in all of its forms is becoming more and more popular among Nepalese citizens. In this study, the usage of CAM modalities, awareness of them, perceptions of their efficacy and danger, attitudes toward them generally, perceived obstacles to their use, and the need for education were examined among pharmacy and non pharmacy students.

METHODS

A descriptive, cross-sectional study was led by sampling from undergraduate pharmacy and non-pharmacy students throughout Nepal after taking the consent. The study was conducted from 20 September 2020 to 30 November 2020. Required data were collected from the pharmacy and non-pharmacy (such as medical science, nursing, public health, medical lab technology, physiotherapy, ayurvedic medical science) undergraduate students. The Ethical confirmation for this study was granted by the Institutional Ethics Committee (IRC) of Universal College of Medical Sciences, Tribhuvan University, Nepal (UCMS/IRC/107/20). A sample size of 384 students was estimated by Cochran formula using 5% margin of error, 95% confidence interval with expected response of 50%. An easy appropriate sampling was practiced for the study of study member. The inclusion criteria were the students, engaged in undergraduate pharmacy and non-pharmacy program at different universities of Nepal whereas the exclusion criteria were Diploma and post graduate students.

The survey tool for data collection was developed based on a previously justified CAM health belief questionnaire and CAM knowledge related questionnaire used to assess pharmacy and non-pharmacy attitude and practice towards CAM^{12,13} with slight modification to fit our local setting. The study questionnaire was divided into four sections. The first section inspected at student demographics. The second section aimed to appraise students' knowledge about different CAM modalities Part three sought to assess health related attitude employing a validated 8 items CAM questionnaire built on 3-point Likert scale and last part included 9 statements to evaluate health beliefs of respondents on a 3-Likert Scale (agree, disagree, neutral).

All data acquired were clean, coding into a Microsoft Excel 2007 spreadsheet and circulated for analysis employing SPSS software version 16.0. Descriptive statistics were used for the computation of frequency and percentage and represented into table. Chi-square test was accomplished to measure the interrelation between the pharmacy and non-pharmacy with the knowledge, attitude, and practices with regard to CAM. The p value <0.05 were considered significant.

RESULTS

In this study total 400 health science students were participated, among those total 385 students returned with filled questionnaires making all-inclusive reciprocate rate of 96.25%. The demographic outline of students is included in Table 1. Total 385 students participated in our study; majority of participants were between 20 to 25 years old (76.4%). Among them 29.1% were male and 70.9% were female respondents. The total respondents who participated in this study, most of them were Hindu (92.7%) and least of them were Christian (0.3%). In this study, majority of respondents were Brahmin/ Chhetri (59.25%) followed by Madhesi (16.5%), Janajati (14.3%), Dalit (3.66%) and rest of were another ethnic group. The study was conducted among the undergraduate students of which about 27.8% were bachelor in pharmacy followed by medical science (27.3%), bachelor in nursing (26.2%), bachelor in public health (10.9%), bachelor in medical laboratory science (4.9%), and rest of others (2.9%), most of them were from Tribhuvan University (59%) and least was from Purbanchal University (9%). In present study, most of respondents were non-pharmacy students (72.2%) and 27.8% of respondents were Pharmacy students.

Table 1: Demographic characteristics of the participants.

Demographic Variables	Frequency (%)
Age (years)	
15-19	85 (22.1)
20-24	294 (76.4)
25-29	5 (1.3)
≥30	1 (0.3)
Sex	
Male	112 (29.1)
Female	273 (70.9)
Religion	
Hindu	357 (92.7)
Buddhist	15 (3.9)
Muslim	12 (3.1)
Christian	1 (0.3)
Ethnicity	
Dalit	14 (3.6)
Janajati	55 (14.3)
Madhesi	65 (16.9)
Chhetri/Brahmin	228 (59.2)
¹ Others	23 (6.0)
Study program	
Medical science	105 (27.3)
Nursing	101 (26.2)
Pharmacy	107 (27.8)
Medical laboratory science	19 (4.9)
Public health	42 (10.9)
² Others	11 (2.9)
University affiliation	
Tribhuvan University	227 (59)
Kathmandu University	56 (14.5)
Pokhara University	67 (17.4)
Purbanchal University	35 (9.1)
Study program category	
Pharmacy	107 (27.8)
Non-pharmacy	278 (72.2)

*1: Muslim *2: BAMS and Physiotherapy

Table 2: Alliance of complementary and alternative medicine (CAM) knowledge in the midst of pharmacy and non-pharmacy students.

Statement (Precise answer)	Use related CAM knowledge			p-value
	Agree	Disagree	Neutral	
Ayurveda is found on the concept of balance in bodily systems and uses, herbal treatment, diet and yogic breathing.				
Pharmacy (107)	103 (96.3%)	1 (0.9%)	3 (2.8%)	0.196
Non-pharmacy (278)	265 (95.3%)	0 (0%)	13 (4.7%)	
Homeopathy is a system of complementary medicine in which ailments are treated by minute doses of natural substances that in larger amounts would produce symptoms of the ailment.				
Pharmacy (107)	87 (81.3%)	7 (6.5%)	13 (12.1%)	0.044*
Non-pharmacy (278)	200 (71.9%)	13 (4.7%)	65 (23.4%)	
Massage is rubbing and kneading of muscles and joints of the body with the hands, especially to relieve tension or pain.				
Pharmacy (107)	96 (89.7%)	3 (2.8%)	8 (7.5%)	0.424
Non-pharmacy (278)	260 (93.5%)	4 (1.4%)	14 (5.0%)	
Acupuncture necessitates fitting of very thin needles through your skin at tactical ends on your body.				
Pharmacy (107)	91 (85.0%)	6 (5.6%)	10 (9.3%)	0.024*
Non-pharmacy (278)	254 (91.4%)	3 (1.1%)	21 (7.6%)	
Ginger is effective in decreasing PMS.				
Pharmacy (107)	68 (63.6%)	3 (2.8%)	36 (33.6%)	0.538
Non-pharmacy (278)	160 (57.6%)	11 (4.0%)	107 (38.5%)	
Herbal medicine is natural and therefore is secure, without any entailment (in-correct).				
Pharmacy (107)	67 (62.6%)	24 (22.4%)	16 (15.0%)	0.008*
Non-pharmacy (278)	157 (56.5%)	40 (14.4%)	81 (29.1%)	
Acupuncture can be used to decrease withdrawal symptoms and relieve pain (correct).				
Pharmacy (107)	78 (72.9%)	7 (6.5%)	22 (20.6%)	0.073
Non-pharmacy (278)	173 (62.2%)	15 (5.4%)	90 (32.4%)	
Chiropractic train in spinal manipulation and operate to deal with low-back pain (correct).				
Pharmacy (107)	64 (59.8%)	7 (6.5%)	36 (33.6%)	0.197
Non-pharmacy (278)	162 (58.3%)	8 (2.9%)	108 (38.8%)	
Garlic can underneath blood lipid level (correct).				
Pharmacy (107)	79 (73.8%)	4 (3.7%)	24 (22.4%)	0.107
Non-pharmacy (278)	174 (62.6%)	12 (4.3%)	92 (33.1%)	
Ginkgo treats Alzheimer's disease (correct).				
Pharmacy (107)	56 (52.3%)	13 (12.1%)	38 (35.5%)	0.014*
Non-pharmacy (278)	113 (40.6%)	21 (7.6%)	144 (51.8%)	
High blood pressure can be cautiously lessened employing ginseng (in-correct).				
Pharmacy (107)	56 (52.3%)	16 (15.0%)	35 (32.7%)	0.001*
Non-pharmacy (278)	97 (34.9%)	32 (11.5%)	149 (53.6%)	

Knowledge

The result showed that students of pharmacy and non-pharmacy groups was statistically significant different in knowledge regarding CAM statements such as homeopathy is a system of complementary medication, acupuncture involves installing of very fine needles, herbal medicine is natural medicine without side effects, ginkgo treats Alzheimer's disease and helps to reduce blood pressure (P<0.05). It is found that they both have adequate knowledge about the ayurveda (Pharmacy; 96.3%, Non-Pharmacy; 95.3%, P=0.196), Massage therapy (Pharmacy; 89.7%, Non-pharmacy; 93.5%, P=0.424),

acupuncture (Pharmacy; 85.0%, Non-Pharmacy; 91.4%, P=0.024). Table 2 shows that both have basic understanding about the use of Homeopathy in CAM (Pharmacy; 81.3%, Non-Pharmacy; 71.9%, P=0.044), Garlic (Pharmacy; 73.8%, Non-pharmacy; 62.6%, P=0.107). Nearly 60% of the students perceived that herbal medicine is safe to use and have no side effects. Furthermore, participants had no idea about the use of ginseng. About 50% of Non-Pharmacy students were unknown about the use of ginseng. The complete information about the knowledge of undergraduate pharmacy and non-pharmacy approaching CAM is depicted in Table 2.

Table 3: Alliance of pharmacy and non-pharmacy student's attitudes towards CAM

CAM Attitude statement	Attitudes towards CAM			p-value
	Agree	Disagree	Neutral	
It is believed that CAM are safe and without side effects.				
Pharmacy (107)	41 (38.3%)	31 (29.0%)	35 (32.7%)	0.233
Non-pharmacy (278)	98 (35.3%)	64 (23.0%)	116 (41.7%)	
People understand CAM as a medicine which are based on the holistic concept for disease treatments.				
Pharmacy (107)	72 (67.3%)	12 (11.2%)	23 (21.5%)	0.529
Non-pharmacy (278)	176 (63.3%)	27 (9.7%)	75 (27.0%)	
One of the conceptual understanding related to CAM is that the treatment helps to keep our body healthy and immune.				
Pharmacy (107)	89 (83.2%)	4 (3.7%)	14 (13.1%)	0.014*
Non-pharmacy (278)	213 (76.6%)	2 (0.7%)	63 (22.7%)	
Most of the therapeutic agents used in CAM therapy are obtained from natural sources.				
Pharmacy (107)	91 (85%)	2 (1.9%)	14 (13.1%)	0.075
Non-pharmacy (278)	207 (74.5%)	13 (4.7%)	58 (20.9%)	
Health and disease are a demonstration of equilibrium betwixt affirmative life-enhancing energy and opposing destructive energy.				
Pharmacy (107)	95 (88.8%)	4 (3.7%)	8 (7.5%)	0.029*
Non-pharmacy (278)	219 (78.8%)	8 (2.9%)	51 (18.3%)	
Therapeutic agents obtained from natural sources are associated with less incidence of side effect.				
Pharmacy (107)	84 (78.5%)	9 (8.4%)	14 (13.1%)	0.092
Non-pharmacy (278)	195 (70.1%)	19 (6.8%)	64 (23.0%)	
Most of the health science students using CAM therapy trusted that there is no risk for using herbal medicine for long term.				
Pharmacy (107)	41 (38.3%)	49 (45.8%)	17 (15.9%)	0.043*
Non-pharmacy (278)	96 (34.5%)	104 (37.4%)	78 (28.1%)	
People are convinced that CAM includes concept and methods from which conventional therapy shall get benefit.				
Pharmacy (107)	86 (80.4%)	8 (7.5%)	13 (12.1%)	p<0.01*
Non-pharmacy (278)	192 (69.1%)	4 (1.4%)	82 (29.5%)	

Attitude

The outcome was demonstrated that 83.2% pharmacy and 76.6% of non-pharmacy students agreed with the CAM approaches helps to keep our body healthy and immune, and this was found to be statistically significant difference with two health science student categories (p=0.014). Pharmacy and non-pharmacy students concurred with the health and disease are demonstration of equilibrium between affirmative life enhancing energy and opposing destructive energy i.e., 88.8% and 78.8% respectively, and this was also found to be statistically significant difference (p=0.029). Similarly, least of both pharmacy and non-pharmacy students were agreed with the there is no risk for using herbal medicine for long term and which is also statistically significant difference (p=0.043). Similarly, majority of both categories of undergraduate health science students agreed with CAM induces idea and technique from which traditional medication could be harmless was also statistically

significant difference (p<0.01) with pharmacy and non-medication could be harmless was also statistically significant difference (p<0.01) with pharmacy and non-pharmacy students. Both the pharmacy (63.3%) and non-pharmacy (67.3%) students believed that CAM medicines are based on the holistic concept for disease treatment. However, about 32.7% of pharmacy and 41.7% of non-pharmacy students is found to have less understanding about CAM practices and is in dilemma on side effects of CAM practices. Moreover, both of them is found to believe that herbal medicines have some side effects and obtained from the natural sources. Highest percentage of students accepts that CAM practices approaches to keep our body healthy and immune. Based on the above data we can conclude that student's attitude towards CAM is encouraging. The complete information about the attitude of undergraduate pharmacy and non-pharmacy with regard to CAM is mentioned in Table 3.

Table 4: Alliance of pharmacy and non-pharmacy student's perception with CAM productiveness

CAM Modality	Perceived CAM effectiveness			p-value
	Agree	Disagree	Neutral	
CAM should be included in all health science undergraduate curriculums.				
Pharmacy (107)	91 (85.0%)	4 (3.7%)	12 (11.2%)	0.119
Non-pharmacy (278)	212 (76.3%)	10 (3.6%)	56 (20.1%)	
All CAM medicine should be scientifically approved.				
Pharmacy (107)	69 (64.5%)	15 (14%)	23 (21.5%)	0.252
Non-pharmacy (278)	175 (62.9%)	26 (9.4%)	77 (27.7%)	
Understanding concerning CAM is salient to me as a student/ future performing health professional.				
Pharmacy (107)	105 (98.1%)	1 (0.9%)	1 (0.9%)	0.031*
Non-pharmacy (278)	252 (90.6%)	4 (1.4%)	22 (7.9%)	
CAM treatment not examined in a factual approach should be suppressed.				
Pharmacy (107)	63 (58.9%)	17 (15.9%)	27 (25.2%)	0.698
Non-pharmacy (278)	170 (61.2%)	35 (12.6%)	73 (26.3%)	
Clinical care should incorporate the foremost of traditional and CAM practices.				
Pharmacy (107)	86 (80.4%)	1 (0.9%)	20 (18.7%)	0.256
Non-pharmacy (278)	201 (72.3%)	5 (1.8%)	72 (25.9%)	
The outcomes of CAM in most instances are anticipation of placebo consequences.				
Pharmacy (107)	50 (46.7%)	12 (11.2%)	45 (42.1%)	0.313
Non-pharmacy (278)	110 (39.6%)	27 (9.7%)	141 (50.7%)	
CAM should be supervised by constitution.				
Pharmacy (107)	84 (78.5%)	3 (2.8%)	20 (18.7%)	0.032*
Non-pharmacy (278)	184 (66.2%)	5 (1.8%)	89 (32.0%)	
CAM is convenient additive to conventional medicine.				
Pharmacy (107)	90 (84.1%)	4 (3.7%)	13 (12.1%)	0.018*
Non-pharmacy (278)	196 (70.5%)	12 (4.3%)	70 (25.2%)	
Complementary and alternative medicine will correct universal health and not only heal the illness.				
Pharmacy (107)	89 (83.2%)	7 (6.5%)	11 (10.3%)	0.037*
Non-pharmacy (278)	211 (75.9%)	10 (3.6%)	57 (20.5%)	

Perception

Participants were questioned on 9 statements regarding the perceived of students with CAM effectiveness. Both pharmacy and non-pharmacy students was significantly associated with the statement regarding the perception of CAM effectiveness such as knowledge about CAM is important ($p = 0.031$), CAM should be supervised by the constitution ($p = 0.032$), CAM is appropriate additive to conventional medicine ($p = 0.018$), and CAM will improve general health ($p = 0.037$). Most of the students have positive response towards the inclusion of CAM in all health science undergraduate curriculums. Highest percentage of students accepted the importance of CAM in a student life and future practicing health professional. Nearly 60% of the students supposed that CAM should be scientifically tested. It is also found that most of the students are found to be in dilemma about the results of CAM are anticipation of placebo consequences. About 78.5% of pharmacy and 66.2% of non-pharmacy students believed that CAM practices should be regulated by law. Both pharmacy (84.1%) and non-pharmacy (70.5%) agreed that CAM methodologies are beneficial to conventional medicine. Above 75% of both the group give a sound understanding on importance on CAM on health and proper medication to the disease.

Thus from the Table 4, we can conclude that the one non-pharmacy and another pharmacy student perceived adequate understanding about the effectiveness and importance of complementary along with alternative medicine.

DISCUSSION

The foremost emphasis of the current survey was aim to recognition, attitude and perspicuity of health science students towards alternative and complementary therapy also to analyze their inclination to encounter training and teaching with regard to CAM. Another aim was to ascertain the placement to include principles of T&CM into medical school curriculum. As of our research and knowledge, we came to find out that no study has been done among Nepalese medical students regarding CAM. Thus, it is appropriate to conduct such study in Nepal as it might change the way of thinking of association of conventional medicine with complementary and alternative medicine.¹⁴ This study is very much significant to understand the knowledge, attitude and perception of CAM by Nepalese Health Science Students. In this survey, overall 400 allied health science students participated and estimated response rate was 96.25%. The knowledge of the allied health science students

involved in this research survey is computed based on mainstream medicines on sale in Nepal. The outcome indicates the understanding of the allied health science students on CAM is scanty as it displayed from the ground-level rating of precise answers. A conclusion had been checked with a research survey organized in the University of Sains Malaysia.¹⁵ The perception and usage of CAM among medical students in the USA were; however, better than students in this research survey it happens to be successfully possible as CAM is integrated into medical curriculum.¹⁶ There were less female respondents in a study¹⁷ compared to this study (70.9%). Compared to our study, the lowest sample size of the students in response to knowledge regarding massage were determined from Kuwait¹¹ and Pakistan.¹⁸ This may be due to differences in the perceived understanding of CAM among the students due to their unique backgrounds based on cultures and their exposure to various types of CAM throughout their lives.¹⁹ In a study (20), non-pharmacy students (37%) had comparatively poor knowledge on acupuncture to that of pharmacy students (63%), whereas in this study, both group had sufficient knowledge about the acupuncture (Pharmacy:85%, Non-Pharmacy:91.4%). In another cross-sectional study,¹⁴ students had tolerable knowledge about ayurveda (50.4%) and homeopathy (35.7%) whereas students had better understand towards ayurveda (96.3%) and homeopathy (81.3%) in our study. These results were expected, as these systems are rooted in local tradition and popular among the general population.²¹ It was found that the similar knowledge about the use of ginger in our study (Table 2) compared to another study done in Palestine.¹⁷ In a previous cross-sectional study about 20.1% pharmacy and 13% non-pharmacy believed that Gingko treats Alzheimer's disease.²⁰ Furthermore, in our study 52.3% pharmacy students and 40.6% non-pharmacy students agreed with the same statement which reveals that students are conscious about the benefit of Gingko. Studies shows that the average rate of using ayurveda was 30% whereas homeopathy, massage, Yoga, acupuncture, meditation comprised of was 59% ($p = 0.678$), 13%, 6%, 2%, 29% respectively,²² that means students have better knowledge and understanding about homeopathy than other methods of CAM therapy, which is quite opposite of our study that reviewed about 81.3% of students are conscious about the homeopathy techniques ($p = 0.044$), herbal medicines ($p = 0.008$), acupuncture ($p = 0.024$) that the data is statistically significant that means students are well-known about

In a survey reported, students had better understanding towards safety of CAM and its side effects whilst in present study, students are found to be in dilemma towards CAM's safety and side effects.¹⁴ In a study, half of the students (63.3%) strongly disagree that CAM treatments is ineffective on treatment of disease which is totally contrast to our research study.¹¹ In a study, about a half of the students unveil approving attitudes that "CAM includes concept and methods from which conventional therapy shall get benefit"¹¹ while in our study 80.4% pharmacy students had positive attitudes towards this statement.¹¹ Furthermore, a research study reviewed that students have less understanding about the CAM use and it's side effects that shows students (34%) are in quandary regarding CAM which is a kind of similar to our study 41.7% out of total respondents are found in dilemma regarding CAM Practices.²³ In a study done, 3.2% agreed in including CAM in health science undergraduate curriculum while about 85% students agreed in our study.²⁴ In another research study, it was found that 76.3% preferred CAM alongside modern medicine which resembles to that our study (84.1%).²⁴ A Comparative study done found that less students (23.3%) are found to be concerned regarding CAM practices which is quite opposite to our study that signifies students (Pharmacy:85%, Non-Pharmacy:76.3%) are more concerned regarding inclusion of CAM practices and studies in university curriculum.²⁵

CONCLUSION

Our study survey data shows that health science students (both pharmacy and non-pharmacy) had familiar attitudes and beliefs towards CAM modalities such as homeopathy, ayurveda, massage, acupuncture, herbal medicine. Their perception towards inclusion of CAM in study curriculum is also positive. Moreover, public awareness and educational program should be commenced at various health care institutions, offices fundamentally for those who employ CAM modalities such as community medicine outlets, CAM dispensaries, primary health care centers. All CAM medicines should be scientifically approved. This survey shows great curiosity of health science students regarding the CAM methodology and practices.

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