Medical Student Attitude toward Traditional, Complementary and Alternative Medicine: Cross-sectional Study

Muna Al Saadoon\textsuperscript{a}, Rana Mohammed Al- jashemi\textsuperscript{b}, Abeer Mohammed Al- Farsi\textsuperscript{b}, Sarah Hilal Al-Suleimani\textsuperscript{b}, Hajar Yaqoob Al- Khayari\textsuperscript{b}

\textsuperscript{a}Department of Child Health, College of Medicine and Health Sciences, Sultan Qaboos University, Oman
\textsuperscript{b}College of Medicine and Health Sciences, Sultan Qaboos University, Oman

1. Introduction

1.1 Definition

For generations, traditional medicine (TM) is used by various cultures for health maintenance, disease prevention and in the diagnosis and treatment of physical and mental illness. The term traditional medicine has an inclusive meaning; it includes all of the Arab-Greek medicine, ancient Chinese medicine, Indian ayurveda medicine and other forms of TM (WHO, 2012a). Alternative medicine or complementary medicine is the traditional medicine that is used outside the indigenous community by the other populations (WHO, 2012b). Complementary medicines is what is used in conjunction with conventional medicine at the same time, while alternative interventions are what is used in place of conventional medicine (Gooneratne, 2008). In some countries terms as complementary, alternative and non-modern medicines are used to refer to traditional medicine (WHO, 2000).

1.2 Worldwide use of TM

In Africa, Asia and Latin America about 80% of the population still use traditional medicine to meet their needs in primary health care. While more than half of the population of industrialized countries now uses some kind of traditional, complementary
or alternative medicine (Galabuzi et al., 2009). In developing countries the most important reasons for the use of traditional medicine is the inability to bear the costs of modern medicine products and ease of access to traditional products. While in developed countries, the widespread use of traditional medicine products is due to the growing awareness of the side effects of the modern chemical drugs and the increasing number of people living with chronic diseases that does not have any available modern treatment (WHO, 2012a).

Since ancient times, Omanis adopted the means of traditional medicine in the treatment and relieve of symptoms of many diseases, these methods diverse and differ from different regions of the Sultanate (Al-Lamki L., 2011). The most known traditional methods in Oman are: cautery(ka’iy or wasam), herbal medicine and cupping (Al Binali H.A.H., 1999). The use of medicinal herbs is still common in Oman, especially in northern and central Oman where a lot of local herbs grow. Also oils and lotions are produced from these herbs (Ghazanfar, 1993). In 2001, national laws and regulations on CAM were introduced in Oman, yet no national program has been developed. There is also no national office, expert committee or research institute on this area. Despite the establishment of a system for registration of herbal medicines, but right now there is no figures on the number of registered herbal medicines. As well, the essential drug list does not include herbal medicines (Ghazanfar and Al-Sabahi, 1993).

2. Objective of Research

To date nobody has determined the medical students’ attitude to TM. The current level of knowledge that the medical students in Oman possess is not known. The use of TM by this group of future medical professionals is also not identified. The purpose of this research is to assess the attitudes toward traditional, complementary and alternative medicine TM, CAM among Sultan Qaboos University medical students in Muscat, Oman (map), and the actual use of these methods. Investigating medical student attitudes toward traditional medicine is necessary to explore this important group of population views about TM for its possible impact on their practice in the future.

3. Methodology

Gap in available information about attitude and use of TM among Omanis’ and more specifically medical students is the trigger for the conduct of this study. Such information will contribute to data required for planning, development of policies and guidelines with regard to TM services in the country. It will also enlighten professionals in the medical field about the future needs of the medical teaching curriculum with regard to the local community requirements.

This is a questionnaire-based cross section study in which all students in the preclinical years (360 students) were invited to participate in February 2012. The questionnaire was prepared specifically for this purpose based on previous literatures. The questionnaire included 25 questions divided into 3 parts: Demographic information, Use of TM and Attitude to the use of TM. Most of the questions were closed end and few required a written answers or simple explanation. After a pilot study which included 20 students who were not from our target population, the questionnaire was edited in order to make it clearer, user friendly, and fulfilling the objectives of the study without repetition. The questionnaire was converted to an electronic version through the website: www.kwiksurveys.com The link of the electronic questionnaire was sent to invited students through the university e-mail. This was in collaboration with the Medical Student Group who is responsible for coordinating researches involving medical students. Later, reminders were sent to the participants at various intervals. During this period there was a follow-up of the responses and introduction of the data immediately in Excel program. Data was transferred to SPSS program version 19.0 and simple descriptive analysis was done to illustrate the results in mean, percentage and using different graphs. Ethical approval was obtained from college of medicine and health sciences research and Ethics committee (MREC 483).

4. Results and Discussion

4.1 Health status and gender distribution

The number of participants was 98 (response rate 27.2%), 40.8% males and 59.2% females. In general the participant reported to be healthy as 85% of the male students described their health as very good or good and 15% as fair (Figure1). While 95% of the female students described their health as being very good or good, and 5% as fair or bad (Figure2).
13.3% of the students were on regular conventional medications for health problems and 9.4% from all responders have been diagnosed with chronic diseases including asthma, rhinitis, sickle cell anemia, G6PD deficiency, diabetes and allergic diseases.

4.2 Use of traditional treatment
52.4% of the male and 31% of the female reported using TM. Moreover, 51.9% used it along with conventional medicine in the same time whereas, 26.9% never used the two types of remedy in the same time. The rest could not recall if they used traditional medicine together with conventional medicine. 41.3% from those using TM told the TM practitioner that they were on conventional medicine. Whilst 28.3% told the treating doctor that they were on TM. The reasons for those who did not tell the doctor about their use of TM, included that they do not believe that the use of TM may affect the prescribed treatment, while others replied that he/she had no dialogue on this subject with his/her doctor as the doctor did not show interest in the subject and did not ask. Others thought that telling the doctor will be useless as doctors probably will not understand their beliefs in traditional medicine.

The participants were asked whether they noticed any improvement in their condition or not after using the CAM and 46.7% answered that they improved a lot, 35.6% improved slightly, 17.8% cannot remember and none of them answered that there were no improvement.

When asked to identify the decision maker for using TM the reply was themselves (21%), father (11.5%), mother (51.2%), grandparents (2.3%), other relatives (7.1%) and the remaining 7.1% could not remember the decision maker.

4.3 Attitude to the use of traditional treatment
51.9% of the participants (38.3% of them never used TM in the past) reported that they will consider using TM such as herbal therapy, Holy Quran, honey, lemon, cupping, massage, acupuncture, and cautery in the future. 81% of those who used TM in the past stated that they will consider using it again in the future.

76% of the responders’ believed that TM Sometimes has fewer side effects than conventional medicine. 62% think that herbal medicine has less toxic effects compared to conventional medicine. Moreover, 84% believe that sometimes herbal medicine is more effective than conventional medicine. Only 23.8% of the male and 36.4% of the female students were concerned about the possible side effects or risks attached to the use of TM. The rest reported that they were not concerned or did not remember if they had worries about this issue.

4.4 Knowledge about traditional medicine
The students were asked to rate their TM knowledge on a scale of 0 to 5 (0 for No knowledge, 1 for Poor knowledge to 5 for Good knowledge). 79.6% scaled themselves as 2 or below, 15.3% as 3-4 and 3.1% as having good knowledge. Relatives were the most common source of TM knowledge as reported by 73.2% of responders. Likewise, 21.1% learnt about TM from newspapers and other media and 5.7% from the traditional practitioners whom they visited.

5. Discussion
5.1 Use of traditional medicine
Despite that the majority of students reported their health to be good and only 9.4% were suffering from chronic health problems 41.7% of the participants’ used TM in the past. This is contrary to abbott et.al. (Abbott et al., 2011) results but similar to the findings of the study conducted among Chinese medical students (Hon et al., 2005). Thus the use of TM was not linked in this study to chronic health problems and was used for acute health issues. The methods mentioned by the SQU
medical students were different from methods used in other countries reflecting the Omani TM practices. However, the result shows that students also used other types of alternative medicine such as acupuncture and Chinese massage.

Mothers have a significant impact in the decision of using alternative medicine for male and female students alike. This is expected as mothers takes upon themselves the health caring of their children. This underlines the need of increasing awareness of TM among all segments of society, especially mothers, not only the students themselves, for their ability to influence such decisions. The students themselves come in the second order as decision makers to use alternative medicine. Regarding the fear of the presence of side effects when using alternative medicine, about half of the students who responded to this question said that they did not have concern about the side effects. This necessitates special consideration about the society perception of the safety of TM and the requirement of firm regulations to assure safe practice of TM in the country.

Previous population-based studies revealed a lack of adequate communication between patients and their medical doctors about patient's use of TM (Holroyd et al., 2008). This is similar to the results of this study as only 28.3% of those who used TM informed their physicians about the use of TM. On the other side, the proportion of those who told the traditional healer that they are using treatment prescribed by a physician was higher (41.30%). This might reflect better communication with healer compared to doctors or the availability of adequate time to share such information.

More than two third of the students using TM noted improvement in their condition and reported that they will use these means in the future. Previous studies, which have targeted patients with certain health conditions, showed variation in relation to improvement after the use of TM. An example of this, a study targeted patients with dermatitis indicated that there were no improvement after the use of TM (Vender R.B., 2002). On the other hand, there have been studies that confirmed an improvement in some patients with Crohn's disease after using TM or visiting traditional healer (Brichford C., 2011). While the importance of studying TM interaction with the body and the conventional treatments such as anticancer treatments was stressed by others (Kelly K.M., 2004).

This study did not explore the nature of improvement sensed by the students after using TM. Other studies suggested the improvement noticed could be due to the effectiveness of TM, placebo effect, comfortable atmosphere of TM that allow clients to express their own views of their problems and the more time allocated for client by the healer compared to the physicians (Brichford C., 2011).

5.2 Attitude to traditional medicine
In general the participants expressed a positive attitude towards alternative medicine which is conformity with other surveys (Abbott et al., 2011; Shankar et al., 2006). Medical students in Sultan Qaboos University also find alternative medicine more effective and less risky than conventional medicine which was in agreement with medical students’ views in Chinese universities (Hon et al., 2005). This positive attitude was expected for many possible reasons. The society adheres to its cultural heritage and traditional medicine is part of this heritage. Second, the religious factor may be one of the most important factors, especially as the most important ways adopted by the students were the Holy Quran therapy, cupping and Wasim methods which are mentioned in the Sunnah (Ministry of Health, 2009). Another possible reason is the influence by the family on the students’ decision similarly to what prior study, targeting Australian pharmacy students, found (Tiralongo and Wallis, 2008). The improvement that observed after the use of TM might be also one of the reasons behind the positive attitude.

5.3 Knowledge about traditional medicine
56% of the males and 80% of the females rated their knowledge of alternative medicine as 1 or 2 in our scale. Admitting low knowledge about TM was common and similar to other studies findings (Awad et al., 2012). A small percentage of the students knew about traditional medicine from traditional healers who have dealt with them and as there are no organizations in Oman to qualify and train TM practitioners makes the refuge to these traditional therapists is not without danger. In previous studies, medical students themselves preferred the presence of courses on TM in their curricula (Yeo et al., 2005; Chaterji et al., 2007). WHO is seeking to achieve a set of objectives aiming to improve the safety of using CAM by assisting countries in developing laws, regulations and guidelines related to CAM. The organization also encourages researches in this field in order to create scientific database including evidence-based information about safety, effectiveness and uses of traditional methods. The fact that only 25 of WHO 191 Member States have developed policies on CAM (WHO, 2012a; WHO, 2012c) is a distressing fact that require more effort to regulate this practice.
Limitations & Future Directions

This study is affected by the known problems of questionnaire based studies such as the effect of interpreting the question and memory issues. One of the most important shortcomings of this study is the low response rate which did not allow a comparison between students in terms of their level of education. Therefore, it was not possible to infer the impact of medical knowledge in the perception of alternative medicine or to find association between the different variables. Thus there is a need for more studies in this area with larger sample size and targeting different sectors of the society to understand more the current practice of TM, attitude and knowledge and safety aspect of its use.

Conclusion

TM is used by medical students in Oman despite the presence of a sophisticated health system. Medical students have a positive attitude towards alternative medicine; however, their knowledge of alternative medicine is limited and depends on unscientific sources. Therefore there is a need to encourage studies in this area to provide evidence-based knowledge about TM which can expand the medical students’ and community awareness about traditional medicine. It is also important to initiate steps to assure safe practice of TM in Oman. The issue of safety of the therapies and lack of guidelines and regulation to control the practice should be considered by the concerned authorities as a priority.

Research Highlights

- Omani medical students in the preclinical phase have a positive attitude towards TM.
- The main person to decide using TM are mothers.
- The source of information about TM among the medical students is relatives.

Recommendations

More studies should be conducted in this area with the aim of exploring more the reasons for the use of TM and safety steps taken by users and healers. Studies should use a method that will assure participation of big sample and possibly supplement the data with qualitative information.

Funding and Policy Aspects

This study was conducted using available resources within the College of Medicine and Health Sciences in SQU (no external funds were required). This study points to the need for developing regulations, guidelines, and policies to standardized and monitor the practice of CAM in Oman to assure safety of the users of these services.

Authors’ Contribution and Competing Interests

The first author developed the study proposal and study tool, obtained the ethical approval, and supervised the piloting and actual conduct of the study (authors 3, 4, 5 contributed to the development and piloting of the questionnaire). The data collection was done by authors 2, 3, 4, 5. The analysis was done by authors 1 and 2. The write up of MS was done by authors 1 and 2. The review was a shared step by all authors.

There are no competing interests to be declared.

Acknowledgement

We would like to thank all of the students who accepted to participate in the study.

References


