

A survey on knowledge and attitude of pharmacy, health science and medical students towards traditional medicine as well as willingness of students and doctors towards the integration of traditional and modern medicine in Gondar university.

Muthuswamy Ragunathan^{1*}, Solomon MeQuanente Abay²

¹Department of Pharmacognosy, Cherraa's College of Pharmacy, 521-Siruvani Main Road, Coimbatore-39, Tamilnadu state, India

²Department of Pharmacology, Addis Ababa University, Medical Faculty, PO Box 9086, Addis Ababa, Ethiopia

ABSTRACT

A cross-sectional study was carried out to assess the knowledge, attitude, and willingness of modern health professionals (students and doctors) to the integration of traditional and modern medicines. Stratified random sampling technique for students as well as quota sampling for doctors were used. In addition, a self-administered questionnaire was employed in the study. The findings of the study showed that most students (respondents) have an encouraging general knowledge on traditional medicine. However, 54.9% respondents said that they do not have in-depth awareness about it. Most students and doctors believe that health service coverage in the nation can be increased through bringing together of traditional and modern practitioners and they themselves are willing to actively participate in such co-operations. About 69% of students and 80% of doctors in the study are willing to integrate the traditional and modern medicines in their profession. The impact of traditional medicine course is found to be very significant in bringing attitudinal and willingness developments on the students. Hence, 81.93% respondents (students) are willing to take the course. On the other hand, most of the students and doctors said that, they do not know the National Policy of Traditional Medicine. Thus, despite the above promising findings, the endeavors of the government and the university are found to be unsatisfying. This shows the exclusive effort should be taken by the government among the health professionals towards integration of traditional medicine system to modern medicine.

Keywords: Traditional medicine; Knowledge; Integration; Attitude; Complementary and Alternative medicine; Ethiopia

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***Author of Correspondence:** Prof. Ragunathan Muthuswamy; mobile; 00919865656279 E-mail: ragunathanilmonica@gmail.com; ragunathan@fastmail.fm

INTRODUCTION

The 1978 Alma-ata conference pointed the essence of incorporating traditional medicine in the general health care system in order to make health care service available to all the population. Besides the OAU (Organization of African Union), heads of state and government declared the period 2000–2010 G.C. as the African decade on African Traditional Medicine. Thus, every country in the African region is expected to adopt a method of traditional medicine incorporation that would be suitable: integrative, inclusive, or tolerant as the case may be (1). According to WHO, the promotion of traditional medicine in health care services particularly at PHC (primary health care)

level should be intensified using a selection of essential remedies particularly herbs in PHC and policy support for integration of traditional and modern medicines (2).

Many countries such as China, Vietnam, and Republic of Korea have an integrated system of traditional and modern medicine (3). In China, traditional Chinese medicine, class is opened to Western Medical students, and mass media is extensively used to promote the integration of the two medical systems throughout the nation (4).

In South Africa, an integrative training pilot study on traditional medical system has come up with a favorable clinical efficacy, cost-effectiveness, and provision of improved quality of life (5). Health professionals

particularly pharmacy, nursing and medical students around South Africa were recommended to take CAM (complementary and alternative medicine) course. Because health professionals have a responsibility to understand CAM given that, more than half of the population already uses herbal remedies (6). However, in Ethiopia, despite the support and encouragement to traditional medicine in policies, the government is criticized to have a limited effort to practically implement such policies (7).

Any government health program is believed to be ineffective without a good awareness, positive attitude, and higher commitment of all the participants in the implementation of such programs. Therefore, this study is conducted to assess knowledge, attitude and willingness of modern health professionals (Students and Doctors) to the integration of the two medical systems namely; traditional and modern medicines

Study area

This study has been made among the students of College of Medicine and Health Sciences (CMHS) Campus in University of Gondar and on the population of Medical Doctors in the University Hospital. Both areas are located side by side in Gondar town, 748 km North West of Addis Ababa, Ethiopia. The college has three schools namely: school of health science, school of medicine and school of pharmacy. The college provides diploma, degree, masters, and contains 2200 regular degree students. In addition, the University Hospital has about 36 active medical doctors. It has been offering in-patient and out patient health care services to the local and surrounding communities.

MATERIALS AND METHODS

Study Design

A cross-sectional study was carried out using self-administered questionnaire. The questionnaire addressed issues related to demographic characteristics, knowledge on and attitude towards traditional medicine (only to students) as well as willingness to integrate the two medical systems. In addition, questions to assess endeavors of government, university as well as students & doctors themselves were involved and related factors affecting the awareness of students on traditional medicine were also included in the questionnaire.

The main objective of the study is assessment of knowledge and attitude of students as well as willingness of students and doctors to the integration of traditional and modern medicines. A stratified random sampling

technique was used to maintain samples from a population of regular health science, medical and pharmacy students. Besides, doctors were selected using a quota sampling technique.

Data collectors introduce participants in the study before the actual distribution of the self-administered questionnaire. Data was collected on 327 students and 30 medical doctors who had given their full consent and were willing to be involved in the study. The collected data was cleared and analyzed using SPSS version 15. A sample size of 327 students was used and it will allow for a 50% prevalence estimate, with 95% confidence interval ranging from 43%–57% of the target population 2200. Discussion and conclusion are made based on the findings.

Source of Population

The source population was all the 2200 population of CMHS students distributed in to 11 departments and the 36 medical doctors in the university hospital. This include health science departments from year I to year III, medical students from year I to year VI and pharmacy students from year I to year IV.

Study Population

Students as well as doctors selected from the source population using the appropriate sampling procedures.

Exclusion Criteria

The study did not involve extension students no matter how they are in the same department with the same or different batch. In addition, those who are attending their masters program were not included. Most importantly, the study also excluded non-medical doctors as well as respondents who are not willing to participate in the study.

Sampling Technique

The population of students is stratified in to schools and departments so that a stratified random sampling technique was used to maintain the study population. In addition, quota-sampling technique was used for the population of doctors.

Variables of the Study

Independent variables

These are socio demographic like age, sex, marital status, religion, economic income.

Dependent variables

Knowledge, attitude, intention to take the course, perception to integrate traditional and modern medicines.

Data Collection Procedure

Students who have previous experience of data collection were recruited and lecture was given for 45 minutes about the research purpose, how to fill the questionnaire. Next pretest was conducted on eight students within the college of medical health sciences. Then difficult questions were modified, and the corrected questionnaires were distributed. Data was collected using self-administered English version questionnaire in the classroom before the class began and after the class ends. For doctors, the questionnaires were given during tea break by the principal investigators. Finally, data was reviewed, checked for completeness, consistency and relevance by the principal investigator of the study analyzed by using SPSS - 15 biostatistical software package.

Ethical Consideration

Ethical clearance was taken from the department of pharmacognosy. The subjects of this research had already informed about the objective and purpose of the study and why they were selected to be study participants. Respondents also were informed that they could discontinue or refuse to participate in the study at any time they want. At last, emphasis was given to

respondents that all information given through the survey time should be recorded and kept anonymously so that their confidentiality should be ensured.

RESULTS

The knowledge, attitude, and willingness of students to the integration of traditional and modern medicine

Socio demographic characteristics

From 327 participants in the study, males (75.8%) accounted the majority. About 71.6% of respondents were found in the age group between 18 to 22 years. Orthodox and Muslim respondents accounted to 64.8% and 20.8% respectively. Considering the proportion of students from the three schools, 63.9% were from school of health science, 22.6% were from school of medicine and the rest 13.5% were from the school of pharmacy (Table 1).

Knowledge of students about traditional medicine

About 89% respondents said that peoples in developing countries mostly use traditional medicine. Thus 49.2%, 42.4% and 43.1 % participants respectively said cultural influence, unavailability of modern medicine and poor economic status are factors for reliance of peoples on traditional medicine for their health care needs.

Asked on how traditional healing skill is acquired, 65.8% respondents said from family practice, 35.8%

Table 1: Socio demographic characteristics of respondents (students) who were participated in the study (University of Gondar – May 2008)

Variables		Frequency	% (total = 327)
Sex	Male	n = 248	75.8%
	Female	n = 79	24.2%
Age	<18 year	n = 42	12.8%
	18year–22 year	n = 234	71.6%
	22 year–24 year	n = 35	10.7%
	>24 year	n = 16	4.9%
	Religion	Orthodox	n = 212
	Protestant	n = 68	20.8%)
	Muslim	n = 36	11%
	Catholic	n = 2	0.6%
	Others	n = 7	2.8%
School	Health science	n = 209	63.9%
	School of Medicine	n = 74	22.6%
	School of Pharmacy	n = 44	13.5%

Note: The total 327 is adjusted according to non-responses

Table 2: General knowledge about traditional medicine by respondents (students) who were participated in the study (University Of Gondar – May 2008)

Variable	Frequency	% (total = 327)
Peoples in developing countries mostly use TM.	n = 290	(89%)
Why people generally use TM		
– In availability to MM	n = 155	47.4%
– Cultural influence	n = 161	49.2%
– Poor economic status	n = 141	43.1%
– Lack of education	n = 133	40.7%
– Presence of incurable diseases in do MM.	n = 85	26%
How healing skill is acquired		
• family experience	n = 215	65.8%
• Training	n = 117	35.8%
• Holy spirit gift	n = 91	27.8%
• Any interested person can do it	n = 35	10.7%
Risk of TM		
• Some harmful practice	n = 260	79.5%
• unhygienic practice	n = 213	65.1%
• Too costly	n = 50	15.3%
TM has some advantage over MM	n = 240	73.6%
Tm can serve as source of knowledge of MM	n = 299	96.1%
Have not good (in-depth) awareness on TM	n = 195	54.1%

Note: The total 327 is adjusted according to non-responses

TM = Traditional Medicine

MM = Modern Medicine

through training (apprenticeship) and 27.8% said from Holy-spirit gift. Besides 10.7% respondents said any interested person can also practice regardless of acquisition of the healing skill.

Harmful practices are said to be present a long with the practice of traditional medicine by 79.5% participants. In addition, almost all (96.1%) said traditional medicine could serve as source of knowledge to the modern medicine, and 73.6% said it has some advantages over modern medicine. However, as high as 54.9% participants said, they do not have developed in-depth awareness on traditional medicine (Table 2).

Attitude and willingness of respondents (students) to integration of traditional and modern medicine

About 94.2% and 70.2% respondents respectively said that Ethiopian traditional medicine needs an improvement and government shall take a better control and support to the sector. Where as 60.2% participants said they have suspicion on healing skill of traditional healers so that they do not mostly accept their skills.

Conversely, 81.3% of respondents believe that health service coverage in Ethiopia can be increased by the

coordination of traditional and modern practitioners and 92.3% are wanted to actively participated in such co-operations and would like to share their professional knowledge to the healers.

Asked about integration of traditional and modern systems of medicines, 69% of the total participants are willing to integrate the two medical systems in their profession. About 81.93% respondents showed, their interest to take traditional medicine course and the need to aware students about national traditional medicine policy is mentioned by 63.7% respondents (Table 3).

Factors affecting awareness of students (respondents) on traditional medicine

The students (participants) were asked about influencing factors of their awareness on traditional medicine and the findings are given as follows.

The absence of traditional medicine course and shortage of related literatures (Books, Journals etc.) were respectively mentioned by 63.3% and 51.7% respondents. In addition, 44.3% participants said poor student initiation is another cause for lower awareness

Table 3: Attitude towards traditional medicine and willingness to the integration of traditional and modern medicines by respondents (students) who were participated in the study (University of Gondar – May 2008)

variables	Frequency	% (n total = 327)
– TM in Ethiopia need Improvement	n = 308	94.25%
– Government shall take better control and support to TM sector	n = 229	70.2%
– Do not mostly accept skill of healer	n = 197	60.2%
– Health service coverage in Ethiopia can be increased by coordination of traditional and modern practitioners.	n = 260	81.3%
– willing to cooperate with traditional practitioners	n = 298	92.3%
– Willing to integrate traditional and modern medicines	n = 223	69%
– want to take traditional medicine course	n = 263	81.9%
– Government shall publicize the national policy on traditional medicine	n = 216	69.7%

Note: The total 327 is adjusted according to non-responses

TM = Traditional medicine

of students on traditional medicine. Where as absence of seminar about traditional medicine is mentioned by 43.5% respondents. On the other hand, 62.3% participants said they have come across about traditional medicine in a media but it is only about an advertisement (Table 4).

Comparison of respondents (students) who have taken traditional medicine course and those who have not taken

Twenty-one students of pharmacy 3th and 4th years have taken the course and all (100%) are willing to cooperate with traditional practitioners. Moreover, 90.2% of them believe that health service coverage in the nation can be increased through such cooperation. Willingness to integrate traditional and modern medicines is mentioned by 95.2 % of these respondents.

Conversely, 306 (83.6%) respondents have not taken the course and 90.5% of participants expressed their willingness to cooperate with traditional practitioners. Whereas 78.6% respondents believe that health service coverage of the nation can be increased by coordination of traditional and modern practitioners. Willingness to integrate traditional and modern medicines is expressed by only 66.3% of respondents who have not taken the course.

The Students, university, and government endeavors towards obtaining better awareness on traditional medicine by the students.

Students are appreciably doing well to gain better awareness on traditional medicine. They discussed with people and listened TV and radio about traditional medicine where as 32.7% participants said they read book journal etc regarding traditional medicine.

On the other hand, 270 (83.1%) respondents said that the university is not doing enough to promote their awareness on traditional medicine nor does the government as 93.6% respondents did not take a traditional medicines course which significantly concerns it.

Willingness of doctors (respondents) to the integration of traditional and modern medicines as well as related opinions

Socio demographic characteristics

A total of 30 doctors of which 76.7% are males were participated in this study. The majority are in the age groups 20–30years. Only 20% respondents have specialized where as the rest 80% are general practitioners (Table 5).

Table 4: Factors affecting awareness of students on traditional medicine data given by respondents who were participated in the study (University of Gondar – May 2008)

Variable	Frequency	% (n total = 327)
• Absence of Traditional medicine course	n = 207	63.35%
• lack of writing (Book, Journal etc)	n = 169	51.7%
• Poor student initiation to know	n = 145	44.3%
• Absence of seminar	n = 141	43.1%

Note: The total 327 is adjusted according to non-responses

Table 5: Socio demographic characteristics of respondents (doctors) who were participated in the study (University Of Gondar May 2008)

Variables	Frequency	% (n total = 30)
Sex	Male	n = 23 76.7%
	Female	n = 7 23.3%
Age	• 20 Yr – 29yr	n = 24 80%
	• 30 – 40Yr	n = 6 20%
	• > 40yr	n = 0 0%
Religion	• Orthodox	n = 24 80%
	• Protestant	n = 4 13.3%
	• Muslim	n = 2 6.7%
Educational level	• Specialist	n = 24 80%
	• General practitioner	n = 6 20%
Ward of practice	– pediatrics	n = 11 36.7%
	– Internal medicine	n = 8 26.7%
	– gynecology and austerities	n = 7 23.3%
	– Public health	n = 3 10%
	– Surgery	n = 1 3.3%

Willingness to integrate traditional and modern medicines by doctors (respondents) and other related opinions

About 80% of the respondents expressed their willingness to integrate traditional and modern medicines in their professional practice. However, 67% participants said that they do not know about the national policy of traditional medicine. Asked on their awareness on traditional medicines, 90% respondents said they did not develop good awareness at a student level and 70% said they have not good awareness once after they are at work. Only 6.7 % of respondents are found to some times read about traditional medicine in general.

86.7% respondents mention the fact that Ethiopia has lots of potential to be used in traditional medicine. For

instance, a similar proportion of participants (86.7%) said minor training of Traditional Birth Attendants (TBA) could significantly decrease maternal mortality associated with delivery. Relatively, 80% of the participants believe that health service coverage of the nation can be increased through coordination of traditional and modern practitioners and 80% said they themselves are willing to co operate with traditional healers and would like to share their professional knowledge.

Half (50%) of the respondents said that traditional medicine is some times better than modern medicine in the management of certain illnesses and 6.7% of them have ever advised their clients to utilize traditional medicine. In addition, about 80% respondents said they take history of traditional medicine usage while diagnosing patients (Table 6).

Table 6: Willingness of respondents (doctors) for the integration of traditional and modern medicines as well as related opinions (University of Gondar – May 2008)

Variables	Frequency	% (Total = 30)
– Willing to integrate traditional and modern medicines	n = 24	80%
– know government policy on traditional medicines	n = 10	33%
– Developed good awareness on traditional medicine at a student level	n = 3	10%
– Got a better opportunity to know well about traditional medicine at work	n = 9	30%
– Usually read about traditional medicine	n = 2	6.7%
– Ethiopia has a lot potential to be used in traditional medicine sector	n = 26	86.7%
– Training of traditional birth attendants can decrease maternal mortality due to delivery	n = 26	86.7%
– Willing to cooperate with traditional practitioners	n = 24	80%
– Health service coverage of the nation can be increased by cooperation of traditional and modern practitioners	n = 24	24%
– Traditional medicine is sometimes better than modern medicine to manage certain illnesses	n = 15	50%
– have ever advised patients to use traditional medicines	n = 2	6.7%
– Take history of traditional medicine usage from patients.	n = 24	80%

DISCUSSION

This study has shown that most respondents expressed for the possible increase of the nation's health service coverage through coordination of traditional and modern practitioners. This is congruent to what Tsegaye reported in his study (8). The respondents in his study said, coordination could increase health status of the nation at some level. This is clearly supported by the point that about 80,000 traditional healers, drug collectors and vendors are expected to be found throughout the Ethiopia (9). Beside most participants also said traditional medicine of Ethiopia, need a better government control and support. One of such a support could be establishing cooperation with modern health professional as most participants in this study (students and doctors) are willing to cooperate with traditional healers.

The 69% students and 80% doctors showed willingness to integration of traditional and modern medicines. Such finding will alert decision makers to give a more than usual concern to establish practical cooperation among the practitioners of the two medical systems. It is congruent to what Bishaw (1999) pointed in his finding that most doctors in his study were willing to integrate ,cooperate with traditional practitioners which also said that healers

shall be brought in to the existing health care institutions . Similarly, 96.3 % respondents in a study (medical students above 4th year and doctors in Jimma Institute of Health Sciences and health institutions in Jimma zone) said that they are willing to work in coordination, integration with traditional practitioners(8).

But, for such cooperation to exist, a strong legal recognition to traditional medicine is essential as the Chinese constitution stated the equal value of traditional Chinese medicine as to the modern medicine (4). Most respondents (students and doctors) said that they do not have acquired in-depth awareness traditional medicine and relatively said that they do not know the government traditional medicine policy. Conversely, the impact of the course is found to be very significant on the attitude and willingness of students to the integration of the two medical systems . Thus, changes in the provision of health professional training are vital and occupy an essential role in realizing integration of traditional and modern medical systems.

In a survey on more than 100 pharmacy students in South Africa, 90% of them said that CAM should be a core part of their education since it enables them to look for evidence and then make informed decisions in the best of their patients. (6). Thus, government of Ethiopia shall

incorporate traditional medicine course into the training program of modern health professionals. From the above finding it is also clear to understand that the government has not still made better concern towards promotion of awareness of modern health professional.

The finding that most students in the study (62.3%) have come across advertisement on traditional medicine shows that professionals do have a good exposure to the media through which the government can effectively publicize programs and strategies on traditional medicine of the nation and hence can bring consensus.

The factors affecting awareness of students on traditional medicine are found to be absence of related course about it, shortage of writings (books, journals, etc), absence of seminars as well as poor student initiation to know about traditional medicine. All these issues, however; are not insurmountable by the joint effort between the university and the government. In general, half of the doctors in the study said that traditional medicine is sometimes better than modern medicine in the management of certain illnesses and hence two of them have ever advised patients to use traditional medicine. This shows the need to study document and publicize the effective healing wisdom of traditional healers which could possibly lead to a referral system among the two medical systems.

The fact that most (80%) doctors in the study said they take history of traditional medicine usage from their clients, is very appreciable as its use is popularly accepted and could have a significant effect on the patient outcome. Despite a more promising finding, the endeavor of the government and the university are found to be unsatisfying. At least the health professionals (mainly doctors) are not made to be aware of national traditional medicine policy which really shows the exclusive nature of government effort to realize the integration of the two medical systems.

CONCLUSION

The willingness of students and doctors to the integration of traditional and modern medicines shows that an absolute focus on modern medicine alone cannot improve health status of the country better than an integrated

health care system. Thus change in the training curricula of health professional is essential and holds a pivotal role to realize integration of traditional and modern medical systems.

The fact that most respondents (students) have come across an advertisement on traditional medicine through media shows the government can effectively publicize its health program in general and about traditional medicine in particular using the media. So that national consensus could be maintained and unbiased recommendations are given by the health professional to the best interest of their patients.

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