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Dental students' viewpoints on traditional medicine course after presenting for the first time in Iran

Background: The traditional medicine is an integral part of the Iranian culture. Since Birjand dental school presented traditional medicine course for dental students for the first time in Iran, this study aimed to evaluate dental students' viewpoints about traditional medicine course.

Methods: After approving optional traditional medicine course for dental students in Birjand University of medical sciences, Birjand dentistry students' viewpoints were evaluated in two separate semesters through an open ended questionnaire which its validity and reliability were confirmed. The questionnaire was designed on a five-point Likert scale. The mean of scores for each question and the mean of student scores on all 16 questions were calculated and through comparing with median, positive or negative viewpoints were evaluated.

Results: In the first and second runs of course, only two questions (teachers' mastery on the content and student satisfaction from final exam) scored above the median. In the first run of the course and totally in "student's willingness to repass course" the students acquired the least score. All of mean students' score for sum of 16 questions were less than 3 in two runs of the course. Students were generally dissatisfied with the inappropriate timing of classes, the high amounts of content, the impracticality of the subjects, and the lack of relevance to the field of dentistry.

Conclusion: All dentistry students had negative viewpoints to traditional medicine course in this form. It is recommended that it should be provided to dental students in a more practical way and as workshops.

Keywords: Traditional Medicine, Dental students, Opinion, Curriculum

وجهات نظر طلاب طب الأسنان حول دورة الطب الايراني الاصلی بعد التقديم لأول مرة في إيران

الخلفية: يشكل الطب الايراني جزءاً لا يتجزأ من ثقافة الإيرانيين. بعد أن قدمت كلية طب الأسنان في بيرجند دورة الطب الايراني لطلاب طب الأسنان لأول مرة في إيران، تهدف هذه الدراسة إلى تقييم وجهات نظر طلاب طب الأسنان حول دورة هذا الطب.

الطرق: بعد الموافقة على مقرر الطب الايراني الاختياري لطلاب طب الأسنان في وحدات الادارة ذات الصلة بجامعة بيرجند للعلوم الطبية، تم تقييم وجهات نظر طلاب جامعة بيرجند في فصلين دراسيين منفصلين من خلال استبيانات مفتوحة التي تاكد صحتها و موثوقيتها. تم تصميم الاستبيانات على مقياس ليكرت من خمس نقاط و حساب متوسط الدرجات لكل سؤال و متوسط درجات الطلاب لـ 16 سوالا بالمقارنة مع وجهات النظر المتوسطة أو الإيجابية أو السلبية. النتائج: في المرحلتين الأولى والثانية من الدورة، تم تسجيل سؤالين فقط (إتقان المعلمين للمحتوى، و رضا الطلاب من الامتحان النهائي) فوق المتوسط. في الجولة الأولى من الدورة و بشكل كامل، حصل "استعداد الطالب لإعادة الدورة" على أقل درجة. كانت جميع درجات متوسط الطلاب لـ 16 سؤالاً أقل من 3 في مسارين من الدورة. كان الطلاب غير راضين بشكل عام عن التوقيت غير المناسب للفصول الدراسية، الكميات العالية من المحتوى، عدم قابلية المواد للتطبيق و عدم وجود صلة بمجال طب الأسنان.

الخلاصة: كان لجميع طلاب طب الأسنان رأي سلبي حول التعريف و العرض للدورة و يوصى بأن تكون دروس الطب الايراني أكثر عملية و أن يتم تقديمها في ورشة عمل للطلاب.

الكلمات المفتاحية: الطب الايراني، طب الأسنان، الرأي، المناهج

نظرات دانشجویان دندانپزشکی در مورد دوره طب سنتی پس از ارائه برای اولین بار در ایران

زمینه و هدف: طب سنتی بخشی جدایی ناپذیر از فرهنگ ایرانیان را تشکیل می دهد. پس از آنکه دانشکده دندانپزشکی بیرجند برای نخستین بار در ایران واحد درسی طب سنتی را برای دانشجویان دندانپزشکی ارائه نمود، این مطالعه با هدف ارزیابی دیدگاه دانشجویان دندانپزشکی در خصوص درس طب سنتی انجام شد.

روش: بعد از تصویب ارائه واحد اختیاری طب سنتی جهت دانشجویان دندانپزشکی در شوراهاى مربوطه در دانشگاه علوم پزشکی بیرجند و اجرایی شدن آن، دیدگاه دانشجویان دانشکده دندانپزشکی بیرجند که در دو ترم مجزا این واحد درسی برایشان ارائه گردیده بود، از طریق پرسشنامه های انتها باز محقق ساخته که روایی و پایایی آنها به تایید رسید، مورد ارزیابی قرار گرفت. این پرسشنامه ها بر اساس مقياس ليكرت پنج گزینه ای طراحی شده بود. میانگین نمرات برای هر گزینه و میانگین نمرات هر دانشجو برای 16 سوال محاسبه و از طریق مقایسه با میانگین، دیدگاه مثبت یا منفی دانشجویان ارزیابی شد.

یافته ها: در دوره اول و دوم دوره، تنها دو سوال (تسلط استادان بر محتوای درس، رضایت دانشجویان از امتحان نهایی) نمره بالاتر از میانگین داشتند. در اولین اجرای دوره و در کل دو اجرای دوره، "تمایل دانشجویان برای گذراندن مجدد درس" کمترین نمره را کسب کرد. میانگین نمره دانشجویان برای مجموع 16 سوال، در دو اجرای دوره زیر 3 بود. دانشجویان عموماً از زمان نامناسب کلاس ها، میزان بالای مطالب، غیر کاربردی بودن موضوعات و عدم ارتباط با رشته دندانپزشکی ناراضی بودند.

نتیجه گیری: کلیه دانشجویان دندانپزشکی نسبت به معرفی و ارائه دوره طب سنتی، نظر منفی داشتند. توصیه می شود که درس طب سنتی به گونه ای عملی تر و به صورت کارگاه برای دانشجویان دندانپزشکی ارائه شود.

واژه های کلیدی: طب سنتی، دانشجویان دندانپزشکی، نظر، کوریکولوم

ایران میں پہلی مرتبہ طب یونانی کا کورس کرائے جانے پر ڈینٹل میڈیسن اسٹوڈنٹس کا رد عمل

بیک گراؤنڈ: روایتی طب یا طب یونانی ایرنا کی تہذیب کا بنیادی عنصر مانا جاتا ہے۔ ایران میں بیرجند کالج آف ڈنٹسٹری نے پہلی بار ڈینٹل میڈیسن کے طلباء کے لئے روایتی طب کا ایک یونٹ نصاب میں شامل کیا۔ اس تحقیق میں روایتی طب کے بارے میں طلباء کے نظریات جاننے کی کوشش کی گئی ہے۔

روش: بیرجند یونیورسٹی آف میڈیکل سائنس نے ڈینٹسٹری کے طلباء کے لئے ایک یونٹ طب یونانی کا رکھا تھا۔ یہ یونٹ اختیاری تھا۔ طب یونانی کا نصاب دو الگ الگ ترمز میں پڑھایا گیا تھا۔ سوالنامہ کے ذریعے ڈیٹا جمع کیا گیا۔ یہ سوالنامہ لیكرت فائو اسکیل کے مطابق بنایا گیا تھا۔

نتیجے: پہلے اور دوسرے ترم میں طب یونانی کے نصاب پر استاد کا عبور اور امتحان نہائی پر طلباء کا اطمینان ان دونوں نکات کے بارے میں سوالات کو سب سے زیادہ نمبر ملے تھے۔ طلباء نے بہرپر طرح سے اس بات کو واضح کر دیا کہ وہ دوبارہ طب یونانی کا یونٹ اختیار نہیں کریں گے۔ طلباء کا کہنا تھا کہ کلاسوں کا وقت نامناسب ہے۔ نصاب میں بہت زیادہ مطالب بیان کے گئے ہیں، جن مسائل کو بیان کیا گیا ہے وہ ناقابل عمل ہیں اور ان سے ڈینٹل سائنس کا کوئی تعلق نہیں ہے۔

سفاارش: ڈنٹسٹری کے طلباء نے طب یونانی کے یونٹ پر منفی نظر کا اظہار کیا ہے، اسی بنا پر سفاارش کی جاتی ہے کہ طب یونانی کا یونٹ اس طرح پڑھا یا جائے جو ڈنٹسٹری کے طلباء کے لئے عملی فائدہ کا حامل ہو۔

کلیدی الفاظ: ڈنٹسٹری، یونانی، طب، کلاس

INTRODUCTION

Traditional medicine is widely used globally. Most traditional medicine systems have a theoretical basis, a range of therapeutic modalities, an empirical approach to treatment, and a tradition of training (1). It refers to a group of medicinal systems, health care, practices, and products that are considered as a part of common medicine. Due to its recent popularity, the health system should increase its research potential in recognition of social needs (2). The practice of traditional medicine is deeply rooted in the cultural heritage and constitutes an integral part of the culture of people in any country (3).

Traditional Iranian medicine is entirely based on practical experiences and observations passed down from generation to generation (4). The study of the work of Iranian traditional medicine scholars shows their attention to the prevention, diagnosis, and treatment of oral diseases based on careful examination and follow-up of patients to evaluate the results of therapeutic methods (5).

In the study of Rampes H et al., the deans of British medical schools stated that there is little education in complementary medicine at British medical schools, but it is an area of active curriculum development. Students' levels of knowledge were varied widely between different therapies. Most medical students liked to learn about acupuncture, hypnosis, homoeopathy, and osteopathy. They concluded that complementary medicine should be included in the medical undergraduate curriculum (6).

In the study of Babar MG et al. on dental students in Malaysia, seventy-six percent of them reported using complementary and alternative medicine (CAM). Students perceived all types of CAM as effective methods. Lack of trained professionals was reported by 64% of them as the main barrier to the use of CAM. A majority of students (58.4%) reported that friends and family members were their main source of information about CAM. Students supported the integration of CAM education into their dental curriculum (7).

On a study to identify the prevalence of CAM education in U.S. dental schools, Spector ML et al. stated that of the twenty-two dental schools responded to the survey, ten (45.5 percent) reported offering instruction in CAM as a part of their predoctoral curricula. Herb/drug interactions were found to be taught with more frequency than any other CAM topic (8).

At 2017, the deputy minister of education of the ministry of health announced two courses on "introduction to traditional and complementary medicine basics" for medical sciences students (7). There has not previously presented traditional medicine course for Iranian dentistry students. At 2019, after obtaining the necessary licenses and designing the course in collaboration with the department of traditional medicine of the University, the faculty of dentistry of Birjand University of Medical Sciences presented the traditional medicine course for the first time in Iran for dentistry students and up to now it has passed two semesters of this course. So, the aim of the present study was to evaluate dental student's viewpoint toward the course of tradition medicine in dentistry curriculum.

METHODS

In late 2018, the Birjand dental school decided to offer "traditional medicine in dentistry" as an optional course for Birjand dentistry students in line with the upstream documents and policy announcements of the deputy minister of health (9). The course content was formulated through meetings with the department of traditional medicine of the university and it was submitted to the college educational council and finally it was approved. This recommendation was submitted to curriculum committee and university education council respectively and approved by them. Finally, an optional traditional medicine course was added to the list of student's courses by the educational vice chancellor of the faculty which is currently undergoing two semesters at Birjand dental school. This course was first introduced for twelfth semester students (entrance year: 2013) and for the second time it was presented for eleventh semester students (entrance year: 2014). The inclusion criteria were students of the 11th or 12th semesters of Birjand Dental School who voluntarily, after completing the informed consent form, announced their readiness to participate in the study and had chosen the optional course of traditional medicine in dentistry at the time of choosing the semester courses and had successfully passed the course. The exclusion criteria included a reluctance to participate in the study (failure to complete an informed consent form), incomplete completion of the questionnaire, dental students in other cities, students in other academic semesters except 11th or 12th semesters, failure to select the tradition medicine course optional course at the time of course selection, and failure to pass this course.

At this cross-sectional study, at the end of each semester Birjand dentistry students' viewpoints were evaluated through a researcher-made questionnaire consisted of 16 questions about the viewpoints of dental students on different aspects of introducing traditional medicine course in dentistry including course content, coordination with job needs, trained professionals, teaching method, increasing public knowledge in traditional medicine, and course scheduling. An open-ended question was also asked at the end of the questionnaire so that students could express their opinions and suggestions about the strengths and weaknesses of presenting traditional medicine courses in dentistry. The validity and reliability of questionnaire were confirmed. Validity of the questionnaire was confirmed by experts from various fields including curriculum, medical education, dentistry, and traditional medicine. Content validity index (CVI) was used to evaluate content validity of the questionnaire. Experts were asked to rate the relevance of each item to the following four parts: irrelevant, requires a thorough review, related but need review, and quite relevant. The reliability of the questionnaire was determined by calculating the Cronbach's alpha coefficient, which was 0.74 totally. The questionnaire was designed on a five-point Likert scale (very low, low, medium, high, and very high) and assigned a value of 1 to 5 for each question (1 for very low and 5 for very high). Score 3 was considered as the basis of decisions, so a score less than 3 was below average and a

score more than 3 was above average. The data was imported into Excel software. The mean of scores for each question, the mean of student scores on all 16 questions, and the mean of sum of scores of all students were calculated and through comparing with median, positive or negative viewpoints of students on tradition medicine training were evaluated. In addition to the questionnaire, review and criticism sessions were held at the end of each semester with the presence of the faculty dean, the educational vice chancellor of the faculty, the faculty members of traditional medicine department, the head of the dental science development and excellence working group, and students' representatives. This study has been approved by ethical committee of Birjand University of Medical Sciences with IR.BUMS.REC.1398.392 ethical code.

RESULTS

Table 1 shows mean score for each question in each run of course in total and table 2 shows sum and mean of total score for each student for all of 16 questions. Table 3 shows distribution of participants of the study. Graph 1 compares mean scores of 16 questions for two runs of study and in total. In the first and second runs of the course, only two questions (teachers' mastery of the content of the lesson, student satisfaction with the quality of final evaluation and exam) scored above the median and in one case in the first run of the course (proportion of the number of course units with the content of the lesson) a median score was obtained. "Teachers' mastery of the content of the lesson" gained highest score in the first run of the course and in total.

Table1. Mean score for each question in each run of course and in total							
Number	Question	Twelfth semester students (Entrance year: 2013)	Twelfth semester students' viewpoint (Entrance year: 2013)	Eleventh semester students (Entrance year: 2014)	Eleventh semester students' viewpoint (Entrance year: 2014)	Total	Total viewpoint
1	Coordination of content to your expectations of course content	2.6±0.66	Below median	2.11±0.73	Below median	2.36±0.74	Below median
2	Coordination of content with job requirements of dentistry student	1.5±0.5	Below median	1.55±0.83	Below median	1.52±0.67	Below median
3	Student interest in course content	1.9±0.53	Below median	1.88±0.87	Below median	1.89±0.71	Below median
4	Student's willingness to re-pass this lesson	1.1±0.3	Below median	1.44±0.49	Below median	1.26±0.44	Below median
5	Teachers' mastery of the content of the lesson	4±0.77	Above median	3.11±0.87	Above median	3.57±0.93	Above median
6	Teachers' success rate in conveying lesson concepts	2.9±0.3	Below median	2.55±1.57	Below median	2.73±1.11	Below median
7	Proportion of the number of course units with the content of the lesson	3±0.89	median	1.11±0.31	Below median	2.1±1.16	Below median
8	Awareness of the missions and objectives of the course	2.5±0.45	Below median	2.33±0.66	Below median	2.42±0.56	Below median
9	Motivation and interest of students to study and research in traditional medicine in dentistry	2.7±1	Below median	2.55±1.06	Below median	2.63±1.03	Below median
10	Satisfaction with teaching method of teachers	2.6±0.66	Below median	2.44±1.06	Below median	2.52±0.88	Below median
11	Student satisfaction with the quality of final evaluation and exam	3.4±0.66	Above median	3.66±1.41	Above median	3.52±1.09	Above median
12	Satisfaction with the resources used	2±0.89	Below median	2.77±1.61	Below median	2.36±1.34	Below median
13	The amount of help of this course for increasing your knowledge and general information of traditional medicine in dentistry	2.7±0.45	Below median	2±0.94	Below median	2.36±0.80	Below median
14	The amount you advised junior students to choose this optional course	1.9±1.04	Below median	2±0.81	Below median	1.94±0.94	
15	Appropriateness of lesson time	1.4±0.48	Below median	1.44±0.49	Below median	1.42±0.49	
16	Appropriateness of lesson semester	1.6±0.8	Below median	1.66±0.81	Below median	1.63±0.8	

Run	Student	Sum	Mean	Status
First	S1	30	1.87±1.26	Below median
	S2	39	2.43±0.7	Below median
	S3	38	2.37±1.53	Below median
	S4	39	2.43±1.32	Below median
	S5	40	2.5±1.16	Below median
	S6	23	1.43±0.49	Below median
	S7	24	1.5±0.5	Below median
	S8	39	2.43±0.7	Below median
	S9	38	2.37±1.53	Below median
	S10	33	2.06±1.02	Below median
Second	S11	37	2.31±1.1	Below median
	S12	33	2.06±0.89	Below median
	S13	43	2.68±1.1	Below median
	S14	37	2.31±0.84	Below median
	S15	42	2.62±1.05	Below median
	S16	41	2.56±0.86	Below median
	S17	43	2.68±0.76	Below median
	S18	33	2.06±1.02	Below median
	S19	34	2.12±1.16	Below median

Run	Student		
	Female student n (%)	Male student n (%)	Total n (%)
First run	5 (55.6)	4 (44.4)	9 (47.4)
Second run	5 (50)	5 (50)	10 (52.6)
Total	10 (52.6)	9 (47.4)	19 (100)

the content of the lesson” acquired the least score. At the end of questionnaire and in criticism sessions, students generally had the following comments: The time of class was inappropriate, the semester of course was inappropriate, the amount of content was too much and very boring, the taught content was inappropriate, impractical and intangible, and the subjects were unrelated to dentistry. According to table 2, all of students’ scores (the mean of each student for all of 16 questions) were less than 3 (as reference point) in two runs of the course; therefore, all of dentistry students had a negative view to traditional medicine course in this form of introduction and presentation. In two runs of the course, none of the students selected “very high” and “high” point scales in the following questions: coordination of content to your expectations of course content, coordination of content with job requirements of dentistry student, student interest in course content, student’s willingness to repass this lesson, the amount of help of this course for increasing your knowledge and general information of traditional medicine in dentistry, appropriateness of lesson time, and appropriateness of lesson semester.

“Student satisfaction with the quality of final evaluation and exam” gained highest score in the second run of this course. In other questions a score lower than median was obtained. In the first run of the course the, “student’s willingness to repass this lesson” acquired the least score. In the second run of the course, “proportion of the number of course units with

DISCUSSION

In this study, all of students’ scores with regard to their views

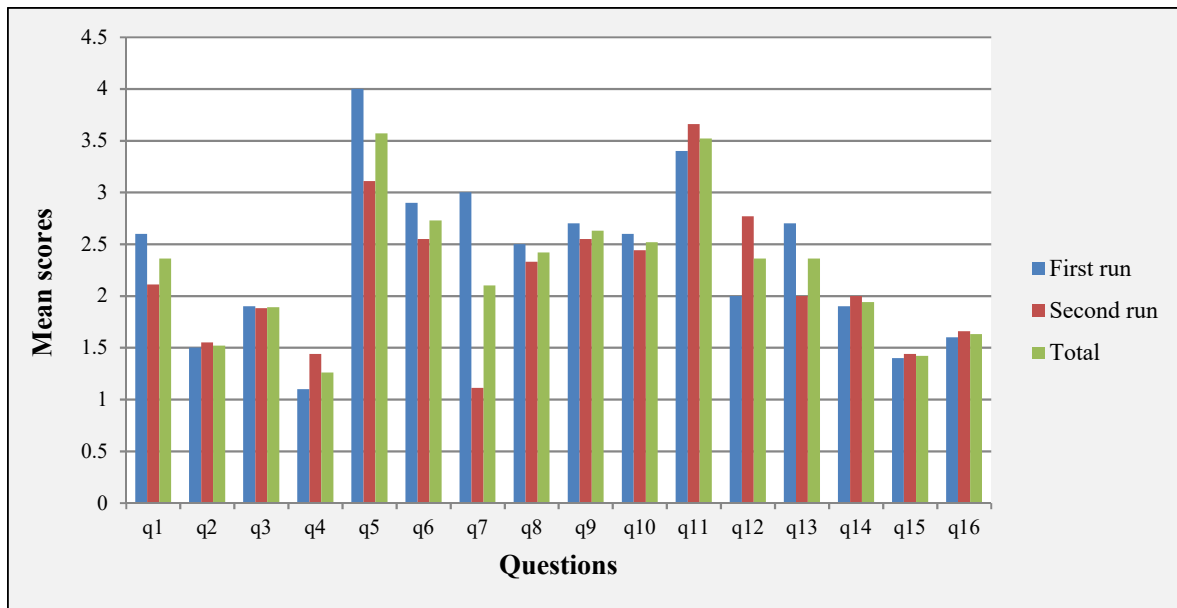


Figure 1. Mean scores of 16 questions for two runs of study and in total

on offering traditional medicine course in dentistry were less than reference point (median score) in two runs of course; therefore, it seems necessary to make changes in the way the lesson is presented.

In general, the views of dental students are inappropriate and negative, given the practical nature of the dental field, in relation to a course that is purely theoretical. This also applies to dental courses such as pathology, etc.

Overall, two of 16 questions were related to positive viewpoints of students toward offering traditional medicine course in dentistry including teachers' mastery of the content of the lesson; this means that our professionals in the field of traditional medicine had enough and valuable knowledge in this field, therefore we must take advantage of this potential. The other 14 questions referred to negative viewpoints of dental students toward offering the course. This means we must take a comprehensive approach to providing such a course and we should pay attention to some factors in scheduling this course such as coordination of content with job requirements of dentistry student, using modern and update methods for conveying complex concepts of traditional medicine to dental students, timing of classroom, and content usability and applicability.

As students have argued in the critique sessions, due to the growing attention and use of traditional medicine in the community, they also tend to become more familiar with this field and its diverse applications, so that they can get help from traditional medicine in treating patients; this also may help them to prevent cases where misuse of traditional medicine in the community can harm their oral health. Given that the mean scores of all students for the total of 16 questions were less than 3, it can be concluded that overall dental students' views of this traditional medicine course were negative. Also reviewing the scores of each question illustrates this dissatisfaction. According to the survey, teachers' mastery of the content of the course was very high; however, it has not been possible to transfer this high volume of content during this short period of time. Traditional medicine professors believed that in order to familiarize students with traditional medicine, students should first become familiar with the basic and fundamental content of traditional medicine and with part of the student dissatisfaction referring to the high volume of theoretical and basic content. It is suggested to reduce the volume of theoretical and basic content for dental students to make the content more practical and more clinical. Also it is recommended to establish a more conceptual relationship with the field of dentistry and update terminology. One of the suggestions of the students was dividing the course into two separate courses, each of which as a single unit in order to run the course more appropriately and to present the basics in the first part of the lesson and in the lower semesters of dentistry (e.g. before the basic science course) and more clinical and practical content in the second part of the lesson and at higher semesters (e.g. 12th semester).

From the beginning of the course for 12th semester' students, students were dissatisfied with the timing of course. In coordination with the College's educational vice chancellor, a one-semester earlier course was allowed in the

11th semester, although the students still believed this course should be offered in the lower semesters. Another students' criticism was the inappropriate course hour, which was delivered in two runs of course at noon after the clinical sessions and during the students' fatigue. It is recommended that at early morning, classes be offered when students are not tired and their minds are ready to learn the content of traditional medicine.

Another suggestion put forward by students and school officials was to offer traditional medicine lessons through workshops, so the interested students could become familiar with the basics of traditional medicine.

As with Rampes H et al. study (6), the present students stated that there is little knowledge and education about traditional medicine at dental schools, but it is an area of active curriculum development. Also, most of students in the two studies liked to learn about different therapeutic methods of traditional medicine for improving diseases.

Babar MG et al. (7) in their study stated that most of dental students were using traditional medicine. This finding is to some extent in contradiction with our result, because in our interview with dental students, they stated they had little information on traditional medicine and its application in dentistry and they were enthusiastic to learn more about it to be enabled in applying traditional medicine in dentistry. In their study, lack of trained professionals was reported by most of the student. On the contrary, in the present study, mastering the content of the course and having trained professors were the main strengths of presenting the course of traditional medicine. In their study, students supported the integration of traditional medicine education into their dental curriculum; however, in this study students didn't support the integration of traditional medicine education into their dental curriculum in this way of offering which its reasons were stated above.

To identify the prevalence of traditional medicine education in U.S. dental schools, Spector ML et al. (8) stated that 45.5 percent of dental schools reported offering instruction in traditional medicine as a part of their predoctoral curricula. The introduction of traditional medicine course for dental students in this study was the first introduction of such a course at Iran.

Lack of previous experience in providing traditional medicine courses in dental schools in our country was one of the main limitations of the present study. Another limitation of this study was the difficulty in changing the attitudes and views of students and professors, in order to change the ways of presenting the course and participation in the classroom, especially in the second round of presenting this course.

All dentistry students had negative viewpoints to traditional medicine course in this form of introduction and presentation. It is recommended that traditional medicine lessons be provided to dental students in a more practical way and, if possible, as workshops.

Ethical consideration: Ethical issue (including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission,

redundancy, etc.) have been completely observed by the author.

ACKNOWLEDGEMENT

The author thanks faculty members of traditional medicine

department for implementation of the course for dentistry students.

Financial support: There was no financial support.

Conflict of interest: There was no conflict of interest

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