ديکترس پر در کنار فعالیت‌های آموزشی رضایت‌آمیز‌تر ایجاد شود. اگرچه برخی از این نکات به‌طور گسترده‌ای در مراکز آموزشی دندانپزشکی ذکر شده است، اما ایجاد سیستم‌های همکاری یافته‌ای که باعث بهبود زیبایی در رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان شود، کمتر مشاهده شده است.

در نهایت، به‌نظر می‌رسد که استفاده از کلیه روش‌های مطرح شده برای ارتقاء رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان بسیار اهمیت دارد. از دیگر روش‌هایی که ممکن است اثرات مثبتی بر رضایت‌آمیزی دندانپزشکان داشته باشند، به عنوان مثال بررسی‌های مطالعاتی، مصاحبات با دندانپزشکان و ارائه پیشنهادات به سازمان‌های آموزشی می‌تواند مورد ارزیابی قرار گیرد.

"مورد" نظر: آیا ممکن است سیستم‌های همکاری یافته‌ای که بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان می‌دهند، در مراکز آموزشی دندانپزشکی، کارایی‌تر باشند؟

"نتایج": در این مطالعه، بررسی‌هایی بر روی رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان در مراکز آموزشی دندانپزشکی صورت گرفت. نتایج نشان داد که این موارد می‌توانند بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان را افزایش دهند.

"بحث": سیستم‌های همکاری یافته‌ای که بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان می‌دهند، در مراکز آموزشی دندانپزشکی، کارایی‌تر باشند.

"پیشنهاد": برای بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان در مراکز آموزشی دندانپزشکی، سیستم‌های همکاری یافته‌ای که بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان را افزایش دهند، مورد ارزیابی قرار گیرد.

"امشار" قطعات عرضه‌ای:

1. سیستم‌های همکاری یافته‌ای که بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان می‌دهند، در مراکز آموزشی دندانپزشکی، کارایی‌تر باشند.

2. برای بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان در مراکز آموزشی دندانپزشکی، سیستم‌های همکاری یافته‌ای که بهبود رضایت‌آمیزی و رضایت‌آمیزی دندانپزشکان را افزایش دهند، مورد ارزیابی قرار گیرد.
INTRODUCTION
Continuous training is considered as the elementary principle in the world and finding the most influential method to improve it is the paramount need. The dentists' clinical skills should be developed to improve services to the patients (1). Even if the academic education (general and specialized courses) be sufficient, it could not guarantee the adequate skills required for the dentists' professional life. Since we are living in the era of knowledge explosion, our knowledge should be up to date regularly (2-4). The continuous educational training of medical associations is recognized in the world since 1974 and is one of the major objectives of medical education development centers that upgrade the dentists' professional skills in medical, administrative, social and ethical fields (1). Dental education is an ongoing process and a professional and ethical responsibility that should be continued from the moment of learning till the end of the expert life. A dentist has a duty to attend continuous educational programs (5).

Nowadays, no dentist can claim that he/she has gained enough knowledge during his/her education and can cope with all the new medical methods or the patients different needs, alone. Therefore, it is obligatory to attend the continuous educational programs in many European countries (6). The persons who are in charge of medical and health services must participate in continuous educational courses in Iran, as well (7).

In many countries the governments are in charge of continuous trainings however there are some differences in the level of executive. In the majority of European and American countries, the medical associations have the executive power mostly; while, in developing countries the universities have the executive power (1). In a study conducted among 10 countries indicated that dentists are interested in regular continuous training on the condition that these trainings include all the fields of dentistry (8).

Attending continuous trainings and gaining points annually is the major criterion for the specialized medical centers to reaffirm the medical certifications of the learners (9). The educational programs should be based on the learners' needs and appropriate methods should be used to teach the knowledge and skills; also appropriate assessing system should be designed to improve the quality of educational programs. If these factors are not considered, the educational programs will not reach their objectives (4, 7, and 8).

It is a necessity to conduct needs assessment in designing and holding educational programs because it increases the participants' cooperation, motivation and finally enhances the quality of the programs (2). Different researches have showed that learners are much more satisfied when the continuous trainings are designed according to their needs and ideas (10-13). The major dissatisfaction of the dentists was that the subjects of trainings are not related to their professional and clinical problems (13).

The results of Moattari (1998) study showed that general dentists who have attended the educational programs were satisfied with the professors' behavior very much but dissatisfied with the courses in Shiraz (14). Zahed Pasha (1999) carried out a research in Babol about continuous educational programs and concluded that the number of participants will decrease if participation score be eliminated; however, most of the participants believed that the educational trainings were related to their professional needs and contained new information (3). Borji (2000) studied about the general dentists' opinions about the content of continuous trainings courses in Zahedan; the majority of participants claimed that applied content and local issues should be presented in the course and there is no harmony between the content and the time during courses. About half of the participants did not say any positive point about the educational programs (4).

The purpose of this research is to evaluate the educational programs carefully, find out the problems and provide solutions, and if possible, to provide up to date knowledge and skills and enhance continuous educational programs in dentistry.

METHODS
This cross-sectional study was conducted during 2010-2011. The Dentists Association of Mazandaran province provided the list of dentists who had licensure for dentistry. The data were collected by a questionnaire that was designed by the researcher. It included two parts, there were demographic information including age, gender, dentistry work experiences in the first part; and questions about the priority of different specialized fields in dentistry to be presented in retraining, the level of satisfaction, participation motivation, notification process, and the priority of methods to run continuous training courses in the second part. The validity of the questionnaire was determined by experts.

The questionnaires were distributed to the participants, and gathered after a while. The dentists received sufficient and necessary explanations about the questionnaire. The questionnaires were checked and if any question remained unanswered, the participants were asked to answer if possible.

The gathered data were analyzed by SPSS 17 and descriptive statistics to calculate frequency, mean and standard deviation. The Chi-square test was used to compare the groups together. Less than 0.05 was considered to be significant.

RESULTS
630 questionnaires were distributed and 430 dentists returned them. Although the questionnaires were administered in person, 200 dentists were not interested in participating. (68/25 % returned the questionnaires). The frequency of participants based on their place of living are mentioned in table 1.

There were 313 (72.8 %) males and 117 (27/2 %) females. The mean age of the dentists was 41.55 ± 8/5; the age range was 35 to 83 years. The mean of work experience was 38.0 ± 09/13. The last time that the participants have attended continuous training was different, between 1 to 132 months. 54% of the dentists have participated in the educational programs during the last year.
The participants worked in various different fields in dentistry including 394 (91.6%) in restorative dentistry, 342 (79.5%) in endodontic, 278 (64.7%) in prosthesis, 128 (29.8%) in pediatric dentistry, 106 (24.7%) in periodontics, 94 (21.9%) in surgery, 78 (18.1%) in orthodontics, 38 (8.8%) oral and maxillofacial radiology, 30 (7%) in oral medicine and 8 (1.9%) oral pathology.

The results show that male dentists were interested in orthodontics (P<0.001), prostheses (P=0.008), surgery (P=0.007) fields and female dentists were interested in pediatric dentistry (P<0.001).

The dentists were most interested to attend the continuous training with the following subjects: endodontics, restorative dentistry and prostheses, respectively. The other fields such as periodontics, surgery, pediatric dentistry and oral medicine were in the second priority. Oral and maxillofacial radiology and pathology gained the least attention among the attendees.

The dentists were most satisfied with restorative dentistry courses and endodontic was in the second level. Moreover, pathology and oral medicine were in the lowest level of satisfaction.

Frequency level of satisfaction is presented in table 2.

327 of participants declared that they have attended continuous training courses in order to learn new materials, 244 of them said their motivation was to review the previous materials and 244 dentists have enrolled to ask their questions and solve their problems. Moreover, 105 persons wanted to be motivated to study and 196 dentists were looking for academic environment. 175 persons mentioned that they wanted to visit their old friends. 364 dentists stated that they attended the classes to gain higher scores. The other result was about the ways that the dentists were informed about the courses.

35 dentists (7.7%) were informed through contacts with universities, 46 (10.7%) through notifications, 26 of them (6%) were informed through mail. Moreover, 193 (44.9) of dentists heard about the courses from their colleagues, 263 (61.2%) of them

<table>
<thead>
<tr>
<th>Cities</th>
<th>Number (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amol</td>
<td>65 (15/1)</td>
</tr>
<tr>
<td>Babolsar</td>
<td>21(4/9)</td>
</tr>
<tr>
<td>Behshahr</td>
<td>17(4)</td>
</tr>
<tr>
<td>Tonekabon</td>
<td>13(3)</td>
</tr>
<tr>
<td>Joybar</td>
<td>7(1/6)</td>
</tr>
<tr>
<td>Chaloos</td>
<td>22(5/1)</td>
</tr>
<tr>
<td>Ramsar</td>
<td>10(2/3)</td>
</tr>
<tr>
<td>Savad koh</td>
<td>1(2/6)</td>
</tr>
<tr>
<td>Mahmooodabad</td>
<td>9(2/1)</td>
</tr>
<tr>
<td>Neka</td>
<td>11(2/6)</td>
</tr>
<tr>
<td>Noor</td>
<td>14(3/3)</td>
</tr>
<tr>
<td>Nooshahr</td>
<td>13(3)</td>
</tr>
<tr>
<td>Ghaem Shahr</td>
<td>44(10/2)</td>
</tr>
<tr>
<td>Sari</td>
<td>67(15/6)</td>
</tr>
<tr>
<td>Babol</td>
<td>106(24/7)</td>
</tr>
<tr>
<td>Total Score</td>
<td>100(430)</td>
</tr>
</tbody>
</table>

The frequency of participants based on their place of living.

<table>
<thead>
<tr>
<th>Type of presentation</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentations with Q &amp; A</td>
<td>Orthodontics</td>
</tr>
<tr>
<td>Lecture along with educational movies</td>
<td>Endodontic</td>
</tr>
<tr>
<td>Watching practical works</td>
<td>Oral medicine</td>
</tr>
<tr>
<td>Doing practical works in workshops</td>
<td>Oral pathology</td>
</tr>
<tr>
<td>Prosthesis</td>
<td>Periodontics</td>
</tr>
<tr>
<td>Retrospective dentistry</td>
<td>Maxillofacial dentistry</td>
</tr>
<tr>
<td>Pediatric dentistry</td>
<td>Oral and Maxillofacial Radiology</td>
</tr>
</tbody>
</table>
informed through messages, 75 (17.4%) checked the website of the university and 30 (6.9%) heard the news from medical council, dentistry association and journals. The participants were asked about their level of satisfaction from continuous training notification. The results were as follow: 28 (6.5%) were thoroughly satisfied, 66 (15.3%) were fairly satisfied, 135 (31.4%) of them said they had average satisfaction and 90 people (20.9%) declared they were not satisfied and 107 (24.9%) were totally dissatisfied with notifications about the time of the courses.

307 of the participants (71.4%) preferred to be informed through SMS service about the course time. 36 dentists (8.4%) believed that mail is the best way, 15 (3.5%) of them preferred notifications and 47 (10.9%) believed that the university web site is the best tool to be informed about the courses.

170 of the dentists thought that reading books and scientific magazines are supposed to be the best tools to upgrade the dentists' scientific level. 175 persons (40.7%) preferred to watch educational films, 153 of them (35.6%) attended seminars and congress, 116 dentists (27%) read Continuing Medical Education journals and 125 of the participants (28.6%) use internet (on-line training) to enhance their scientific level. Also 142 persons about (33%) preferred continuous training courses, 196 (45.6%) attended workshops and 114 persons (26.5%) preferred short training courses.

**DISCUSSION**

Since knowledge, concepts and techniques are presented constantly, continuous training is necessary to upgrade the quality of dental services, it would also expand dentists' skills and knowledge (15, 16). Therefore, determining learners' needs and sorting out the priorities is essential to reach the objectives of courses (2, 3, and 10). In this study, dentists were keenly interested in endodontics, restorative dentistry and prostheses continuous training courses respectively and were in the least interested in oral and maxillofacial radiology and oral pathology. A study conducted in Britain revealed that restorative dentistry is the major priority of dentists’ needs (17). In another study, needs assessment showed that restorative dentistry, esthetic dentistry and fixed prosthesis were important for the dentists (18). Dentists’ level of satisfaction with the past programs was fairly high with restorative dentistry and endodontics was placed in the second level. Pathology and oral medicine gained the least level of satisfaction. Different reasons were mentioned about the dissatisfaction of programs such as vast amount of materials, the repetition of references and lack of practical points, the insufficient knowledge of professors, high costs of the tuition, lack of educational equipment, and ignorance about learners’ needs are the major problems in different field of dentistry.

Generally, lack of scientific panels, numerous participants, theoretical presentation of materials, lack of educational equipment, defects in audio-visual facilities, ignorance about dentists' needs and lack of new dentistry presentation are the major factors of dissatisfaction. Therefore, it is necessary to pay special attention to learners' needs and educational programs should have positive effect on the participants' clinical performance, also lead to using advanced and modern techniques (19).

However, Zahedpasha showed that most of the participants were satisfied with continuous training courses. The attendees suggested to improve the quality of the programs according to the needs and new techniques (5).

Borji et al (2000) studied the dentists' ideas in Zahedan about the content presented in continuous training courses. He concluded that most of the attendees asked for practical materials. Moreover, many of them preferred localized issues and the selection of materials based on poll. They mentioned that the time and the amount of content presented during courses are not in good harmony. About half of the participants did not consider any positive point about the programs. They noted that the results of poll should be in the center of attention and the attendees should be informed about the subjects and materials in advance (4), that is similar to our study results.

In a research carried out by Motahhari (1998) it was remarked that dentists were satisfied with the professors of the classes but not with the courses. They suggested that such programs should be evaluated much more carefully and their advantages and disadvantages should be contributed to the debate (14).

The efficient method to present materials in continuous training courses is adapting or observing practical exercises in orthodontics, endodontic, prosthodontics, periodontics, oral and maxillofacial surgery and dentistry workshops. However the method of lecturing along with educational movies is considered to be a better option for pediatric dentistry, oral medicine, and pathology and radiology workshops. Sadeghi et al (2007) conducted a study in Kerman and Rafsanjan about continuous training of restorative dentistry. He noted that the subjects of theses course should be reviewed according to learners' needs regularly. The teaching method should be practical or observation (20). On the whole, in our study the attendees preferred practical workshop and lectures along with educational movies than just listening to the presentation. However, in a study conducted in Southeast Asia, most of the participants preferred direct method of teaching to distance learning and online courses (21).

The first period of dental retaining was conducted in Iran for 5 years (1991-1996); the major problem was that the programs were presented in traditional method also needs assessment were not done and the principles of dental education were not considered. Experiences demonstrate that when learners are just inactive listeners the educational method has its least impact. It does not matter how well the lecture is presented or how the lecturer influences the listeners, the fact is that this type of education does not have a good impact. Teacher-based learning is a big problem in continuous training courses. In this method, although attendees' knowledge might improve, their behavior does not change and the medical care does not enhance (2, 16, and 22). Similarly, our study notes that teacher-based and presentations are not suitable teaching methods.
The majority of the participants said their primary motivation for attending the continuous training was to learn new material and in the second level to upgrade their scores. As Zahedpasha mentioned if the retaining' score be eliminated, the number of participants will decrease. Class attendance made 1/3 of the participants to attend the courses (3).

Most of the dentists were informed about the courses through SMS or colleagues. It is highly recommended to pay special attention to send notifications to dentists to inform them about continuous training courses. 71.4% of the participants preferred to be informed through SMS about the courses which is a possible, suitable and cheap way.

Only 33% of the participants claimed that attending continuous training courses has extended their knowledge, this problem indicates that the programs are not designed well. Attending workshops, watching educational movies and reading references and academic magazines are considered to be suitable teaching methods. Using educational movies in teaching is an efficient method, it is possible to watch them repeatedly at home and not participate in the courses. On-line training for dentistry is one of the influential methods in continuous training, but it has become in the sixth priority since Iranian dentists do not have easy access to internet.

It is highly recommended that further practical studies be conducted in different fields of dentistry in the country so that the continuous training programs be designed based on the researches. The programs should provide not only new knowledge, thesis and contents but also make the dentists trust the new techniques (15). The programs should be designed according to needs assessment so that their quality be promoted (21).

According to the mean age (14.55±8.5) and dentists' work experiences (13.09±5.38), these people will continue their profession for two decades, therefore, devoting special attention to this study and making use of the results in the future programs will lead to continuous training improvement.

The participants suggested to provide practical issues, new diagnostic and therapeutic techniques and modern dentistry in continuous training programs and prevent to present theoretical materials. Moreover, the lecturers should be talented and expert. Doing practical activities in workshops and lectures along with educational movies are considered to be the best teaching methods.

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REFERENCES
10. Nouri E, Reihani H, Nakhaei N. Investigation of correspondence between learning needs and the content of psychiatry and pediatric retraining programs from the participants' point of view. Journal of Medical Education Development Center of Kerman University of Medical Sciences 2004, 1(1): 10-16.

